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**ACHIEVING EXCELLENCE IN SERVICES:
AN EMPIRICAL STUDY IN THE UAE BANKING SECTOR**

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PhD

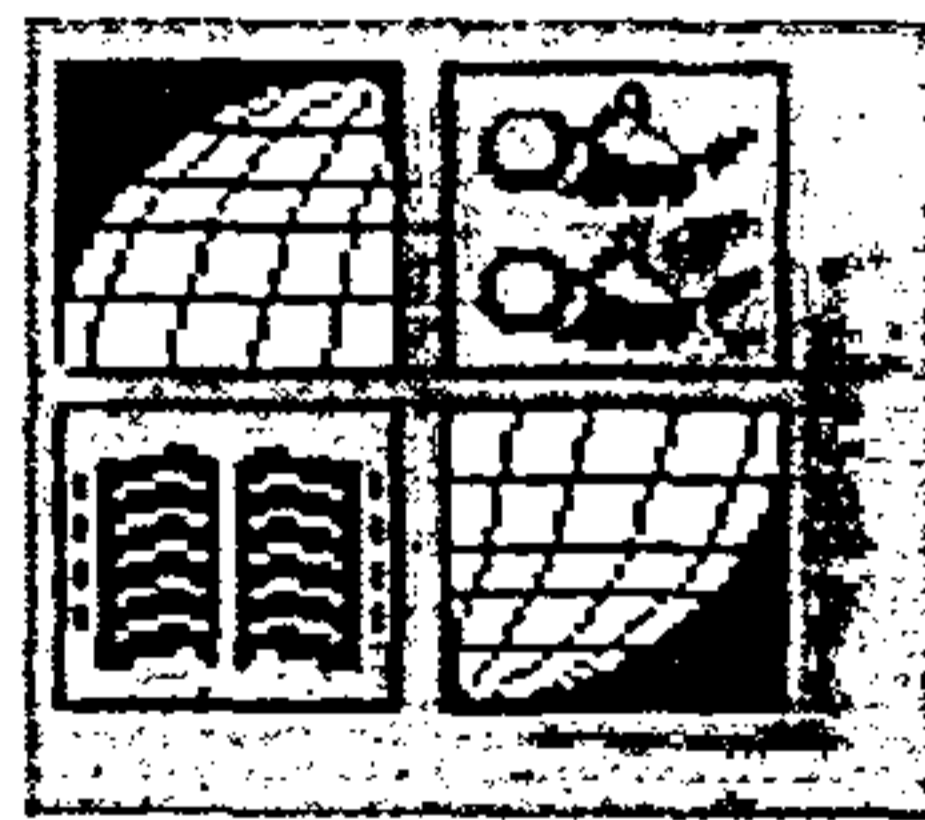
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**ACHIEVING EXCELLENCE IN SERVICES:
AN EMPIRICAL STUDY IN THE UAE BANKING SECTOR**

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of Doctor of Philosophy**



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Abstract

Achieving Excellence in Services: An Empirical Study in the UAE Banking Sector

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Keywords

TQM, Excellence, Service, Banks, UAE, Empirical

Banking services are perhaps the largest industry that caters to the needs of various segments of the population reflecting the diverse Diasporas of the society. Moreover, perceived service quality tends to play a significant role in high involvement (high interaction between customers and service providers) industries like banks. Also, banks often have long-term business relationships with customers. In addition, the banking sector is large enough to capture and represent almost all the critical features of the customer-perceived service quality and the critical dimensions of excellence that the management may have to encounter, in order to effectively manage a service organisation.

However, there is considerable lack of literature with respect to service industry management, especially in the banking industry of developing economies. Therefore an analysis of banks in the UAE from a 'service-quality perspective' may sound interesting at this juncture. Such an investigation is vital for the bankers in order to enhance their business performance.

The main objective of this research is to develop a theoretical framework to understand and explore CSEs for banks that succeed in the field of TQM and to identify market-oriented activities that are affected by the use of this approach.

This research adapts an interdisciplinary approach that makes use of TQM, service quality, IT, and information systems literature. It takes a holistic view of TQM in the banking sector and considers the different stages of implementation and implications of the TQM. The research design involves a combination of quantitative and qualitative methodologies to incorporate: (1) TQM development; (2) the identification of key TQM success factors commonly cited in the literature, and endorsed by practitioners and experts as important to effective TQM implementation; (3) an in-depth case studies approach to understand how TQM processes, and critical success factors identified are addressed and implemented; and (4) the possible impact of TQM practices on efficiency.

Furthermore, the research framework, which emerged from the literature search, is tested and validated by rigorous quantitative analysis using SPSS. The statistical analysis using Factor Analysis, Regression Analysis, One-Sample Test and Ranking Analysis to test a series of relationships and research constructs to provide solid support for the resulting relationships.

The study has identified twelve CSFs for the successful implementation of TQM: (1) Top Management Support, (2) Strategy, (3) Continuous Improvement, (4) Benchmarking, (5) Customer Focus, (6) Quality Department, (7) Human Resource Management, (8) Quality Technology, (9) Service Design, (10) Employees, (11) Servicescapes, (12) Quality Systems. Furthermore, it has been found that the organisational experiences of TQM implementation in the service sector in UAE are far from being mature. There is a lot of evidence with reference to the survey results and case studies presented in this study that TQM is still a new management concept, and is widely unknown. In many cases, there is some reluctance to introduce it.

The study has pointed out the CSFs for successful TQM implementation because it is vital for organisations to capture the minds of everybody, starting at the top and permeating throughout the whole organisation and beyond. The philosophy maintains that an organisation's primary objective is to enhance its ability to meet customer requirements by improving the quality of its services. People are the most important management resource and ultimate goal of business. TQM generally means a quest for excellence, creating the right attitudes and controls to make prevention of any possible errors, and optimise customer satisfaction by increased efficiency and effectiveness. Further, this study points out TQM as being an organisation-wide activity which has to reach every employee. Therefore, TQM has been an approach for continuously improving the quality of services delivered through the participation at all levels and functions of the organisation. From this study, it is evident that the effective transformation to TQM has been linked to the extent to which firms implement certain CSFs.

This study contributes to the emerging literature on TQM in banking sector in a number of specific ways: (1) It provides new theoretical grounds for studying TQM in banking sector in the context of CSFs that affect competition in the dynamic marketplace; (2) It computes and analyses the total quality management indices with respect to the 16 factors which have been developed from the literature for the banking industry as a whole; (3) It ascertains the level of TQM implementation in the UAE banking scene; (4) It Offers key insights on the criticality of the different TQM dimensions with respect to the banking sector in UAE and (5) It provides a foundation and proposals for future research and investigation.

List of Publications in Referred Journal and Conferences

The following papers have been/will be published related to this research project:

1. **Al-Marri, K.S., Ahmed, A.M. and Sherif El-Araby. (2002). "Average Organisations, an empirical study of knowledge management application and maturity within Egypt context, C & C International Conference, Sweden.**
2. **Al-Marri, K.S., Ahmed, A.M. and Zairi, M. (2004). "SWOT Analysis for Air China Performance and its experience with quality, 8th ICIT International Conference, Canada (Accepted for publication in Benchmarking: Internal Journal, Issues 5-6 Vol. 11, 2004).**
3. **Al-Marri, K.S., Ahmed, A.M. and Zairi, M. (2004). "Review of Current Banking Practices in the UAE and Critical Success Factors of TQM Implementation", 1st International Conference on Performance Measurement, Benchmarking and Best Practice in New Economy (Business Excellence'03), Portugal.**
4. **Al-Marri K.S. and Ahmed A.M. (2005). "Achieving Excellence in Services: An Empirical Study in the UAE Banking Sector, 10th International Conference on ISO 9000 and TQM based on the theme TQM and 6-Sigma Competitiveness", Shanghai, China.**

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The candidate received his Bachelors Degree in Business Administration (Marketing & Financial Management) from the Arab Academy for Science & Technology, Alexandria, Egypt, in June 1996. He was awarded Membership of the Association of Certified Public Accountants (CPA) at Burnham, Bucks-England in February 1997. He received his Master's Degree in Business Administration from the Arab Academy for Science & Technology, Alexandria, Egypt, in September 2000. He received his Postgraduate Diploma in Research Methods (Management and Business) from the University of Bradford, in December 2004. He has a keen interest in the area of Service Quality and TQM.

He has published four articles, namely, 1) Average Organisations, An Empirical Study of Knowledge Management Application and Maturity within Egypt Context, C & C Int'l Conference, Sweden; 2) SWOT Analysis for Air China Performance and its Experience with Quality, 8th ICIT Int'l Conference, Canada (Accepted for publication in Benchmarking: International Journal, Vol. 13, Issues 1-2, 2004). 3) Review of Current Banking Practices in the UAE and CSFs of TQM Implementation, 1st Int'l Conference on Performance Measurement, Benchmarking & Best Practice in New Economy (Business Excellence'03), Portugal. 4) Achieving Excellence in Services: An Empirical Study in the UAE Banking Sector, 10th ICIT based on the theme TQM and 6-Sigma Competitiveness, Shanghai, China.

He was an active participant in the congress on TQM's Role in Globalization & Knowledge Based Community held in Dubai, during March 2003. He has also actively taken part in the 8th ICIT Conference held in Canada, during April 2003. He has participated in the Customer Centricity Conference held in Dubai, United Arab Emirates during 20-21 March 2005. He has also actively participated in the 10th ICIT Conference held in Shanghai, China on 28-30 March 2005.

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Dedicated to

My Father

Who has taught me that dedication and hard work are the essentials for a successful life

My Mother

Who always inspires me with her love and prayers

My Wife

Without her love and encouragement, this thesis would not have been possible

And My Lovely Children

For what they give to me, their love and patience

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List of Abbreviation

| | |
|-------|---|
| ABEF | Australian Business Excellence Framework Principles |
| ADCCI | Abu Dhabi Chamber of Commerce and Industry |
| ASQ | American Society for Quality |
| BE | Benchmarking |
| BPR | Business Process Re-Engineering |
| BTS | Barlett Test of Sphericity |
| CF | Customer Focus |
| CI | Continuous Improvement |
| CRM | Customer Relationship Management |
| CSF | Critical Success Factors |
| DQA | Dubai Quality Award |
| DQAP | Dubai Quality Appreciation Program |
| DQG | Dubai Quality Group |
| DV | Dependent Variable |
| EFQM | The European Foundation for Quality Management |
| EM | Employees |
| EQA | European Quality Award |
| EQA | European Quality Award |
| FA | Factor Analysis |
| FMSA | Failure Mode and Effect Analysis |
| GDP | Gross Domestic Product |
| HRM | Human Resource Management |
| HRM | Human Resource Management |
| ISO | International Standards Organisation |
| IT | Information Technology |
| IT&T | International Telephone and Telegraph |
| IV | Independent Variable |
| JUSE | Japanese Union of Scientists and Engineers |
| KMO | Kaiser-Meyer-Oklin |
| LDCs | Less Developed Countries |
| MBNQA | Malcolm Baldrige National Quality |

| | |
|-------|--|
| PA | Problem Analysis |
| PCA | Principal Component Analysis |
| PDCA | Plan Do Check Action |
| PMS | Performance Management System |
| QD | Quality Department |
| QM | Quality Management |
| QS | Quality Systems |
| QT | Quality Technologies |
| RR | Recognition and Reward |
| SC | Service Culture |
| SD | Service Design |
| SE | Servicescape |
| SKEA | Sheikh Khalifa Excellence Award |
| SMESs | Small and Medium Enterprises |
| SPC | Statistical Process Control |
| SPC | Statistical Process Control |
| SPSS | Statistical Package for Social Studies |
| SR | Social Responsibility |
| SRS | Simple Random Sampling |
| SSL | Secured Socket Layer |
| ST | Strategy |
| TMS | Top Management Support |
| TNA | Training Need Analysis |
| TQM | Total Quality Management |
| TQS | Total Quality |
| UAE | United Arabs Emirates |
| WTO | World Trade Organisation |

Chapter 1

Introduction and Overview of the Study

1.1 INTRODUCTION

Services have been defined in many ways but with no general agreement as to what really constitute services. Cowell (1984) highlights the 1960 American Marketing Association's definition of services as, "Activities, benefits or satisfactions, which are offered for sale, or are provided in connection with the sale of goods". This, Cowell feels, is inadequate, as it fails to discriminate sufficiently between goods and services.

According to Chu (2004) and Stanton (1986), "Services are those separately identified, and essentially intangible, activities that provide want satisfaction and that are not necessarily tied to the sale of a product or another service. To produce service may or may not require the use of tangible goods. However, when such use is required, there is no transfer of the title to these tangible goods". In a bid to stressing the intangible nature of services, Gummesson (1987) suggested, "Services are something that can be bought and sold but which you cannot drop on your foot". Kotler (1988) stated, "A service is any activity or benefit that one party can offer to the other that is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product".

Kotler and Turner (1993) defined services as, "any act or performance that one party can offer to another that is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product".

The characteristics of a service system may be described as follows:

- The system normally produces services which may be tangible or intangible and served directly to the users.
- In carrying out its mission, the service system establishes multiple contacts with its users. Each of these contacts provides an opportunity for either good or bad quality of service and also gives rise to a large number of discrete/continuous transactions.
- The service system has to be prepared to provide its service when the user needs it. Customers consider that timely availability of service and responsiveness in providing service are the basic purposes of the system, although with an optimum price.
- The service system also has to complete its assignments/transactions within the period desired by the customer.
- Services are not storable or transportable, and the benefits are therefore available to customers at the rate at which they are created.
- Many services include delivery of intangible products also.

This context discusses the fundamentals of Total Quality Management (TQM) by focusing on the important concepts of quality and TQM (Zineldin, 2005; Lopez-Fresno, 2005; EL-Kafafi, 2005). It is widely known that one of the most important and well-recognised contributions to Japanese economic success has been the approach to quality management (Garvin, 1988). The Japanese assumed quality improvement as their way of life and invested a great deal in the human aspect through education and training

throughout their organisations. They have embraced quality, despite the fact that this business improvement activity could result in increased costs. Quality management, referred to by some authors as quality assurance, encompasses all activities and functions concerned with the attainment of quality (Hill, 1983).

The TQM Principle given by Escrig-Tena (2004) states that, the main aim of the whole firm must be to satisfy the needs of the customers. Only the satisfaction of present and future customers guarantees the competitive success of the firm. Effective management is not possible without access to information about customers. Therefore, the whole competitive strategy must be directed towards increasing value for the customer. Continuous improvement is only possible in the firm through a systematic planning, evaluation and control procedure that allows progress to be evaluated. Delegating authority to employees and allowing them to take on responsibility increases their commitment and their efficiency and efficacy at work and finally it is not possible to design policies and strategies without taking the whole organization into account.

According to Roger, and Visser (2004), TQM might be defined as a passing fad there are three key reasons why it will remain (or return as) an important issue on the agenda for top management. First, there is growing pressure because of the use of the Internet to create excellence at the operational level, combined with the fact that it has been shown in the past that a level of excellence in the operational process can never be reached without support from top management. Second, there is a trend towards stronger demand for improved measures of the performance of companies and TQM has a role to play in relation to this. Third, there is an increasing number of networked organizations, which will show that TQM again is a major factor in this trend. Each of these three scenarios reinforces the importance of total quality management for top management.

Rodney and Henderson (2004) stated that TQM must remain focused on organizational practice and business goals, not only operational but also strategic. TQM culture must be reinforced by supportive leadership, enabling organizations to reduce cost, increased

flexibility, improved customer responsiveness and adaptation of new technologies to achieve competitive advantage.

Hindelang (2005) Achieving superior value and goodness requires an entirely new approach for management. This approach is called Strategic Development and focuses on innovation, leadership and teamwork. Only by performing strategic assessment, creating specific actionable plans, making the developmental changes in staff and facility and rigorously measuring progress can a company hope to control their destiny in today's market. Strategic Development can validate tangible and quantifiable results. It helps identify and measure critical success factors ensuring the reaching of strategic objectives. It is essential that a broad team of company participants identify the critical measurements for business success. These measurements will include customer focused, supplier-focused, internal operations focused, employee performance focused and financial focused variables. Only by strategic review and management of these measurements can the company assure results.

"TQM, is according to Slack (1991)", probably one of the most significant ideas to sweep across the manufacturing scene over the last few years". Feigenbaum introduced TQM as a concept in 1957, and defined Total Quality as *"an effective system for integrating the quality development, quality maintenance and quality improvement efforts of the various groups in an organization so as to enable production and service at the most economical levels which allows for full customer satisfaction"*.

TQM is an attempt to move the focus of quality away from just being a manufacturing activity into a major concern for the whole organisation. Deming, considered to be the father of quality control in Japan, asserted that quality starts with top management and

is a strategic activity (1982 and 1986). Ishikawa (1985) argued that TQM is nothing new. It is a way of thinking and a set of activities that simply represent good management practice. Though, as Ishikawa noted, its implementation seems to require a "thought revolution in management". Further, he stressed the philosophical nature of TQM rather than that of a programme with an identifiable beginning, a finish date, and a clear attainable objective. TQM is a never-ending process of improvement with an unattainable goal - perfect quality. It is claimed that much of the success in terms of quality in Japanese industry was the result of Deming's lectures to Japanese companies in the 1950s (Oakland, 1989). Deming's basic philosophy is that quality and productivity increase as variability decreases.

TQM has been referred to as "quality at source". For example, Krajewski and Ritzman (1990) stressing the individual responsibilities for quality at all places (sources) in an organisation. Oakland (1989), like Slack (1991), believed that the key to TQM is in the understanding of quality chains. These are the chains that link the internal providers to each other, and to the external supplier and customer. This chain of customers/suppliers is the essence of TQM.

Muhlemann and Lockyer (1992), too, stressed the total involvement philosophy of TQM.

He said that TQM

"is a way of managing to improve the effectiveness, flexibility and competitiveness of a business as a whole. It involves whole companies getting involved in each department, each activity and each person and each level. For an organization to be truly effective, every single part of it must work properly together, because every person and every activity affects and in turn is affected by others".

Muhlemann also added a concern about the impact of internal services on the end product:

“It is worthy of mention that the first point of contact for some outside customers is the telephone operator, the security people at the gate or the person in reception.... Clearly TQM cannot be restricted to the ‘production’ or ‘operational’ areas without losing opportunities to gain maximum benefit”.

1.2 RESEARCH PROBLEM

Banking services are perhaps the largest industry that caters to the needs of various segments of the population reflecting the diverse diasporas of the society. Moreover, perceived service quality tends to play a significant role in high involvement (high interaction between customers and service providers) industries like banks (see Angur et al., 1999). Also, banks often have long-term business relationships with customers. In addition, the banking sector is large enough to capture and represent almost all the critical features of the customer-perceived service quality and the critical dimensions of excellence that the management may have to encounter, in order to effectively manage a service organisation.

Many leading business magazines, like *Business Today*, have, of late, started ranking the banks on several criteria such as operational ratios, profitability ratios, productivity ratios, financial parameters, net profits, total assets, advances and total deposits (*Business Today*, 1998 , 1999). These rankings were essentially based on financial aspects rather than on the nature and level of service quality delivered. Therefore an analysis of banks in the UAE from a 'service-quality perspective' may sound interesting at this juncture. Such an investigation is vital for the bankers in order to enhance their business performance.

1.3 RESEARCH OBJECTIVES

The main objective of this research is to develop a theoretical framework to understand and explore CSFs for banks that succeed in the field of TQM and to identify market-oriented activities that are affected by the use of the approach. This research adapts an interdisciplinary approach that makes use of TQM, service quality, IT, and information systems literature.

However, the objective of this empirical study is to identify the critical success factors (CSFs) for banking sectors and identify customer-based determinants, in particular to identify those factors which tend to lead to satisfaction, those that tend to lead to dissatisfaction, and those that are more important to the process of service recovery. The purpose of this study is not only to add to the growing body of knowledge on service quality but also to help banking sector managers, understanding of how to satisfy customers and to predict better the likely outcomes of their operational decisions, including quality measurement, control and improvement. Therefore, the specific objectives of this study are as follows:

- To assess the degree of understanding and criticality of TQM in Service.
- To understand what is the established level of TQM awareness in service and the degree of its adoption in the UAE banking sector.
- To develop a conceptual holistic view of TQM in service implementation from the literature, to be explored in the field through a complementary empirical investigation using a combination of qualitative and quantitative methods.
- To use a case study approach to explore how the essential factors of TQM in service are being implemented and addressed.
- To document key critical factors which facilitate the implementation of TQM in Service:
- To provide a new model that will serve as a good theoretical model for improving the Service level provided by UAE banks.

1.4 CONTRIBUTION TO CURRENT KNOWLEDGE

This study contributes to what is currently a limited amount of empirical research (survey) on service quality in the banking sector. Also, it contributes to what is currently a limited amount of empirical evidence to explore the effect of TQM on banking performance in the UAE. Many scholars (Lewis, 1990; Anderson et al; 1994; Ennew and Binks, 1996; Johnson, 1997; Meyer and Dornach, 1998; Neyer, 2000; Sureshchandar et al; 2002) have suggested the need for this kind of study. Therefore, this study is a contribution to academic work, which attempts to develop a conceptual model that helps to understand the role / effect of service quality in the banking sector in the UAE and, as a result, aims to analyse the performance of this service sector, given the changing nature of the international economic environment and the role of service in the banks.

Many authors agree that the mainstream academic literature has largely ignored the growing importance of service quality strategies. In fact there are few serious academic studies on this topic and little attempt has been made to develop conceptual frameworks for evaluating service quality in the UAE. Therefore, this research, as a contribution to the academic work has developed a framework that may help to address these issues

1.5 RESEARCH SIGNIFICANCE

The importance of this study is at both theoretical and empirical levels, as follows:

1.5.1 Theoretical Level

The study is an original attempt, to the best of the researcher's knowledge based on the literature review of the subject, at establishing a conceptual model and its dimensions to outline the effect of service quality on banking performance in the UAE. This is be done by drawing information from the literature review of the subject and empirical data

gathered from a survey of banks.

It is hoped that the body of the literature will contribute in providing useful information, which may help in filling the gap in the issues relating to the 'critical' factors that influence the level of service quality in the UAE banking sector.

1.5.2 Empirical Level

- This is the first empirical study that investigates service quality in the UAE banking system.
- This study will provide guidelines for practitioners in adopting and implementing TQM in service sector.

1.6 RESEARCH QUESTIONS

In achieving these objectives, this study will attempt to answer the following questions:

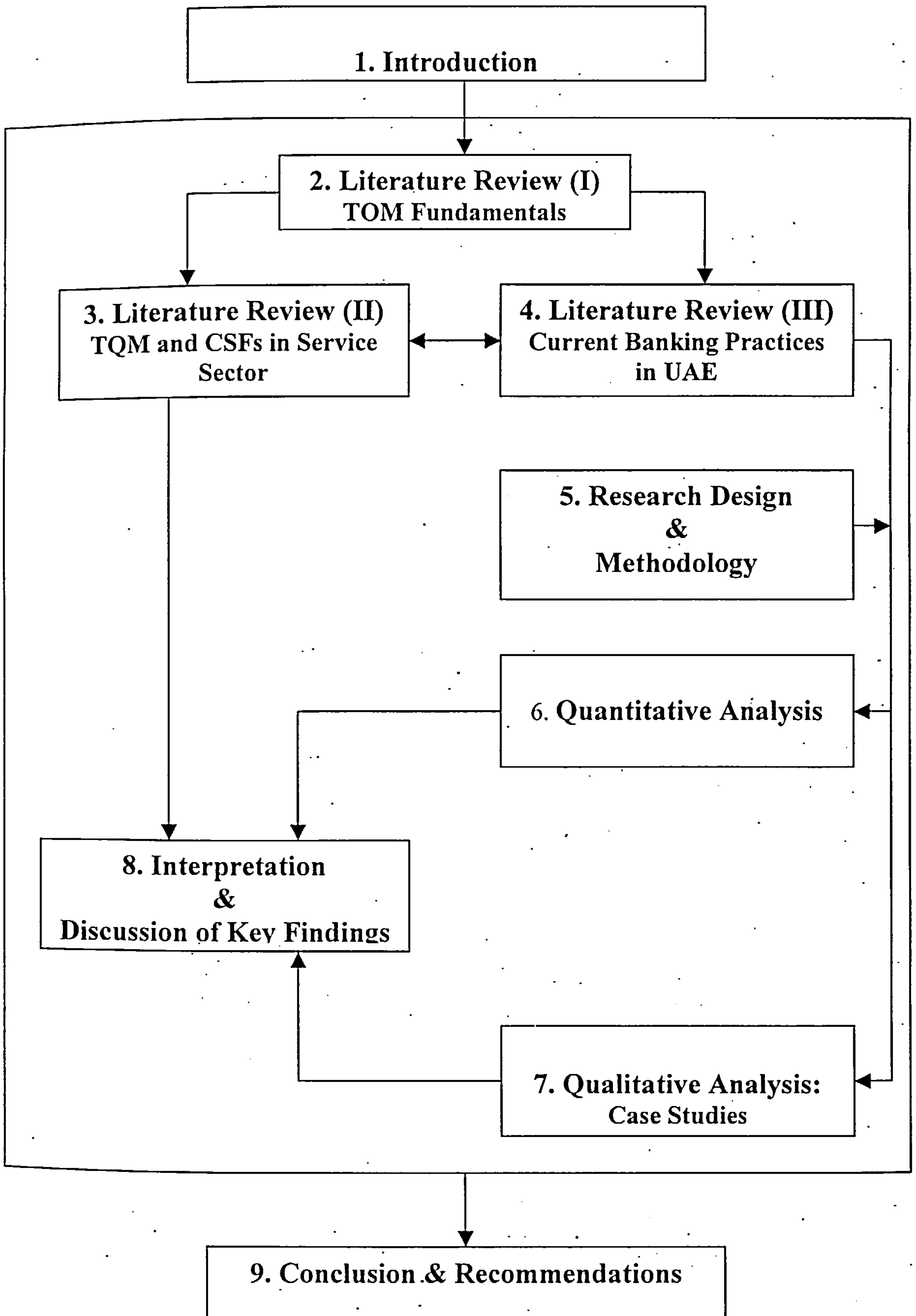
1. What is the maturity of TQM in UAE banking?
2. What is the current level of TQM awareness in the UAE banking sector?
3. What are the critical success factors of TQM in Service sector?
4. What is the effect of TQM in service implementation on business performance in the UAE banking sector?
5. What are the barriers to applying TQM in Service adequately, and what are the benefits of adapting this?

1.7 RESEARCH PROCESS

Details of the research methodology undertaken in this study are discussed at length in Chapter 5. This section is more concerned with the research process through which a better understanding of the TQM framework was achieved.

In the search for a through understanding of the TQM framework, the research process has involved five basic stages: 1) identification of research problems/objectives, 2) development of research framework, 3) research methodology, 4) quantitative and qualitative data analysis, and 5) discussion and conclusion. As much as possible, the organisation of the study is arranged in such a way that it allows readers to follow the process easily. Figure 1.1 gives an overview of the research design.

Figure 1.1: Research Design Overview



1.7.1 Identification of Research Problem and Objectives

First, the process involved identification of research problems and objectives. As shown in Figure 1.2, an extensive literature survey allowed the concepts and issues of TQM in the service sector to surface (Chapter 2). It presents a detailed review of the relevant literature related to TQM fundamentals. Chapter 3 provides a comprehensive analysis of the second part of the literature review on TQM in Services Organisations and how it could be implemented. Review of the literature relating to the current banking practices in the UAE was also undertaken.

1.7.2 Development of Research Framework

Second, having identified the research problem, the next process was to identify a research framework. Since this study makes a contribution by offering a framework for operationalisation of TQM in the banking sector and ultimately clarifying its constructs, the use of secondary case studies with a combination of an extensive review of various literatures would help to achieve a wider and more in-depth understanding of the different stages of TQM implementation.

The TQM constructs were addressed at this stage, the findings of which were used in the final stage of the research. Both survey questionnaire and case study were employed to cross-check the end results. Cross-case and within-case analysis was undertaken to highlight and confirm important factors of TQM implementation in the Banking sector.

1.7.3 Data Collection

Third, in order to evaluate the proposed research framework, testing was conducted using a mail questionnaire and case study. However, this entails a study of banks that

have experienced the implementation of such approach. This type of research calls for knowledge about the 'what' and the 'how' elements of implementation. The 'what' aspects of research require the use of quantitative methods, while the 'how' aspects are best investigated using qualitative methods. In this study, a triangulation approach, which combines both quantitative and qualitative methods, is adopted. This is achieved through a complementary use of mail questionnaire survey as the selected quantitative method, and case studies to collect qualitative data (see Chapter 5 for details).

Based on the literature review, a standardised questionnaire was developed to collect data from a large sample of banks in the UAE about the various aspects of Service Quality. The survey attempts to assess the level of importance of the elements that constitute the service quality framework.

A major part of the study is devoted to gaining an understanding of TQM critical success factors distilled from the literature. Consequently, issues of interest to the case studies are related to the operationalisation of key elements of TQM usage in real organisational settings. Banks considered as case studies were selected so that different issues of TQM usage could be covered and represented.

1.7.4 Data Analysis

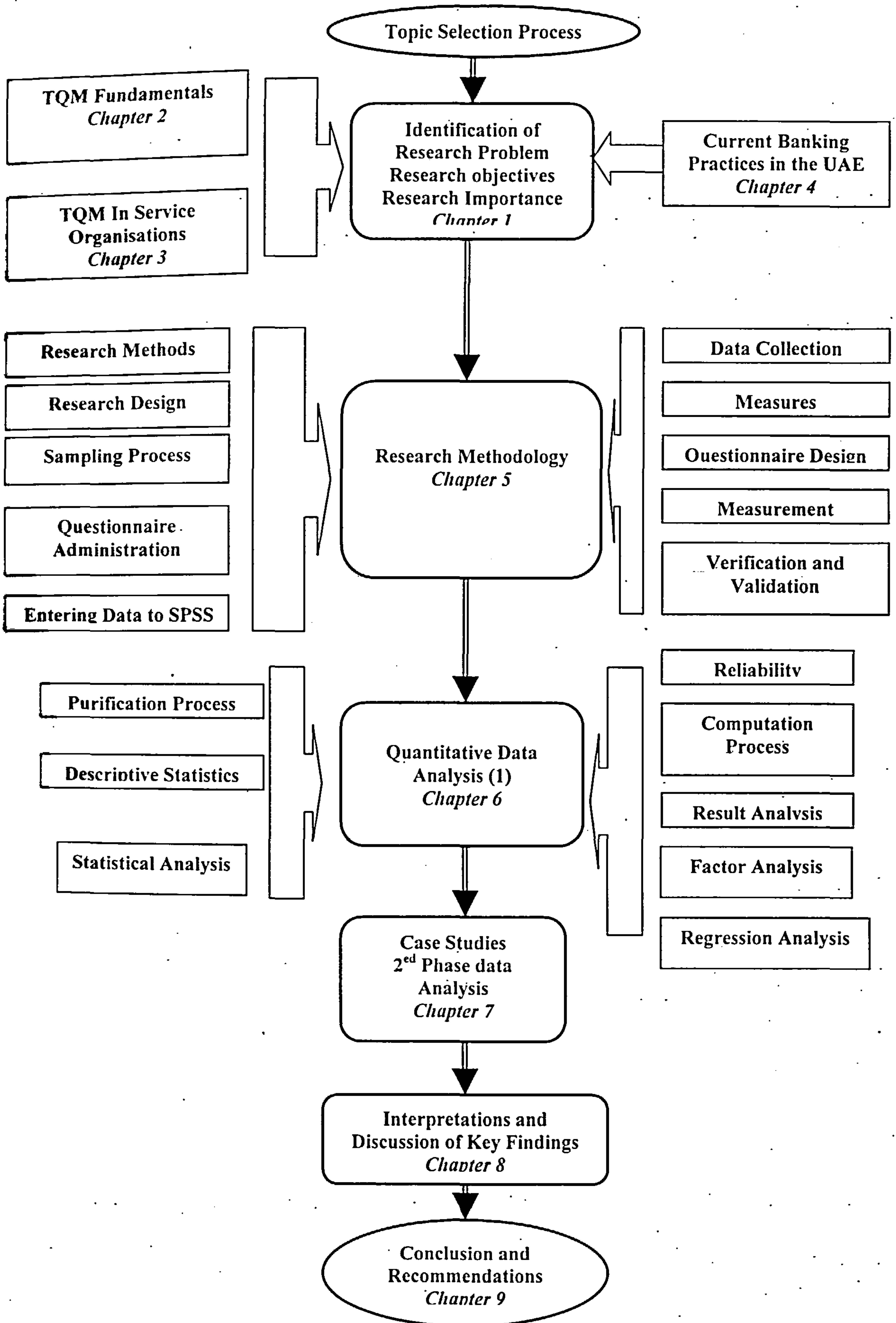
Fourth, the next process was data analysis. All the quantitative data were analysed using SPSS. Factor Analysis, Regression Analysis, One-Sample Test and Ranking Analysis have been used to test a series of research constructs. First, purification and descriptive analysis are reported. Then procedures and findings of the tests are reported in Chapter 6. Finally, all interviews were analysed Chapter 7. The transcripts were coded with

concepts and transformed and simplified in order to facilitate display, analysis and comparison. Displays were developed for the different dimensions of the CSFs, summarising the response of each respondent and allowing cross-case analysis. Procedures and findings of the analysis are reported in Chapter 7.

1.7.5 Discussion, Conclusion and Implications

The interpretations and discussion of key findings are presented in Chapter 8. It provides a comprehensive interpretation and discussion of both quantitative and qualitative findings. Finally, the conclusion and implications of the research in terms of theoretical and practical contributions are reported in Chapter 9. Major findings of the study are also listed and discussed here. To close the chapter, recommendations for future research are made.

Figure 1.2: The Research Process



1.8 THESIS LAYOUT

This thesis is structured in ten chapters, each providing an introduction to chapter contents and a brief description to set the content and context, as well as how it relates to other parts of the research summary of the main parts. While Chapter 1 has served as an introduction, background and outline of the research problem, it also presents research objectives, significance and contribution of the research, research methodology, and thesis outline. Following this, three chapters (2, 3 and 4) are dedicated to the review of the relevant literature to build a theoretical foundation upon which the fieldwork was undertaken. Chapter 2 provides an in-depth review of the fundamentals of TQM with regard to certain concepts, their definitions, and its development. Chapter 3 represents the second part of the literature review on TQM in Services Organisations. Chapter 4 ends the literature review by reporting the current banking practices in the U A E.

Chapter 5 discusses the research design and methodology employed in this study. It explains the data collection methods used. Chapter 6 is concerned with analysis of the preliminary findings. Chapters 7 and 8 describe the second phase of the data analysis i.e. the quantitative analysis and qualitative analysis, respectively. The qualitative analysis describes the case studies carried out in four banks in the U A E.

Chapter 9 provides a comprehensive interpretation and discussion of both quantitative and qualitative findings. Finally, Chapter 10 constitutes the key part of this thesis. A distinct contribution towards knowledge is made explicit in this chapter. In addition, the implication of the research findings for both theory and practice are also discussed in

detail. Finally, limitations and suggestions for future research for both theory and the methodology are given in the last part of this chapter.

1.9 CHAPTER SUMMARY

This chapter has outlined the structure of the research. It introduced the background of the study and presented the research problem and objectives. The research was then justified, the research process explained and the thesis chapters outlined. On these foundations, the report can proceed with a detailed description of the research process.

Chapter 2

TQM Fundamentals: Concepts, Definitions and Development

A Review of the Literature I

2.1 INTRODUCTION

This chapter discusses the fundamentals of TQM by focusing on the important concepts of quality and TQM. It also traces the historical development of the philosophy of TQM. It further discusses the quality gurus and their contribution to the subject of TQM. A brief review of the current status of TQM is discussed in the context of other concepts that are related to TQM.

It is widely known that one of the most important and well-recognised contributions to Japanese economic success has been the approach to quality management (Garvin, 1988). The Japanese assumed quality improvement as their way of life and invested a great deal in the human aspect through education and training throughout their organisations. They have embraced quality despite the fact that this business improvement activity could result in increased costs. Many organisations world-wide are learning lessons from this and are emulating the Japanese achievement in their commitment to quality. Quality cannot be ignored in business today because it is a significant factor in customer buying decisions.

Improving the quality of an organisation's products is fundamental to business success in the 21st century. Managers in modern companies must realise that customers continuously demand better quality, that customers expectations must be clearly understood, and that the company should endeavour to conform to customer needs.

Customer focus requires continuous quality improvement, resulting in a dynamic business condition. Dale (1994:592) argued that an enlightened executive should know that while price and delivery are negotiable, quality is not. According to Feigenbaum (1961:22), quality management has been found to be the single most important force leading to economic growth of organisations in international markets.

In today's competitive business world, where cut-throat competition is its essence, it has long been recognised that traditional approaches to quality based on product quality are not effective enough. Organisations need to create a competitive advantage based on best management practice and well-managed process systems.

2.2 QUALITY AND TOTAL QUALITY MANAGEMENT

2.2.1 Meaning of Quality

There seem to be nearly as many definitions as there are people writing about quality. The concept of quality is complex and difficult to define because it is multidimensional. For example, quality has been defined by different people as either conformance of products or service to specified requirements, a measure of fitness of a product or service for its intended use or purpose, or an inherent excellence in the product or service. Quality has thus been defined in several different ways. Even though many of the academics, researchers and practitioners have acknowledged the importance of quality in current competitive markets, they still do not have a universally accepted definition of the term (Reeves and Bender, 1994; Seawright and Young, 1996). Quality is a concept with many different meanings and interpretations, therefore it is difficult to define quality. That is, quality is defined and measured differently and depends on the individual perception of excellence. Shewhart (1931), defined quality as a thing said to

have the positive attribute of conformance to specified standards. However, quality has been defined as value for money (Feigenbaum, 1956, 1961), fitness for use (Juran, 1974), conformance to requirements (Crosby, 1979), and delighting the customer (Deming, 1986), by some of the quality pioneers. The search for a universal definition has resulted in inconsistent results (Reeves and Bender, 1994). According to the International Organisation for Standardisation (ISO), quality is the totality of features and characteristics of a product that bear on its ability to satisfy stated or implied needs (Ho, 1994).

It can be clearly understood that quality can be a very confusing concept because people view it relative to different criteria based on their individual perceptions and roles in the product-making chain. It has also been observed that the meaning of quality has evolved as the quality profession has grown and matured (Evans and Lindsay, 1993). Thus, quality is a relative concept, as it means different things to different people, and in certain conditions it can be viewed as a holistic concept. In many situations, people see quality in absolute terms, and for them it compares with goodness and beauty. Certain absolute characteristics are used in achieving the required quality rating. This has resulted in some authors providing a particular definition of quality. However, the most comprehensive definition of quality has been given by Garvin (1984, 1987, 1988) as it takes into consideration all aspects and dimensions of quality. Garvin (1988) provided a useful framework that is used in the classification of all the definitions of quality that reflect the eight commonly identified quality dimensions in products and services. Garvin gave the reason why he thought quality should have different meanings in different contexts as being that if the concept was to be used as a strategy it should be broken down into quality niches in which to compete, and the different definitions be

adopted in defining quality as products moved from design to the market (Garvin, 1988).

The following discussion provides the coexisting definitions of quality.

2.2.2 Definition of Quality

Garvin (1984) provided five approaches to defining quality which are: the transcendent, product-based approach, user-based, manufacturing-based, and the value-based. These approaches are considered as philosophical definitions of quality they provide general guidelines for defining quality within the context of an organisation (Garvin, 1988; Evans and Lindsay, 1993). These definitions are:

- Transcendent: quality is innate excellence in a product as recognised through experience.
- Product-based: quality means the amount or quantity of a desirable attribute in a product or a measurable variable that reflects the level of some product attribute.
- User-based: quality means fitness for purpose or use.
- Manufacturing-based: quality is conformance to design specifications or requirements.
- Value-based: quality means satisfaction in relation to price or the good performance of a product at an acceptable price.

Garvin (1987,1988) and Seawright and Young (1996) also classified quality into eight different dimensions: performance, features, reliability, conformance, durability, serviceability, aesthetics, and perceived quality. Garvin (1988), however, pointed out clearly that most organisations cannot provide all eight dimensions to achieve strategic competitiveness for a real world market.

Evans and Lindsay (1993) also contributed to the debate by providing a more modernised and integrated perspective of the definition of quality. They combined the current concept of quality, which is customer-orientated, with Garvin's five approaches.

In addition, they argued that the eight dimensions of quality could occur through the production-distribution cycle. Therefore, they treated the eight dimensions as part of the system's perspective within the organisation.

In terms of TQM, however, quality includes more philosophical principles, behavioural and strategic issues in real world operations of organisations, as well as managerial practice. However, understanding the concept of quality is important, since it enables us to understand the principles underlying the implementation of TQM and its success in organisations. Therefore, a shared understanding of quality management definitions is important for a company's strategic success.

2.2.3 Characteristics of Quality

The operation texts are disappointing in their treatment of the characteristics of quality, certainly when compared to the service quality literature. Garvin (1984) provided eight repetition of product quality: performance, features, reliability, conformance, durability, serviceability, aesthetics and perceived quality. Performance, he claimed, is a combination of the user-based and product-based approaches, and is concerned that the product meets a certain set of "primary operating characteristics"; handling, cruising speed and comfort for a car, for example. Features are the secondary characteristics, supporting or enhancing features that supplement the primary characteristics. Serviceability he defined as the speed, courtesy and competence of repair in the servicing of the product. Perceived quality recognises the fact that customers do not possess complete information about a product's attributes, and that it may be more a function of their images and brand names.

Schonberger (1985) and Muhlemann et al (1992), do not provide a set of characteristics but occasionally refer in passing to examples such as the tolerance of an item, the degree of finish on a surface, the smoothness of movement of a mechanical device, a particular chemical property, and the number of times a telephone rings.

Juran et al.(1988) suggested five characteristics; technology (for example, strength and hardness), psychological (for example, taste, beauty, status) time-oriented (for example, reliability and maintainability), contractual (for example guarantee provision) , and ethical (for example, courtesy of sales personnel, honesty).

Oakland (1989) defined quality as meeting customer requirements and that "the requirements may include availability, delivery, reliability, maintainability and cost effectiveness among other features".

Krajewski and Ritzman (1990) summarized the product and service quality characteristics into three categories: hardware (style and appearance of equipment or the product, ease of installation and use), product or service support (responsiveness, accuracy, truthfulness) and psychological impressions (courtesy, sympathy, knowledge and reputation). In their quality control chapter (which includes acceptance sampling and statistical process control), they do not refer to these categories, and select examples including the number of defective radios and wheel rims, dimensions of holes, cylinder head measurement, and the diameters of screws.

Hill (1991), in his chapter on quality control, having defined quality as "the totality of features and characteristics of a product or service that bear upon its ability to satisfy

stated or implied needs” spent little time on these, and summarised them in one short table. He identified four typical aspects of a specification: function, product/service characteristics, performance and reliability. He described the function of a product as doing what it is supposed to and the function of a service “statements of what the service entails”, including the “less tangible statements”, though he declined to define these. His product/service characteristics are the physical characteristics, variables such as dimensional characteristics and attributes such as surface finish, and for service, “what constitutes the service” which he stated may be separated into variables and attributes, but he does not enlarge upon this.

Schonberger and Knod (1991) added a few more dimensions to Garvin’s list to represent their view of additional service dimensions: value, responsiveness, humanity (sensitivity, courtesy, communication, understanding), security and competency.

Several authors have referred to reliability. Reliability, defined by Muhlemann et al.(1992) as the ability of a product to function satisfactorily over a period of time, some would argue is not a quality characteristic. Further, they treated reliability separately and argued that it ranks equally with quality in importance in terms of competitive criteria.

There are two issues that emerge from the operations literature on defining quality: -

The various definitions of quality, reported in the operations literature, seem to be related to the different function and disciplines of management. Garvin (1984) noted that there is “a host of competing perspectives, each based on a different analytical framework and each employing its own terminology”. He continued, “Philosophy has focused on definitional issues; economics on profit maximization and market

equilibrium; marketing on the determinants of buying behaviour and customer satisfaction; and operations management on engineering practice and manufacturing control". What seems to be missing is a view which unifies and combines these approaches into a universally acceptable definition of quality. Is this because management research is, by its very nature, parochial, or are the different views of quality unreconcilable?

The literature on the characteristics that connote quality, those features that give the word 'quality' meaning, seem to be disparate and incongruous. What seems to be missing from this 'menu-based' approach is a conceptual and empirical underpinning of the characteristics. It is not surprising that Krajewski and Ritzman (1990) concluded, "It should be apparent that defining quality is no easy task".

2.2.4 Quality Management

Quality management, referred to by some authors as quality assurance, encompasses all activities and functions concerned with the attainment of quality (Hill, 1983). Most authors split these activities into two: quality of design and quality of conformance. Schroeder (1989) is an exception to this. He identified six separate activities, which he referred to as the quality cycle:

1. Define quality attributes.
2. Decide how to measure each attribute.
3. Set quality standards.
4. Establish an inspection programme.
5. Find and correct causes of poor quality.
6. Continue to make improvement.

The first three steps are associated with quality of design and the last three with conformance quality. The texts vary little in their treatment of these two areas.

2.2.5 Quality of Design

Wild (1980) espouses the traditional inward-focused view of design quality. He defined it as being “determined by the specification of the product, for example the tolerance placed on dimensions, the composition and treatment of materials, finishes, etc.” The main outcome of this activity is, as far as the operation is concerned, the creation of a quality specification - this describes or defines the product or service and should be a comprehensive statement of all aspects of it which must be present to meet customer requirements (Muhlemann et al., 1992).

Oakland (1989), in his TQM text continued the 'meeting customer expectation' theme, and contended that the main purpose of quality of design is to ensure that the product or service will be able to achieve its intended purpose. He cited several examples, including “the beautifully presented gourmet meal will not necessarily please the recipient if he or she is travelling on the highway and has stopped for a quick bite to eat”. Oakland stressed the operations role here: “It is not sufficient that marketing specifies the product or service, ‘because that’s what the customer wants’. There must also be an agreement that the producing departments can achieve that requirement. Should they be incapable of doing so, then one of two things must happen, either the company finds a different position in the market place or substantially changes the operational facilities.”

It is maybe not surprising that having difficulty with either defining or agreeing on the characteristics of quality, most operations texts spend little time on the area of quality of design. Hill (1991) covers quality of design in more detail than most. In not quite giving up this role to marketing he asserted, “Although the quality of a product/service is determined by the market need, (operations) management is responsible for establishing

the appropriate quality levels for its product/services". Hill investigated the cost/value relationship and uses failure mode and effect analysis (FMEA) to identify the weak points "at the development stage of a product".

Muhlemann et al. (1992), take a more outward-looking approach and explicitly recognise the interfunctionality of this task, and define quality of design as "an interactive process whereby the customer, and marketing, sales, product or service designers, purchasing, supplies and operations...work together to develop a service or product that meets customer expectations and can be generated or produced economically".

This view is critical in understanding the link between the user-based approach to quality and the operational (manufacturing-based) view of quality. Discovering where an organisation does not meet customer needs and expectations, and then devising strategies to deal with it are key activities for managing quality.

The operations texts, however, spend most of their time on conformance quality and, in particular, the techniques of quality control.

2.2.6 Quality of Conformance

Quality of conformance means producing a product to meet the specification. When a product conforms to the specification it is deemed by operations to be a 'quality' product, even though the quality of design may be 'low' (Schroeder,1989). The main task of conformance quality is the control of quality. This is the task on which most operations texts concentrate.

Quality control is defined as the task of preventing poor quality products from leaving the plant (Harris and Gonzalez 1981). Schroeder (1989) takes a more long-term and proactive view, and states “quality control is aimed at continuous improvement of a stable process” , primarily through statistical process control which tries to separate assignable causes from random ones, and continuously removing causes of error through inspection to detect errors and find the causes of those errors.

This approach is not too surprising, given the quantitative nature and background of operations management. However, it does seem somewhat perverse that the texts should concentrate on control when there is little agreement on the characteristics that they are supposed to be controlling. Further, one might argue that some of the 'softer' characteristics identified earlier, for example sympathy, reputation, knowledge, taste, beauty and status, do not readily lend themselves to such treatment.

2.2.7 Approach to Quality Management

The ways in which operations management has approached the task of managing quality has changed over the last few years from the “traditional” reactive approach, through a more prevention oriented or proactive approach to the more recent strategic, or total quality management, approach.

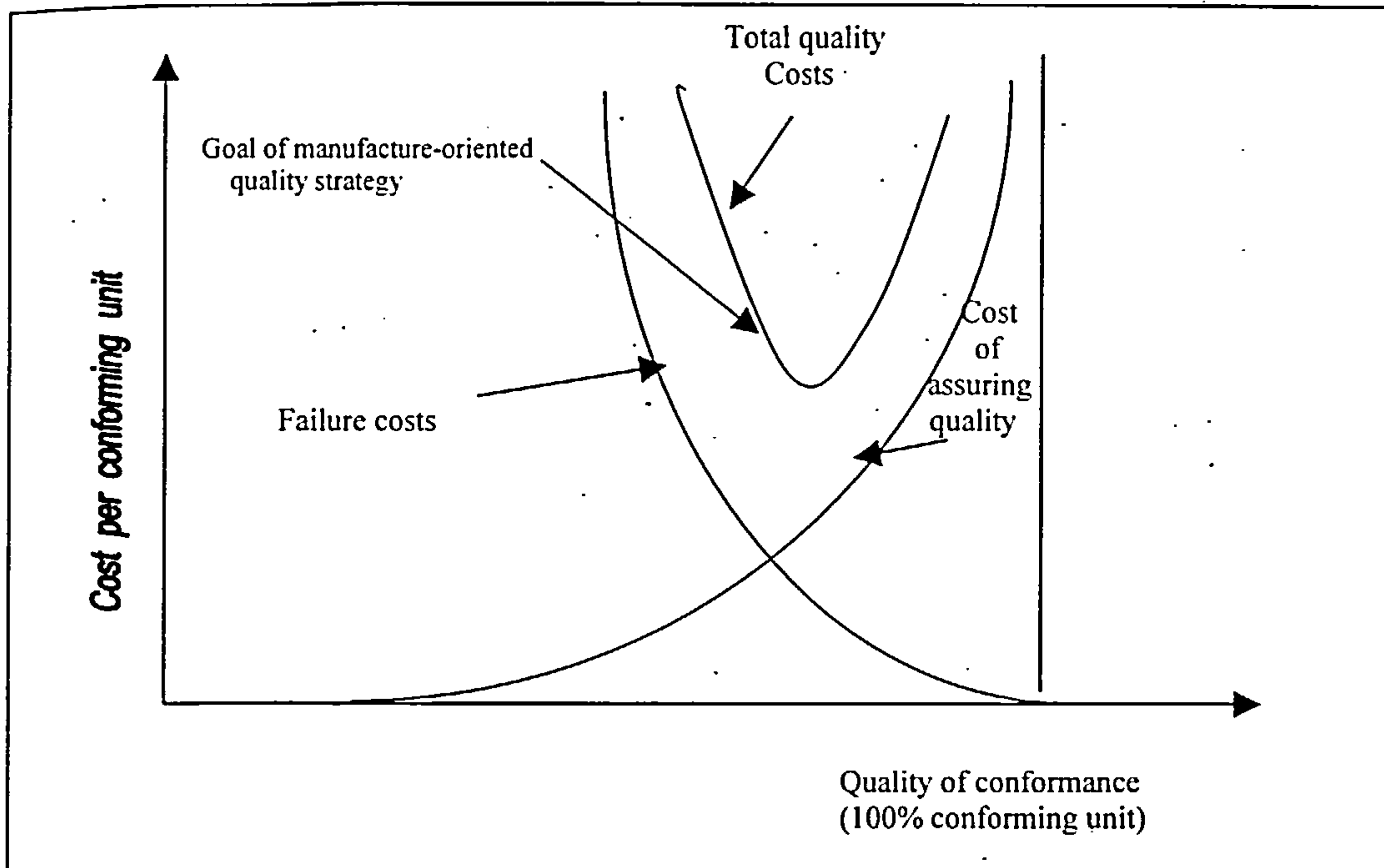
2.2.8 Traditional Quality Management

The objective of the traditional reactive or detection orientated approach see for example Wild (1980) is to support conformance quality; that is to check that work completed in one part of the process meets its specification, and to try to prevent any defective work being passed on to the next stage in the process. This relies heavily on inspection

procedures of input items, processes and outputs, undertaken by a dedicated team of quality specialists using recognised tools and techniques, for example sampling techniques, sampling plans, vendor rating, and acceptance sampling. The dedicated teams are sometimes located outside the operations function. The justification for this approach is that it is wasteful to allow time and materials to be invested in products, which are not always saleable (Muhlemann et al., 1992).

This approach requires the creation of acceptable quality levels (implying some poor quality is acceptable), and accepts that there is an optimum amount of quality effort at the point at which the costs of quality prevention and appraisal, and of defectives, are a minimum. This optimum point can be calculated by the apocryphal application of differential calculus to the two conflicting costs of quality (which assumes that as quality effort expands, the costs of failures will decline, and the costs of assuring quality, prevention and appraisal, will rise) see Figure 2.1 as shown in.

Figure 2-1: Optimisation of Quality Costs



Source. adapted from Wild(1989)

The traditional approach has many detractors. Garvin (1987), for example, criticised it “as purely defensive measures to prevent failures or eliminate defects. What managers need now is an aggressive strategy to gain and hold markets”. Slack (1991) argued against the traditional view of quality costs and said that the approaches to find the optimum quality effort point are “misleading”. This approach assumes an optimum exists (that is, not zero defect and perfect quality) and, furthermore, that the costs of failure are difficult to calculate and their longer-term impact is unquantifiable.

2.2.9 The Prevention Approach

One suspects that the change from the traditional approach to the preventative approach has been driven by a management concern about the high cost of quality, in particular the high cost of poor quality. Crosby (1979) contended that many organisations do not

know how much they spend on quality, putting it right or getting it wrong. He claimed that organisations that have measured their costs claim that they equate to about 30 per cent of sales.

Feigenbaum (1986) suggested the idea of a “hidden plant” in every organisation that uses, to no benefit, one tenth of productive capacity. The prevention approach takes a more proactive approach to quality and quality costs. It is characterised by “getting right the first time” (Gummesson, 1987). Gummesson likens the process to the formation of a river with many tributaries and streams that may pollute the sea of customers if mistakes happen. The prevention approach tries to move away from the notion that errors are a normal and acceptable part of everyday life.

Schroeder (1989) shrewdly observed, “Since managers speak the language of money, putting quality in cost terms offers a powerful means of communication and control”. He stated, “ We are conditioned to expect errors in the work place, but not in other forms of human activity. For example, when we attend a concert, a certain percentage of bad notes”. Juran (1989) estimated that total quality costs in manufacturing 10% of sales turnover.

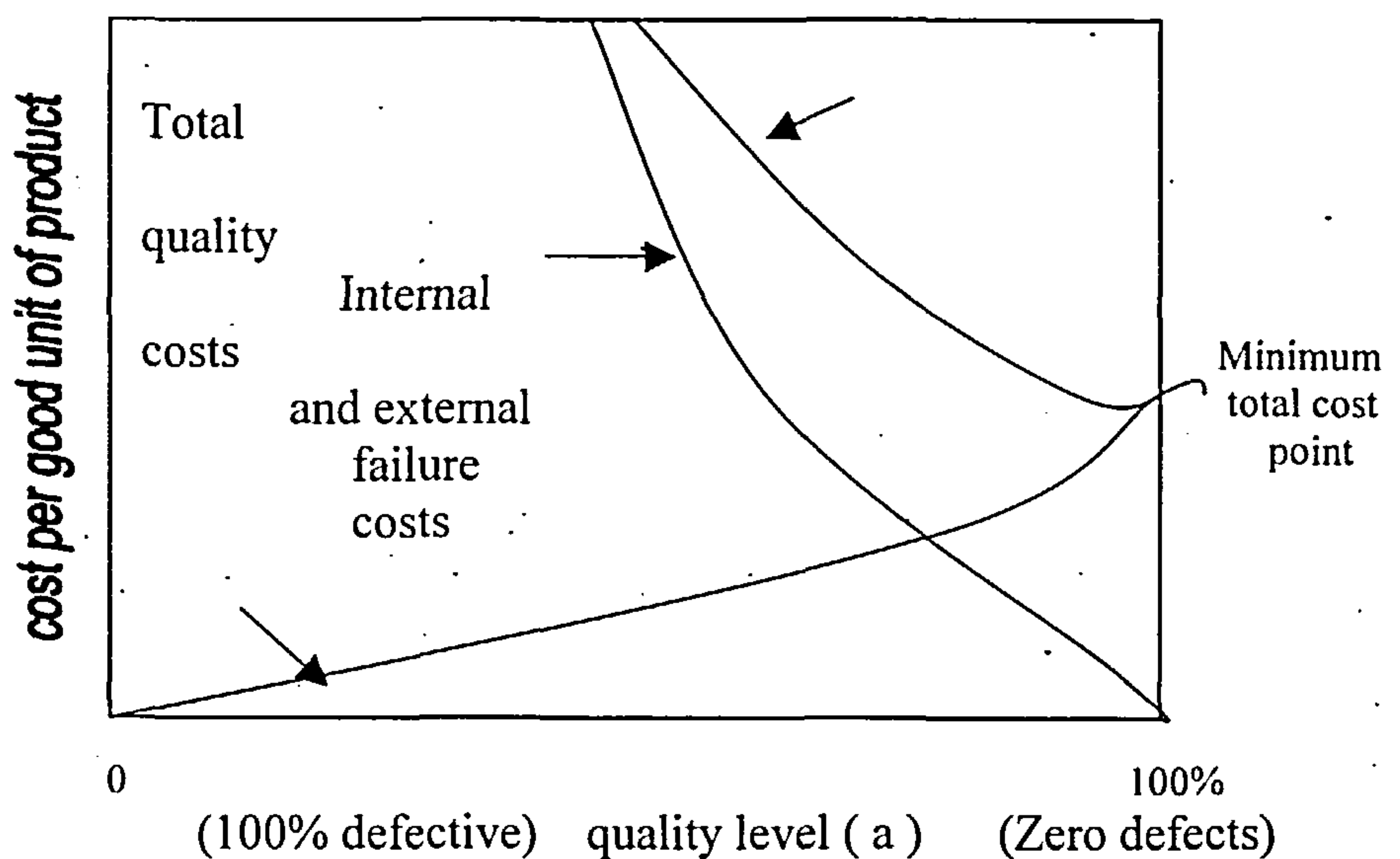
The first step, as Teboul (1991) noted, is to “reverse these paradigms and inevitabilities, and instead aim at zero defects, zero breakdown, zero inventory, zero delay, zero paper – all without increasing costs”.

The objective of the prevention approach is to try to allocate resources so as to more often make products or services right the first time (Hill, 1991). Muhlemann et al. (1992)

developed this point: “ It is much more effective to avoid waste by not producing unsaleable output in the first place but to adopt a strategy of prevention”, which is often captured in slogans like “right first time” or “zero defectives”. Crosby (1979) is perhaps the best known for a zero defects programme.

The prevention approach takes quite a different view of the relationship between the costs of quality compared to the traditional approach. In particular, it concentrates on the difference between appraisal and prevention costs, not only checking it is right (appraisal), but also making it right first time (prevention) (Muhlemann et al., 1992). This has resulted in a new quality cost model, though a little slow to reach the texts, which contends that total costs become a minimum at the point of zero defects, as shown in Figure 2.2 .

Figure 2-2: Optimal Quality Costs and Zero Defects



Source: Adopted from Schonberger and Knod (1991); Harrison (1992)

2.2.10 Meaning of Total Quality Management

TQM, like the concept of quality, has many conceptual and operational definitions. Like the term quality, TQM does not have a universal definition between its users (Boaden, 1997). Therefore, this section looks at the various definitions as provided by different authors. Even though TQM is offered as a subject in many institutions in developed societies, there has been an academic debate by researchers as to what it means and what it entails. Some authors have attempted to define TQM, and their definitions are developed from empirical evidence, and through group thinking and consensus (Boaden, 1997).

For example, Imai (1986) defined TQM as:

“Organised KAIZEN activities involving everyone in a company - managers and workers - in a total integrated effort towards improving performance at every level. This improved performance is directed towards satisfying such cross-functional goals as quality, cost, scheduling, manpower development, and new product development. It is assumed that these activities will ultimately lead to increased customer satisfaction”.

Oakland (1989:14) defined TQM as:

“Total quality management (TQM) is an approach to improving effectiveness and flexibility of business as a whole. It is essentially a way of organising and involving the whole organisation; every department, every activity, every single person at every level.”

On the other hand, Zairi and Simintiras (1991) regard TQM as an integration of various processes in an organisation, and hence defined it as:

“Total Quality Management is the combination of the socio-technical process towards doing the right things (externally), everything right (internally) first time and all the time, with economic viability considered at each stage of the process.”

A consultant at PA Consulting Group (Key Note Publications, 1993:4) defined the concept as:

“TQM is a total quality management philosophy which affects corporate decision taking, which aims to constantly improve your performance and which lowers the cost of work process. It works by attacking lots of small problems so that the standing of the whole organisation is transformed”.

Flynn et al. (1994) defined TQM as:

“An integrated approach to achieving and sustaining high quality output, focusing on the maintenance and continuous improvement of processes and defect prevention at all levels, and in all functions of the organisation, in order to meet or exceed customer expectations”.

The British Standards Institute (BS 4778 Part 2 of 1991) defined TQM as Dale, (1994):

“A management philosophy embracing all activities through which the needs and expectations of the customer and the community, the objectives of the organisation, are satisfied in the most efficient and cost effective way by maximising the potential of all employees in a continuing drive for improvement.”

Put in other words by Dale.(1994: 10):

“TQM is the mutual co-operation of everyone in an organisation and associated business process to produce products and services which meet the needs and expectations of customers. TQM is both a philosophy and a set of guiding principles for managing an organisation.”

Dahlgaard et al. (1998: 19) saw TQM as:

“...a corporate culture characterised by increased customer satisfaction through continuous improvement, in which all employees in the firm actively participate.”

Dahlgaard et al. (1998) observed that quality remained an important part of these definitions, and in this context, TQM formed a hierarchy of quality definitions that could be broken down as:

- quality means to continuously satisfy customer expectations and requirements;
- total quality means to achieve quality at a low cost, and thus.
- TQM means achieving total quality through everybody's participation.

All these definitions have one thing in common, they focusing on the customer needs. Oakland's (1989) definition was adopted by the British Department of Trade and Industry, hence it is used by a lot of quality practitioners, and this study's proposed model will therefore be benchmarked to this model for its usefulness.

Despite all the teachings, not every organisation has developed an obsession with quality. One cannot ignore the fact that quality must be integrated with modern management practices if any business is to stay competitive in today's global market place (Cullen and Hollingum, 1987). TQM is being adopted all over the world as a remedy for most organisational problems, without taking into consideration the cultural meaning of the theory in organisations in the different countries.

In the past, improving the quality of the product used to be part the production process. Today, TQM is both a complete philosophy and a technique for implementing that philosophy in the production process. To apply the TQM philosophy, the company must operate by several principles. These are:

- All functions inside the organisation, including production, finance, marketing, information systems and purchasing should apply quality control to improve the output.
- Each part of the organisation has to focus on meeting customer requirements and expectations, the first time and every time.
- Each part of the organisation must strive to improve continuously.
- To achieve these aims, the entire workforce must be involved and the employees must be empowered.

How TQM is carried out in practice varies considerably, depending on the industry, the type of enterprise, and the managers' perception of what TQM means. But amidst this diversity, a TQM system has common elements, which include: culture change, planning and organisation, management commitment, involvement, recognition, measurement, training and education for all employees, and continuous improvement (Dale and Cooper, 1992).

Notions of TQM are becoming popular all around the world, as organisations focus on improving the quality of their products or services, and hence competitiveness and the value to their customers. Customers today are quality conscious, they want value for money. Senior managers in many western and eastern companies have embraced the TQM concept and see it as a key factor in their future prosperity. This emphasis on quality is affecting both manufacturing and service organisations.

Quality management is a key word in gaining competitive advantage. A lot has been written about how quality should be managed in organisations. Feigenbaum (1956, 1961, 1983), Juran (1974), Crosby (1979) and Deming (1986) described the concept of organisation-wide total quality control, the basic processes of quality management, zero

defects quality programme for the organisation, and fourteen steps of quality management.

Organisations operating in this century are involved in a quality revolution. The revolution began in Japan and then spread to the West, and now it is spreading to the developing world. It involves an entirely new way of thinking about and dealing with quality that encompasses the whole organisation. Practitioners have defined this approach in various ways, and academics and many other people call it TQM or total quality management. In some western organisations, TQM is simply a special programme. In most Japanese companies, it is regarded as a way of conducting or running a business.

TQM is a management philosophy that seeks continuous improvement in the quality performance of all processes, products and services of the organisation. It has won notable success as a philosophy as argued by many researchers. It is an approach to management that focuses on quality as the key to success, so that TQM has been termed 'the new way to managing', and it is a form of management. It has thus evolved into a subject in many universities, and is likened to other management themes like human resource management, Japanisation, and excellence (Wilkinson, 1992). Also in as much as TQM has been implemented in many organisations, TQM as a subject has taken root in various academic institutions. The interest in the subject has grown partly because of the fact that the real gains can be achieved through delivering quality products to customers, and costs can be reduced by avoiding the waste of resources (Kanji, 1991).

2.3 HISTORICAL EVOLUTION OF TOTAL QUALITY MANAGEMENT

The concept of quality has always been evident in human activities for as long as human endeavour. Garvin (1988) and Zairi and Simintiras (1991) identified the four stages which quality management has gone through. Dahlgaard et al (1998) support the argument that the evolution of TQM took place in four stages, namely quality inspection, quality control, quality assurance, and total quality management. It is widely believed that quality concepts evolved gradually, and to substantiate this, Garvin (1988), Zairi and Simintiras(1991), Juran (1991) and Dale (1994) go as far as describing the growth stages as follows:

2.3.1 Inspection

During the Middle Ages in Europe, skilled craftsmen served both as manufacturers and inspectors, and dealt directly with the customer, instilling a lot of workmanship. Quality was in the hands of the craftsmen, and building quality into a product was the aim of skilled craftsmen (Flood, 1993). Thus, the master maintained a form of quality control by inspecting the finished products before selling them (Juran, 1991). Other masters, journeymen and apprentices emerged, thus making sure that adequate training was offered to craftsmen. and every effort was made to ensure quality was built into the final product.

Skilled craftsmen controlled all aspects of manufacturing ,so product quality depended largely on the skills of the operator. With the advent of the First World War, greatly increasing production volumes and requirements for interchangeable parts gave rise to the need for inspection using fixtures and gauging to weed out non-conforming products (Feigenbaum, 1983) Emphasis at this stage was on product uniformity, and inspection

was thought to be the only way to ensure quality. Under a simple inspection-based system, one or more characteristics of a product were examined, measured, tested or assessed, and compared with specified requirements to assess conformity. The role of the quality professionals was mainly inspection, sorting, counting and grading products. The approach here was to inspect-in quality (Garvin, 1988:19). In general, simple inspection-based systems were usually wholly found in-house and did not involve customers (Dale et al., 1994).

2.3.1.1 Early Inspection Activities

Efforts directed towards providing consumers with high quality products and services have been an important part of the production function throughout history. Operator quality control technology was inherent in the production job, even before the advent of the Industrial Revolution. Workers were responsible for the entire completion of production, and therefore each worker could totally control the quality of his work. Egyptian wall paintings (from around 1450BC) show evidence of inspection, and the blocks used in building the pyramids were cut to precise measures. Thus, standards, procedures and measuring tools made quality management possible (Cullen and Hollingum, 1987).

2.3.1.2 Industrial Revolution

The Industrial Revolution created the factory system. The factories employed semi-skilled and unskilled workers as well as craftsmen, and masters became largely production supervisors. The quality function remained the task of the production department in which a large number of inspectors were employed.

According to Schultz (1994), in the middle of the eighteenth century, a French gunsmith, Honore Le Blanc, developed a system of making muskets to a standard pattern using interchangeable parts. Thomas Jefferson brought the idea to America, and in 1798, the US government awarded Eli Whitney a contract to supply it with guns in two years. Whitney designed special machines and trained unskilled workmen to make parts to a standard design that were then measured and compared to a given model. This process, however, underestimated the effect of variation in production systems, a problem that exists to this date. The concept of interchangeable parts marked an important development at this stage of the Industrial Revolution, and made quality management an important part in the production process.

In the 1900s, the work of F. W. Taylor, the Father of Scientific Management, led to a new philosophy of managing production and operations. By dividing work into tasks, inspection was considered a separate task from other production activities, leading to a separate quality department in some organisations. Taylorism led to considerable increases in production and in productivity in which US became a world leader .

The initial stage of this evolution can clearly be identified with the Ford Motor Company's success in the mass production of the Model 'T' car. The company employed teams in its inspection process to separate acceptable quality products from those of lower quality. However, the downside of the Taylor system was the negative effects it had, particularly on human relations and quality.

2.3.1.3 Independent Inspection Department

Organisations did indeed want productivity and quality, so they set up separate inspection departments, which were mainly headed by a chief inspector. Their main task was to make sure defective products did not reach the customer. This function faced many problems when products actually reached the client. This is the reason why some organisations have done away with the inspection function.

2.3.2 Quality Control

This era developed from the inspection activity in terms of the sophistication of methods and systems employed in controlling quality. This stage led to greater process control and fewer incidences of non-conformance. Thus, the concept of TQM has its roots in statistics. However, quality control here was limited and manufacturing-based.

The development of control charts and acceptance sampling techniques by Walter Shewhart and his colleagues, Harold Dodge and George Edwards of the Bell Telephone Laboratories, marked the significance of this stage (Schultz, 1994). The group was responsible for developing new methods of inspection to improve and maintain quality and quality control was applied to the design, manufacturing and installation of telephones. It was Shewhart who first introduced the idea that quality control could help to distinguish between two process variations, that is variation resulting from random causes, and variation resulting from assignable causes or special causes. He advocated making the process work reliably by separating the variation due to special causes, and therefore introduced the concept of control charts in monitoring such process variations in managing quality. The development of control charts, sampling techniques, and economic analysis techniques for quality problem-solving formed the foundation for modern quality assurance, the next stage in the evolution of TQM.

Shewhart saw the manufacturing process as a continuous process with inspection leading to new specifications, and each process and product closely related to past and successive generations (Schultz, 1994). Shewhart (1931) put quality control on the scientific map by recognising that variability was a fact of industrial life and that it could be understood using principles of probability and statistics. He observed that no two parts would normally be manufactured to the same specifications, as in most cases, raw materials, operator skills and equipment would all vary to some extent over time. He then introduced the idea of statistical process control, whereby control charts were made use of in the production process at shop-floor level in examining whether production values fell within acceptable limits or ranges. Through this analysis, the concept of variability became important.

2.3.2.1 Quality Control, Science and Technology

The expanded use of science and technology made a major contribution to quality improvement. With further organisational development came the quality control stage.

2.3.2.2 Acceptance Sampling

Sampling techniques start from the assumption that 100% inspection of goods is very costly. Therefore checking a limited number of items in a production lot, thus developing a sampling plan, and then deciding on an acceptable quality level, was seen as an alternative. The process entails some risks, however, because samples are not fully representative, and one might accept a production lot that is full of defective items, and also one might reject a lot that is of acceptable quality. These problems are called consumer's and producer's risks, respectively. The method provided the key to

improving the quality of telephone equipment and service. Inspection costs fell, quality improved with fewer defects, and employees become more productive.

The technique was also used widely by the US War Department in late 1940s, when it drafted quality standards for suppliers of ammunition (Garvin, 1988). Since then, quality control using control charts was widely seen at shopfloor level in many manufacturing settings. The approach was mainly that of controlling-in quality.

2.3.3 Quality Assurance

During this stage, more emphasis was put on problem prevention rather than detection. The quality assurance stage marked a shift in the approach to managing quality from detection to prevention. Wartime activities were reviewed to improve future quality performance. At this stage, full-time positions of quality controllers were created and this resulted in the establishment of the inspection department in large organisations. This stage made the large inspection-orientated organisations more efficient, as they utilised statistical tools in managing quality. The most significant contribution of the quality control system was that it provided sampling inspection, rather than 100% inspection that was costly and time-consuming. However, the job being done was still basically the same inspection job (Garvin, 1988).

Quality assurance is widely known as a prevention-based system which improves product quality by placing emphasis on product and process design. The approach stressed detection of error at source. Emphasis was on the entire production chain from design to market, and the contribution of all functional departments. Quality planning and improvement certainly begin when top management include prevention as opposed

to detection in organisational policy and objectives, and start to integrate the improvement efforts of various departments (Garvin, 1988; Zairi, 1991).

During World War II, the American military department began using statistical sampling methods and procedures, and imposing stringent standards on suppliers. Thus statistical quality control became widely known and used by other industries. During this period, the production system had become more sophisticated. The key elements considered important for quality control were quantifying the costs of quality, total quality control, reliability engineering, and zero defects. Advanced quality planning, improving design of the product, process and services, thus improving control over the process and involving and motivating people were taken on board. In this way, quality had a broader implication for management than during the quality control stage (Garvin, 1988).

World War II saw the launching of the first national standards in the quality field, to encourage industry to use control charts and acceptance sampling (Dahlgaard et al., 1998). By the 1960s, quality experts like Feigenbaum (1961) were expanding notions of quality control to consider its management implications in production. This view also expanded the quality expert's quality tools far beyond statistics to include things like quality systems, quality costs and quality management. In the 1990s, the ISO 9000 standards emerged and embodied these concepts of quality (Dahlgaard et al., 1998). The orientation here was that of building-in quality (Zairi, 1991). This stage took on board the first two initial stages to the evolution of TQM in its endeavour to produce products or services that meet customer needs.

2.3.3.1 Japanese Revolution

Just after the war, two notable American consultants, William Edwards Deming and Joseph Moses Juran, introduced statistical quality control to the Japanese during the period of the Japanese nation rebuilding. Deming since became a household name among companies in Japan, and the Deming Prize, a prestigious award in Japan, is given to individuals and organisations in recognition of his work. It took the Japanese manufacturers a long time however, about two decades, for their product quality to surpass that of their western counterparts. They did, eventually, manage to excel in improving quality, leading to the Japanese ever known economic miracle that took the world by storm in the 1970s (Garvin, 1988). Following the Japanese success, activities like using comprehensive quality manuals, quality auditing, process control charts and quality costing became widely recommended and used in industry outside Japan.

2.3.3.2 Deming Prize

A significant growth of the Japanese quality revolution was the Deming Prize. Deming made a major contribution by travelling to Japan to lecture and by so doing helped revitalise Japanese industry. The award stimulated the creation of quality awards in other regions of the world, commencing with the Malcolm Baldrige National Quality Award in America in 1988.

2.3.4 Total Quality Management

From the 1980s, there emerged a strong view of product and quality as a competitive weapon for organisations. Quality began to be seen as an important part of business strategy and its management, and was therefore viewed as a strategic management tool.

Through this shift in management thinking, Garvin (1988: 21) wrote that:

“For the first time, top managers at the level of president and chief executive officers, have expressed an interest in quality. They have linked it with profitability, defined it from the customer’s point of view, and required its inclusion in the strategic planning process. In the most radical departure of all, many have insisted that quality be viewed as aggressive competitive weapon”

According to Garvin (1988), this radical shift to the view of quality as an aggressive competitive weapon in the West arose from a variety of external forces which linked profit and market share losses to poor quality. Amongst the most important influences were increased foreign competition, mainly from the Japanese manufacturers, and an increased awareness about consumerism.

The 1980s were a period of remarkable change and great awareness of quality by consumers, industry, and governments in the industrialised world, and this in particular gave a loud awakening to the US government in the event of the emergence of Japan as an economic power and giant. It was then recognised that the Japanese achieved economic success because they used statistical methods they learnt from Deming and Juran. However, the term TQM at this stage had not been coined. The extensive research which was done then showed that there was a significant difference in the quality of Japanese and American products (Garvin, 1984, 1987, 1988; Juran, 1991). This discrepancy acted as an impetus to the Japanese to capture more of the predominantly western markets. TQM was seen as the most effective and stylish management concept in the economic crisis and capable of taking an organisation into the global market. This stage was described by Feigenbaum (1956: 93) as:

“...Customers – both industrial and consumer – have been increasing their quality requirements very sharply in recent years. This tendency is likely to be

greatly amplified by the intense competition that seems inevitable in the near future."

All the views expressed in the different stages converged and created a national movement that resulted in new concept that entered the managerial discourse and became popularly known as total quality management (TQM). TQM as it is understood in business today is the organisation's focused vision for managing quality or a collective, successful quality strategy. This vision can only be achieved by an organisation through long-term planning and the commitment of every member of the organisation, TQM involves the understanding and implementation of quality management principles and concepts in every aspect of the organisation's business activities. It demands that the principles of quality management must be applied at every level in the organisation hierarchy, at every stage, and in every department of the organisation. TQM also goes beyond the organisation by recognising the contributions made by suppliers and customers, and establishing formal and close working links and relations with them (Zairi, 1991). Dale et al .(1994) pointed out that in a TQM setting, departmental systems, procedures and requirements will pervade every person, activity and function of the organisation. This approach requires the broadening of outlook and skills and an increase in creative activities from those required at the quality assurance level. According to Oakland (1989), TQM is accompanied by the use of sophisticated quality management tools and techniques (the hard aspects of quality control) and increased emphasis on people and personal values (the soft aspects of TQM).

TQM involves the application of quality management principles to all aspects of the business, including suppliers and customers. This philosophy requires that the principles of quality management should be applied in every branch of the organisation. TQM is a

company-wide approach to quality, with improvements undertaken on a continuous basis by everyone in the organisation.

This development process of TQM can be credited to Feigenbaum (1956), Crosby (1979), Juran (1974) and Deming (1986), even though they never mentioned TQM in their initial writings. These quality experts have contributed significantly to the development and growth of the subject. The philosophy has spawned abundant literature aimed primarily at managers faced with implementation problems when the process is launched (Dale and Cooper, 1992; Flood, 1993). Table 2.1 summaries the various stages of TQM development.

Table 2-1: Characteristics of the Stages of TQM Development

| Stage | Characteristics |
|------------------------|-------------------------------------|
| Quality inspection | Salvage |
| | Sorting |
| | Corrective action |
| | Identify sources of non-conformance |
| Quality control (1924) | Quality manuals |
| | Performance data |
| | Self-inspection |
| | Product testing |
| | Quality planning |
| | Use of statistics |
| | Paper work control (control charts) |

| | |
|---------------------------------|---------------------------------------|
| Quality Assurance (1950) | Third party approach |
| | System audits |
| | Quality planning |
| | Quality manuals |
| | Quality costs |
| | Process control |
| | Failure mode and effective analysis |
| | Non-production operation |
| Total Quality Management (1980) | Focused vision |
| | Continuous improvements |
| | Internal customer performance measure |
| | prevention |
| | Company-wide application |
| | Interdepartmental barriers |
| | Management leadership |

Source: Dahlgaard et al. (1998: 10)

2.4 TQM PHILOSOPHY: QUALITY GURUS AND THEIR PHILOSOPHIES

One of the distinctive shifts in production strategy over recent years has been the move towards market-driven policies. Critical here is the new view being taken about quality control. This view has involved a move away from the idea of quality control using set-down quality levels. Emphasis is now towards improving quality of design for both products and processes. The response to the need for improved service levels and greater variety has also been a cause for concern in many manufacturing companies and is being given a higher profile in the statements of intent by organisations.

Recent competitive and manufacturing trends have prompted the need for a wider and more balanced range of targets for production that are customer-focused. Customer-orientated measures of output, including better service levels, product variety, and in particular better quality, are gaining a higher profile in formulating manufacturing strategies.

In recent years, a number of articles have been written which advocate a more wide-ranging concept of quality and methods for its improvement. The most notable authors on quality are the 'quality gurus'. The work of the quality gurus is relevant to the concept of TQM, hence it is incomplete to discuss TQM without making reference to them. Those popularly regarded as the quality gurus in TQM literature are William Edwards Deming, Joseph Juran, Philip Crosby, Armand Feigenbaum, and Genichi Taguchi (Oakland, 1989; Zairi, 1991; Flood, 1993; Dale, 1994; Ghobadian and Speller, 1994; Schultz, 1994; Boaden, 1997; Dahlgaard et al., 1998). The following sections discuss the work of these people.

2.4.1 William Edwards Deming

Deming's basic tenet of quality management was that quality is continuous improvement through reduced variation. The Deming philosophy of quality management focused on bringing about important improvements in product and service quality by reducing uncertainty and variability in the design and manufacturing processes (Deming, 1986; Evans and Lindsay, 1993; Saraph et al., 1989; Flood, 1993). Deming's early interests in quality management focused on statistical sampling techniques from the Bell Laboratory Company. This organisation made major strides in the development of control charts (Flood, 1993). In his work, Deming distinguished between 'special' and 'common'

causes of variability. He saw 'special' causes as assignable to individual machines or operators, and 'common' causes as those shared by operations and are mainly management's responsibility. He argued that in this way root causes to production problems could be identified, and action to remove variability could be taken by the appropriate personnel. Statistical Process Control (SPC) charts were the main technique put forward by Deming in diagnosing and tackling quality problems. The SPC charts and technique interpret measures of key parameters taken on line at regular intervals from manufacturing processes. Interpretation seeks to show variability, and hence help analysts to locate sources of potential and actual errors in processes SPC is widely used in industry today (Flood, 1993).

Deming went beyond statistical methods in his contribution towards quality management in organisations. He is widely associated with formulating a systematic, cyclic approach to problem solving called a plan, Do, Check, Action (PDCA) cycle. Some writers do, however, attribute the PDCA cycle to the credit of Shewhart. The cycle has four components: to plan, to do, to check, and to carry out action. The PDCA cycle emphasises the need for management to become actively involved in the organisation's quality initiatives. These efforts are all concentrated in the internal functions of organisations (Schultz, 1994).

Deming emphasised that quality is management's responsibility, and that management should embrace a philosophy that mistakes and defects are not acceptable. Deming saw quality as similar to 'delighting the customer'. Commonly known as the 'father of quality control' in Japan, he argued that employees should be able to report problems

without fear of blame, and that a series of tools, particularly statistical techniques, should be developed and used to control quality.

Deming's belief was that quality improved productivity and the competitive position of an organisation. He defined quality in terms of quality of design, quality of conformance and quality of service function. He further believed that quality management was everybody's responsibility, and that top management should take the lead in all stages of quality improvement. Deming advocated the use of statistical measurement in the control of quality; hence his approach to quality control is highly statistical. He then also advocated that all employees should be trained in statistical methods. Deming came up with a fourteen-point approach that summarises his philosophy for managing quality. These fourteen principles and approach to managing quality are summarised and presented in Deming. (1986), Zairi. (1991), Dale et al., (1994):

1. Create consistency of purpose towards improvement of product and service quality, with the aim to become competitive, stay in business and provide jobs.
2. Adopt new philosophy, we are in a new economic age. Western management must awaken to the challenge, learn their responsibilities and take on leadership for future change.
3. Cease dependence on inspection to achieve quality. Eliminate the need for inspection on a mass basis by building quality into the product in the first place.
4. End the practice of awarding business on the basis of price tag. Instead, minimise total cost, move towards a single supplier for a long lasting relationship of loyalty and trust.
5. Improve constantly and forever the system of production and service, to improve quality and productivity, and thus constantly decrease costs.
6. Institute training on the job.
7. Institute leadership: the aim of supervision should be to help people, machines and gadgets to do a better job. Supervision of management, as well as supervision of production workers, is in need of overhaul.
8. Drive out fear, so that everyone may work effectively for the company.
9. Break down barriers between products. People in research, design, sales and production must work as a team, to foresee problems of production and problems in use that may be encountered with the product or service.

10. Eliminate slogans, exhortations and targets for the workforce, which ask for zero defects and new levels of productivity. Such exhortations only create adversarial relationships, as the bulk of the causes of low quality and low productivity belong to the system and thus lie beyond the power of the workforce.

11a. Eliminate work standards (quotas) on the factory floor; substitute leadership instead.

11b. Eliminate management by objectives, by numbers and by numerical goals; substitute leadership instead.

12a. Remove barriers that rob the hourly worker of his or her right to pride of workmanship. The responsibility of supervisors must be changed from sheer numbers to quality.

12b. Remove barriers that rob people in management and in engineering of their right to pride of workmanship. This means, inter alia, abolishing the annual and merit rating and management by objectives.

13. Institute a rigorous programme of education and self-improvement.

14. Put everybody in the company to work to accomplish the transformation. The transformation is everybody's job.

In addition, Flood (1993:14) pointed out clearly that Deming identified the five deadly diseases to be tackled by organisations as:

1. A general lack of constancy and purpose.
2. Too much emphasis on short-term profit.
3. A lack of or unsuitable evaluation of performance, merit rating and annual review.
4. Management are too mobile.
5. Management decision-making too readily relies on quantitative data without paying due consideration to less tangible or hidden factors.

2.4.2 Joseph Moses Juran

Another pioneer of sound quality management practice who advocated a trilogy of quality planning, quality control, and quality improvement (Flood, 1993), Juran joined the Western Electric Company in the 1920s as it pioneered statistical methods for quality control. Like Deming, Juran taught quality principles to the Japanese in the 1950s, and was a driving and principal force in their quality reorganisation. Juran's basic tenet of quality management was: quality is fitness for use. Juran believed that about 80% of quality defects were caused by factors controllable by management (Flood, 1993). He

believed that annual incremental improvement, hands-on management, and training were fundamental in achieving quality excellence. Juran saw quality as fitness for use or purpose (Oakland, 1989; Zairi, 1991; Schultz, 1994).

Juran also echoed Deming's conclusion that American organisations faced a major crisis in quality due to huge costs of poor quality and the loss of sales to foreign competition, particularly the Japanese. Both men thought the solution to the problem depended on a new thinking about quality that included all levels of the management hierarchy. Top management in particular required training and experience in managing for quality (Juran, 1981; Evans and Lindsay, 1993; Flood, 1993).

2.4.2.1 Seven Deadly Diseases

Juran identified the major problems that contributed to poor quality in organisations as (Flood, 1993):

1. Lack of constancy of purpose.
2. Emphasising short-term profits and immediate dividends.
3. Evaluation of performance, merit rating or annual review.
4. Mobility of top management.
5. Running a company only on visible figures alone.
6. Excessive medical costs for employee health care, which increase the final cost of goods and services.
7. Excessive costs of warranty fuelled by lawyers on contingency fees.

Unlike Deming, Juran did not propose a major cultural shift in the organisation, but rather sought to improve quality by working within the system. He argued that employees at different levels of an organisation speak in their own language. Deming, on the other hand, believed statistics should be the common language for all employees (Flood, 1993; Evans and Lindsay, 1993).

Juran argued that top management speaks in the language of dollars, and workers used the language of things; middle management should be able to speak both languages, and be able to translate between dollars and things. Hence, Juran advocated the use of quality costs and their analysis to focus attention on quality problems. At the operational level, Juran focused on increasing conformance to specifications through elimination of defects, supported extensively by statistical tools for analysis. Above all, Juran recommended the use of the Pareto principle in determining which customers made up the business's key customers, with a view to finding out the vital few who contributed the majority of the business (Juran, 1974; Garvin, 1988; Flood, 1993; Schultz, 1994).

Juran also defined quality as product conformance that results in customer satisfaction, and freedom from product deficiencies, which avoids customer dissatisfaction, and he summed these attributes as 'fitness for use'. This definition was broken down into four categories: quality of design, quality of conformance, availability, and field service (Dale et al., 1994: 18). Quality of design concentrated on market research, product concept and design specifications, while quality of conformance included technology, manpower and management. Availability and logistical support and field service quality comprised promptness, competence and integrity (Juran, 1974, Garvin, 1988; Flood, 1993; Evans and Lindsay, 1993).

2.4.2.2 Juran's Quality Trilogy

According to Flood (1993), the lessons captured in Juran's trilogy entailed the processes of:

- Quality planning: meaning the process of preparing to meet quality goals.
- Quality control: meaning the process of meeting quality goals during operations through evaluation of performance and taking corrective action.

- Quality improvement: meaning the process of breaking through unprecedented levels of performance by reducing waste, improving delivery, enhancing employee satisfaction, ensuring greater customer satisfaction, and so on.

Like Deming, Juran had an influence in the development of the Japanese organisational performance after World War II. While Deming provided advice on statistical methods in the late 1940s onwards, Juran started his teachings on the role of senior people in quality management in the mid-1950s. He placed primary responsibility for quality management with quality professionals, whilst the role of the workforce was to participate in quality improvement teams and top management provided support (Dale et al., 1994). Like Crosby and Feigenbaum, Juran believed that organisations should reduce costs of quality. This approach is different from Deming's, because Deming is silent about the cost of quality. Juran came up with a ten-point approach to quality management (Flood, 1993).

2.4.2.3 The Juran Method

Juran's principles of managing quality were based on the following (Dale et al., 1994: 19):

1. Build awareness of the need and opportunity for improvement.
2. Set goals for improvement.
3. Organise to reach the goals.
4. Provide training.
5. Carry out projects to solve problems
6. Report progress.
7. Give recognition.
8. Communicate results.
9. Keep the score.
10. Maintain momentum by making annual improvement part of the regular system and process of the company.

2.4.3 Philip B. Crosby

Crosby began his work on quality as the corporate Vice-President for quality at International Telephone and Telegraph Company (IT&T) for about fourteen years after working up from line inspector. He believed that an organisation can learn, and that top management should adopt a quality management style, not because it is the right thing to do, but because it is good for the bottom line (Crosby, 1979; Key Note Publications, 1993). His basic tenet of quality management is quality is conformance to requirements. Crosby's quality programme is primarily behavioural, unlike those of Deming and Juran. He put emphasis on using management and organisational processes rather than statistical techniques to change corporate culture and attitudes.

Crosby believes that higher quality reduced costs and increased profit; hence he argued that it did not cost money to improve quality. He therefore advocated a goal of zero defect by coming up with the zero defect programme, and continuous improvement to achieve quality. Like Deming, Crosby came up with a quality programme with fourteen points (Crosby, 1979).

2.4.3.1 Crosby's Five Absolutes of Quality Management

According to Crosby, quality was defined as conformance to requirements, not as 'superiority' or 'elegance' of a product (Zairi, 1991; Flood, 1993). Crosby also argued that there was no such thing as a quality problem, because it was always cheaper to 'do it right the first time'. The only appropriate performance measurement for him was the cost of quality. The only performance standard is zero defects (Zairi, 1991; Flood, 1993). Crosby's philosophy is found in these five absolutes of quality management (Flood, 1993: 22):

1. Quality means conformance to the requirements, not as goodness nor elegance.
2. There is no such thing as a quality problem.
3. It is always cheaper to do things.
4. The only performance measurement is the cost of quality.
5. The only performance standard is zero defects.

2.4.3.2 Crosby's Fourteen-Step Quality Improvement Plan

Crosby, like Deming, is famous for his fourteen principles of continuous quality improvement, through which a total quality culture could be developed (Zairi, 1991: 24; Flood, 1993: 23). These principles are discussed in his book: *Quality is Free* (Crosby, 1979) as:

1. Management commitment: Help management recognise that it must be personally committed to participating in a quality improvement programme.
2. Quality improvement teams: Bring together representatives of each department to form a team.
3. Quality measurement: Determine the status of quality throughout the company.
4. Cost of quality evaluation: Establish the cost of quality to indicate where corrective action will be profitable for a company.
5. Quality awareness: Share with employees the measurements of what non-quality is costing through training and communication.
6. Corrective action: Bring problems to light for all to see, and resolve them on a regular basis
7. Establish an ad hoc committee for the zero defects programme: After a year has gone by, a zero defects day will affirm management's commitment, to the words 'Zero Defects', and the thought that everyone should do things right the first time .
8. Supervisor training: A formal orientation of a zero defects programme with all levels of management should be conducted prior to its implementation.
9. Zero defects day: zero defects as the performance standard of the company is established in one day to provide emphasis and long-lasting impression.
10. Goal setting: Regular meetings between supervisors and employees help people learn to think in terms of meeting goals and accomplishing specific tasks as a team.
11. Removal of task and error causes: Individuals are asked to describe any problems that keep them from performing error-free work. The appropriate functional group will develop an answer to those problems.
12. Recognition: Award programmes are established to recognise those who meet their goals or perform outstanding acts. Awards should not be financial; recognition is what is important.
13. Quality councils: Quality professionals and team chairpersons meet regularly to communicate and determine actions to upgrade and improve the quality improvement programme.

14. Do it over again: Set up a team of representatives and begin again to overcome the turnover and changing situations that occur in the year to 18 months to implement the typical quality improvement programme.

2.4.4 Armand V. Feigenbaum

Feigenbaum (1956, 1983) considered quality as a way of managing business organisations. He believed that improved quality could be achieved through the participation of the workforce who should have a clear understanding of what management is trying to achieve. Senior management's understanding and commitment to incorporating the quality improvement goals into their management practice were found essential for the success of a total quality system and for the company's success in the market place (Zairi, 1991).

Feigenbaum promoted the concept of company-wide quality management, whereby everyone in the organisation shares responsibility for quality and should seek to detect and correct errors and defects at source. Like Deming, Juran and Crosby, Feigenbaum was American, and it was the Japanese who first made use of the TQM concept at the level of the individual worker. Feigenbaum believed that quality costs should be classified so as to be easily managed, and he therefore classified them as appraisal, prevention and failure costs (Feigenbaum, 1956).

2.4.5 Japanese Quality Gurus

In addition to the approaches proposed by the American quality pioneers, Japanese quality management culture is also widely publicised. People like Genichi Taguchi and Kaoru Ishikawa contributed significantly to the evolution of TQM. It is now understood that even though culture might be different, it has not been found to be a barrier for the

implementation of some of these advanced management techniques, if only managers are sensitive to cultural differences and they make adaptations to the modern management approaches so that they suit their particular organisations (Kano, 1993).

2.4.5.1 Kaoru Ishikawa

Ishikawa was influenced by the work of Deming, Juran and Feigenbaum, and is credited with the conception, and introducing the practice, of quality circles (Flood, 1993). In his approach to managing quality, Ishikawa saw the need for all employees, not just professionals, to participate in quality improvement. He also came up with one of the most widely used techniques by quality circles, the fishbone or Ishikawa diagram (Oakland, 1989; Zairi, 1991; Schultz, 1994).

2.4.5.2 Genichi Taguchi

Taguchi is popularly known for the concept of a Loss Function (Flood, 1993). This approach to quality is also called quality engineering or the Taguchi Method. The aim was to design and develop high quality products in a way that reduced costs. The method aimed at identifying those factors contributing to product quality problems, and then determining those operations, methods and process settings that optimise quality.

Taguchi's method of quality control is quite technical. He brought quality management into design issues by offering a prototyping method. This method of quality management is placed in the hands of design experts, and consequently does not involve the whole organisation. This technique leads to the main statistical concept of the quadratic loss function.

Many quality experts argue that quality in its widest meaning is the dominant factor in the success of Japanese companies in world markets (Dale, 1994). The Japanese define quality as uniformity around (Dale, 1994:80), their goal is continuous improvement towards perfection, and they allocate responsibility for quality management among all employees. There are many more Japanese concepts associated with TQM like the insistence on compliance, correcting one's errors, orderliness and cleanliness, adherence to discipline, perfection, and defect analysis (Dale, 1994; Ho, 1999).

2.4.5.3 Shigeo

Shingo began his management career with an interest in scientific management. His contribution to quality control grew the realisation that statistical quality control detected errors too late in the manufacturing process. He thought what was needed was to detect errors at source and correct them without delay. He then proposed his own method of ensuring zero defects called the Poka-Yoke (Flood, 1993). Shingo saw the ideal way of handling errors as dealing with them as they occurred. This procedure is done rigorously and thoroughly to ensure that all potential errors are located. All points of potential errors are monitored mechanically. When errors are found, it may at times mean halting the process in order to correct them. Over time, the production process is cleaned of all recurring errors (Zairi, 1991; Flood, 1993).

2.5 'DISCIPLES' OF TOTAL QUALITY MANAGEMENT

In recent years, there has emerged a new generation of quality experts made up of researchers and consultants who have expanded the literature on quality management and are spreading the teachings of the quality gurus. Most of these quality experts have come up with quality models that mainly guide the TQM implementation process

decisions in organisations. This section discusses the contribution made by John Oakland and Bill Conway in expanding knowledge on TQM (Zairi, 1991).

2.5.1 John S Oakland

Oakland (1989) proposed a model of TQM subsequently adopted by the British Department of Trade and Industry and used by other researchers across the globe. Oakland's (1989) model is made up of five separate parts: management commitment, customer-supplier chain, quality systems, statistical process control tools, and teamwork. Customer-supplier relationship formed the core of this model. Following Oakland's model, similar models have been developed by several other authors on TQM. Oakland (1989) made a comparison of the quality gurus and their philosophies, (see Table 2.2).

2.5.2 Bill Conway

Conway is another disciple of the quality gurus. According to Zairi (1991: 26), Conway considered quality management as the management of various stages of development, manufacturing, purchasing and distribution processes, with a consideration of economic viability and a desire to improve on various activities to reduce material waste and time wastage.

Conway also backed the other quality gurus by arguing that quality problems were often caused by management's lack of conviction and commitment. He believed that improvements in quality could be achieved from management adopting a way of thinking and extensive utilisation of statistical tools (Zairi, 1991). Conway advocated the use of this six-step guide in managing quality (Zairi, 1991):

1. Human relations skills: Management responsibility to create a harmonious climate built on trust, mutual respect and common goals.
2. Statistical surveys: Use the power of surveys to identify areas for improvement and to be better informed on various developments.
3. Simple statistical techniques: Use simple charts, diagrams to highlight problems, analyse them, and propose various solutions.
4. Statistical process control: Minimise variations within various processes using control charts.
5. Imagineering: Problem-solving techniques using visualisation, with the view of identifying ways of waste elimination.
6. Industrial engineering: The use of various techniques to re-design work, methods, and plant layout for the purpose of achieving great improvements.

Essentially, three people, Deming, Juran, and Crosby, are regarded as management gurus of the quality revolution, as they are cited by researchers time and again (Evans and Lindsay, 1993). Their insight on measuring, managing and improving quality has had a profound impact on countless managers and organisations around the world. However, Feigenbaum, Ishikawa, Garvin, Leonard and Sasser are also regarded as quality gurus, given their huge contribution to the quality literature (Saraph et al., 1989). The list of quality experts today cannot be exhaustive, as the literature is wide.

Table 2.2 summarises the work of the quality gurus and their beliefs.

Table 2-2: Quality Guru's Compared

| Attribute | Crosby | Conway | Deming | Juran |
|--|-----------------------------|---|---|---------------------------------------|
| Definition of quality | Conformance to requirements | No definition, incorporated in definition of quality management | Predictable degree of uniformity and dependability at low cost and suited to the market | Fitness for use |
| Degree of senior management responsibility | Responsible for quality | Bottleneck is located at top of bottle | Responsible for 94% of quality problems | Less than 20% of quality problems are |

| | | | | |
|--|--|---|---|---|
| | | | | due to workers |
| Performance standard/motivation | Zero defects | Remove waste, measure on monthly basis | Quality has many 'scales'; use statistics to measure performance in all areas; critical of zero defects | Avoid campaigns to 'do perfect work' |
| General approach | Prevention not inspection | 'Right' or 'new way' to manage, Deming 'disciple' 'imagineering' | Reduce variability by continuous improvement; cease mass inspection | General management approach to quality, especially 'human' elements |
| Structure | 14 steps to quality improvement | 6 tools for quality improvement | 14 points for quality management | 10 steps to quality improvement |
| Statistical process control (SPC) | Rejects statistically acceptable levels of quality | Advocates use of simple statistical methods to identify problems and point to solutions | Statistical methods of quality control must be used | Recommends SPC but warns it can lead to 'tool-driven' approach |
| Improvement basis | Process', not programme; improvement goals | Constant in all areas; statistical and industrial engineering basis | Continuous to reduce variation; eliminate goals without methods | Project-by-project team approach; set goals |
| Teamwork | Quality improvement teams; quality councils | Human relations | Employee participation in decision making; break down barriers between department | Team and quality circle approach |
| Cost of quality | Cost of non-conformance; quality is free | Measure waste in all areas, including inventory | No optimum, continuous improvement | Quality not free, there is an optimum |

| | | | | |
|--------------------------------------|---|---|--|---|
| Purchasing and goods received | State requirements; supplier is extension of business; most faults due to purchasers themselves | Call for improvement includes suppliers; use statistics | Inspection too late; allows defects to enter system through AQLs; statistical evidence and control charts required | Problems complex; carry out formal surveys |
| Vendor rating | Yes and buyers; quality audits useless | Statistical surveys | No, critical of most systems | Yes, but help supplier improve |
| Single sourcing of supply | | | Yes | No, can neglect to sharpen competitive edge |

Source: Oakland (1989 pp:292-29)

2.6 OTHER QUALITY IMPROVEMENT PROGRAMMES

ASSOCIATED WITH TQM

TQM as a subject is full of acronyms. It is today associated with many other management concepts that developed after it. Most of these concepts describe issues of best management practice, which go hand-in-hand with TQM, and have thus gained recognition as aspects of TQM. Such programmes include benchmarking, ISO 9000 series standards, business process re-engineering (BPR), business process management, Kaizen, zero defects, quality circles, statistical process control, quality function deployment, and the self-assessment models like the Malcolm Baldrige National Quality Award (MBNQA) and the European Quality Award (EQA). These business excellence models, and their related activities, help organisations identify areas of improvement. The context in which businesses operate is changing fast, hence the reason why new management concepts are being developed as a strategy to catch up with the

development in the ever-changing business environment. In this section, a description of benchmarking, ISO 9000, business process re-engineering, and quality circles is given to reflect these developments. The other concepts have been left out as they are regularly mentioned in the literature or discussed in the other chapters of this study.

2.6.1 Benchmarking

According to Dalgaard et al. (1998), benchmarking is known as a management concept that is based on Sun Tzu, whose philosophy of a good war was: 'to know yourself and your enemy well'. Sun Tzu was a great philosopher. His art of war was based on the strategy that has unanimously been embraced by many organisations today, as it is based on the fact that you should know your competitors in order to win business. Companies use this strategy in fighting their competitors and striving to become the best in class or the best of the best (Dalgaard et al., 1998). However, there are some managers who dislike the thinking behind benchmarking, as they see it as industrial espionage.

2.6.1.1 Definition of Benchmarking

Benchmarking, like TQM, has numerous definitions, and so far there is no one generally agreed or accepted definition in the TQM literature. One of the definitions was put forward by an expert in quality management, Mr. David Kearns, a former Managing Director of Rank Xerox (Dalgaard et al., 1998):

"Benchmarking is the continuous process of measuring products, services, and practices against the toughest competitors or those companies recognised as the industry leaders."

2.6.1.2 Types of Benchmarking

Dalhgaard et al. (1998) discussed the three types of benchmarking practices as:

1. Internal benchmarking: this occurs inside the organisation. It can be carried out between departments, divisions or sister companies. It can be considered as the starting point of benchmarking in an organisation, as it is easier to perform any benchmarks internally.
2. Competitor benchmarking: this occurs between an organisation against its present or potential competitors supplying the same range of products.
3. Generic/Functional benchmarking: this takes place between an organisation and a potential comparative partner in any organisation which has obtained a reputation for being excellent within a particular area or aspect benchmarked. In this case, the organisation keeps an eye on best practice, and does not restrict itself to only its own type of business. For example, it has been found that the process of dispatching orders by mail in an organisation can be benchmarked with similar processes in a mail order house or a postal services organisation like the Royal Mail. In many instances, organisations benchmark quality, productivity and time.

2.6.2 ISO 9000 Series: Philosophy and Model

The important need for reliable products in World War II defence procurement focused on tight specifications and consistency in products (Flood, 1993). Quality was essential if the operational researchers were to recognise the efficiency of their models converted into military victory. Responsibility was then vested with suppliers, because there was no time to cross-check quality in the battlefield. It is not surprising that in the post-war period, the drive for quality has been governed by organisations through systems of standards. These system standards include BS5750, ISO 9000 and EN29000, which have been harmonised and are considered equivalent (Flood, 1993). These are general management standards that apply to a wide range of organisations. Their aim is to help organisations achieve quality for their customers all the time (Flood, 1993).

2.6.2.1 ISO 9000 Series

Increased global competition has led to increasingly more stringent customer expectations with regard to quality. To be competitive and to maintain good economic performance, organisations and suppliers need to employ increasingly effective and efficient systems. Large organisations whose demands for quality are increasing are continuously imposing stringent quality standards on small and medium enterprises (SMEs) that supply them with materials and component products. Adherence to ISO standards is required by organisations for certification. ISO certification is a way of knowing that you are buying the quality that you want or you are paying for. The standards apply to the extent of activity the organisation is engaged in. ISO 9000 is the culmination of all other ISO 9000 elements, ISO 9001 to ISO 9004. ISO 9000 is being used by many organisations as a stepping-stone to TQM. Of growing concern and importance to managers who want to implement TQM, however, is to win accreditation, to be awarded the seal of ISO 9000. A quality management system based on ISO 9000 series is considered the seal of approval by many importing and exporting organisations today (Flood, 1993).

2.6.2.2 ISO as an Institution

The International Standards Organisation (ISO) is a world-wide institution of national standards bodies. It was formed to provide common manufacturing standards, and in 1987 was expanded into quality assurance standards. The origins of ISO can be traced back to 1945, when NATO published the military specifications for meeting its quality requirements and inspection system requirements. Other quality systems that influenced the ISO 9000 series are the American and the British defence standards.

ISO has its headquarters in Geneva, Switzerland. ISO has developed a series of standards that relate to quality systems known as the ISO 9000 series or family standards. They are not specific to an industry. The selection and use of each standard is itself a formal standard. These standards facilitate international trade, and that is why they are so important in business today (Flood, 1993).

ISO 9000 is a set of standards designed to ensure that the company has an effective quality control system in place, and this system is an excellent vehicle for ensuring that the entire organisation is quality conscious. By quality is meant quality as defined by the customer, and it is up to the company to produce what the customer needs. ISO 9000 is a quality standard related to processes used in the creation of goods and services, and thus cannot be associated with a particular product or service. ISO does not impose its standards on an organisation, the organisation sets the standards it wants to obtain. ISO 9000 just confirms that the organisation follows the quality-related procedures that it has developed, and these standards are written in language that all employees and the quality auditors understand. Regular external or independent auditors verify that the standards are being followed; ISO 9000 can therefore be seen as a generic standard, which any company can use to improve and maintain the quality of its work processes. By achieving such success, the significant objective of customer satisfaction can be met (Flood, 1993).

2.6.2.3 ISO 9000 Standards

According to Flood (1993), the ISO 9000 series define the quality system applicable to the design, development, installation and servicing, final inspection, and testing of products. Since not all efforts encompass all aspects of the business or quality model,

three standards were developed covering different combinations of these activities, and a set of guidelines was developed in addition to assist in choosing the correct standard for application in each case. ISO 9000 provides an introduction to standards and guidelines for selection and use of each ISO standard.

ISO 9001: This is the quality system or model quality assurance in design, development, production, installation and servicing. It is the most comprehensive of the standards. It requires the development of a quality manual and documented procedures, which define the organisation and its operation. It is the responsibility of the organisation to create and keep these documents so that they are relevant and appropriate to the organisation's specific business operation. The system contains numerous sections that detail specific requirements for a component of the quality system. Organisations engaged in the design and development activities are more likely to choose ISO 9001.

ISO 9002: This is the quality assurance model in production, installation and servicing. ISO 9002 is similar to ISO 9001, because it includes production but excludes requirements for design control. It requires the development of a quality manual and documented procedures. It is the responsibility of the organisation to develop procedures that are tailored to suit its specific operations. Organisations that are engaged in the actual manufacturing activity would use ISO 9002.

ISO 9003: This is the quality assurance model in final inspection and test. The system does not include design or production. ISO 9003 contains about half of the requirements from ISO 9001, and modifies some of the requirements to suit the inspection and final test application. Relevant quality manuals and documented procedures have to be

developed which define the organisation and the operation of the quality system. Organisations involved in final stages of production, as in inspection and testing, would choose to abide by ISO 9003.

ISO 9004: It is the general guidelines for quality management and quality systems. It outlines technical, administrative and human factors affecting the quality of the products and services.

2.6.2.4 ISO 9000: Strengths and Weaknesses

ISO 9000 is not TQM, but it has its strengths in managing quality. It has been argued that ISO 9000 offers an organised method of analysing an organisation for quality. Receiving a stamp of standard approval may lead to a positive company image, leading to greater credibility and acceptability. In the long run, the system should be able to benefit the company by cutting costs.

Opportunities do arise where an organisation becomes competitive with respect to quality. Strategic marketing opportunities can be achieved through the prestige of an internationally recognised standard. Employee morale may improve with employees being proud to be part of a well renowned company. Thorough and good documentation is achieved which promotes knowledge transfer and improves chances of tracing causes of errors, and this also saves costs (Flood, 1993).

On the other hand, researchers have identified weaknesses in the way the IOS 9000 standards work. Many organisations find that the process of winning accreditation is time-consuming. The process is also resource-intensive, hence is very costly, and not all

organisations can afford it. Responsiveness and flexibility to customer needs can be reduced. In some organisations, cultural resistance has affected the implementation process. It is also very difficult to be sure that organisations consistently maintain their quality standards.

Elaborate documentation encourages undesirable bureaucracy. The process of accreditation can drain the vital organisation resources which would have been better used elsewhere. Accredited organisations may not always maintain standards, leading to scepticism. This can work against the strengths and opportunities available to the organisation, leading to a waste of resources (Flood, 1993). These standards have recently been expanded through the introduction of environmental standards, the ISO 14000 series.

2.6.2.5 The New Standards (2005)

It is intended that the present family of more than 20 standards will be consolidated into a more 'user friendly'. The three core quality management standards from the new family will be:

- ISO 9000:2000 -Fundamentals and vocabulary
- ISO 9001:2000 -Requirements
- ISO 9004:2000 -Guidance for performance improvement.

The new Standards offer a process-oriented structure and a more logical sequence of the contents. The Standards do, however, introduce many new requirements that have been heavily debated amongst Quality experts. Opinions on the new system range from 'current ISO9000 procedure's and policies will have to be completely re-written' to 'existing ISO9000 systems should be capable of integrating the new requirements' It is,

however, generally considered that it will be more difficult and lengthy to achieve certification, and that the re-certification to ISO9000:2000 from

It is perhaps the concept of 'continuous improvement' that is most relevant to ISO9000:2000. Customers and users of ISO9000 certified companies have benefited by receiving products and/or services that have Conformed to their requirements and been consistent. The original ISO9000 system did not address the People who worked in the organisation, The Owners and investors and society in general. ISO9000:2000 claims to be a true 'Quality System' that can deliver many benefits to an organisation and society in general. Some of the benefits claimed by ISO9000:2000 are that ; people within the organisation will benefit from better working conditions, increased job satisfaction, improved morale and stability of employment. Owners and investors will benefit from an increased return on investment larger market share, increased profits and improved operational results and Society will benefit from the fulfilment of legal and regulatory requirements and reduced environmental impacts.

2.6.3 Business Process Re-engineering (BPR)

Business process re-engineering was started in the 1970s from research undertaken at the Massachusetts Institute of Technology (Hamer, 1990). However, some researchers have acknowledged that it is not new concept, as its origin can be traced back to the 1930s during the streamlining of retail ordering and stock control in Britain. Hammer (1990) defined BPR as:

"...A fundamental rethink and radical redesign of business processes to achieve dramatic improvements in critical contemporary measures of performance, such as cost, quality and speed."

BPR is known as a holistic modern management approach that seeks to bring radical changes to certain organisational processes by starting afresh on a clean slate. The

approach is process-based, information technology-based, and results-focused. It also results in change in the organisational structure and a change in culture. However, having said this, there are certain contradictions that have been considered in the literature about BPR. These criticisms relate to the fact that there is nothing radical about BPR because conceptual redesign is possible, but implementation is incremental. It is difficult to start on a clean sheet, forgetting the past is hard, as old habits die hard. What do we do to manage the organisation and its people if we completely forget about the past? BPR can happen without IT. Even though it stresses the hard aspects, the soft aspects cannot be neglected. It is seen by users as being too prescriptive. In real-life situations, there is always something new to introduce. BPR is a continuous process that uses up a lot of resources and thus can be very costly. However, like TQM, BPR has its advantages. Business process re-engineering is vital for ensuring that productivity does not get neglected at the expense of innovation. It is compatible with quality management and lean management.

2.6.3.1 TQM and BPR

Continuous improvement alone is in the long run not enough to meet customer expectations. This calls for a radical change in the ways in which work is done in the organisation, and BPR helps organisations to make this change. Effectively, BPR is complementary to TQM and not an alternative to it (MacDonald, 1995).

2.6.3.2 Principles of BPR

BPR is a strategic decision to redesign the way a business. Its key principles are summarised by MacDonald (1995: 24) as:

- Customer-driven
- Strategic in concept

- Concentrates on key business processes
- Cross-functional
- Requires senior executive involvement
- Needs dedicated time of the 'best' people
- Will take time, it not a quick fix
- Requires communication of clear vision
- Should target dramatic stretch goals

2.6.3.3 Benefits of BPR

When BPR is effective, its benefits are many and significant, and would include (MacDonald, 1995):

- Reduction in administrative costs.
- Reduction in staff turnover.
- Reduction in claims' settlement ratios.
- Increased productivity.
- Reduction in product development time.
- Reduction in order cycle time.
- Reduction in customer call- backs.
- Reduction in claims' reduction time.

2.6.4 Quality Circles

Kaoru Ishikawa first introduced quality circles in Japan (1993). Since then, the quality circle movement has spread throughout the industrialised countries, and at a slower pace, it is spreading to the developing world.

A quality circle is a voluntary group of six to ten employees who meet on a regular basis for about one hour a week to solve job-related problems. Each group has a leader. The overall programme within a company is co-ordinated by a facilitator. The quality circle approach offers no direct financial incentives to circle members. However, there are companies that have experimented with associating financial rewards to circle members.

Quality circles normally require extensive training in quality matters and problem-solving techniques such as brainstorming, statistical process control, Pareto analysis, fish bone diagrams, and others. At the end of a project, circle members conduct a formal presentation of recommendations to management for decision-making.

A quality circle project comprises brainstorming a list of problems. The group then selects a project from the list. The problem on a fish bone diagram to illustrate its cause and effects. Information is collected to help solve the problem. The group develops a checklist of solutions to the problem, and presents its recommendations to management during a formal meeting. Like TQM, the quality circle movement has had its successes and problems.

2.6.5 Kaizen

Kaizen as a concept refers to the activity of fine tuning-processes for continuous improvement. It involves the establishment of management-initiated corrective action teams. The teams are usually focused on continuous improvement of operations and processes, concentrating on identifying the causes of errors or problems and forwarding solutions. The team members are selected by managers, and are normally seconded to a project for period of one to four months. The projects are extremely intensive and involve high levels of commitment from members to ensure success (Imai, 1986).

2.7 SUMMARY

This chapter has discussed the importance of the concept of quality in the context of total quality management. The historical evolution of quality was also discussed. The present form of TQM is the result of the work of many people. The quality gurus

contributed significantly to the initial philosophy and principles of TQM. Therefore the contributions of people like Deming, Juran, Crosby, Feigenbaum, Ishikawa, and others to the debate on the importance of quality were also highlighted. The chapter also showed that the concept of TQM has gained popularity and has broadened, to the extent that it is now associated with other quality management concepts like benchmarking, ISO 9000 series standards, SPR, quality circles, Kaizen and new quality standard of ISO (2005). The next chapter explores the models of sustainable TQM implementation. The aim is to build a strong background to find out the critical success factors for service quality in Banking Sector.

Chapter 3

TQM In Service Organisations: CSFs and Models

A Review of the Literature II

3.1 INTRODUCTION

Quality practitioners and academics have devoted considerable effort to identifying factors that influence the level of service quality provided by organisations. These may be grouped into two different dimensions of investigation. Firstly, those which have focused on TQM (e.g.) Leonard and Sasser, 1982; Ishikawa, 1985; Saraph et al., 1989; Porter and Parker, 1993; Motwani et al., 1994; Mann and Kehoe, 1995; Powell, 1995; Ahire et al., 1996; Quazi et al., 1998; Bocij, et al., 1999. Secondly, those which have examined the service aspect of TQM or what is called TQS (see, for example, Sasser, 1976; Lovelock, 1981; Neslin, 1983; Folger and Greenberg, 1985; Chapman and Jackson, 1987; Gummesson, 1987; Bowen and Schneider, 1988; Hauser and Claussing, 1988; Zemke and Schaaf, 1989; Jeanes, 1990; Sasser and Fulmer, 1990; Zemke and Schaaf, 1990; Zeithaml et al., 1990; Norman, 1991; Schneider and Bowen, 1992, 1993, 1995; Pegels, 1991; Brown et al., 1994; MacDonald, 1995; Martinez-Lorent et al., 1998; Berkley and Gupta, 1994, 1995; Stebbing, 1993; Edvardson et al, 1994; Rust and Oliver, 1994; Schneider et al, 1994; Spenley, 1994; Flynn et al, 1995; Milakovich, 1995; Schneider and Bowen, 1995; Smith, 1995; Snape et al, 1995; Schneider et al, 1996; Wilkinson et al, 1995; Oakland and Oakland, 1997; Thiagarajan and Zairi, 1997; Shemwell et al., 1998; Lillian et al, 2000; Oakland, 2000; Lau and Idris, 2001; Behara and Genderson, 2001; Douglas and Judge, 2001; Thiagarajan et al., 2001; Wilkinson and Dale, 2001; Kanji and Moura, 2001; Harvey and Brown, 2001; Brah et al., 2001; Redman and Wilkinson, 2001; [Ahmed and Schroeder, 2002; Agus, 2002; Zairi, 2002;

Asare and Longbottom, 2002; Houston and McKean, 2002; Yahya and Goh, 2002; Leonard and McAdam, 2002; Baidoun, 2003; Hasan and Kerr, 2003; Veh, 2003; Buchanan and Huczynski, 2004; Johnson, 2004; Escrig-Tena, 2004; Williams, et al., 2004; McAdam, and Henderson, 2004).

The following sections explain the results of reviewing the literature related to the two groups. The chapter examines the business excellence models commonly used by organisations in self-assessment. Consideration is therefore given to the Deming Prize (1951), Malcolm Baldrige National Quality Awards (1987), and the European Quality Award (1991). In addition, two other national awards, namely the Australian Quality (1988) and Dubai Quality Award (1994), are discussed. These five excellence models were chosen because they cover major continents of the globe: America, Asia, Australia and Europe. Other countries like Canada, Mexico and Brazil also embraced the self-assessment approach to TQM, and have launched similar quality schemes. The chapter continues with a general overview of research done on factors that affect TQM success in the service sector. Previous studies related to each factor are concisely summarised and provided in the chapter. Like previous chapters, the purpose is twofold: first, to identify the key success variables that may influence the success of TQM in the banking sector, and second, to find studies in these contexts to guide the research design.

3.2 QUALITY MOVEMENT IN UNITED ARAB EMIRATES

United Arab Emirates (UAE), located in the Middle East, with a population of approx, 3 million, comprises the 7 Emirates of Abu Dhabi, Dubai, Sharjah, Ajman, Ras Al Khaimah, Fujairah, and Ummi Al Quwain. Abu Dhabi is the capital. UAE is truly a

cosmopolitan country. It is not uncommon to find people of over 30 plus nationalities working together as a team in a company of 3000 employees.

Though UAE appears as a 'tiny dot' on the world map, it has been at the forefront of adopting latest management techniques, including Quality Management. As early as 1994, under the dynamic and visionary leadership of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Crown Prince of Dubai, it took the first strategic initiative of instituting the Dubai Quality Award (DQA) for the private sector. DQA was developed based on the Malcolm Baldrige National Quality Award of US. Around the same time a small group of managers, took the initiative of 'founding' the Dubai Quality Group (DQG), with the 'blessings' of the Dubai Department of Economic Development. Today, DQG has a membership of over 300 corporate houses, and has played a significant role in actively promoting Quality, not only in Dubai, but also all over the Gulf. This set the quality movement in motion in UAE. Many companies in all sectors of the economy - trading, construction, banking, hospitality, manufacturing, ports, etc., from the public or the private sector, small or large enterprises, started using Quality as one of the strategies to enhance their performance and competitiveness. Typically, companies started with ISO: 9000, and as a result, many Quality management consultants from the UK, India, Europe, etc. started visiting UAE to provide consulting and training support. This led to many Quality System Certification bodies like Lloyds, BvQI, DNV, RWTUV, etc., and consultants, setting up offices in UAE. It is understood that more than 1000 certificates to ISO 9001/ 2000 have been issued so far in UAE.

With the foundation for Quality firmly laid and companies realising its benefits, the 'movement' got a major shot in the arm with Dubai, the 'City of Gold', setting up the

Dubai Government Excellence Program for Government Departments and companies like Police, Municipality, Customs, Port, etc.

Not far behind, in 1999, the Abu Dhabi Chamber of Commerce and Industry (ADCCI) instituted the Sheikh Khalifa Excellence Award (SKEA) for different sectors like Tourism, Manufacturing, Services, Finance, and Construction. SKEA is modelled on the European Quality Award. The DQA business excellence model has also now been changed from Baldrige to a European Quality Award model. ADCCI is also in the process of setting up the Abu Dhabi Quality Forum. Quality awards provided a good opportunity to practising managers to be trained as Assessors and Senior Assessors for DQA and SKEA. This has significantly enhanced the awareness of business excellence models in the community, and Assessors can use the learning in their own companies. Some of the American Society for Quality (ASQ) members have actively contributed to the DQA/ SKEA assessment process.

In addition to the above initiatives, ASQ members in UAE, about 35 plus, meet on a regular basis to share best practices, learn from each other's experiences, and network. Some of the visiting ASQ members from other countries like Prof. Manu K. Vora, Vice President, ASQ, USA; Mr. Janak Mehta, Managing Director TQMI, India; and Dr. Hans Bajaria, Fellow ASQ, and President, Multiface Inc., USA, have also addressed ASQ members. Under the auspices of Abu Dhabi Chamber of Commerce and Industry, the 1st Abu Dhabi Quality Conference and Exhibition was organised in 1999. ASWQ has been a major supporter of these conferences, with sharing their expertise.

3.3 ANALYSIS OF TQM CRITICAL SUCCESS FACTORS

TQM has grown to become an established field of research. The need for an improved understanding of the TQM CSFs is now becoming more and more important. Consequently, this part of the research deals with a key question for Quality researchers and practitioners, as they have to understand the rules of the game in this important field. The question now is not whether to deploy quality programmes companies have no choice if they want to stay competitive - but how to deploy them. This part of the study focuses on determining these factors based on the literature review.

3.3.1 CRITICAL SUCCESS FACTORS (CSFs) DEFINITIONS

For any business, there are limited numbers of area in which satisfactory results ensure successful competitive performance, and those areas are called CSFs. Dugman (1990), Guynes and Vanecek (1996) and Butler and Fitzgerald (1999) defined critical success factors as the areas where things must go right for the business to flourish. Oakland (1995:325) defined them as what the organisation must accomplish to achieve the mission by examination and categorisation of the impacts. He adds that they are the minimum key factors or sub-goals that the organisation must have or needs, and which together will achieve the mission.

Kanji and Tambi (1999:137) stated that critical success factors are the few things that must go well to ensure success for a manager and/or organisation. They represent those managerial areas that must be given special and continual attention to cause high performance. Many other authors have also emphasised and validated CSFs as important factors for successful implementation of TQM. which include Oakland, 2000; Wilkinson and Dale, 2001; Lau and Idris, 2001; Behara and Genderson, 2001; Sinclair

and Zairi, 2001; Douglas and Judge, 2001; Thiagarajan et al., 2001; Kanji and Moura, 2001; Leonard and McAdam, 2002; Zairi, 2002; Agus, 2002; Wong and Sohal, 2002; Veh, 2003; Baidoun, 2003; Buchanan and Huczynski, 2004;

There are several methods and techniques for determining CSFs. Leidecker and Bruno (1984) proposed several techniques for identifying them. They include environment scanning, industry structure analysis, opinions of experts in the industry, analysis of competitors, analysis of the industry's dominant firm, a specific assessment of the company, intuitive judgement or 'feel' of insiders, and profit impact of market strategy (PIMS) data.

3.3.2 TQM CRITICAL SUCCESS FACTORS

This part of the chapter is to pay more attention at the CSFs that are applicable in the service sector in general and the banking sector in particular. The author will reorganise these factors in a systematic way to reflect the importance of each.

3.3.2.1 Strategic Factors

The first group of factors are those that might be classified as strategic because they require a significant change in the manner in which business is being done (Bocij et al., 1999). Kelly et al., (1999) suggest that the strategic level is the premeditated plan for transforming the organisation, enabling it to operate in the new-style environment. However, many researchers and practitioners have increasingly considered factors related to strategic level as a vital component of successful Service Quality (Leonard and Sasser, 1982; Porter and Parker, 1993; Mann and Kehoe, 1995; Motwani et al., 1994; Powell, 1995; Ahire et al., 1996; Quazi et al, 1998). Top management strategic support, strategy, benchmarking, continuous improvement, Customer focus, and role of

the quality department are the most important factors related to the strategic level for successful Service Quality. Hindelang ,(2005),Strategic Development can validate tangible and quantifiable results. It helps identify and measure critical success factors ensuring the reaching of strategic objectives. It is essential that a broad team of company participants identify the critical measurements for business success. These measurements will include customer focused, supplier-focused, internal operations focused, employee performance focused and financial focused variables. Only by strategic review and management of these measurements can the company assure results.

3.3.2.1.1 Top Management's Support

Top management support is a prerequisite for effective and successful TQM implementation. Although different researchers advance various theories on the organisational requirements for effective implementation of TQM, all would agree that the impetus for any quality improvement effort should come from the top.

Top management must be openly and actively committed to improving quality as a strategic necessity. Quality consideration must figure centrally in their strategic planning, in the trade-offs they make among demands for resources, in the risks they are willing to take, in the kinds of corporate performance they find acceptable (off-spec product is off-spec product, whether it is beginning or the end of the month), and in their evaluation and reward systems for subordinates. In sum, top management should treat quality as an integral part of all corporate review processes (Leonard and Sasser, 1982).

Clear leadership and vision are required and senior management must demonstrate a commitment to TQM and be actively involved in strategic issue and supporting

continuous improvement. The result show that the presence of certain management behaviours, such as understanding, commitment, leadership and continuing support for the TQM process, is the single most critical success factor. Where TQM is viewed by management as an optional extra', it is likely to fail; TQM must be seen as a positive business strategy. A consequence of the adoption of TQM as a positive business strategy is the need to make time for TQM activity, and a substantial up-front investment in time must be made before a return is seen. The implementation process cannot proceed until management demonstrates they have adopted the behaviours necessary to create the environment and culture for TQM (Porter and Parker, 1993).

According to the study findings of Motwani et al.,(1994), Rice, (1994). successful quality performance requires that top management be dedicated to that goal. In other words, those in top management must provide the initiative for successful quality assurance practices, and must support the quality programme in the organisation if such a programme is to be successful. Second, the quality department personnel are responsible for the quality performance rather than the top management. Third, cost and schedule objectives take precedence over quality objectives at the top management level. Finally, quality issues are not reviewed on a regular basis at top management meetings (Motwani et al., 1994).

Another study by Mann and Kehoe (1995) reveals the same; according to them, for successful TQM implementation all the members of top management should support the proposed approach. According to Lakhe and Mohanty (1995), top management commitment response is the extent to which the top management is satisfied with the progress of the quality programme and has increased its involvement in it.

Top management's attitude towards change. It is essential that, prior to TQM implementation, all members of the board support the proposed approach. If the managing director or board do not demonstrate their total commitment and total involvement in TQM, then it is at risk. The top managers/directors need to be 'champions of quality'. *Middle management's attitude towards change.* Middle management can be difficult to convert to TQM. Many managers may have been with the organisation for a number of years and are used to a certain style of management. It may be difficult for them to give greater responsibilities to employees and change to a more participative style of management. In addition, they themselves may be controlled more by the incoming TQM structure. To gain the middle management's commitment and confidence in TQM, an education and training programme must address their needs and support structure needs to be developed to assist them through the change period. Without the total commitment of middle management, team building and employee involvement will be affected. *Junior management's attitude towards change.* Junior managers can have the same problems as middle managers in accepting change. Those used to fire-fighting and delegating to employees may have difficulty in changing to a more participative style of management. As they are often the direct link between employees and management, it is important that they fully understand TQM. As the management style of junior managers is typically not as developed as middle managers, they are likely to accept TQM more quickly. *Leadership style TQM* aims to encourage a participative style of management throughout the organisation. An organisation with this style of management is likely to be more enthusiastic towards TQM and will have less need to change its system and communication structure. Organisations with an authoritative style of management, whereby employees/managers are promoted who are

aggressive, career-minded, and not team workers, are likely to find it more difficult. To achieve a participative management style, it may, at first, be necessary to use an authoritative leadership style to implement TQM. This may consist of delegating and monitoring the performance of quality activities. Through the implementation of quality activities, such as teams, and top management leading by example, a more participative style of management can develop. *Management planning.* Organisations driving by short-term planning may find it difficult to change to TQM, where the emphasis is on long-term planning. Rewards, such as promotion for quick results involving fire-fighting, need to be redirected to rewards for prevention and participation activities. Long-term planning can begin by implementing a comprehensive education and training programme. Organisations which are function-oriented and/or encourage specialisation may have difficulty in converting to TQM. Barriers to departmental interaction, such as departmental rivalry, need to be removed in order for TQM to operate successfully. Teams or new systems, which concentrate on improving .

Tamimi (1998), in his study said top management committed to continuous quality enhancement as a primary goal is a way to increase profits and for setting objectives for quality improvement. A Quaziet al., (1998), wholly supported Tamimi's view. Zhang, Wasznik and Wijngaard (2000) point out the following with reference to top management. Top management actively participates in the quality management and improvement process, it learns quality-related concepts and skills, it strongly encourages employee involvement in quality management and improvement activities, it empowers employees to solve quality problems, it arranges adequate resources for employee education and training and, finally, top management pursues long-term business success.

Just like other authors, Yusof and Aspinwall (2000) Bilich and Neto (2000), Longo and Cox (2000), also supported the view that top management support is one of the main CSFs for TQM Implementation. According to Sureshchandar, Rajendran and Anantharaman (2001) top management commitment is essential for effective and successful TQM Implementation. Lau and Idris (2001) also endorse top management support as one of the major factors. Motwani (2001) suggests that the degree of support that the top management provides in implementing total quality is critical for success. The study done by Hasan and Kerr (2003) and Johnson (2004) supports top management as the most important factor in TQM Implementation.

Another study by Williamset al., (2004) said that to achieve operational excellence, top management commitment is required to the fullest. Similar definitions were given by Gupta (2001), Oakland and Oakland (2001), Sinclair and Zairi (2001) Wilkinson and Dale (2001) Yahya and Goh(2001) Wang and Sohal (2002) Veh (2003) and Buchanan and Huczynski (2004). Hindelang ,(2005), Achieving superior value and goodness requires an entirely new approach for management. This approach is called Strategic Development and focuses on innovation, leadership and teamwork. Only by performing strategic assessment, creating specific actionable plans, making the developmental changes in staff and facility and rigorously measuring the progress can a company hope to control their destiny in today's market.

3.3.2.1.2 Strategy

The specific TQM objectives and requirements of the organisation must be determined. The TQM activity must be incorporated into the organisation's business plans, and the means for continuous improvement established. Once the necessary management

behaviours have been adopted, an organisation can develop a strategy for TQM implementation. Only organisations where the necessary management behaviours were present had been able to develop an effective strategy. One of the keys in developing a strategy appeared to be the process of management deciding exactly what TQM meant for their particular organisation. Although there are a number of general concepts, they must be customised to match the particular organisation. This suggests a need for management to create a vision of the organisation with TQM. Whilst the strategies developed covered the broad concepts of TQM, they generally appeared to be underdeveloped and to lack detail. The organisation showed a general appreciation of the time-scale for establishing a TQM process and the need for sustainable progress, but appeared to have experienced difficulty in planning ahead more than a few months and in setting target dates for key stages of the TQM process. Unclear definition of phases of activity had also resulted in early projects considerably overrunning. Some of the difficulties can certainly be attributed to the learning curves of the organisation, but the results indicate a need for better planning of the implementation strategy (Porter and Parker 1993).

According to Motwani et al 1994, a company's strategy is the practical representation of its attitudes towards successful TQM Implementation. The study by Bilich and Neto (2000) points out the following with reference to strategy: The actuation of a bank has to be directed towards the continuous search for quality.

The study by Johnson (2004) also supported the view that strategy is an important factor for Implementing TQM. Hindelang ,(2005), Strategic Development can validate tangible and quantifiable results. It helps identify and measure critical success factors

ensuring the reaching of strategic objectives. It is essential that a broad team of company participants identify the critical measurements for business success. These measurements will include customer focused, supplier-focused, internal operations focused, employee performance focused and financial focused variables. Only by strategic review and management of these measurements can the company assure results.

3.3.2.1.3 Benchmarking

Benchmarking is a technique for learning other people. It is always carried out between co-operative partners to deliver achievable improvement of any product/service (Zairi, 1992). In other words, benchmarking is a comparison standard that consists of analysing the best products/services and processes of the best organisation in the world and then analysing and using that information to improve one's own products or services and processes.

Al-Mashari and Zairi (2000) argue that benchmarking works essentially at capturing both the internal and external best practices related to all aspects of TQM implementation, and enabling the transfer of knowledge across all levels of project implementation. They argue that benchmarking can play a significant role in shaping the strategic direction to be taken for change introduction. Benchmarking consists of analysing the best products and processes of leading competitors in the same industry, or leading organisations in other industries, using similar processes. An organisation should, and then use this knowledge to improve its own products and processes. The importance of adequate, accurate and timely information on best practices of various processes is acknowledged by leading organisations like Xerox. Even with the best operating and communication

devices, two airplanes can and have crashed into each other in broad daylight. In order to avoid a similar disaster, organisations implementing QM strategies also should look out the window frequently. The purpose and guidelines for effective benchmarking have been extensively discussed in the QM literature. Benchmarking entails product as well as process benchmarking. Benchmarking must be done with a clear focus on the goal of improvement of product quality and reducing cost (Ahire et al., 1996).

The study by Sureshchandaret al (2001) gave importance to benchmarking, and said that any organisation can attain newer heights, if benchmarking is used during any important process.

3.3.2.1.4 Continuous Improvement

The quest for quality improvement is not a destination but a continuous journey that throws up more and more opportunities for improvement. Improvement should be seen as an ongoing process, in the sense that once targets are met, new ones must be set, aiming for even higher levels of service efficiency.

The study by Sureshchandar et al.(2001) also gave importance to quality improvement as having no finish point but is a continuous journey that offers more and more chances for improvement. This view was also supported by Lau and Idris (2001) and Escrig-Tena (2004).

Many other authors have also highlighted continuous improvement as an important CSF in implementing TQM, and include Sohal and Terziovski (2000), Svensson and Klefsjo (2000), Oakland and Oakland (2001) and Sinclair and Zairi (2001).

3.3.2.1.5 Customer Focus

Customer focus is the ultimate goal of any TQM programme, because organisation can outscore their competitors by effectively addressing customer needs and demand, and anticipating and responding to their evolving interest and wants. Focusing on customer needs and wants enables organisations to have a better market orientation than ever before by providing a competitive edge over their rivals.

The study by Zhang et al (2000) points out that a successful organisation recognises the need to put the customer first in every decision made. This is supported by many authors, who include Sureshchandar et al (2001) and Hasan and Kerr (2003).

Lau and Idris (2001), Escrig-Tena (2004) and McAdam and Henderson (2004) supported customer focus as one of the main CSFs in implementing TQM, and said customer satisfaction and understanding is vital within the organisation.

Other authors who have given importance to customers as the first and the last factor in implementing TQM successfully include Duray and Milligan (1999), Svensson and Klefsjo (2000) Brah et al (2001) Motwani (2001) and Baidoun (2003).

3.3.2.1.6 Role of the Quality Department

For an organisation to be efficient, the quality department should be visible, autonomous, and have direct access to top management. The major responsibilities of the quality departments include formulating and improving major quality improvement programmes, and working closely with other departments. Procedures for quality control cover the entire business, from development to marketing, purchasing, manufacturing

and distribution. The quality department also prepares various types of summary reports of defects and failures at the various stages of processing and final inspection (Motwani et al., 1994). Al Quazi et al. (1998), also supported the role of the quality department as an important factor for effective implementation of TQM.

3.3.2.2 Tactical Factors

In order to make sure that the enterprise is meeting its targets, objectives of top management are accomplished, and it is not wasting resources, the tactical level provides middle-level managers with the information they need to monitor the performance of the organisation, control operations and allocate resources and set policy effectively (Bocij, et al., 1999).

Many researchers and practitioners have increasingly considered factors related to tactical level as a critical component of successful Service Quality (Leonard and Sasser, 1982; Porter and Parker 1993; Motwani et al., 1994; Mann and Kehoe, 1995; Powell, 1995; Ahire et al., 1996; Quazi et al., 1998; Saraph et al., 1989). Quality system, Human resource management, Recognition and Reward, Organisation-wide analysis of problems, Quality technologies and service design are the most important factors related to the tactical level for successful Service Quality.

3.3.2.2.1 Quality System

Managers should also re-examine the calculus by which they measure, estimate, and account for quality-related decisions. Most of the measurement and performance systems encountered simply ignored quality issues. Those that did explicitly consider quality were often biased toward short-term measures of performance and thus grossly

understated the costs of not getting quality right the first time. Many capital appropriation processes, for example, downplayed the benefits of improved quality as 'probabilistic', 'subjective', or 'qualitative'. These benefits are indeed long-term and highly uncertain (an increase in market share, say, or customer loyalty; a reduction in warranty costs), but any movement to a lower-cost, higher-quality position as requires at some point a leap of faith. what a good quality measurement system should do is provide a diving board.

However, to say that quality is a managerial responsibility does not deny the need for quality professionals. Well-run quality departments when used as organisational consultants to prevent defects, monitor testing, supervise process checks, and assist line managers in establishing good quality practices and procedures can provide a valuable perspective. They should not, however, become involved in the direct implementation of activities that fall under line management's discretion. The tendency to build empires, to waste energy justifying the exercise of professional knowledge, to become mesmerised by intricate and complicated systems, and to confuse corporate with functional goals is a real and present danger. The proper size of the quality function, its place in the organisation, the breadth of its mission, and the nature of its role in the strategic process are all issues that a general manager has to confront. The burning question is, "How can the quality area best perform its service role to the line operations?" And the answer, simply put, depends on the situation (Leonard and Sasser, 1982).

Use of quality cost data. Feedback of quality data to employees and managers for problem solving. Timely quality measurement. Evaluation of managers and employees based on quality performance. Availability of quality data, (Saraph et al., 1989).

Communication provides the means of raising quality awareness and involvement, and reinforcing the message. It is also critical as a means of publicising achievements and recognising contributions to quality improvement (Porter and Parker, 1993). Availability and the use of quality data, especially quality cost data, is an essential ingredient of a strong quality programme (Motwani et al., 1994).

Generally, the smaller the number of employees, the easier it is to implement TQM. At smaller sites, the steerers of TQM (usually the management board) are more visible and have fewer employees to manage and involve in TQM. This may mean a less detailed and sophisticated implementation structure is required to ensure employee participation and to improve business performance. Organisations with a high level of quality development are likely to be enthusiastic towards TQM. These organisations will understand the need for quality improvement, and are therefore less likely to require as much training and education. It is important that quality activities presently being used are integrated within the TQM approach. This will ensure they do not become isolated with regard to the allocation of resources, and that they can still operate successfully (Mann and Kehoe, 1995).

3.3.2.2 Human Resource Management

This refers to the number of organisational behaviour issues (ranging from selection and recruitment, training and education, employee empowerment to employee involvement) that form the cornerstone upon which the corporate strategy is built. The critical point here is that, if the employers treat their employees as precious resources, the employees in turn would treat their customers as valuables.

To produce significant results, efforts to improve quality require an enormous and sustained investment of energy and resources. Ideally, every person in the company should accept responsibility for product quality; employees, suppliers, and even customers require special training to achieve this goal. One of the remarkable things about the Japanese is the amount of training that they have provided for years at all levels of their organisations. Good quality-related training extends far beyond what we normally think of as 'quality topics' (statistical methods, sampling techniques, or inspection procedures), and includes equipment operation, advanced milling techniques, preventive maintenance, set-ups and breakdowns, gauging computer-aided design, and interpersonal communication. American managers must think more broadly about this kind of long-term investment in training and encourage it in areas where the leverage on quality is greatest. Of course, as improvements are made, as new people come into the organisation and others are promoted, and as product and process technologies change, the nature of the training will itself shift (Leonard and Sasser, 1982).

Education and training should cover all employees as part of an ongoing process, with the scope and depth tailored to suit each group's needs (Porter and Parker, 1993). Effective and efficient training programmes to educate and communicate focus on quality to managers and employees were present in each of the organisations studied. In addition to on-the-job training, off-the-job training programmes, specifically in the form of classroom exercises, were being used. Training in special processes, advanced statistical methods, and the use of sophisticated measuring equipment also existed. Even though some managers complained that the training programmes were merely academic exercises and were not understood by the illiterate workers, most of the respondents to

the survey indicated that the training programmes played a significant role in improving the quality of the organisations products and services, (Motwani et al., 1994).

According to Lakhe and Mohanty (1995), Human Resource Management can be assessed by developing an organisation profile, which can be used to analyse the organisation and its processes. The Human Resource profile of the organisation provides management with insights and data to improve and simplify work process, job duties, staffing, compensation, and organisational structure.

The diversity of employees can present problems when implementing TQM. It is therefore recommended that representatives of each 'type of employee' are involved in the development of the TQM implementation plan. This will ensure that training and TQM activities take into account their particular needs. If the needs of employees, as listed below, are considered, TQM can be effectively implemented:

Highly skilled employees are likely to accept TQM more quickly than lower skilled employees. They are less likely to feel threatened by proposed changes and are more likely to understand their need. Organisations wishing to increase the autonomy of their workforce may need to improve the skill level of their employees. *Level of education.* Employees with a high level of education are likely to accept TQM more quickly. A number of interviewees believed that individuals with a high level of education are more likely to judge TQM by its results rather than through its publicity. Wherever the level of education, it is important to note that publicity and posters may be viewed cynically and can create high expectation, which are difficult to meet. *Length of employment.* Employees who have worked in an organisation for a long time can be the hardest to

convert to TQM. They are likely to have witnessed many new management approaches and initiatives. If these approaches were not as successful as expected, than these employees are likely to be sceptical towards the implementation of TQS. The most effective method of converting these employees to TQM is through their involvement in quality activities which produce improvements. With regard to job ownership, employees who have worked in a certain position for a number of years often do not want any increased responsibility. New responsibilities for some employees may cause distress. It is therefore important to consider each individual's needs before implementing changes which affect them. *Age distribution of employees.* An 'old' workforce may not accept change as quickly as a 'young' workforce. An old workforce may feel threatened at having to learn new responsibilities and use new work methods. It is therefore important to have a comprehensive education and training programme tailored to their needs. A gradual approach to TQM, which gains their confidence, may be appropriate. *Employees' level of product contact.* Employees in close contact with the product are more likely to accept TQM. This is because quality activities are typically associated with products rather than people or non-product processes. For this reason, it is important in the planning of TQM to discuss how TQM will be implemented in low product contact areas (such as staff areas). A solution would be to develop specific training programmes for these areas, providing practical applications of relevant quality activities. Quality activities concentrating on improving the service (product) between internal suppliers and customers may be appropriate (Mann and Kehoe, 1995). *Increased training.* Usually includes TQM principles, team skills, and problem solving, (Powell, 1995). *Employee training.* Employee empowerment and involvement framework is not effective unless employee have received formal, systematic training in quality management. When employees are trained in the quality concepts and tools, they

can understand quality-related issues. First and foremost, companies need to view training costs as investments instead of costs. Availability of adequate resources is a prerequisite for organisation-wide training. Participation by various levels of employees and managers in training sessions not only enhances the quality of the immediate session, but through a breakdown of barriers between ranks, it helps subsequent employee participation (Ahire et al., 1996). Provision of statistical training and quality-related training for all employees, (Quazi et al., 1998).

Miller and Cardy (2000) made a study on HRM response in a creative way to TQM and reengineering in organisational changes. Other authors such as Tambi and Kanji (1999,2001), Bardoel and Sohal (1999), Lillian et al.(2000), Helms et al. (2001), Yahya and Goh (2001), Wilkinson and Dale (2001) and Baidoun (2003) focuses on HRM factor importance in TQM implementation. HRM or the 'soft' aspect of TQM is considered as a new focus in TQM and performance excellence (Oakland and Oakland, 2001; Zairi, 2002).

Bilich and Neto (2000) list out the variables of the human resource dimension : (1) Posture (2) Creativity and innovation (3) Education and training (4) Valorisation and recognition (5) Communication (6) Recruitment and selection (7) Professionalising (8) Participation, and (9) Involvement.

Sureshchandar et al (2001) also supported HRM as one of the main factors in the implementation of TQM.

3.3.2.2.3 Recognition and Reward

It almost goes without saying that an important feature of any quality improvement programme is showing due recognition for improved performance by any individual,

section, and department or division within the company (Dale and Plunkett, 1990). Both teams and individuals can be recognised and rewarded for their excellent performance. To effectively support organisations' quality efforts, they need to implement an employee compensation system that strongly links quality and customer satisfaction with pay (Brown et al., 1994). Recognition and reward activities should effectively stimulate employee commitment to quality improvement otherwise, these activities are failures. Working conditions improvement, salary promotions, position promotions, monetary or non-monetary rewards, financial awards, and financial awards for excellent suggestions are good methods for recognition and reward (Zhang et al., 2000).

Recognition and Reward were validated by Carter et al., (2000) Martensen and Gronholdt (2001) and Wong and Sohal (2002).

3.3.2.2.4 Organisation Wide Analysis of Problems

Managers need to improve their ability to analyse the decisions, workflows, and organisational structures that influence product quality, and to anticipate the downstream effects of quality-related decisions. When the analysis is completed, a manager should be able to identify confidently the relevant quality levers for each product in question, (Leonard and Sasser, 1982).

Clarity of process ownership, boundaries, and steps; less reliance on inspection; use of statistical process control; selective automation; foolproof process design. preventative maintenance; employee self-inspection; and automated testing (Saraph et al., 1989). A key part of any total quality strategy is the management of processes. A documented quality system, as part of a total quality strategy, contributes to this by managing the organisation's processes in a consistent manner (Porter and Parker , 1993).

Statistical quality control provides a means for analysing the process, continually improving the process, and controlling the product quality through control of the process (Motwani et al., 1994). An organisation's method of manufacture can hinder the application of quality activities. Traditional production methods and manufacturing layouts may encourage job specialisation and menial repetitive work. In these circumstances, it may be difficult for employees to become actively involved in the improvement of work processes. However, it is important that they are involved in the TQM effort, to prevent any feelings of alienation. Many organisations are surprised how employees, given the correct support (particularly resources) and encouragement, can make an active contribution to the organisation and their working environment (Mann and Kehoe, 1995). *Process improvement.* Reduced waste and cycle times in all areas through cross-departmental process analysis (Powell, 1995). *Product quality.* The foregoing discussion deals with identifying various scales for quality improvement strategies. These components of QM are relevant to the goal of improving product quality (Ahire et al., 1996). Clarity of process ownership, boundaries and steps. Less reliance on inspection. Use of statistical process control. Selective automation. Foolproof process design. Preventative maintenance. Employee self-inspection. And Automated testing (Quazi et al., 1998).

3.3.2.2.5 Quality Technologies

Quality technologies, such as SPC, quality costing, benchmarking, DPA, etc., provide the techniques to identify opportunities and solve problems. They enable continuous improvements and reductions in variation to be achieved (Porter and Parker 1993). Goal-orientation and zeal for data, with constant performance measurement, often using

statistical methods (Powell, 1995). Statistical Process Control (SPC) techniques are often used to detect assignable causes contributing to the variation in manufacturing quality, to provide useful information for product design, and to determine process capability. Although some limitations of SPC in quality improvement have been recognised, it helps quality-oriented firms, beginners in particular, to monitor quality variations and to investigate critical areas where improvements are needed (Ahire et al., 1996).

3.3.2.2.6 Service Design

Services, unlike manufactured goods can not be inventoried and used in time of emergency or demand. Therefore during rush or peak periods, unless organisations prepared for any such eventualities, they may not be able to provide quality service to customers. This can be only achieved by equipping the employees with information regarding the process and the customers.

Thorough scrub-down process. Involvement of all affected departments in design reviews. Emphasis on producibility. Clarity of specifications. Emphasis on quality, not rollout schedules. Avoidance of frequent redesigns (Saraph et al., 1989). Determining customers (both inside and outside the firm) requirements, then meeting those requirements, no matter what it takes (Powell, 1995). All activities of an organisation must be planned and executed to improve processes that lead to manufacturing quality services. However, quality must be incorporated into these activities, with a clear customer focus. Despite the use of the latest process improvement techniques and capable management, a firm's neglect of its customers may lead to a disaster (Ahire et al., 1996). Thorough scrub-down process. Involvement of all effected departments in

design reviews. Emphasis on producibility. Clarity of specifications. Emphasis on quality, not roll-out schedule. Avoidance of frequent redesigns (Quazi et al., 1998).

3.3.2.3 Operational Factors

Finally, many authors have considered some operational factors to help organisations to improve the level of quality (Leonard and Sasser, 1982; Saraph et al., 1989; Porter and Parker, 1993; Motwani et al., 1994; Mann and Kehoe, 1995; Powell, 1995; Ahire et al., 1996; Quazi et al., 1998). Employees, servicescapes, service culture, and social responsibility are the most important factors at the operational level to affect service quality success.

3.3.2.3.1 Employees

Employee satisfaction is a multi-dimensional concept, which is defined as the degree to which employees of an organisation believe that their needs and wants are continuously satisfied by it. An organisation must not only have a focus on service quality/customers but also concentrate on employee satisfaction.

Open employee participation in quality decisions, responsibility of employees for quality, employee recognition for superior quality performance, effectiveness of supervision in handling quality issues, and on-going quality awareness of all employees (Saraph et al., 1989).

Involvement in the TQM process is a key determinant of a successful programme. Until everyone is involved in the process of quality improvement, there is a major cost of lost opportunity being carried by the organisation (Porter and Parker, 1993) attributable to the following causes. Among the organisations which had introduced employee involvement programmes such as quality circles for tackling quality-related problems,

some indicated that their circles had become non-functional, and in most organisations, what was most lacking was the appreciation for quality performance at all levels. In most, employee promotions were not based solely on quality performance, and even though individuals in some organisations were honoured with rewards for superior performance in their tasks relating to quality, this was not adequate motivation to produce quality work, particularly because this was often done on a random basis and did not form a part of the documented quality policy (Motwani et al., 1994). *Industrial relations.* Organisations with poor industrial relations are likely to find it more difficult to implement TQM. Trade unions will be suspicious of TQM and the changes that may occur. This suspicion can be overcome by involving trade unions from the start, either in the appraisal or the planning of TQM. The involvement of trade unions will help in the acceptance of TQM by all employees (Mann and Kehoe, 1995).

Marchington and Wilkinson (2000) suggested that employee involvement is fundamentally important to successful TQM, as it requires great employee responsibility for continuous growth. Other authors such as Carter et al. (2000) and Buchanan and Huczynski (2004) assume employee commitment is a state in which individuals become bound to their actions and beliefs. Commitment is obviously recognised in the face of difficulties. Therefore, in the challenge of high expectations in TQM, employee commitment is fundamentally important to ensure sustainable performance.

3.3.2.3.2 Servicescapes

The tangible facets of the service facility, i.e. the man-made physical environment (such as equipment, machinery, and employee appearance: 'the servicescapes') strongly influence both employees and customers in physiological, psychological, emotional and cognitive ways, particularly as the core service becomes more intangible. (Bitner, 1992; Berkley, 1994; Angur et al 1999; sureshchandar et al 2001,2002).

3.3.2.3.3 Service Culture

Service culture is the extent to which the employees at all levels realise that the real purpose of their existence is 'service to customers'. While customer focus is seen as a goal of the TQM movement, service culture is an organisational strategy that motivates the employees to have a service orientation in whatever they do. (Zemke, 1989; Zethaml et al 1990; Milakovich, 1995; Sureshchandar et al 2001,2002).

3.3.2.3.4 Social responsibility

The concept of corporate citizenship should come to the force if an organisation has to be successful and progress towards achieving business excellence. No doubt, a business or industrial enterprise exists to make profit. This can be achieved by fulfilling its mission. At the same time, an organisation must also grow and have a good image, i.e., it should meet its social and community obligations. (Darley, 1985; Flynn et al 1995; Sureshchandar et al 2002; Nelson, 2002).

3.4 EVIDENCE OF SERVICE QUALITY IN BANKING

As was alluded to in the opening paragraphs, service quality exists in all forms of service provision, the crucial question is at what level, and to what degree that level of provision is acceptable to customers, although this is naturally a function of created

expectations. As both transactional and trans-industrial data regularly demonstrate, one industry's 'high' standards are merely the norm elsewhere.

There is no published or systematic data available in Dubai relative to the service quality provided by Dubai banks. It has been indicated to the author that individual banks have carried out ad hoc surveys on an irregular basis, but the implication is these have been largely non-scientific, had no fixed objectives, and were certainly not available for publication. Interviewing senior bank managers prior to this research did however establish that all the six major commercial banks do take complaints relative to service breakdown very seriously, and act upon them at least in an individual way. Whether recovery strategies are subsequently codified in a systematic way and incorporated into strategic change mechanisms is unclear.

In this context, an interesting cultural difference from the US and Europe should be noted. Whilst in these situations it is commonplace to undertake both tracking and comparative service quality studies and subsequently publish them as a mechanism of discriminatory competition, this would not generally occur in a traditionally Arab country such as Dubai. The principles that direct comparison with competitors, even when results are objectively reliable, is not considered an acceptable form of competition.

It is to Europe and America we therefore turn for measures of service provision in the banking industry. In making some judgment as to the level of service provision, one is searching for symptoms that are indicators that provision is or is not at a satisfactory level. This in turn is fraught with problems, not least of which is expectations. A classic form of service provision measurement is level of complaints, but clearly level of

complaints is a direct function of one's initial expectations, and the willingness to make a complaint.

In the UK, the most recent and comprehensive study of service provision provided by banks comes from the Consumers Association (1998) Policy report entitled *Handled with Care?* Over a six-year period (1991-1997), it examined and analysed customer complaints directed towards a whole range of industries, not merely overall level of complaint, but also reasons why the person complained.

Complaints by definition are partially industry specific, although there are common features. An earlier study into banking in America (Galup and Dattero, 2000) suggested that for banking, speed was a major area for dissatisfaction, together with indifferent, unqualified and discourteous personnel. As this was the era when personal bank interaction was more important, one can see in these results a desire for a personnel-free/technologically-mediated banking system.

Following on from the cross-cultural study of banking behaviour carried out by Lewis (1990) in the US and UK, a more recent UK study concerning patterns of small business banking (Ennew and Binks 1996) indicated that it was lack of trust in the banking relationship, and inability on the customer's part to approach their bank manager to discuss problems. Their conclusion was success would come by the forging of more open and trusting relationships between customer and bank.

A most recent piece of research has added a further dimension to the literature on bank service quality provision and the role played by complaints. Neyer (2000) outlines the

results of complaints furnished in the banking industry, and discusses whether they do in fact have an influence on developing increased customer satisfaction. His conclusion is that complaints are good for customer and service producers alike, in that they provide both evidence for the provider and a focus upon which he can develop improvement strategies can be developed.

Much of the published work in the area of service quality in banking is often more prescriptive than descriptive, and in this context, one might mention the UK study undertaken by Johnson (1997) who, while itemising their failings, is more prescriptive, advocating solutions which he summarises as “genuine commitment” and “attentiveness of front-line staff”.

Perhaps the most comprehensive measure of service quality in banking, and also a whole range of other industries, is provided by the range of national Customer Satisfaction Indices developed by a number of countries. A good summary of the US version is provided by Anderson et al. (1994). The idea originated in Sweden in 1989, was taken up in Germany in 1992, and in the US in 1994.

Reporting on the 1997 data in Germany, Meyer and Dornach (1998) showed that following a decline in the previous year, banking recovered some of its quality and satisfaction during 1997. This, the authors believe, was due in part to increases and enhancement of technology and also better customer care and training in the banking industry. It is interesting how banking has followed general trends in service provision. When levels over all industries have risen, so has banking. It has very infrequently 'bucked the trend', and increased in a period of generalised decline. Equally, an

important point made by Meyer and Dornach (1998) is that international comparisons seem to indicate that improvement in service quality are transnational, and that they move in parallel, hence improvements in one country will invariably be mirrored in all others in which the same index and mechanism of measurement are used. This has an interesting for the banking industry, which is becoming increasingly concentrated, and multinational. The strong implication is that it is the larger international operators which develop high quality service provision and then transfer those systems to other countries and cultures, thus creating the parallel increases noted earlier.

The American Customer Satisfaction Index (ACSI) is organised through the University of Michigan and reports on a wide variety of industries and service providers. Results for 1997, reported in 1998, indicate generally lower level of satisfaction with service rather than products, and that the more intangible the service becomes, so the level of satisfaction decreases. From a high of 83% satisfaction recorded by beverages and soft drinks, to a low of 54% posted by the Inland Revenue Service, banking comes in at 72%, approximately two-thirds down the whole industry rankings, but shows a 2.7% fall compared to the previous year, followed by a further fall of 1.8% in 1998. Results for 1999 and 2000 do however indicate a recovery to a latest figure approaching 75%.

3.5 CREATING SERVICE QUALITY IN THE BANKING INDUSTRY

Determination of service quality, at whatever levels it may exist, is a vital pre-requisite to strategic action to improve it. The word improve is purposive, as by implication one cannot conceive of a scenario where a bank, on receiving results of its customer service quality evaluation would wish to diminish their provision, although it is a theoretical possibility, if the provider felt they were 'over providing' in relation to the competition.

In the light of the dictum 'expect little, provide a lot' one might argue in this situation that it would be feasible to extend the expectations in order to prevent such overprovision.

Service quality provision has broadly two elements, the fundamental strategies, and the organisational / attitudinal context within which they are actualised. It is outside the scope of this thesis to examine in any depth organisational configurations, or attitudinal perspectives. Suffice to say that strategic developments within all industries will have little or no chance of success if they are implemented into an organisation which is antagonistic or hostile toward them.

Delivering reliability has, for banks, meant returning to fundamentals, and often re-engineering services in order that they are more basic, and less easy to 'screw up'. It is in this area that the role of technology in banking, discussed later, has played a vital part. Where services are more or less personnel driven, it is all too easy to ascribe failures to people rather than tangibles or processes. In this context, banks have been in the design of service mapping, a technique whereby the human, technological and process elements in service delivery are integrated over time into a coherent pattern of what 'should' happen in a service encounter (Shostack, 1984) This will often be entombed in the 'service manual' so beloved by trainers.

For banks in particular, simply being reliable is not enough. Reliability is an outcome dimension, related closely with the minimum expectation level of service rather than the desired service level or the predicted service level. You expect, as a realistic minimum, that your airline will deliver you safely, just as you anticipate your bank will conduct

your affairs with accuracy, speed and diligence. It is in the other four dimensions of quality, the process elements, that the opportunity exists for reinforcing or exceeding customer expectations. In this arena, it is reputation development which is the vital element, and the development of a reputation for outstanding service.

For banks, it is the 'minor' dimensions of service quality provision which are vital, particularly assurance and empathy. Banks are often privy to the fallout, if not the actuality, of a wide variety of human tragedies; death, divorce, bankruptcy to name but a few. To reiterate the UK research mentioned earlier (Ennew and Binks, 1996), trust, a clear process variable, was the most vital element in a bank's repertoire.

Given that all organisations, banks included, do make mistakes, an important area within which a competitive advantage may be generated is the way in which the service provider handles the mistake, which ideally he should never have created in the first place. Research in this area has indicated that it is often not the technically most efficient provider who has the highest rating, but the provider who, once having made a mistake, is both active and innovative in rectifying it.

For banks, such 'recovery strategies' may take a variety of forms. As in all areas, apology is the first criterion, an admission that a service breakdown has occurred. Many companies appear to be excessively churlish in this area. The 'admission of guilt with no liability' is a common legal phrase, developing out of an increasingly litigious society. It is a paradox that the most avid complainers, and to whom recovery strategies are most likely directed, are also liable to be one's most loyal customers, and past profit

generators. It is they who feel most secure in complaining and, in differential power terms, feel have most to gain from direct confrontation with the company.

Recovery strategies are in part dependent on the nature of the failure and the degree to which it is enshrined in customer tangible expectations. If a bank claims, either verbally, literally, or by implication, that an event will occur (a cheque will clear within three working days, for example) and that event fails to occur, then a service failure has occurred which has objective decision criteria behind it. It is akin to the product guarantee. If however the dissatisfaction is more process-oriented and involves the intangible and personnel elements of service delivery, then recovery may be more difficult to achieve.

In a recent empirical study (Bosoff and Leong 1997), it was demonstrated that although only approximately two-thirds of complaints could be laid definitively at the door of the service provider, acceptance by the organisation that it was at fault, coupled with rapid and senior management intervention, were the most productive recovery strategies. Some writers take a more mechanistic and cold-blooded view of recovery strategies, stressing the equation between cost of recovery and future worth of the customer. What many of these models fail to appreciate is the damage a dissatisfied customer can reek among his/her friends, colleagues, and business acquaintances. The principle of recovery and recompense at any price within reason is enshrined in the maxim "the customer may not always be right, but he is always (potentially) the customer".

3.6 STANDARDS IN SERVICE QUALITY PROVISION

The notion of standards and guarantees is not new, but constantly needs reiteration and redefinition in order to be meaningful to the consumer, and of potential use as a service discriminator. Standards, however they are articulated, are internal mechanisms of process control, which may in total or in part be transmitted to consumers. In such a communication, they become transformed into the frameworks for risk reduction and expectation, and implicitly become a series of 'guarantees'.

In reducing risk for the consumer, the guarantee diminishes the ambiguity often associated with service provision. However, as the intangibility of the service increases, so does the scope for variability, and hence the difficulty in framing any guarantee and adhering to it. The obverse side of guarantee provision is recompense if it fails to be observed: if X occurs, we will do Y to rectify it, or Z to mollify you. It is valuable strategy, but like many developments in the area, difficult to sustain in the long term as a competitive advantage, given its ease of replication.

What has often been the case is guarantee 'inflation', where competitors vie with each other to outdo the scope and nature of their guarantees. This is best seen in the financial area with competing credit card offers, where the standard of the first company becomes merely a benchmark for its competitors to improve upon.

Intangibility should not be a definitive bar to standard and guarantee development. Indeed, as Heskett et al. (1990) showed, they are even possible in areas such as education and driving instruction, where free additional instruction was provided until the customer was successful. These are very brave attempts at guarantee provision, in

that a high proportion of the success of the service outcome is dependent upon customer input, and no matter how proficient the service provider is, success cannot be guaranteed without the expertise of the customer. In this context, the term guarantee has suffered through misuse, and phrases such as 'total customer satisfaction guaranteed' tend to be so widely applied as to become meaningless.

Standards in bank service provision, and their communication in terms of guarantees tend to fall into two broad areas, what have become known as 'hard' and 'soft' standards. In generic terms, they are input measures of provision created by management, which define what the consumer may reasonably expect. They may subsequently be enshrined in communications to the consumer in documents such as 'customer charters' It is the performance indicators, mentioned earlier, which are the output measure of what the customer is actually receiving, and comparison between the two is one of the important gaps in the disconfirmation model.

It is all too easy when setting standards to set them from the company rather than the customer perspective. If there is an imbalance in what can be achieved and what the customer demands, it is the latter whose expectation must be adhered to. Changes in process, personnel or working practices may be required in order to accommodate customer expectation of service. For banks research has been conducted on customer waiting times to see tellers, and comprehensive theories of queuing developed (East et al., 1991).

Hard standards usually involve service provision in relation to one or more tangible and measurable, internationally defined criteria, notably time and volume. Customer

throughput per teller station is a favourite standard, as is average waiting time to see a manager. Such hard standards, particularly those involving a financial manipulation, have been the bedrock of banking for all time, so the concept of hard standards is not new. It is in the area of soft standards that confusion has occurred.

Soft standard establishment can never be as precise as hard, and creation is often based on customer evaluation rather than sticking to a script. Customer satisfaction surveys are the norm in all service industries, and their results form the basis of the soft standard. Soft standards can be developed through training monitored through customer survey but ultimately can be difficult to standardise, unless one moves totally toward the McDonald approach where scripted standardisation is the norm and the degree of discretion minimised (see Ritzer, 1966). Most banks would see such a move, in extremis, as undesirable.

3.7 TECHNOLOGY AS MECHANISM OF SERVICE QUALITY IN BANKING INDUSTRY

The effects of technology on service industries worldwide over the past 10 years have been dramatic, and if one area of environmental change is certain, it is that its influence will only accelerate in the future rather than decelerate. In banking, the effects have been cataclysmic, leading to whole new paradigms of doing business.

One may argue whether technology changes needs. What it certainly does is expand possibilities, and provide solutions to previously unattainable objectives, whilst in all situations improving the efficiency by which tasks can be accomplished.

All technology initially spawns resistance from customers as they learn to interface with it and incorporate it into their traditional patterns of behaviour. A prime example was the introduction of the automated teller machine (ATM), where a substantial marketing effort was required to communicate the benefits of the new technology and educate people to the benefits it could provide. Customers had to be persuaded that a machine could deliver as accurately and speedily that which had previously been provided by a teller.

Such is the ubiquity of technology in the provision of services that Parasuraman (1996) has suggested that the traditional triangle developed to explain services marketing, should in the future be construed as a pyramid, with technology at its apex. The constructs therefore become four: providers, customer, company, and technology.

The motivation for technology development in the banking industry comes from a variety of sources, both economic and non-economic. It would be naïve to believe the primary motivation was not economic. Many of the functions undertaken now by technology within the banking industry are accomplished at a fraction of the cost it would require a human to do. The worldwide usage of a whole range of bank-related technology illustrates the principle that even in the lowest cost countries, technology is still cheaper than labour.

A further major driver for increasing technology is its ability to be ever present, and provide a standardised service, 24 hours a day, 365 days of the year. In service terms, it has none of the variability associated with human frailty. In this context, it is far harder to produce process linked service failures with technology than with humans. A computer is never rude, surly or discourteous. It is certainly capable of functional

process failures, but even here many might argue its rate of failure is probably likely to be lower than with human involvement.

Due to its ever-present nature, technology provides opportunities and service variations, which were not previously available, so in this role may be considered as a powerful force for product innovation, and also a mechanism for competitive advantage. Also, the power of information manipulation allows increasingly sophisticated market manipulation and the development of customised marketing strategies 'individually' tailored to unique customer requirements. IT is the cornerstone of a bank's Customer Relations Management (CRM).

It is here that many leading bankers feel technology can play a role in bank development. As Quinn et al. (1990) put it, "It allows relatively inexperienced people to perform very sophisticated tasks quicker", although they go on to point out that this ability comes with the responsibility to interpret correctly, and make meaningful judgments on the basis of the interpretation.

This in many ways seems to sum up the present position regarding technology within the banking industry. Davidow (1986) said technology "gives the quality to a service organization to handle large volumes of service, to offer a wider range of service, to provide quicker, more accurate and personalized service, and to permit more efficient management". Whether it achieves this at any alternative costs in terms of quality will now be considered.

The crucial questions to be addressed here are to what extent, and in what way, technology impacts on the creation of quality and / or value to the banking system, and is it a force for enhancement of quality or is something lost in its implementation.

On the presumption that technology can create opportunities, then in purely corporate financial terms, it must be a benefit. In that it can achieve the previously unattainable, again it must be regarded as a success, and clearly, it is not a simple question of trial and rejection, perhaps the key point is not technology, but how much is appropriate for the target markets the bank presently possesses, and might wish to attract in the future.

Again, it may not be degree of technology incorporated into a bank's service, but rather the speed of incorporation. Given the opportunities thrown up by technology, it seems likely that increasingly the role of the bank may be as educator, priming the customer to take on board the opportunities afforded by technology. Two schools of thought permeate the development of technology in the banking area. One, the exponential theory, considers that technological developments can only get bigger, faster, and more concentrated, and points to consolidation in the global banking industry, database amalgamation, and increasing IT capabilities.

The alternative view is put forward by those who subscribe to the Marxist dialectic, which hypothesises that any development will reach a point where it will be reacted against, and an alternative format, displaying often diametrically opposed characteristics, will be developed. Over time, the outcome of the thesis (the original principle) and the antithesis (the reaction against the thesis) will be the synthesis, which combines elements from both scenarios.

They would argue that in banking, technology will develop to such an extent that it will provoke a backlash and a return to personalised customer service. The crucial flaw in this argument is the differential costs involved, and customers' willingness to pay for an enhanced personally-mediated service. Experiences from the UK where 'personal banking advisors' are available, at a fee, do not bode well. Experience both in the UK, America, and elsewhere seems to indicate the qualities required from a banking system are efficiency, expressed as reliability, at as low a cost as it is possible to obtain. The success of electronic and Internet-based modes of service delivery seem to suggest that quality creation in the future for the banking industry will be more concerned with functional, hard standard delivery, and less about soft standard personnel based interaction.

If one is correct that in the future quality creation and determination will be more concerned with functionally technologically based criteria, then the Dubai banking industry would seem ideally placed to capitalise on it. Firstly, it has a far shorter history of world-scale banking, and hence fewer entrenched attitudes or physical assets to dismantle. It has the economic resources to ensure rapid incorporation of the latest technology, and fewer problems with redundancy implied by the movement towards greater automation.

Two factors do however suggest a downside to this development. Firstly, many Dubai bank users are relatively affluent, certainly by Western standards, and it has been noted in the UK that wealth and personal service requirements seem to be related. Coutts Bank, an old-established private bank in the UK (part of the much larger Natwest grouping) has recently had to pull back from its planned computerisation programme due to customer antipathy towards it. They have certainly not abandoned it, merely 'put it on hold' for slower introduction.

3.8 MODELS OF EXCELLENCE CRITERIA

Many organisations are turning to TQM because they are under tremendous pressure to improve their performance (Vorkurka et al., 2000). By using quality models, organisations are also able to benchmark themselves internally and against the 'best-in-class', and thus tailor their efforts towards meeting customer needs and expectations. These quality models recognise the fact that management leadership, organisational process issues, and key organisational objectives co-exist for the benefit of the organisation. However, in spite of the many purposes the models serve, the common factor for them is the measurement system of self-assessment (Zairi, 1996).

3.9 AWARD MODELS AS EFFECTIVE APPROACHES TO TQM IMPLEMENTATION

A lot of research has been conducted which examined the major quality awards and furthered the understanding of the business excellence award frameworks. For example, earlier studies compared the Deming Prize and the Baldrige award (Bush and Dooley, 1989; Reinemann, 1989; Cole, 1991). As time went by, numerous studies compared the three major quality awards: the Deming Prize, Baldrige and European quality awards (Nakhai and Neves, 1994; Bohoris, 1995; Tummala and Tang, 1996). Later studies included the Australian quality award in this comparison (Vorkurka et al., 2000). There is however no study that has included a comparison of the most recent Dubai quality award with the other major quality awards that already have a long-standing history of application. Apart from the comparison, these studies also demonstrated that excellence models are effective approaches to TQM implementation.

For example, Vorkurka et al. (2000: 41) pointed out that in pursuit of TQM, organisations have turned to quality award programmes, because they offer models and tools for implementing strategy and benchmarking best practices; perform self-assessment; and finally achieve improvements, in addition to the recognition they offer. However, Vorkurka et al. (2000) clearly advised users that the use of models should not be considered a panacea to all problems. Instead, the award models should be used to provide a foundation for assessing and encouraging TQM in the global market place.

It has also been found in the literature that other studies compared business excellence models with ISO 9000 standards (for example, Tummala and Tang, 1996; van der Wiele, 2000; Martin and Wiell, 2000) expressed scepticism about the use of excellence models in developing countries, and instead preferred the use of the ISO 9000 series. A study by Wilkes and Dale (1998) challenged the use of quality awards in small and medium-sized enterprises in the UK, as the authors found the European Quality Award for SMEs not ideal in its current form. Many primary studies have verified the importance of the criteria used in the major award models. The next section provides a summary of some of these works.

3.9.1 Deming Prize

Although self-assessment is a new idea in the west, in Japan, quality gained popularity when the Japanese Union of Scientists and Engineers (JUSE) was established in 1946. In 1950, JUSE invited Deming to deliver lectures and seminars, and his work in statistical process control created a devotion to quality control that has become engrained the Japanese industrial culture (Kathawala and Elmuti, 1991). JUSE then launched the Deming Prize in 1951 in his honour, for his contribution to improving Japanese industry

through his lectures on quality improvement, particularly his emphasis on statistical process control (Zairi, 1996). The Deming Prize is recognised as the oldest self-assessment framework (Zairi and Youssef, 1995). The countrywide acceptance of the Deming Prize resulted in the great improvements in manufacturing quality that put Japan on the world map (Kathawala and Elmuti, 1991).

The award is given to organisations that achieve high quality and challenging improvements by applying company-wide quality concepts, particularly statistical techniques. According to Ghobadian and Woo (1994):

“The Deming prize is not based on an underlying framework linking concepts, activities, processes and results. Furthermore, it does not assume any causality. It simply provides a list of desirable or good quality-oriented management practices.”

The award uses ten criteria (see Table 3.1), all with equal scores (Kathawala and Elmuti, 1991; Zairi, 1994; Porter and Tanner, 1996; Zairi, 1996; Cartin, 1999). The Deming Prize is a prestigious award. The award process is however not transparent enough for many organisations to be able to use its self-assessment framework. Thus, not much has been published by academics about the framework for people to know the details of how it works, according to Porter and Tanner (1996). The self-assessment process has not been made public, hence it is not clear as to how the points for the various elements of the model are allocated, and how the judgement on business excellence is made. It has also been found that the assessment of some of the criterion parts is subjective (Porter and Tanner, 1996: 45). In this context, the adoption of the framework throughout the world has been low.

The Deming Prize has gone through many changes since it was instituted. Since JUSE administers the award, applicants should be approved by the organisation's consultants for them to go through the review process. This explains why it took a long time for Florida Power and Light, the first company outside Japan to win the award, in 1989, to be accepted as an applicant. However, the assessment process is known to be extremely thorough (Porter and Tanner, 1996). The Deming Prize is awarded at three levels, namely the Deming Prize for individuals, the Quality Control Award which is restricted to Japanese factories only, and the Deming Application Prize which is open to non-Japanese companies since 1984.

Table 3-1: Criteria of Deming Prize

| | |
|--|--|
| <p>(1) Policy and Objectives</p> <ul style="list-style-type: none"> • Policy with regard to management, quality and quality control • Methods in determining policy and objectives • Appropriateness and consistency of content of objectives • Utilisation of statistical methods • Deployment, dissemination and permeation of objectives • Checking objectives and their implementation • Relationships with long-range and short-range plans <p>(2) Organisation and its operation</p> <ul style="list-style-type: none"> • A clear-cut line of responsibilities • Appropriateness of delegation of power • Cooperation between divisions • Activities of committees • Utilisation of staff • Utilisation of quality circle activities • Quality control audits <p>(3) Education and its extension</p> <ul style="list-style-type: none"> • Education plan and actual accomplishment • Consciousness about quality and control, understanding of quality control • Education concerning statistical concepts and methods, and degree of permeation • Ability to understand the effects • Education for subcontractors and outside organisation • Quality circle activities • Suggestion system and implementation | <p>(6) Standardisation</p> <ul style="list-style-type: none"> • System of standardisation • Methods of establishing, revising and withdrawing standards • Actual records in establishing, revising and withdrawing standards • Contents of standards • Utilisation of statistical methods • Accumulation of technology • Utilisation of standards <p>(7) Control (kanri)</p> <ul style="list-style-type: none"> • Control systems for quality and in related areas such as cost, delivery and quality • Control points and control items • Utilisation of statistical methods such as control chart and general acceptance of statistical way of thinking • Contributions of quality circle activities • Actual conditions of control state <p>(8) Quality assurance (QA)</p> <ul style="list-style-type: none"> • Procedures for new product development – quality deployment (breakdown of quality function) and its analysis, reliability and design review, etc. • Safety and product liability and prevention • Process design, control and improvement (Kaizen) • Process capabilities • Measurement and inspection • Control of facilities/equipment, subcontracting, purchasing and services, etc • Quality assurance system and its audit • Evaluation and audit of quality |
|--|--|

| | |
|--|---|
| <p>(4) Assembling and disseminating information, and its utilisation</p> <ul style="list-style-type: none"> • Assembling outside information • Disseminating information between divisions • Speed in disseminating information (use of computers) • (Statistical) analysis of information and its utilisation <p>(5) Analysis</p> <ul style="list-style-type: none"> • Selection of important problems and themes • Appropriateness of the analytical method • Utilisation of statistical methods • Tying in with own engineering technology • Quality analysis, process analysis • Utilisation of results of analysis <p>Positiveness of suggestions for improvement</p> | <ul style="list-style-type: none"> • Practical condition of quality assurance <p>(9) Effects</p> <ul style="list-style-type: none"> • Measuring effects • Visible effects, such as quality, serviceability, date of delivery, cost, profit, safety and environment, etc. • Invisible effects • Compatibility between prediction of effects and actual records <p>(10) Future plans</p> <ul style="list-style-type: none"> • Understanding of status quo, and concreteness • Policies adopted to solve shortcomings • Plans of promotion of TQC for the future • Relations with company's long-range plan |
|--|---|

Source: Shimuzi (1994), Zairi (1994), Zairi and Youssef (1995), Porter and Tanner (1996)

3.9.2 Malcolm Baldrige National Quality Award (MBNQA)

In the 1980s, many industry and government leaders saw that a renewed emphasis on quality was no longer an option for American organisations, but a necessity for doing business in an ever expanding, and more demanding competitive global market. But many American businesses either did not believe quality mattered for them, nor did they know where to start. The Baldrige Award was therefore envisaged as a standard of excellence that would help US organisations achieve world-class quality (Kathawala and Elmuti, 1991).

The Malcolm Baldrige National Quality Award process, operated under the umbrella of the National Institute of Standards and Technology (NIST), was therefore established by the US Congress legislation (P.L.100-107) on 20 August 1987. The intention was to encourage organisations to commit to quality improvement, and improve productivity and competitiveness. Thus, the award programme was meant to recognise US organisations for their achievements in quality and business performance, and to raise awareness about the importance of quality and performance, excellence as a competitive

weapon (Zairi and Youssef, 1995). In 1998, the US Congress approved legislation that made education and health care organisations eligible to participate in the award process. Previously, three awards were given annually in the manufacturing, service, small business categories and, beginning in 1999, education and health care were accommodated. Organisations that have headquarters in the US or its territories may apply for the award, including US subunits of foreign companies.

3.9.2.1 Baldrige Criteria: Core Values, Concepts, Framework

The Baldrige criteria for business excellence are the basis for organisational self-assessments, for making awards, and for giving feedback to applicants. The criteria are built upon a set of core values and concepts. These values and concepts are the foundation for integrating key business requirements within a results-oriented framework. These core values and concepts are well documented, and are (www.quality.nist.gov, 2000; Tai and Przasnyski, 1999; Oakland, 2000):

- Customer-driven quality
- Leadership
- Continuous improvement and learning
- Valuing employees
- Fast response
- Design quality and prevention
- Long-range view of the future
- Management by fact
- Partnership development
- Public responsibility and citizenship
- Results focus

3.9.2.2 Baldrige Award Criteria

The Baldrige core values and concepts are embodied in the seven categories which are:

Category 1: Leadership

This category addresses how senior leaders guide the organisation in setting direction, creating a vision for the future in terms of deploying clear values and high performance expectations, and how the organisation addresses its responsibilities to the public, and practises good citizenship. The items that make up this category are:

- Organisational leadership, and
- Public responsibility and citizenship.

Category 2: Strategic Planning

This category addresses how the organisation sets strategic directions, and how it determines key action plans. It emphasises that customer-driven quality and operational performance excellence are key strategic issues that need to be integral in the overall planning process. This category is made up of the following items:

- Strategy development, and
- Strategy deployment.

Category 3: Customer and Market Focus

This category addresses how the organisation determines requirements and expectations of customers and markets. It stresses relationships as an important aspect of an overall listening and learning strategy. Customer satisfaction results provide vital information for understanding customers and their views, and the marketplace and its behaviour.

This category is made up of:

- Customer and market knowledge, and
- Customer satisfaction and relationships.

Category 4: Information and Analysis

This category addresses the management, effective use, and analysis of data and information to support key organisation processes and the organisation's performance management system. It is central to this criterion for all key information to effectively

measure performance and manage the organisation, and to drive improvement of performance and competitiveness. This category is made up of the following:

- Measurement of organisational performance, and
- Analysis of organisational performance.

Category 5: Human Resource Focus

This category addresses how the organisation enables its workforce to develop its full potential, and how the workforce is aligned with the organisation's objectives by addressing key human resource practices. Included in the human resource focus is an emphasis on human resource planning, the work environment, and the employee support climate to ensure alignment with the overall organisational strategy. This category is made up of:

- Work systems.
- Employee education, training and development, and
- Employees well being and satisfaction.

Category 6: Process Management

This category addresses aspects of how key production/delivery and support processes are designed, managed, and improved. Built into this criterion are the key requirements for efficient and effective process management, which include an effective design, a prevention orientation, linkage to suppliers and partners, operational performance, cycle time, and continuous improvement. Flexibility, cost and cycle time reduction are increasingly important in all aspects of process management and organisational design.

This category is made up of:

- Product and service processes.
- Support processes, and
- Supplier and partnering processes.

Category 7: Business results

This category addresses the organisation's performance and improvement in its key business areas: customer satisfaction, financial and marketplace performance, human

3.9.3 European Quality Award (EQA)

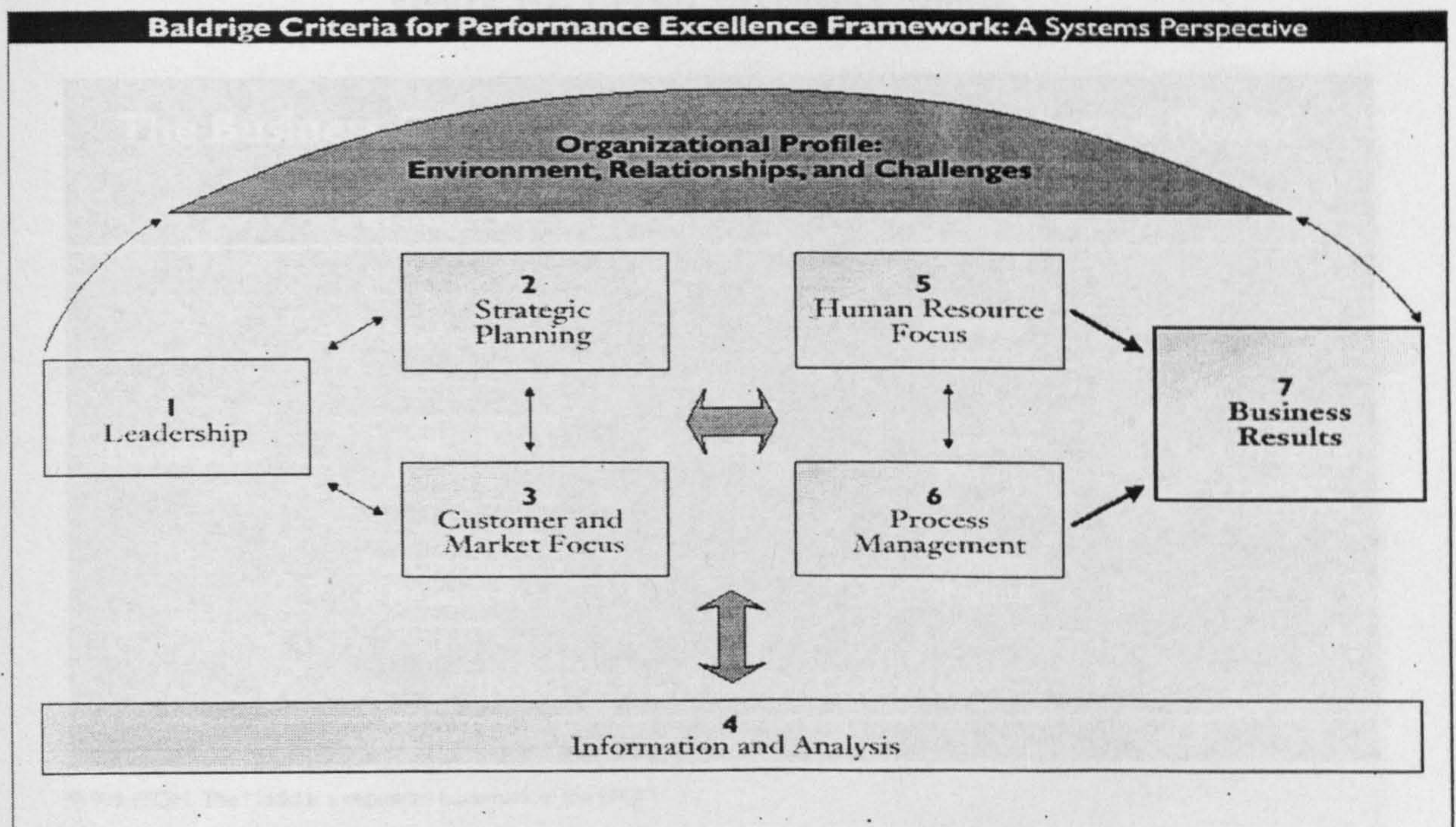
resources, supplier and partner performance, and operational performance. The category also examines how the organisation performs relative to competitors. Thus this category provides information that relates to measures of progress for evaluation and improvement processes, products and services, aligned with overall organisational strategy to determine overall organisational business performance. This category is made up of:

- Customer-focused results.
- Financial and market results.
- Human resource results.
- Supplier and partner results, and
- Organisational effectiveness results.

3.9.2.3 Baldrige Framework

The seven criteria categories are integrated into a model as shown in Figure 3.1

Figure 3-1: Baldrige Model



Source: www.calexcellence.org.2005

3.9.3 European Quality Award (EQA)

Following America's successful introduction of the Baldrige Award, Europe too realised the importance of self-assessment in monitoring and improving organisational performance (Oakland, 2000). The European Foundation for Quality Management (EFQM) was founded in 1988 by the presidents of fourteen major European companies, with the endorsement of the European Commission. The EFQM later launched the European Quality Award (EQA) in 1991. The model is used for a systematic review and measurement of organisational processes and results, which are identified as the 'Enablers' and the 'Results', respectively. The model's enabling and results criteria have been maintained, even though the model has recently undergone some changes, the first major modification since its inception in 1988. This means the model recognises that processes are the means to an end. The model shows that improvement in results can only be achieved through an improvement in processes by involving the human resource (Oakland, 2000).

Figure 3-2: EFQM Excellence Model

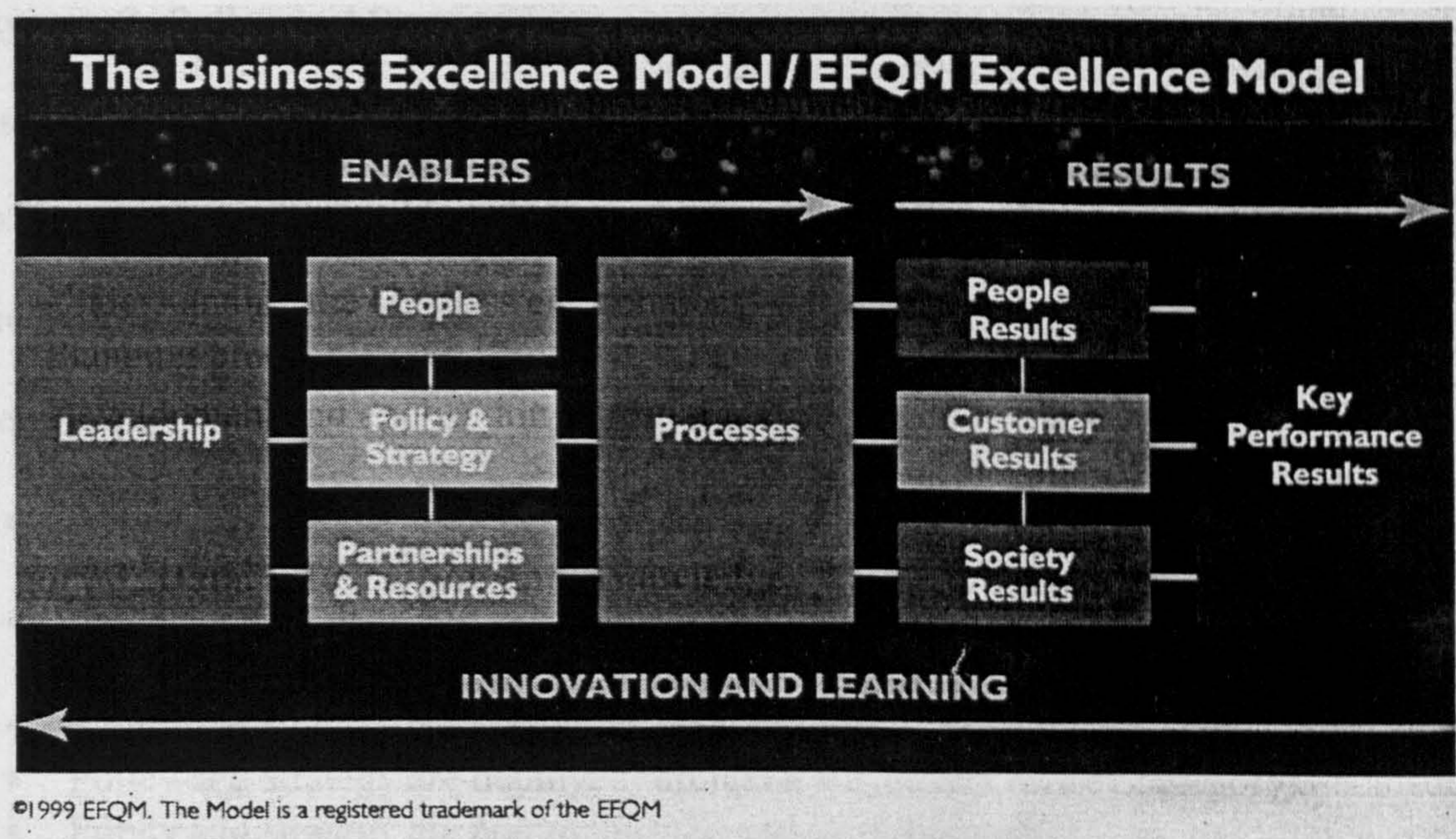


Figure 3.2: EQA Framework (Source: www.efqm.org 2000)

3.9.3.1 EQA Criteria

The EQA model's (Figure 3.2) nine categories define the criteria used by organisations in assessing their progress towards excellence, and these categories are now described in detail:

Category 1: Leadership

This category deals with how leaders develop the culture and values required for long-term success, and implement them through appropriate behaviours and actions, and how leaders are personally involved in ensuring that the organisation's management system is developed and implemented. Leadership covers a number of key areas that include:

- Leaders develop and are role models of a culture of excellence.
- Leaders are personally involved in ensuring that the organisation management system is developed and implemented.
- Leaders are involved with customers, suppliers, partners and representatives of society.
- Leaders motivate, support and recognise the organisation's people.

Category 2: Policy and Strategy

This category deals with how the organisation develops its mission and vision, and implements these through a clear stakeholder-focused strategy supported by relevant policies, plans, objectives, targets and processes. The key areas covered under this criterion are:

- Policy and strategy are based on the present and future needs and expectations of stakeholders.
- Policy and strategy are based on information from performance measurement, research, learning and creativity-related activities.
- Policy and strategy are developed, evaluated, reviewed and updated.
- Policy and strategy are deployed through a framework of key processes.
- Policy and strategy are communicated and implemented.

Category 3: People

This category deals with how the organisation manages, develops and releases the knowledge and full potential of its people at an individual, team-based and organisation-wide level, in order to support its policy and strategy and the effective operation of its processes. The different parts to be addressed under this criterion are:

- People resources are planned, managed and improved.
- People's knowledge and competencies are sustained, reviewed and developed.
- People are involved and empowered.
- People and the organisation have an effective dialogue.
- People are rewarded, recognised and cared for.

Category 4: Partnerships and Resources

This category defines how the organisation manages its external partnerships, for example suppliers, distributors, joint ventures, alliances, regulatory bodies, and internal resources like financial, information, knowledge, intellectual property, buildings, equipment, materials, and technology, in order to support its policy and strategy and the operation of its processes. This criterion is made up of the following key parts that determine how:

- External partnerships are managed.
- Financial resources are managed.
- Buildings, equipment and materials are managed.
- Technology is managed.
- Information and knowledge resources are managed.

Category 5: Processes

This category deals with how the organisation manages and improves its processes in order to fully satisfy and generate value for its customers. The criterion parts are:

- Processes are systematically managed.
- Customer needs and expectations for products and services are identified.
- Products and services are designed and developed or improved.
- Products and services are produced, delivered and serviced.

- Customer relationships are managed and enhanced.
- Processes are continuously improved or changed in order to fully satisfy and generate stockholder value for its customers and other stakeholders.

Category 6: Customer Results

This category defines what the organisation is achieving in relation to its external customers. This criterion is made up of the following parts:

- Perception measures
- Internal indicators

Category 7: People Results

This category defines what the organisation is achieving in relation to its people.

This criterion is made up the following parts:

- Perception measures
- Internal indicators

Category 8: Society Results

This category refers to what the organisation is achieving in satisfying the needs and expectations of the local, national and international society , as appropriate. This criterion is made up of the following parts:

- Perception measures
- Internal indicators

Category 9: Key performance Results

This category defines what the organisation is achieving in relation to its planned performance and satisfying the needs and expectations of everyone with a financial or other stake in the organisation. The parts that make up the criterion are:

- Key performance outcomes
- Key performance indicators

3.9.3.2 RADAR Logic

At the centre of the model lies the logic known as RADAR, which stands for: Results, Approach, Deployment, Assessment and Review, hence the RADAR logic.

(www.efqm.org, 2000). This logic states that an organisation needs to:

- Determine the **Results** it is aiming for as part of its policy and strategy-making process. These results cover the performance of the organisation, both financially and operationally, and the perceptions of the stakeholders.
- Plan and develop an integrated set of sound **Approaches** to deliver the required results now and in the future
- **Deploy** the approaches in a systematic way to ensure full implementation.
- **Assess and Review** the approaches followed, based on monitoring and analysis of the results achieved and the on-going learning activities. Based on this, identify, prioritise, plan and address for each result's sub-criterion.

3.9.3.3 Fundamentals of Excellence

The EFQM model is a non-prescriptive framework that recognises that there are many approaches to achieving sustainable performance excellence. Within this non-prescriptive approach, there are fundamental concepts that underpin the EFQM model, and these include (www.efqm.org, 2000):

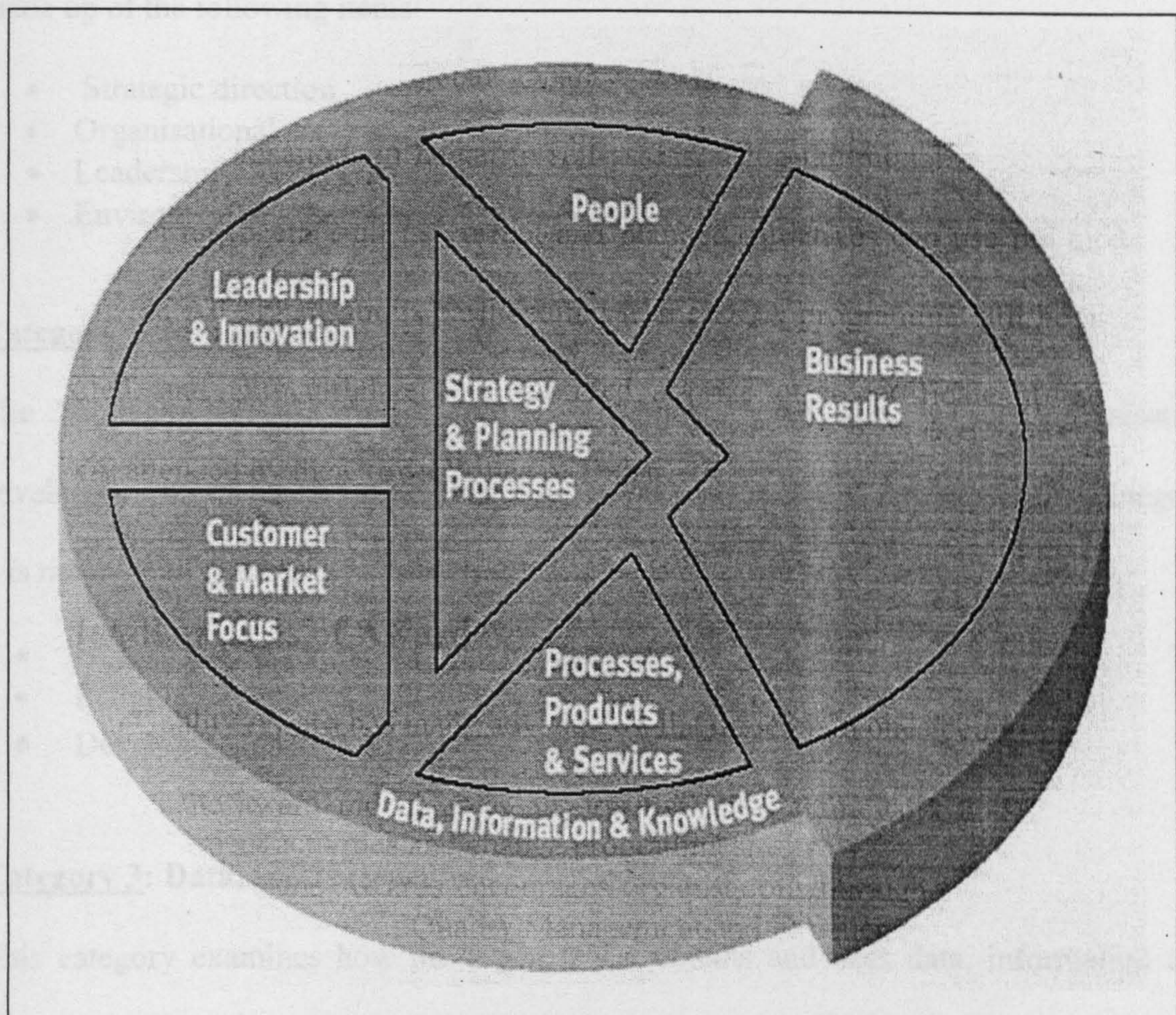
- Results orientation
- Customer-focus
- Leadership and constancy of purpose
- Management by processes and facts
- People development and involvement
- Continuous learning innovation and improvement
- Partnership development
- Public responsibility

There are two other business excellence models that are in many ways similar to the MBNQA and the EQA. These are the Australian Quality Award and the Dubai Quality Award.

3.9.4 Australian Quality Award (AQA)

The Australian Quality Award awarded by the Australian Quality Council was introduced in 1988. The Australian Quality Council aims to encourage the widespread use of the framework within organisations in their strategic change and business improvement plans (Zink et al., 1997). The AQA is a useful tool to assess the current practice of an organisation and to provide feedback opportunities for improvement into its strategic planning processes, for positive business results (www.aqc.org.au, 2000)

Figure 3-3: Australian Quality Award Framework (Source: www.aqc.org.au)



3.9.4.1 Australian Quality Award Criteria

The Australian Quality Award has seven criteria, as shown in Figure 3.3, and this section presents each criterion and what it entails.

Category 1: Leadership and Innovation

This category explores how leadership uses the principles underpinning the model. It examines how management practice and behaviour are linked to those principles, and how their application has become part of daily life. It also addresses how effective leadership creates an innovative climate. The 'leadership and innovation' category is made up of the following items:

- Strategic direction
- Organisational culture
- Leadership throughout the organisation
- Environmental and community contribution

Category 2: Strategy and Planning Process

The 'strategic and planning process' category explores the way the organisation develops its strategies and plans, and how it communicates and deploys them. Category 2 is made up of the following items:

- Understanding the business environment
- Planning process
- Development and application of resources

Category 3: Data, Information and Knowledge

This category examines how the organisation obtains and uses data, information and knowledge to support decision-making at all levels of the enterprise. Category 3 is made up of the following items:

- Collection and interpretation of data and information

- Integration and use of information for decision –making
- Creation and management of knowledge

Category 4: People

This category explores the way in which all people are encouraged and enabled to make a personally satisfying contribution to the achievement of the organisation's goals. The

'people' category is made up of the following items:

- Involvement and commitment
- Effectiveness and development
- Health, safety and well-being

Category 5: Customer and Market Focus

This 'customer and market' category addresses the way in which the organisation analyses its customers and markets, and how it reflects the needs of its current and future

external customers in all its activities. Category 5 is made up of the following items:

- Knowledge of customers and markets
- Customer relationship management
- Customer perception of value

Category 6: Processes, Products and Services

This category examines the processes the organisation uses to supply quality products and services to its customers, and the processes used to improve those products and

services. Category 6 is made up of the following items:

- Innovation process
- Supplier and partner relationships
- Management and improvement of processes
- Quality of products

Category 7: Business Results

The intent of Business Results is to demonstrate the performance of the organisation to date and, by using appropriate measures, to envisage its success in the future. The items in Category 7 are:

- Indicators of success
- Indicators of sustainability

The Australian Business Excellence Model helps to conceptualise a systems approach to management as defined by the Australian Business Excellence Framework. All categories are linked to one another and all categories are interdependent. The framework promotes a systems approach by exploring how the organisation works to achieve its goals, and leaves the specifics of addressing each facet of management to the people within the organisation.

3.9.4.2 Australian Business Excellence Framework Principles

The ABEF is based on twelve management principles that are mapped on to the seven categories that make up the AQA model (Figure 3.3). These principles are highlighted as (www.aqc.org.au):

- Clear direction allows organisational alignment, and a focus on the achievement of goals.
- Mutually agreed plans translate organisational direction into action.
- Understanding what customers value, now and in the future, influences organisational direction, strategy and action.
- To improve the outcome, improve the system and its associated processes.
- The potential of an organisation is realised through its people's enthusiasm, resourcefulness and participation.
- Continual improvement and innovation depend on continual learning.
- All people work in a system; outcomes are improved when people work on the system.
- Effective use of facts, data and knowledge leads to improved decisions.
- All systems and processes exhibit variability, which impacts on predictability and performance.
- Organisations provide value to the community through their actions to ensure a clean, safe, fair and prosperous society.

- Sustainability is determined by an organisation's ability to create and deliver value for all stakeholders.
- Senior leadership's constant role-modelling of each of these principles, and creating a supportive environment in which to live these principles, will help the organisation and its people to reach their potential.

3.9.4.3 Australian Business Excellence Awards

The Australian Business Excellence Awards are the platform for organisations that have achieved business excellence across all categories of the model. The AQC offers two levels of recognition: the highly prestigious award level, recognising leading Australian organisations currently demonstrating best practice across the Australian Business Excellence Awards; and the business improvement level, encouraging those who are working towards business excellence through the framework. There are four levels of entry for the awards, and these are the business improvement level, award level, award gold level and Australian Business Excellence Prize (www.aqc.org.au).

3.9.5 Dubai Quality Award

Since its inception in 1994, the Dubai Quality Award has continued to be the driving force behind the quality and continuous improvement movement in Dubai. The Dubai Quality Award model is considered by many as the quality roadmap for all organisations operating in the Emirate. It is leading the city towards becoming a real world-class centre in every respect.

In accordance with the basis of modern quality thinking, the Award itself must continue to improve and develop to reflect leading contemporary practices in the field of TQM. Therefore, the Dubai Quality Award Secretariat (DQAS) sought international comparability through making the DQA criteria fully compatible with the international

best practice. It is the DQAS belief that it is not enough for Quality Awards to call for best practice, but they themselves should be seen to be based on best practice. The DQAS calls upon all organisations operating in Dubai, large or small, private or public, to use the DQA process as their methodology in their quest FOR achieving Quality and Excellence.

Dubai can become a world-class quality centre one organisation at a time. Therefore, by participating in and supporting Dubai's Drive for Quality promoted by the DQA, Dubai can maintain its competitive edge, meet its challenges, and realise its stated vision of becoming the world's most favourite centre for business and trade.

The Dubai Quality Award (DQA), Dubai Quality Appreciation Program the (DQAP) and the Dubai Programme for Government Excellence have all contributed significantly to the improved awareness of quality issues in the business and Government community of the Emirate. The awards have also helped earn Dubai the position of a global city. The city has become the quality leader in the region. Not only have the awards promoted the continual development of the business community, but they have also started to increase awareness in the public sector.

In line with the principles of quality, the award process is itself subject to continuous improvement. The result of this is that the decision has been made to develop further the existing award models. The refined award model is also to be aligned with the internationally recognised models of Business Excellence applied elsewhere. Many other organisations and countries worldwide use a similar framework to that of the DQA for their self-assessment and award processes. A great advantage for many is that

it gives a focus for all the different business and quality initiatives they already have. Through continuous improvement, the refined award and self-assessment process will build on the current strong quality foundations. By bringing the DQA into line with internationally recognised models, there will be more scope for organisations to benchmark themselves against truly world-class standards.

The refined award will use similar criteria to the present award. However, all types of organisations: public, private, large or small, can now use the same award model. Organisations will be able to apply for the award in their relevant sector. The new model and awards are based on the excellence of the organisation as a whole, not just the quality initiatives. The Dubai Quality Award Secretariat (DQAS) wants to encourage all organisations in Dubai to self-assess, using the model. Any organisation wanting to bring together all its current and planned initiatives can use the model for improvement. All organisations participating in the DQA programme will be assessed, site-visited, and may ultimately be awarded a prize or a certificate at the award ceremony attended by the Crown Prince of Dubai.

3.9.5.1 Advantages of Award

The Dubai Quality Award has many advantages, the three main ones being:

- Using the award model gives an organisation a framework and focus for its improvement activities and change programmes.
- The kudos of the Awards encourages organisations throughout the economy to take up the practices of Quality Management and Excellence.
- By promoting award winners, other organisations have exemplars to benchmark themselves against. This also helps spread best practice.

3.9.5.2 Aims and Categories of Award

The DQA Supreme Committee developed the award with the intention to organise and boost industry, as well as internal and external trade in the Emirate. The Committee seeks, through promoting quality and the award, to encourage companies and establishments to produce and provide a higher quality of product and service. By doing this, the Emirate's contribution to the region and stature in the international community will be enhanced. As with other awards, the aim of the DQA is to recognise and reward those organisations that show themselves to be the best quality practitioners. [Tables 3.2 and 3.3 give the names of winners of categories for the years 2003 and 2004, respectively].

3.9.5.2.1 Award Categories

There are three different categories of the Dubai Quality Award:

1. **Dubai Quality Award Gold Category (GOLD)**

This award is presented to organisation from all sectors of the economy that have been previous winners of the DQA, after demonstrating tangible improvement over past performance. Winners may not reapply for three consecutive years.

2. **Dubai Quality Award (DQA)**

This award is presented to enterprises in different sectors of the economy, such as manufacturing, service, tourism, construction, finance, professional, and trade.

Winners may apply for the Gold category three years after their win.

3. **Dubai Quality Appreciation Programme (DQAP)**

A certificate of appreciation is presented to winners in this category, in appreciation of their efforts and in acknowledging their work to date on their journey for excellence.

This appreciation programme is open to small and medium-sized organisations, from all sectors of the economy. It is also open to larger organisations on divisions within organisation. A minimum passing level is set annually by the DQA Secretariat.

3.9.5.2.2 Summary of Application Rules

For Gold Applicants:

- Applicants in this category must be DQA or GOLD Winners (with a minimum of 3 years since their last win).
- Winners may reapply for another GOLD Award 3 years after their initial win.
- Applicants in this category must focus on improvement activities since their last win (not reproducing an augmented version of the old submission document).
- Results must stretch over at least 5 years, showing comparisons with national and international benchmarks and best in class as applicable.
- Non-winners in this category may reapply 2 years later.

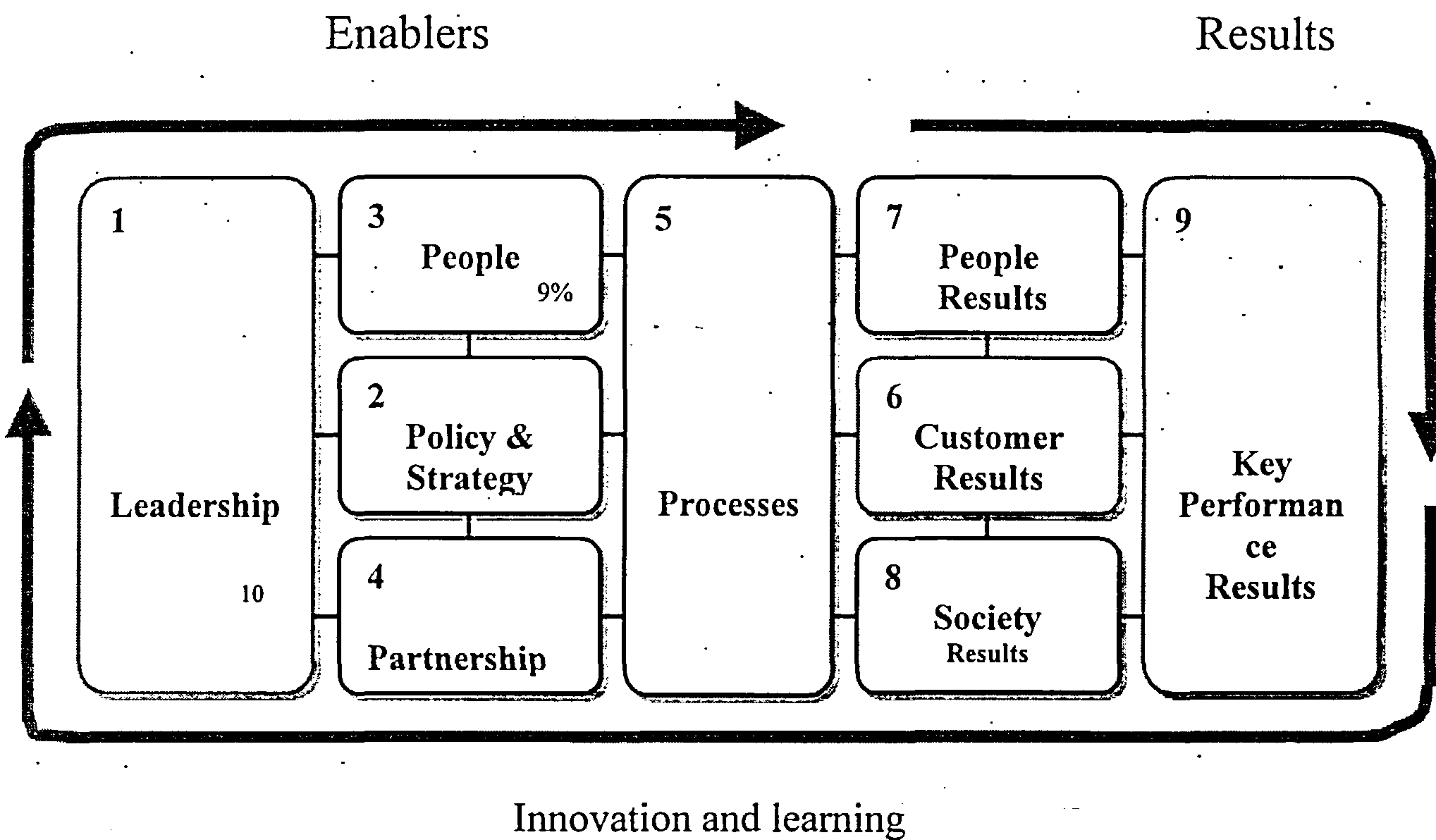
For DQA Applicants:

- Companies may enter this category directly or as DQAP winners.
- Winners in this category may apply for the GOLD category 3 years after being winners.
- Applicants in this category must focus on showing results that are caused by approaches and trends that stretch over 3-5 years, with benchmarks against national competitors as applicable.
- Non-winners in this category may reapply 2 years later.

For DQAP Applicants:

- Companies may apply directly for this category (provided that they have not been past winners of any of the above categories).
- Winners in this category may apply for the DQA category 2 years after their win.
- Results are necessary, but the time-span limit of 3-5 years will not be enforced on applicants in this category, thus appreciating that this submission represents the start of their journey.

Figure 3-4: Dubai Quality Award Excellence Framework



3.9.5.3 Dubai Excellence Model Criteria

1. Leadership

The leadership criterion covers how leaders develop and facilitate the achievement of the organisation's mission and vision; how they develop the values required for long-term success and implement these via appropriate actions and behaviours. It is also about how leaders are personally involved in ensuring that the organisation's management system is developed and implemented.

This criterion covers the following four sub-criteria that should be addressed by applicant organisations listed overleaf as follows.

2. Policy and Strategy

This criterion is concerned with how the organisation implements its mission and vision through a clear stakeholder-focused strategy, supported by relevant policies, plans, objectives, targets and processes.

3. People

How the organisation manages, develops and releases the knowledge and full potential of its people at an individual, team-based and organisation-wide level, and plans these activities in order to support its policy and strategy and the effective operation of its processes.

4. Partnerships and Resources

How the organisation plans and manages its external partnerships and internal resources in order to support its policy and strategy and the effective operation of its processes.

5. Process

How the organisation designs, manages and improves its processes in order to support its policy and strategy and fully satisfy, and generate increasing value for, its customers and other stakeholders.

6. Customer Results

What the organisation is achieving in relation to its external customers.

7. People Results

What the organisation is achieving in relation to its people.

8. Society Results

What the organisation is achieving in relation to local, national and international society as appropriate.

9. Key Performance Results

What the organisation is achieving in relation to its planned performance.

Depending on the purpose and objectives of the organisation, some of the measures contained in the guidance for Key Performance Outcomes may be applicable to Key Performance Indicators and vice versa.

Table 3-2: Winners Dubai Quality Award-2003

| No. | Company Name | Category | Sector |
|-----|---------------------------------------|----------|---|
| 1 | Fedex | Gold | Service |
| 2 | Oman Insurance Comapany (PSC) | Gold | Finance |
| 1 | Jebel Ali Free Zone Authority | DQA | Service |
| 2 | Al Naboodah Engineering Services(LLC) | DQA | Construction |
| 3 | Thomas Cook Al Rostamani Exchange Co. | DQA | Finance |
| 4 | Total Lubricants Blending UAE (LLC) | DQA | Manufacturing |
| 5 | Co-op Islami Food | DQA | Trade |
| 6 | Wild Wadi Water Park | DQA | Tourism |
| 7 | National Bank of Abu Dhabi | DQA | Finance |
| 1 | Dubai Customs | DQAP | Service |
| 2 | Giordano Fashions (LLC) | DQAP | Trade |
| 3 | Kanoo Group (Shipping Division) | DQAP | Service |
| 4 | IQ Selection | DQAP | Service |
| 5 | Coffee Bean and Tea Leaf | DQAP | Service |
| 6 | Seville Products (LLC) | DQAP | Manufacturing & Marketing Consumer Goods |

| | | | |
|---|--------------------------|------|---------------|
| | | | (FMCG) |
| 7 | Technical Resources Est. | DQAP | Service |
| 8 | Grand Stores | DQAP | Trade |
| 9 | Acer Computer (ME) Ltd | DQAP | Manufacturing |

Source: DQA/Database

Table 3-3: Winners Dubai Quality Award-2004

| No. | Company Name | Category | Sector |
|--|---|--------------|---------------|
| Dubai Human Development Award (DHDA)Winners | | | |
| 1 | Jumeirah International Hotel | Appreciation | Tourism |
| 2 | Jebel Ali International Hotel | Appreciation | Tourism |
| 3 | National Bank of Abu Dhabi | DHDA | Finance |
| 4 | Dubai Islamic Bank | DHDA | Finance |
| Dubai Quality Appreciation Programme Winners (DQAP) | | | |
| 1 | DNATA Airport Operations | DQAP | Service |
| 2 | Dubai Express LLC (Freightworks Branch) | DQAP | Service |
| 3 | PWC Logistics | DQAP | Service |
| 4 | National Flour Mills Co (LLC) | DQAP | Manufacturing |
| 5 | Al Ain Vegetable Processing & Canning Factory | DQAP | Manufacturing |
| 6 | DNATA Agencies | DQAP | Tourism |
| 7 | Dubai Pharmacy College | DQAP | Education |
| 8 | ABN AMRO Bank N-V | DQAP | Finance |
| 9 | Jobtrack | DQAP | Professional |
| Dubai Quality Award (DQA)Winners | | | |
| 1 | Burj Al Arab Hotel | DQA | Tourism |

| | | | |
|---|---|----------------------|---------------|
| 2 | Jumeirah Beach Club and Spa | DQA | Tourism |
| 3 | Emirates Petroleum Products Co (EPPCO) LLC | DQA | Trade |
| 4 | Kanoo Group (Machinery Division) | DQA | Trade |
| 5 | Al Ansari Exchange Co. | DQA | Finance |
| Dubai Quality Award GOLD Winner (2ad Gold) | | | |
| 1 | Dubai Cable Company (Private) Limited | 2 nd Gold | Manufacturing |

Source: DQA/ Database

3.10 COMPARING QUALITY AWARDS

The five quality awards, namely Deming Prize of Japan, Baldrige Award of the United States, the European Quality Award, the Australian Quality Award and Dubai Quality Award where been presented. When compared, it was found that these awards have significant similarities in criteria used for assessing the performance of the applicants, in that they focus on issues affecting leadership, planning, employees, processes, suppliers, and results (Vorkuka et al., 2000). Also, the award programmes used the continuous improvement concept to keep their positions as benchmarks in quality improvement, and as principals in the formation of global models, and the continents in which the awards are administered represent a significant amount of the world's production of goods and services (Vorkurka et al. 2000). In view of the launching of these quality management frameworks throughout the world, similar concepts, standards and quality movements have evolved (Nakhai and Neves, 1994).

The award frameworks are making major contributions in the definition and practice of TQM (Nakhai and Neves, 1994). They are helpful in defining and describing TQM in a

way in which management can easily understand, and therefore assist in creating top management ownership of the TQM programme (van der Wiele et al., 2000).

The study demonstrates that the criteria of some of the models of excellence have changed over time, particularly the Baldrige Award, the European Quality Award and the Australian Quality Award. It also shows that new models have been launched mainly on the basis of the criteria of the American and European Quality models; for example, the Dubai Excellence Model. Table 3.4 compares the criteria of the five Quality Award Models. From the same analysis, the critical factors covering seven key areas are highlighted, namely: leadership, policy and strategy, customer focus, information and analysis, human resource focus, process management, and business results. This analysis is supported by the literature, as for example, studies by Nakhai and Neves (1994), Bohoris (1995) and Vorkurka et al., (2000) scrutinised the main quality models and their use in self-assessment.

Table 3-4: Criteria of Quality Award Models Comparing

| Deming Prize | Baldrige Award | European Quality Award | Australian Quality Award | Dubai Quality Award |
|---|--|------------------------|-----------------------------|-------------------------------|
| 1. Company Policy and Planning | 1. Leadership | 1: Leadership | 1. Leadership | 1. Leadership |
| 2. Organisation and its Management. | 2. Information and Analysis | 2. Policy and Strategy | 2. Policy and Planning | 2. Policy and Strategy |
| 3. Quality Control, Education and Dissemination | 3. Strategic Quality Planning | 3. People Management | 3. Information and Analysis | 3. People |
| 4. Collection, Transmission and Utilisation of Information on | 4. Human Resource Development and Management | 4. Resources | 4. People | 4. Partnerships and Resources |

| | | | | |
|----------------------|------------------------------------|--------------------------|--|----------------------------|
| Quality. | | | | |
| 5. Analysis | 5. Management of Process Quality | 5. Processes | 5. Customer Focus | 5. Process |
| 6. Standardisation | 6. Quality and Operational Results | 6. Customer Satisfaction | 6. Quality of Process, Product and Service | 6. Customer Results |
| 7. Control | 7. Customer Focus and Satisfaction | 7. People Satisfaction | 7. Organisational Performance | 7. People Results |
| 8. Quality Assurance | | 8. Impact on Society | | 8. Society Results |
| 9. Effects | | 9. Business Results | | 9. Key Performance Results |
| 10. Future Plans | | | | |

3.11 SUMMARY

This chapter discussed the concepts of business excellence and self-assessment in organisations, their use and benefits. Through a discussion of self-assessment, it is recognised that quality as part of a business strategy is important in today's global market place. It should be nurtured into a corporate way of life, and its success depends on how well it is integrated into the corporate culture.

The chapter also discussed five world-renowned quality models and the criteria used in self-assessment, namely the Deming Prize, the MBNQA, the EFQM model, the Australian Business Excellence Model, and the Dubai Quality Award.

Finally, this chapter made a review of previous studies on TQM CSFs and has found that a group of factors appear to be critical for sustainable TQM implementation in

banking services. All these factors have been classified into three basic dimensions of (1) strategic level, (2) tactical level, and (3) operational level. The significant importance and implications of each factor are discussed.

Chapter 4

Current Banking Practices in the United Arab Emirates

A Review of the Literature III

4.1 INTRODUCTION

In the last decade, quality has become the key slogan in UAE organisations as they strive for competitive advantage in an atmosphere characterised by liberalisation, globalisation and knowledgeable customers. An over-abundance of choices beckons the UAE customers today. The post-liberalised society is witnessing unprecedented competition among different organisations in the UAE. Thanks to economic reforms and competition, organisations are undergoing a paradigm shift from an inward-production-led philosophy to an outward-customer-focused approach.

Major service industries such as banking and airlines, which were largely government-owned until recently, are facing stiff competition from new private sector entrants. These private sector firms with their state-of-the-art service systems and high service quality pose a real threat to the government-owned public sector organisations. The bottom line is that service quality should form the basis on which all customer retention strategies are built (Nerurkar, 2000). So far, many UAE companies have heard the clarion call as far as quality is concerned.

Undoubtedly, the UAE service sector has become increasingly vibrant in the past few years. Heavy industrialisation stemming from the government's liberalisation policies, coupled with the process of globalisation, has resulted in the UAE market integrating with the global market. Moreover, perceived service quality tends to play a significant

role in high involvement (high interaction between customers and service providers) industries like banks (see Angur et al., 1999). Banks traditionally have long-term business relationships with customers. In addition, the banking sector is large enough to capture and represent almost all the critical features of customer-perceived service quality and the critical dimensions of service quality that the management may have to encounter in order to manage a service organisation effectively.

Therefore an analysis of banks in UAE from a 'service quality perspective' may sound interesting at this juncture. Furthermore, the literature (both research and practitioner) available on service quality issues in developing countries is far less when compared to the wealth of knowledge available about well-developed economies (Kassem, 1998; Firoz and Maghrabi, 1994; Yavas et al., 1997; Angur et al., 1999).

Although many leading business magazines like *Business Today* have, of late, started ranking the banks on several criteria such as operational ratios, profitability ratios, productivity ratios, financial parameters, net profits, total assets, advances and total deposits (*Business Today*, 1998a, b, 1999), these rankings were essentially based on financial aspects rather than on the nature and level of service quality delivered.

A prominent line of research stresses the role of the financial institutions in economic growth. Among others, Rajan and Zingales (1998), Bencivenga and Smith (1991), McKinnon (1973), and Goldsmith (1969), provide conceptual descriptions of how, and empirical examples of when, the financial system affects economic growth. Building on these seminal contributions, El-Kuwaiz (1995), Bhattacharya (1994, 1993), King and Levine (1993), Choudhuri et al. (1995), De Gregorio and Guidotti (1995) and Hassan

and Islam (1995) show that measures of banking development are strongly correlated with economic growth in broad cross-section countries. According to this view of research a well functioning financial system is critical for sustained economic growth. On the basis of data from 35 countries between 1860 and 1963, Goldsmith (1969) concludes “a rough parallelism can be observed between economics and financial development if periods of several decades are considered”. In an important paper, King and Levine (1993) investigate the causality problem following a post hoc, ergo proper hoc approach. They show that the predetermined components (critical success factors) of financial development are a good predictor of growth over the next 10 to 30 years. Empirical studies by Bhattacharya (1993,1994) show that all GCC countries except Bahrain and Kuwait started the decade of 1980s with a low level of financial deepening. As economic activity has accelerated and banking habits developed, the level of financial deepening has increased substantially in GCC countries over the past several years. Moreover, there is an increasing attempt to reform financial and capital markets in this region. Commercial banks are the most dominant financial institutions in any country. Thus, both the domestic and foreign banks in GCC countries have greater opportunity in accelerating the process of economic growth and eventually could play a dominant role in economic development.

The first part of this chapter begins with an introduction to the service industry in the UAE. It outlines the objectives of the central bank of UAE and its role in controlling the credit rate offered by UAE commercial banks, as well as their role in the overall banking structure and customer development. The second part looks at the role technology is playing in the banking industry, how it is impacting on service quality provision, its effects on traditional forms of customer/service provider interaction, and

its influence on models of competition. The final part of the chapter discusses the structure of the UAE economy and banking sector. It highlights the growth and performance of both domestic and foreign banks.

4.2 UNITED ARAB EMIRATES

4.2.1 Structure of Economy

The UAE is made up of seven small states (Emirates): Abu Dhabi, Dubai, Sharjah, Ajman, Umm Al Qaiwain, Ras Al Khaimah and Fujairah. UAE is member of GCC, and all Emirates have relatively stable political systems. The UAE has proven crude oil reserves of around 98 billion barrels (or 10% of world reserves), which at the current rate of extraction, is expected to last for over 120 years. The oil wealth is concentrated in Abu Dhabi, which contributes to around 90% of the total oil production of the country. The UAE also boasts substantial reserves of natural gas, accounting for 4% of world reserves, which are expected to last over 100 years at current levels of production. The bulk of gas reserves (over 90%) are located in Abu Dhabi. The government of Abu Dhabi has been taking steps to privatise many companies.

Dubai accounts for the bulk of the mercantile activity in the emirate and about a quarter of the country's GDP. The non-oil sector contributes to more than 83% of the emirate's GDP at present. Dubai's oil income was used to build a world-class infrastructure over the last fifteen years, but now that the emirate's reserves are running low, and likely to be extinguished by 2010, the focus has shifted to building a vibrant non-oil economy. The government has set up a Media City to develop Dubai into a regional hub for international IT companies. According to the Dubai Chamber of Commerce and Industry, the government is expected to spend about US\$1.4 billion every year for the

next five years on various projects. Dubai remains a major gold trading centre and acts as a gateway for gold into the rest of the Middle East and to some extent, the Indian subcontinent. While the government continues to be a major spender, the main stimulus for growth comes from the private sector.

The GDP growth rate in the UAE increased by a robust 16.2% in 2004 due to high oil prices. According to the Central Bank estimate, the rate of inflation fell below 3% in the years of 1998, 1999, 2000, 2001, 2002, 2003 and 2004, compared to previous years, mainly because of the cheaper imports and the depreciation of most currencies against the dollar. The fluctuations in the GDP growth rates over the year are due to the volatility in the price of oil. The non-oil sector is gradually becoming an important contributor to the local economy and accounted for 74% of total GDP in 1999. But oil revenues continue to drive non-oil activity in the economy. The UAE's non-oil sector grew by 6.3% in 2004, as against 3.4% in 1999. However, the sector's contribution to the total GDP dropped to 62% (from 74% in 1999) owing the substantial increase to the oil sector GDP in 2002.

The balance of payments has remained in surplus for several years. Weak oil prices led to a sharp decline in total exports in 1998, while continued to rise, resulting in a much smaller trade surplus (US\$500mn) that year as compared to the previous year (US\$7.4mn). However, improved oil prices pushed up the trade surplus to US\$3.4 billion in 1999. The substantial increase in the average price of oil in 2004 is estimated to have pushed up the surplus to about US\$9.5 billion in 2004.

4.2.2 Banking Sector

4.2.2.1 The Central Bank

The Central Bank of the UAE was formed under Federal Law 10 of 1980, and it took over the responsibilities of the Currency Board. The bank's duties include advising the government on monetary and financial issues, issuing currency, maintaining gold and foreign currency reserves, formulating credit policy, regulation, and supervision. The UAE currency is fixed to the US dollar, and thus the central bank has a limited role to play in setting monetary policy and controlling interest rates. Some monetary and credit control is exercised through its sale and purchase of certificates of deposits.

The central bank, however, plays a role in formulating and monitoring credit policy, and in supervising the financial sector, and has been particularly active over the last few years. In 1997, limits were established for lending against shares. In 1998, the central bank made it mandatory for all banks to use IAS. In early 1999, local banks were instructed to establish clear corporate structures. All commercial banks are licensed by the central bank. Commercial banks incorporated in the UAE must be majority-owned by UAE nationals. They have to be registered as shareholding corporations under the UAE Companies Law. All banks must be registered with the Federal Ministry of Economy and Trade.

4.2.2.1.1 Objectives

The Central Bank formally commenced its functions on 11 December 1980 in pursuance of the provision of Union Law No. (10) of 1980, which superseded Union Law (2) of 1973, establishing the former Currency Board in the UAE.

In defining the Central Bank's objectives, Article 5 of Union Law No. (10) of 1980 states that the Central Bank:

"Shall direct monetary, credit and banking policy and supervise its implementation in accordance with the States general policy and in such ways as to help support the national economy and stability of the currency."

For the attainment of these objectives, the said law empowers the Central Bank to:

1. Exercise the privilege of currency issue in accordance with the provisions of this Law.
2. Endeavour to support the currency, maintain its stability internally and externally, and ensure its free convertibility into foreign currencies.
3. Direct credit policy in such ways as to help achieve a steady growth of the national economy.
4. Organise and promote banking and supervise over the effectiveness of the banking system according to the provisions of this Law.
5. Undertake the functions of the bank of the Government within the limits prescribed in this Law.
6. Advise the Government on financial and monetary issues.
7. Maintain the Government's reserve of gold and foreign exchange.
8. Act as the bank for banks operating in the Country.
9. Act as the State's financial agent at the International Monetary Fund.

To summarise the role of the Central Bank therefore, one might say it is a benevolent 'big brother' overarching the entire UAE banking system. It has great powers to intervene, and the degree to which it does so is often more a reflection of the degree to which the institutions under it step out of line, and the requirements of the market in turbulence reduction. In relation to the commercial banks, which are the prime focus of this thesis, its role is largely benign, although it is important to be aware of both its presence and the potential power it wields.

4.2.2.2 Locally and Foreign Incorporated Banks

Banks in the UAE are divided into two major categories: locally incorporated banks and these are public shareholding companies licensed in accordance with provisions of Union Law No. (10) of 1980, and branches of foreign banks which have obtained Central Bank licences to operate in the country according to the provisions of the said Law. Historically, national banks (with majority national shareholding) and foreign banks existed prior to the establishment of the former Currency Board and, hence, before the Central Bank was created and commenced its operations. Within such historical circumstances, the number of banks and their branches in the country and abroad increased very rapidly in obvious disproportion with the capacity of the local market, hence provoking the monetary authority at that time to withhold issuance of licences to any new bank and set about reducing the number of branches of a foreign bank to a maximum of eight branches. By 31.12.2000, the number of national banks reached 20 with a total of 274 branches and 37 pay offices. The number of foreign banks, meanwhile reached 26, with a total of 109 branches, including one pay office.

4.2.2.3 Restricted licence Bank

A restricted licence bank is a commercial bank which is not authorised to accept deposits from residents in Dirhams, but may receive deposits in foreign currencies. Such A bank may also extend credit facilities to residents and non-residents. There is only one restricted licence bank operating in the country at present, namely Banca Commercial Italiana.

4.2.2.4 Investment Banks

Union Law No. (10) of 1980 defined an investment bank as one that does not accept deposits whose maturities are less than two years, but may borrow from its head office, from local or foreign banks, or from financial markets. There are two investment banks operating in the UAE at present, namely:

1. United Arab Emirates Investment Bank (PJSC).
2. HSBC Financial Services (Middle East) Limited.

Table 4-1: Banks in UAE

| | Bank | Type |
|----|--|---------------------------|
| 1 | ABN-AMRO Bank N.V. | Foreign Bank |
| 2 | ANZ Grindlays Bank PLC | Foreign Bank |
| 3 | Abu Dhabi Commercial Bank Ltd. | Locally Incorporated Bank |
| 4 | Al Ahli Bank of Kuwait | Foreign Bank |
| 5 | American Express Bank Ltd | Representative Offices |
| 6 | Arab African International Bank | Foreign Bank |
| 7 | Arab Bank Plc | Foreign Bank |
| 8 | Arab Bank for Investment & Foreign Trade | Locally Incorporated Bank |
| 9 | Arab Emirates Investment Bank Ltd. | Investment Bank |
| 10 | Bank Brussels Lambert | Representative Offices |
| 11 | Bank Melli Iran | Foreign Bank |
| 12 | Bank Muscat Al Ahli Al Omani | Representative Offices |
| 13 | Bank Saderat Iran | Foreign Bank |
| 14 | Bank of Bahrain & Kuwait | Representative Offices |
| 15 | Bank of Baroda | Foreign Bank |
| 16 | Bank of Sharjah | Locally Incorporated Bank |
| 17 | Banque Banorabe | Foreign Bank |
| 18 | Banque Indosuez | Foreign Bank |
| 19 | Banque Libanaise pour le Commerce | Foreign Bank |
| 20 | Banque Paribas | Foreign Bank |
| 21 | Banque du Caire | Foreign Bank |
| 22 | Barclays Bank P.L.C. | Foreign Bank |
| 23 | HSBC | Foreign Bank |
| 24 | Cedel Bank | Representative Offices |
| 25 | Citibank N.A. | Foreign Bank |
| 26 | Commercial Bank International Plc | Locally Incorporated Bank |
| 27 | Commercial Bank of Dubai Ltd. | Locally Incorporated Bank |
| 28 | Core States Bank | Representative Offices |
| 29 | Credit Suisse | Representative Offices |
| 30 | Dresdner Bank | Representative Offices |
| 31 | Dubai Islamic Bank | Locally Incorporated Bank |
| 32 | Emirates Bank International Ltd. | Locally Incorporated Bank |

| | | |
|----|-------------------------------------|---------------------------|
| 33 | Emirates Industrial Bank | Specialized Bank |
| 34 | First Gulf Bank | Locally Incorporated Bank |
| 35 | HSBC Financial Services | Investment Bank |
| 36 | Habib Bank A.G. Zurich | Foreign Bank |
| 37 | Habib Bank Limited | Foreign Bank |
| 38 | Investment Bank for Trade & Finance | Locally Incorporated Bank |
| 39 | Janata Bank | Foreign Bank |
| 40 | Lloyds Bank PLC | Foreign Bank |
| 41 | Mashreq Bank | Locally Incorporated Bank |
| 42 | Merrill Lynch Bank Suisse | Representative Offices |
| 43 | Middle East Bank Ltd | Locally Incorporated Bank |
| 44 | National Bank of Abu Dhabi | Locally Incorporated Bank |
| 45 | National Bank of Dubai Ltd | Locally Incorporated Bank |
| 46 | National Bank of Fujairah | Locally Incorporated Bank |
| 47 | National Bank of Ras Al-Khaimah | Locally Incorporated Bank |
| 48 | National Bank of Sharjah | Locally Incorporated Bank |
| 49 | National Bank of Umm Al Quwain | Locally Incorporated Bank |
| 50 | Philippine National Bank | Representative Offices |
| 51 | Royal Bank of Canada | Foreign Bank |
| 52 | Societe Generale | Foreign Bank |
| 53 | Standard Chartered Bank | Foreign Bank |
| 54 | Union Bank of Switzerland | Representative Offices |
| 55 | Union National Bank | Locally Incorporated Bank |
| 56 | United Arab Bank | Locally Incorporated Bank |
| 57 | United Bank Ltd. | Foreign Bank |
| 58 | Westdeutsche Landsbank behalf | Representative Offices |

Source: UAE Central Bank.

4.2.3 Banking and Finance

The UAE Central Bank is the primary regulatory authority. Federal law restricts foreign banks to no more than eight branches each, and requires that every commercial bank must have a paid-up capital of at least Dh40 million. There are few investment or merchant banks at present. Under new rules issued in 1996, permission for the establishment of representative offices of foreign banks will be granted by the UAE Central Bank provided that the capital of the parent bank is not less than Dh183.7 million (US\$ 50 million) and such a bank has been in operation in its home country for at least ten years. For medium-term or long-term industrial finance, companies can approach the Emirates Industrial Bank, set up by the UAE Government with an initial

capital of Dh500 million. Its main objective is to help develop the private sector. Import and export financing can be arranged through the commercial banks. Leasing and hire purchase is available from local finance companies specializing in this business. Banks are open to the public from Saturday to Wednesday between 8 a.m. and 1 p.m. and from 8 a.m. to 12 noon on Thursday. Mashreq and Standard Chartered banks are also open from 4.30 p.m. to 6.30 p.m. Banks are closed on Fridays and public holidays.

4.3 GROWTH AND PERFORMANCE OF DOMESTIC BANKS

Banks operating in the UAE can be divided into five groups: Banks incorporated in Abu Dhabi, in Dubai, in Sharjah, and in the northern emirates of Fujairah, Ras Al Khaimah, Umm Al Qaiwain and Ajman, and Foreign banks. Banks incorporated in Abu Dhabi and Dubai hold more than 90% of total domestic assets. Therefore our analysis of the UAE banking sector will be focused on these two Emirates: Abu Dhabi and Dubai.

4.3.1 Abu Dhabi

In terms of share of banking assets, the Abu Dhabi banks accounted for 44% of the total assets of all domestic banks at the end of 2004 (US\$20,198 million). The government has a majority stake in NBAD (72%) and ADCB (65%). ARBIFT is the only commercial bank in the UAE to be partly owned by the federal government of the UAE (42.5%). Due to low private sector activity in the country, the major Abu Dhabi banks have come to rely on the government for business. Table 4.2 shows the banks incorporated in Abu Dhabi with their assets and year of establishment.

Table 4-2: Banks Incorporated in Abu Dhabi

| | Total Assets 2004 US\$mn | Year of Establishment |
|---|--------------------------|-----------------------|
| National Bank of Abu Dhabi (NBAD) | 8,523 | 1968 |
| Abu Dhabi Commercial Bank (ADCB) | 6,278 | 1985 |
| Union National Bank (UNB) | 2,681 | 1991 |
| Arab Bank for Investment and Foreign Trade (ARBIFT) | 1,434 | 1976 |
| First Gulf Bank (FGB) | 557 | 1996 |
| Abu Dhabi Islamic Bank (ADIB) | 725 | 1997 |
| Total Assets | 20,198 | |
| % of Total Assets of Domestic Banks | 44 | |

Source: Capital Intelligence BankScope Data Base, October 2004

4.3.2 Dubai

Table 4.3 shows that the five Dubai-based banks had a substantial 48% share of total banking assets in the country in the year 2004 (US\$ 22,021million). The government has actively supported ailing banks incorporated in the emirate in the past. Consequently, apart from Mashreq Bank, which is entirely private-owned, all other banks have some equity participation by the local government. Dubai's two largest banks, EBI (owned 77% by the government) and NBD (in which the government is believed to have a large share) called off a proposed merger last year following lack of interest on the part of NBD's board. The government also owns 20% of CBD. Trade

finance dominates the portfolios of all banks operating in Dubai. Consumer lending is also a major source of business for many banks.

Table 4-3: Banks Incorporated in Dubai

| | Total Assets 2004 US\$mn | Year of Establishment |
|--|--------------------------|-----------------------|
| National Bank of Dubai (NBD) | 6,728 | 1963 |
| Emirates Bank International (EBI) | 5,604 | 1985 |
| Mashreq Bank Ltd | 5,441 | 1967 |
| Dubai Islamic Bank (DIB) | 2,534 | 1975 |
| Commercial Bank of Dubai (CBD) | 1,654 | 1969 |
| Total Assets | 22,021 | |
| % of Total Assets of Domestic Banks | 48 | |

Source: Capital Intelligence BankScope Data Base, October 2004

Branch expansion by the local banks has increased in both emirates. In Abu Dhabi, total branches increased from 120 in 1997 to 150 in 2004, while during the same period in Dubai, total branches increased from 118 to 136. About 72% of branches are located in Abu Dhabi, where the country's wealth is concentrated, and in Dubai, the region's mercantile centre. NBAD, with 33 branches and 18 pay offices at the end of 2004, has the largest network. In Dubai, Mashreq Bank has the largest branch network (29), and it is the only bank in the country to operate branches in all seven emirates. Almost all the banks have gradually increased their networks over the last few years. New branches are

being set up in rural areas, particularly in Abu Dhabi, where the potential for deposit collection is high.

4.3.3 Overseas Operation

The UAE banks are represented in the major financial centres of the world. The five largest domestic banks operate 48 offices in 16 countries. The offices consist of branches, representative offices, restricted banking branches, offshore banking units, and subsidiaries.

Despite strong regional political affiliations with other Gulf countries, the UAE banks' presence in the Arab GCC states is limited to a branch each in Qatar and Oman, and two OBUs in Bahrain. This could change in the future, as GCC countries have agreed to open up their markets to banks from member states. UAE banks also poorly represent Asia, which accounts for 40% of the foreign trade.

4.3.4 Total Asset Growth

Total assets of all banks fell marginally in the first half of 2001, as compared with a robust 11% growth in the previous year. This is also reflected in the growth rate of bank credit, which slowed to 3.19% in the first six months of 2001, from 15.52% in the previous year. Table 4.4 reports total assets and credit of all banks. The Dubai-based banks have reported substantially higher levels of credit growth as compared to banks in Abu Dhabi.

Table 4-4: Total Assets and Credit of all Commercial Banks in UAE

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total Assets (US\$mn) | 46,74 | 49,28 | 52,45 | 57,45 | 64,01 | 68,37 | 69,11 | 73,51 | 75,59 |
| Rate of Growth % | 6.47 | 5.41 | 5.41 | 9.53 | 11.42 | 6.81 | 7.09 | 8.79 | 9.15 |
| Gross Credit (US\$mn) | 25,58 | 27,79 | 28,92 | 31,85 | 36,79 | 40,10 | 42,53 | 45,79 | 47,88 |
| Rate of Growth % | 9.74 | 8.61 | 4.09 | 10.11 | 15.52 | 9.00 | 10.01 | 11.98 | 12.54 |

Source: Central Bank of UAE 2004

4.3.5 Distribution of Loan portfolio

Table 4.5 indicates the information on domestic credit by sectors. Most banks have concentration on trade, personal loans, and construction. Personal loans in the UAE mainly comprise automobile and consumer durables financing, salary advances, credit card loans, and loans against shares. The quality of the consumer loan portfolio is likely to have declined over the last two years, as delinquencies have increased. However, the situation is believed to be still under control. Given the sizeable corporate banking losses incurred by several banks last year, many banks are contemplating further increases in consumer lending, which have provided lucrative returns for the last several years. Local banks had aggressively grown their portfolios of loans against shares, particularly in 2003, and there were concerns that some banks may have overextended themselves in this area.

Table 4-5: Domestic Bank Credit by Sector in UAE

| | Credit Growth (in AEDmn) | 2004 | 2003 | 2002 | 2001 |
|----------------|--------------------------|--------------|--------------|--------------|--------------|
| Trade | 1,513 | 29.7 | 31.0 | 33.9 | 35.6 |
| Personal Loans | 1,664 | 22.4 | 22.9 | 20.7 | 18.0 |
| Construction | 1,654 | 15.5 | 15.4 | 17.0 | 16.5 |
| Government | 3,006 | 11.9 | 10.5 | 8.6 | 10.9 |
| Manufacturing | 1,776 | 6.6 | 5.7 | 5.5 | 5.5 |
| Others | 987 | 13.9 | 14.5 | 14.3 | 13.5 |
| Total | 10,600 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Central Bank of the UAE, Annual Report, 2004. Note: 'AEDmns': millions of Emirates Dirham.

4.3.6 Asset Quality

Table 4.6 shows that the asset quality of the largest local banks (NBAD, NBD and EBI) is good. These banks had NPLs to gross loans ratios of between 1% and 3.5%.

Table 4-6: Asset Quality of Local Banks in Abu Dhabi & Dubai

| Bank | NPLs/Gross Loans | | Reserves/NPLs | | Provision Charge on Gross Loans | |
|-------------------------------|------------------|------|---------------|------|---------------------------------|------|
| | 2004 | 2003 | 2004 | 2003 | 2004 | 2003 |
| National Bank of Abu Dhabi | 4.7 | 4.5 | 76 | 87 | 0.5 | 0.2 |
| National Bank of Dubai | 1.6 | 1.03 | 114 | 219 | - neg. | |
| Abu Dhabi Commercial Bank | 10.5 | 9.8 | 40 | 38 | 1.1 | 0.7 |
| Emirates Bank International | 3.4 | 3.0 | 162 | 173 | 1.0 | 0.9 |
| MashreqBank | 13.6 | 11.9 | 81 | 84 | 2.1 | 1.8 |
| Commercial Bank of Dubai | 1.9 | 1.8 | 118 | 118 | 0.5 | 0.6 |
| Commercial Bank International | 4.8 | 4.8 | 80 | 98 | 1.2 | 0.9 |

Source: Capital Intelligence Data Base, October 2004

Mashreq Bank has a higher level of NPLs than its major competitors, reflecting the bank's larger private-sector portfolio, as well as its more aggressive lending policies. UNB's NPLs consist primarily of bad loans relating to the BCCI era, on which recoveries are continuing. Its NPLs to gross loans ratio has fallen over the years to 7.98% in 2003. However, there was an increase in bad debts last year, resulting in a higher NPL ratio (8.46%).

4.3.7 Liquidity Position

Domestic liquidity is influenced by the changing preferences of asset holders between domestic and foreign investments. Monetary policy primarily ensures that the Dirham/US dollar parity is maintained. Domestic interest rates closely follow US dollar rates. Domestic liquidity rose by 7.9% (year-on-year) at the end of June 2004. Private-sector deposits have grown steadily over the years, and accounted for more than half the total deposit base at end-June 2004. The banking sector has sufficient liquidity, as is indicated in Table 4.7.

Table 4-7: Liquidity Profile of Major Banks

| Bank | Net Loan/Customer Deposit | Liquid Asset Ratio | Interbank Asset/Liabilities |
|-----------------------------|---------------------------|--------------------|-----------------------------|
| National Bank of Abu Dhabi | 65.4 | 36.6 | 502.3 |
| National Bank of Dubai | 36.9 | 42.3 | 633.0 |
| Abu Dhabi Commercial Bank | 95.3 | 30.3 | 242.1 |
| Emirates Bank International | 106.8 | 21.6 | 80.2 |
| MashreqBank | 79.3 | 34.6 | 186.1 |
| Union National Bank | 78.2 | 26.0 | 1,224.5 |
| Commercial Bank of Dubai | 96.5 | 22.4 | 370.1 |
| Dubai Islamic Bank | 94.3 | 6.6 | 32.6 |

Source: Capital Intelligence Data Base, October 2004

4.3.8 Deposit Profile

Customer deposit growth in 2004 has lagged behind the expansion of the loan portfolio. The combined deposits of these banks grew by a low 1.5%, while net loans rose by 6%. UNB reported a significant 21% growth in customer funds, MashreqBank had a less spectacular growth (8.7%), and ADCB's customer funds base rose by 6%. There was hardly any change in NBD's deposit base. EBI's customer funds dropped by 2%, while NBAD's deposit base fell by a substantial 7%. Consequently, the net loans to customer deposit ratios of three of the largest banks deteriorated during the year. 2004 has witnessed a larger growth in deposit and liquidity. According to the central bank, overall domestic liquidity (M3) rose by 3.5% in the first six months of 2004; this compares favourably with the 7.8% growth experienced in the previous 12 months.

4.3.9 Capitalisation

The UAE Central Bank requires banks to maintain a capital to risk-weighted assets ratio of at least 10% at all times. In 2004, all foreign and local banks had met this requirement. NBD's 54.8% capital adequacy ratio (CAR) was the highest among local banks in 2004.

The lowest CAR was that of UNB at 13.7%. The smaller banks, which are more vulnerable to liquidity problems, maintain high CARs. MashreqBank has run down its inner reserves in recent years to comply with IAS30. UAE banks have increased their capital substantially over the years due to strong internal accruals. Total shareholders' funds of local banks rose by a substantial 25% in 2004, but dropped to 12.4% of total assets, from 13.9% at the end of the previous year as is shown in Table 4.8.

Table 4-8: Capital Asset Ratios of Local Banks of Abu Dhabi & Dubai

| Bank | CAR % |
|-------------------------------------|-------|
| National Bank of Abu Dhabi | 18.5 |
| National Bank of Dubai | 47.0 |
| Abu Dhabi Commercial Bank | 19.3 |
| Emirates Bank International | 28.1 |
| MashreqBank | 15.7 |
| United Arab Bank | 21.1 |
| Commercial Bank of Dubai | 17.9 |
| Arab Bank for Invt. & Foreign Trade | 39.2 |
| First Gulf Bank | 29.7 |
| Commercial Bank International | 16.1 |

Source: Capital Intelligence Database, October 2004

4.3.10 Profitability

Table 4.9 shows that the overall profitability ratios of local banks are strong. The three largest Dubai-based banks have strong operating profitability, due to their large trade finance operations and significant levels of non-interest revenues.

Table 4-9: Profitability of the Large Local Banks in Abu Dhabi & Dubai

| Bank | Return on AA | | Operating Profit on AA | | Non Interest on AA | | Operating Cost on AA | |
|-----------------------------|--------------|------|------------------------|------|--------------------|------|----------------------|------|
| | 2004 | 2003 | 2004 | 2003 | 2004 | 2003 | 2004 | 2003 |
| Commercial Bank of Dubai | 2.97 | 3.32 | 3.45 | 3.94 | 1.20 | 1.48 | 1.83 | 1.69 |
| Emirates Bank International | 2.52 | 2.56 | 1.96 | 2.47 | 1.07 | 1.34 | 2.06 | 2.00 |
| Abu Dhabi Commercial Bank | 2.47 | 2.51 | 3.26 | 3.01 | 0.80 | 0.79 | 0.75 | 0.78 |
| Mashreq Bank | 1.89 | 2.94 | 2.90 | 3.13 | 1.98 | 2.23 | 2.45 | 2.64 |
| National Bank of Dubai | 1.64 | 1.69 | 1.62 | 1.65 | 0.48 | 0.54 | 1.00 | 0.98 |
| National Bank of Abu Dhabi | 0.94 | 1.21 | 1.23 | 1.31 | 0.61 | 0.60 | 0.96 | 0.92 |

Source: Capital Intelligence Database, October 2004

CBD's operating profit on average assets ratio was a high 4% in 2003 owing to a high net interest margin. Mashreq Bank's profits are boosted by strong non-interest income, which formed a substantial 2.23% of average assets in 2003. EBI's margins have shrunk in recent years, but it continues to rank among the more profitable banks, with an operating profit on average assets ratio of 2.47% in 2003. ADCB is the most profitable of the three major Abu Dhabi-based banks. Net profit fell by 4.5% in 2004, reflecting higher competitive pressure and shrinking margins (particularly in corporate banking), depressed conditions in some sectors, and higher provisioning for loan-losses. Among the large banks, NBAD reported a sharp 22% decline in net profit in 2004, due to lower interest income and operational revenues, and higher loan-loss provisions, while UNB and NBD reported only marginal increases.

EBI's net profit rose by a moderate 7.4% on the back of strong recoveries of bad debts and a tax credit. Mashreq Bank's net profit before transfers from inner reserve (in 2003) rose by 6.9%, and was boosted by lower provisions in 2004 as compared to the previous

year. CBD's net earnings growth rate slowed to 2% in 2004, from robust growth rates of around 10% and more in the previous years. The bank attributes this to lower business volumes in wholesale and retail trade, exports, construction and real estate.

4.3.11 Technology

Technology levels are high among domestic banks in the UAE. All major banks had invested substantially on upgrading their hardware and software in the early 1990s. Most banks now have on-line, real-time processing systems. The most popular system has been NCR mainframes. Technology has played a critical role in the bank's efforts to introduce innovative products and services.

4.3.12 Management

The quality of management in UAE banks is generally good. The central bank and the governments of Abu Dhabi and Dubai have acted to ensure that the banks they control have capable professionals running them. Top managements generally have several years' experience working for international (mostly British) banks. Mashreq Bank recruited several bankers from American banks - Bank of America and Citibank: during the early 1990s, when the organisation was restructured along functional lines. Increasing competition and innovation are also forcing banks to adopt attitudes that are more professional. Most banks have instituted controls and systems borrowed from British and American banks.

4.3.13 Audits and Reporting

Bank auditing standards have varied widely in the UAE. The five big international auditing firms, namely Ernst and Young, Arthur Andersen, Price Waterhouse Coopers, Touche Ross and Co, and KPMG Peat Marwick, dominate the industry. Among them, they audit most of the local commercial banks. Ernst and Young audit all the Abu Dhabi banks. All the local banks use one of the large international auditing firms. Competition

for business is intense, but most banks have not changed their auditors for some years, nor is there any central bank requirement to do so. UAE banks were required to use International Accounting Standards from 1999. Until 1996, only a few banks (UNB, NBRK, NBF, NBS and CBI) used IAS.

4.4 GROWTH AND PERFORMANCE OF FOREIGN BANKS

Attached by the liberal banking policies, a laissez-faire economy, and the strong trading business emanating from Dubai, a large number of foreign banks set up branches in the UAE prior to 1982. Most of the foreign banks currently operating in the UAE were set up during the early 1970s, when oil prices fuelled an economic boom. The National Bank of Bahrain was the last foreign bank to open a branch (in Abu Dhabi) in 1982, and since then no banking licences have been issued. Table 4.10 lists the foreign banks operating in the UAE.

Table 4-10: Banks List of Foreign Operating in UAE

| | | |
|------------------------------|------------------------|--------------------------|
| HSBC Bank Middle East | Citibank N A | Standard Chartered Bank |
| Arab Bank plc | ABN-AMRO | Habib Bank AG Zurich |
| Barclays Bank plc | Bank Saderat Iran | ANZ Grindlays Bank |
| Lloyds TSB Bank | BankMelli Iran | Banque du Caire |
| United Bank Ltd | Bank of Baroda | Banque Paribas |
| Habib Bank Ltd | Arab African Int. Bank | Credit Agricole Indosuez |
| Banque Banorabe | Royal Bank of Canada | National Bank of Oman |
| Banque Libanaise de Commerce | Al Ahli Bank of Kuwait | Janata Bank |
| National Bank of Bahrain | Rafidain Bank | El Nilein Bank |

Source: Capital Intelligence Database, October 20004

Twenty-seven foreign banks operate a total of 110 branches in the UAE. The majority of the foreign banks in the country (20) are headquartered in Dubai, while seven have their corporate offices in Abu Dhabi. Dubai also has the largest number of branches of foreign branches (43), followed by Abu Dhabi (38), Sharjah (17), Ras Al Khaimah (6), Fujairah (4), and Ajman (2). Foreign banks are allowed to open up to eight branches in the country (in theory, one in each emirate), but only seven banks operate eight branches.

The UAE stopped granting licences to foreign banks in 1982, and the National Bank of Bahrain was the last to set up a presence in the country. Since then, the influence of foreign banks in the country has waned. The influence of foreign banks declined in the early 1980s, after they were forced to limit their network to just eight branches. There were 27 foreign banks operating 110 branches in the country in 2004. Twenty are headquartered in Dubai and the rest in Abu Dhabi.

The UAE is expected to open its banking sector to foreign competition in the near future, as it is a signatory to the WTO agreement. Banks from GCC countries are already eligible to apply for a licence, and although there have been rumours of one or two regional banks sending in their applications, there have been no announcements from the central bank. A number of banks from other regions, many of which run representative offices in the UAE, are also hopeful of setting up branches in the country. As of now, however, the Saadiyat Free Zone appears to be the only region within the UAE where new foreign banks can set up branches.

Most of the foreign banks currently operating in the UAE were set up during the early 1970s, when high oil prices fuelled an economic boom. HSBC Bank Middle East (or the British Bank of the Middle East, as it is was previously known), a wholly-owned subsidiary of London-based HSBC Holdings, was the first foreign bank and the first commercial bank to operate in the Trucial States. Set up in 1946 in the emirate of Dubai, it functioned as the region's sole commercial bank until 1958 when Standard Chartered Bank (SCB) opened its first branch in Dubai. Between 1958 and 1963, when NBD was incorporated, these two banks were the only institutions providing banking services in the country. Although HSBC Bank has long relinquished its number one position in the UAE, it nevertheless continues to exercise considerable influence as the sixth largest bank in terms of total assets. The bank's nearest rivals in terms of size are SCB and Citibank.

The three largest foreign banks in the country account for nearly half the total assets (of foreign banks), while the vast majority run small operations with limited services. SCB acquired the operations of ANZ Grindlays in the Middle East and South Asia last year.

4.4.1 COMPARISON OF DOMESTIC AND FOREIGN BANKS

Foreign banks account for about 25% of the total assets of banks in the UAE. The actual percentage share of banking assets of foreign banks is therefore likely to be somewhat lower, but is considered sizeable, given the restrictions on their branch expansion. In terms of profitability, the foreign banks accounted for 28% of the total net profit of banks in the country in 2003. The percentage may have fallen in 2004, owing to sizeable provisions undertaken by many banks with exposures to a fraudulent trader who fled the country. Eleven foreign banks were affected by the AED one billion fraud

perpetrated on banks in the region by a Sharjah-based expatriate businessman. The list is believed to include Citibank, ANZ Grindlays, ABN AMRO Bank, Barclays Bank, Banque Paribas, Credit Agricole Indosuez, Habib Bank AG Zurich, United Bank Ltd, Bank of Bahrain and Kuwait, Arab African International Bank and Bank of Baroda. In addition, four Bahraini banks and an Omani bank are also reported to have suffered some losses. The three largest foreign banks, HSBC, SCB and Citibank account for nearly 60% of the net profit before tax of all foreign banks. Most foreign banks concentrate on trade-related activities in the country, and some of the major banks are actively involved in consumer-lending. SCB, HSBC Bank and Bank of America run regional offices in the UAE. ABN-AMRO closed its regional office last year as part of an overall restructuring exercise. The Luxembourg-based Cedel Bank set up a regional centre in Dubai in 1996 to provide clearing, settlement and custodial services to customers in the Middle East. The HSBC Group set up HSBC Financial Services (Middle East) Ltd (its regional investment banking unit) in Dubai in early 1996. The Group also owns a finance company. Visa International shifted its Middle East regional office to Dubai from London in 1996.

4.5 SUMMARY

Various articles and empirical research on TQM, particularly the service industry were studied. The findings of these studies identified 16 factors that have a direct impact on improving performance in the banking sector. These factors were classified into three categories: strategic, tactical and operational factors. Definitions, techniques and discussion on these factors were presented.

Academic research on applying these critical factors in a developing country such as UAE is still at a developing stage. Consequently, there is a need for further research in this area to evaluate the degree of criticality and importance of these factors. More research is also needed to study how the perceived importance of these factors may differ across different banks, such as commercial banks, foreign banks, national banks, Islamic banks and specialised banks.

However, these critical success factors form the basis for building up the questionnaire which will be used to collect the field work data. Furthermore, this research will study these critical factors using the survey and case study approaches in order to evaluate the degree of criticality of each factor and how these factors have been operationalised on real world setting.

Chapter 5

Research Design and Methodology

5.1 INTRODUCTION

This chapter discusses issues related to the chosen research design, the data collection and analysis methods used to conduct the research study. These issues are addressed after taking into account,

- The basic research objectives
- The relevant research questions, and
- The appropriate theoretical and contextual frameworks which have been delineated.

A brief review of the literature on the available research designs and methods is included in this chapter. Those directly related to this research are discussed in more depth, and the justifications of research design and methodology are explained. The data collection methods, phases of fieldwork, procedures and problems encountered for the specific phase of the fieldwork, as well as the actual data collected, are elaborated in this chapter. The collected data are analysed in Chapters 6, 7, and 8. Results of data processing and preliminary analyses are described in the form of descriptive statistics.

Nachmias and Nachmias (1996) describe the role of 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 facts or relationship through a process of systemic scientific inquiry, the research process.” Therefore the researcher needs to be able to argue convincingly that something new and of value has been added to the body of knowledge. Another important aim of this study is to propose a model for the effective implementation of TQM in the banking sector.

This chapter first reviews and discusses some possible research designs and methodologies. The selection of approach will be justified in terms of its appropriateness and usefulness to the research project in order to achieve the study objectives. A triangulation approach that integrates quantitative and qualitative methodologies chosen as the principle research technique is also discussed. Finally there is an examination of a detailed research design to direct the process of collecting,

analysing, and interpreting data, as well as the statistical techniques used for the analysis of survey results.

5.2 RESEARCH STRATEGIES

There are various research strategies classified under different taxonomies. One of the most commonly used differentiates research into theoretical or empirical studies. Babbie (1989), May (1997), Nachmias and Nachmias (1996), and Remenyi et al. (1998) state that scientific research comprises two major elements: theoretical and empirical. They state that a system link between these two elements can improve the role of social science through deduction and induction. This link leads to two kinds of research strategies, theory-then-research and research-then-theory. These approaches have been covered by other terms like deduction and induction, or grounded and grand (May, 1997; Nachmias and Nachmias, 1996).

The theory-then-research (the research empiricists) strategy adopts a hypothesis-testing approach to research. It builds hypotheses from theory, and uses collected data to accept or reject them. This includes developing a model for testing, building up a number of propositions that describe relationships between its constituents, designing research instruments (i.e. questionnaire) to examine the model, testing the propositions using the collected data, and refining the model and its associated theories (Reynolds, 1971).

Research-then-theory (the research theorists), on the other hand, believe that empirical research should not be limited to improving theories through testing hypotheses, but should find out new theories (Benbasat et al., 1987; Merton; 1968; Strauss and Corbin, 1990). The research theorists start with determining the phenomenon's attributes and then seek data to build theories around them (Reynolds, 1971). Strauss and Corbin

(1990:24) in describing grounded theory, a research approach based on the research-then-theory strategy, state that

“The grounded theory approach is a qualitative research method that uses a systematic set of procedures to develop an inductively derived founded theory about a phenomenon. The research findings constitute a theoretical formulation of the reality under investigation, rather than consisting of a set of numbers, or a group of loosely related themes. Through this methodology, the concepts and relationships among them are not only generated but they are also provisionally tested”

Although there is argument about these two strategies, clearly both regard theory as an appearance of scientific progress, and there is no rigid commitment to either strategy as a precursor for the conducting research. Thus empirical research should be essentially rooted in theory, and it is not possible to conduct such research in a meaningful way without the researcher taking a specific theoretical standpoint. On the other hand, as Remenyi et al. (1998) point out that theoretical research relies on ideas that have at some earlier time been based on specific observations or original data collected by means of empirical research. Indeed, theoretical research does not occur in a void, it is rather the result of thinking about the findings of previous empirical research and of debating the different theoretical interpretations that others have made.

However, they believe that it is impossible to be an empiricist without having a total understanding of the theoretical issues surrounding the subject to be studied, and about which data will be collected. They state that (Remenyi et al., 1998: 32):

“In practice there is a dialectical relationship between these two aspects of research that reinforce each other. There are always theoretical assumptions associated with the collection of evidence and there is always evidence that underpins theory. Far too much is made of the distinction between empirical and theoretical research as both are central to any significant research activity and both are required to make any real scientific progress.”

5.3 RESEARCH METHODS

There are many research methods that can be used to collect data. According to Miles and Huberman (1994), Blaxter et al. (1996), Bryman (1989), and Remenyi et al. (1998), data collected can be classified as quantitative and qualitative. The following section presents an insight into the quantitative and qualitative aspect of research methods.

5.3.1 Quantitative and Qualitative Methods

Quantitative research was originally developed in the natural sciences. It can be defined as research involving the use of structured questions where the response options have been predetermined and a large number of respondents are involved. Alternatively, qualitative research is a method that involves collecting, analysing, and interpreting data by observing what people do and say (Creswell, 1994).

The quantitative approach places an emphasis on the structural issues of measurement and analysis of relationships between certain variables and not on complex processes (Van Maanen, 1983; Denzin and Lincoln, 1994). In essence, McClintock et al. (1979) argue that quantitative approaches provide researchers with narrow, but hard and generalisable results. The purpose of quantitative methods is to generate precise measurements of social action, which can be described by the accumulation of statistical data. In this respect, Nettleton and Taylor (1990) highlighted the goals of quantitative research as:

- Providing precise measurements for social actions by explaining the causal relationships related to specific events.
- Measuring events by objective criteria.

The quantitative approach places considerable emphasis on statistical generalisation of findings that seek to explain and predict events in the social world by searching for

regularities and causal relationships between constituent variables. Remenyi et al. (1998) claim that for quantitative research it is usually clear what evidence is required, and this evidence may usually be collected within a tight structure. Therefore, in the social sciences in general, and marketing research in particular, data collection usually involves the use of a questionnaire. The quantitative techniques provide researchers with narrow, but hard and generalisable results (McClintock et al., 1979). Using statistical data analysis, quantitative methods provide objective and precise measurements for social actions by explaining the causal relationships related to specific events (Nettleton and Taylor, 1990). However, quantitative methods overlook social process, and focus only on social structure, isolating the research problem from its settings.

Qualitative methods, on the other hand, are often small-scale and aim to elicit a richness of detail rather than statistical generalisations. They also aim for detailed description and understanding of the phenomenon under investigation by way of observation and involvement (Van Maanen, 1979; Bryman, 1994). Miles and Huberman (1994) state:

“Qualitative data, usually in the form of words rather than numbers, have always been the staple of some fields in social sciences, notably anthropology, history, and political science. In the past decade, however, more researchers in basic disciplines and applied fields (psychology, sociology, linguistics, public administration, organizational studies, business studies, health care, urban planning, educational research, family studies, program evaluation, and policy analysis) have shifted to a more qualitative paradigm.”

Quantitative methods aim to providing insights into the organisational and social processes, including tangible and intangible aspects (Van Maanen, 1979). Therefore, According to Nettleton and Taylor (1990), data are gathered on social actions as well as on the way people think and behave in the research context. Indeed, qualitative research and case study are synonymous terms, which fundamentally refer to the same

thing. In this respect, Bryman (1994) states that qualitative research is an approach to the study of the social world, which looks to explain and analyse the culture and behaviour of humans and their groups from the subjects' viewpoints.

However, despite its strengths, qualitative research has its problems. Some of the difficulties in the practice of qualitative research include the following: access problem, the problem of interpretation (Bryman, 1995), and data analysis (Miles and Huberman, 1994). Bryman (1994) and Van Maanen (1979) argue that subjectivity, flexibility, lack of rigorous experimental control and determinism are mostly associated with qualitative data collection and analysis, which result in limiting their application to certain types of research (Kaplan and Duchon, 1988; Sykes and Warren, 1991).

5.3.2 Survey Questionnaire

A survey is a form of planned data collection for the purpose of description or prediction, as a guide to action, or for the purpose of analysing the relationships between certain variables (Oppenheim, 1966). Remenyi et al. (1998) stated that a survey involves the collection of data from a large group of people or a population. It is more often used as the sole or primary source of quantitative data in management research. It can be used for description, explanation, and/or hypothesis testing. However, in the social sciences, survey research is conventionally associated with questionnaires and interviewing, though it can incorporate other methods of data collection, such as structured observation, in-depth interviews, and content analysis (Bryman, 1989; March, 1982).

Bourque and Fielder (1995) state that a survey can be conducted in several ways, ranging from face-to-face interview to a postal questionnaire. In general, a survey gathers data at a particular point of time with the intention of describing the nature of existing conditions, or identifying standards against which existing conditions can be compared, or determining the relationships that exist between specific events. Bryman (1989) points out that survey is an appropriate means of gathering data under three conditions:

1. When the goals of the research call for quantitative data.
2. When the information sought is reasonably specific and familiar to the respondents.
3. When the researcher has considerable prior knowledge of particular problems and the range of responses likely to emerge.

The survey method has the advantages of being economic, efficient, having a possible large sample of respondents, ability of generalisation, versatility, standardisation, ease of administration, and suitability for statistical analysis (McClintock et al., 1979; Hammersley, 1987).

Questionnaire survey design is an art and science that invariably results in economic considerations forcing the researcher to sacrifice what he or she ideally requires for what are practical resources available. However, it should be accepted that no questionnaire survey is perfect. The key to a successful survey is the care taken in carrying out the time-consuming preparatory work (Remenyi et al., 1998). However, there are some of the more serious criticisms of survey research, particularly that they are:

- Inherently positivistic,
- Incapable of getting at the meaningful aspects of social behaviour,
- Prone to looking at 'bits' of behaviour and specific opinions out of the context in which they occur,
- Inherently atomistic, and
- Mindless empiricist.

On the other hand, March (1982) and De Vaus (1996) point out that, in many cases, it is not the survey research design *per se* that is at fault, rather it is the inappropriate use of the survey questionnaire which contributes to its undeserving poor reputation. They further recommended the following:

- Surveys need to be conducted by trained and informed researchers.
- Surveys should only be used when they are the most appropriate method in a given context.
- The method should suit the research problem rather than the problem being fitted to a set method.
- A variety of data collection techniques have to be employed and different units of analysis used.

Generally, questionnaire forms allow data to be gathered about aspects such as 'what', 'when', 'where', 'how much', or 'how long' (Bryman, 1995; Remenyi et al., 1998). However, they are less valuable as a methodology when the research is seeking answers to the 'who', 'how' or 'why' questions.

5.3.3 Case Study Research

Case study is a typical research method widely used for qualitative data collection in management research. Yin (1989:13) defines case study as an empirical inquiry that:

- Investigates a contemporary phenomenon within its real life context; when
- The boundaries between phenomenon and context are not clearly evident; and in which
- Multiple sources are used.

Bryman (1989:170) states that case study research sits between the qualitative and action research spectrum, and that most qualitative research is in fact a form of case study. He further noted that not all case studies could adequately be described as instances of qualitative research, since they sometimes make substantial use of quantitative research methods.

In case study-based research, the researcher explores a single phenomenon, as a case, and collects detailed information by using a variety of data collection approaches (e.g., open-end questions, observation and document study) within a specific period of time (Cohen and Manion, 1994; Merriam, 1988). The researcher's aim is to discover the research problem context through the eyes of the people being investigated (Wong, 1992), based on a predefined framework and categories. Case study, therefore, is a preferred research method when 'who', 'why', and 'how' questions are being examined, when the researcher has little control over events, and when the focus is on a contemporary phenomenon within some real-life context (Remenyi et al., 1998).

Case study can be used to accomplish various research objectives. Among the major ones are:

- Theory generation
- Theory testing
- Confirming findings from other studies

The major strength of the case study approach is that it can combine quantitative and qualitative research, since typically it involves several methods of data collection. One advantage of doing this is the ability to check the validity of findings using different approaches to data collection (Jick, 1979). Generally, the strength of case study is that it offers a more holistic, context-based approach, and the aim should be analytic generalisation and not statistical generalisation (Yin, 1989; Bryman, 1995).

A case study, on the other hand, may have some problems, such as the accusation of limited generalisability, i.e., the question of external validity, whether findings from a case study are generalisable beyond the immediate case (Yin, 1989). Another concern about case study design involves its lack of rigour, where biased views of the researcher have been allowed to influence the findings. Yin (1989) again argues that bias can also

enter into other types of research design, e.g., the conduct of experiments or designing survey questionnaires. The problems are not different, but in case study research, they have been less frequently documented and addressed.

Therefore, while the case study approach provides a comprehensive coverage and realistic description of the sample being studied, it has the limitation of being unsuitable for research that seeks statistical generalisations or assessment (Cohen and Manion, 1994; Yin, 1989).

5.3.4 Triangulation

Practitioners' consensus is that there is no restriction of using only one method at a time, but the researcher has the ability of adopting two or three methods. Using two or more methods of data collection is called *triangulation* or multi-method approach, because it is believed to be a means of achieving a greater understanding and grasp of the social world.

However, one of the challenges the researcher faces is to ensure that the data being collected are valid and reliable (Remenyi et al. 1998). Therefore, it may become a necessity to use multiple methods to capture a sense of validity and reliability (Jick, 1979; Van Maanen, 1979; Burgess, 1984). Denzin (1978) argues that triangulation is an approach in which multiple observers, theoretical properties, sources of data, and methodologies are combined. In spite of triangulation entailing a commitment to a greater amount of cost and time, it has the advantage of removing the bias that usually occurs with the use of a single method. Patton (1990) argues that studies that use only one method are more susceptible to error linked to that particular method.

According to Jick (1979), the concept of triangulation was based on the assumption that any bias inherent in a particular data source, investigator, and method would be neutralised when in conjunction with other data sources, investigators and methods. He argues that these methods can be drawn from 'within methods', to utilise qualitative and quantitative data collection procedures (e.g. a survey and in-depth interviews).

Bryman (1995) claims that each of the qualitative and quantitative methods has several features which can be regarded as advantages or disadvantages (**Error! Reference source not found.**). Using triangulation, the researchers claim that the validity of conclusions is enhanced if they can be shown to provide mutual confirmation (Bryman, 1995).

Table 5-1: Dissimilar Features in Quantitative and Qualitative Methods

| Dimension | Quantitative | Qualitative |
|---|--|--|
| Contact between researcher and informants | Brief or non-existent | Close contact with participants |
| Relationship between researcher and field | Outsider looking into field by applying pre-defined framework to investigate subject | Researcher has to get close and be insider to field being investigated |
| Theory/ concepts | Operationalised | Emerge as research develops |
| Approach | Structured Researcher-driven | Open and unstructured Subject-driven |
| Findings | Time and place-independent Rigid, hard, rigorous and reliable | Relate to specific time periods and locales Rich and deep |
| Focus | Views social world in static manner and neglects role and influence of change in social life | Views linkages between events and activities and explores people's interpretations of factors which produce such connections |

Source: Bryman (1995)

Bryman (1995) noted five purposes of an approach combining methods in a single study:

1. Where convergence of results is sought.
2. Where overlapping and different facets of a phenomenon may emerge from complementary.
3. Where use in sequence enables the first method to help inform the second.
4. Where contradiction and fresh perspective emerge.
5. Where the mixed methods add scope and breath to the study.

However, the use of only one method is more vulnerable to error linked to that particular method (Patton, 1990). Therefore, although triangulation entails a commitment to greater amounts of money and time, it has the advantage of removing the bias that is often associated with the use of a single technique. Consequently, it is best whenever possible to undertake research using a variety of data collection methods. This action will overcome the disadvantages, which may be caused by the selected methods.

5.4 CHOSEN RESEARCH METHODOLOGY

As mentioned earlier, *there is no one 'ideal' methodology to fit all research situations*. Each research methodology has its own strengths and weaknesses. Also, the question of the appropriate research methodology depends to a great extent on a study's research questions and objectives. However, there are many factors to be considered when choosing an appropriate research methodology.

As discussed earlier, TQM is a relatively new concept in the Arab World, and therefore there is a lack of knowledge on the key components influencing the process of TQM implementation, and the way these components should be addressed and managed. TQM in UAE is still in its infancy. There is a lack of systematic empirical evidence regarding the activities that are affected by the use of TQM, and their consequent performance outcome. On the other hand, some authors and practitioners present a plethora of critical factors based on individual experiences (e.g. Ahire et al., 1996; Butler and Fitzgerald, 1999; Digman, 1990; Guynes and Vanecek, 1996; Leonard and Sasser, 1982; Motwani et al., 1994; Mann and Kehoe 1995; Porter and Parker, 1993). Others have addressed one main aspect of TQM. For instance, Leonard and Sasser

(1982) focus on top management who should treat quality as an integral part of all corporate review processes. Porter and Parker (1993) focus on the TQM activity that must be incorporated into the organisation's business plans and the means for continuous improvement established. Saraph et al. (1989) focus on visibility and autonomy of the quality department. Therefore, an exploratory survey is required to achieve a context for the research (Tomatzky and Klein, 1982). This provides an additional richness, and raises some key issues involved in using TQM. This is clearly targeting the 'what' components of research, and it requires a large sample of banks. Given the nature of the topic, this type of inquiry favours the use of an exploratory structured questionnaire survey (Eisenhardt, 1989; Yin, 1989). However, the questionnaire survey technique can only measure the 'what' elements, and is not enough on its own to uncover and understand the process that lies behind the phenomenon of TQM use. In addition, Kaplan and Duchon (1988) argue that the quantitative methods deal with technological and organisational features statistically rather than dynamically. Furthermore, the process aspects of TQM do vary amongst organisations, as they are often addressed differently, even though the quantitative finding may reveal a general agreement between organisations on the assessment of the key elements of implementation.

Therefore, a case study based on the qualitative method has been chosen because sole reliance on the questionnaire survey does not help answer the questions of 'how' and 'why' in relation to the process aspects of using the TQM approach. Similarly, Benbasat et al. (1987) and Silverman (1993) believe in the appropriateness of the case study approach for studies in which research is in its early stages, and where the context and respondents are of particular importance to the study. The complexity of the context

being investigated and the diversity of the issues related to TQM make the case study approach of particular usefulness. Furthermore, case studies are particularly pertinent when the research seeks information about 'how', 'when', or 'why', rather than 'what', 'when', 'where', 'how much', or 'how long', and when the researcher does not have control over behavioural events (Bonoma, 1985; Yin, 1989). However, the process elements concerning use of TQM are primarily related to the 'how' and 'why' issues. Moreover, the researcher has the sole role of observing in the context of this study, which means that no control over behavioural events in the organisations being studied can be taken.

In short, a combination of quantitative and qualitative methods in this research study is essential. As previously stated, one of the main aims of this study is to propose a generic model for the effective use of TQM based on the best practice perspectives. Therefore, there is a need to understand the phenomena in depth, and this understanding should result from attempting to find tentative answers to questions such as 'what', 'how', and 'why'. Furthermore, this combination of research techniques will provide robust and richer findings.

5.5 RESEARCH DESIGN

Yin (1989:28) gives a refreshingly simple definition of a research design as,

"...the logical sequence that connects the empirical data to a study's initial research questions and, ultimately, to its conclusions. Colloquially, a research design is an action plan for getting from here to there, where "here" may be defined as the initial sets of questions to be answered, and "there" is some set of conclusions (answers) about these questions. Between "here" and "there" may be found a number of major steps, including the collection and analysis of relevant data".

This study represents exploratory research that aims to enhance existing theories and practices of TQM from a holistic perspective. The next sections provide detailed discussions of the research design phases. These phases contain the following:

1. Introduction and Review of Existing Literature on TQM.
2. TQM Fundamentals.
3. TQM in Service Sector.
4. Current Banking Practices in UAE.
5. Research Design and Methodology.
6. Quantitative Analysis
7. Qualitative Analysis: Case Study
8. Interpretation and Discussion of Key Findings.
9. Conclusion and Recommendations

5.5.1 Literature Review

This study starts with a comprehensive review of relevant literature on Total Quality Management. This includes all possible references available, including textbooks, academic papers, professional magazines and reports, and newspapers. The review is divided into three parts. The first part (Chapter 2) includes literature on TQM Fundamentals. The second part (Chapter 3) reviews previous research relating to TQM in Service Sector. The third part (Chapter 4) provides a brief history of current banking practices in UAE.

Consequently, the literature research accomplishes several purposes:

- Provides results of other studies that are closely related to the current study.
- Relates this research to the ongoing dialogue in the literature about the topic (filling the gap and extending prior study).
- Provides a framework for establishing the importance of the study (Cooper and Emory, 1995).

5.5.2 Survey Design

Based on the literature review, a standardised questionnaire was developed to collect data from banks in the UAE in order to elicit their experience regarding elements and key factors in using TQM (see Appendix A)

Initially, the survey was an attempt to:

- Assess the type of benefits commonly reported by users of TQM.
- Assess the degree of effectiveness of current use of the TQM in the banking sector.
- Study and detail aspects associated with success factors (e.g. Top management Support, Strategy, Benchmarking, etc.).
- Assess the level of criticality of the TQM critical factors.

The questionnaire has two types of questions:

- Closed: questions that require the respondent to choose from a list of answers.
- Scaled-response: closed questions in which the response choices are measured by a rating scale (5-point Likert scale).

The mail survey was selected as it provided the following advantages:

- A consistent stimulus to all respondents.
- Ability to sample a large group.
- Cost – postal survey typically costs less than telephone interview, and much less than personal interview (Bourque and Fielder, 1995).
- Wide geographical coverage

In contrast to these advantages, there are also a number of disadvantages. These disadvantages are:

- No control over who responds to the study.
- Response rates usually low (according to Bourque and Fielder (1995), usual rate is no better than 15-20%).

The questionnaire contained four separate sections, each addressing one or more dimensions of interest. Section 1 addresses the overall organisational demographics. Section 2 focuses on banking experience. Section 3 focuses on assessing critical success factors and the level of criticality of all key success factors distilled from the literature. It also aims at acquiring the organisation's assessment of its level of success with TQM efforts. Section 4 is concerned with assessing the perceived benefits of using TQM.

The questionnaire (see Appendix A) has been compressed into ten pages. At the beginning of the first page is an instructional part containing short statements explaining the purpose of the study, the principles that it is based upon, and an assurance of anonymity to the responding organisations. Each section has a separate and clear title, making it easy for the respondent to answer. All questions have been set out in tables. At the end of the questionnaire is the address to which the survey was to be returned, and a fill-in box was also provided for those respondents willing to provide their contact addresses in order to receive the key findings of the survey. At the front of the questionnaire, a cover sheet and a letter providing explanation on the aim of the study and the procedures for completing and returning the survey were attached.

To encourage maximum response, all questions were carefully worded, and several revisions of them were carried out to ensure clarity of sentence structure. An instructional question statement explaining what was required, and the meaning of each scale point used to give answers to questions preceded each group of questions. Respondents were carefully targeted by name and position to minimise the aspects of no control over respondents to the study. To overcome response rate problems, a series of follow-up telephone calls were made, with incentives such as participants were promised a copy of an executive report, making the response task itself easy (no open-ended questions were included), and making the task clear and the questions easy to read. Respondents were also allowed to remain anonymous, although they were invited to include their name and e-mail address if they wanted to receive a copy of the executive report of the study.

5.5.3 Pre-Test and Revise

Having developed the questionnaire survey, it was important to validate the instrument to make certain that it measured what was intended, and gave the respondent clear and understandable questions that would evoke clear and understandable answers. This would affirm that the questionnaire was a reliable vehicle to solicit opinions on the issues under study.

In this regard, the questionnaire was reviewed first by seven academic researchers experienced in questionnaire design. They were asked to provide feedback on the overall design, particularly the measurement scales. Their inputs were then considered in improving the design. The questionnaire was also given to four doctoral students to make any suggestions.

Next, it was piloted with two TQM experts known to the researcher. The pilot took the form of an interview where the participant was first handed a copy of the questionnaire and asked to complete it, and then discuss any comments or questions he had. The objective of this pilot was to assess time required to complete the questionnaire, clarity of instructions, simplicity, consistency of questions, clear language, and comprehensiveness. As a result of this pilot, some amendments were made to improve the questionnaire.

5.5.4 Population and Sample

5.5.4.1 Relevant Population

The population is the set of all objects that have some common set of predetermined characteristics with respect to some research problems (Kumar, 2000). The aim was to select a population of UAE banks that implement the TQM approach. A list of banks ,

was obtained from the Central Bank which includes all the details of Local and Foreign Banks and their branches (see Appendix D.29). All banks were contacted to get information about the people who are in charge of TQM in each bank. The researcher was asked to give a copy of the questionnaire to be approved by some banks. After having been approved by these banks, the final copies were sent by special delivery post. A total of 250 questionnaires was sent.

5.5.4.1.1 Sample Size

To ensure that the data collected will provide a reliable basis for drawing inferences, making recommendations and supportive decision (Bryman and Cramer, 1998; De Vaus, 1996), a large and adequate sample size should be taken to remove bias and to meet the criteria required by the analytical methods used. However, Bryman and Cramer (1998) emphasise that the size of the sample has to be related to the size of the population. They also believe that the larger the sample, the greater the accuracy. The alternative is to collect information from only some people in the group in such a way that their responses and characteristics reflect those of the group from which they are drawn. This procedure is much cheaper, faster and easier than surveying all members of a group, and common practice in research.

One of the most frequently asked questions in the context of sampling is "How large should a sample be? The required sample size depends on two key factors: the degree of accuracy required for the sample, and the extent to which there is variation in the population in regard to the key characteristics of the study (De Vaus, 1996:70). Michael and Beck (1995:3) argue that simple random sampling (SRS) yields a sampling fraction of 1/10. De Vaus (1996:79) also considers that the efficiency and accuracy depend on

the type of sample used. Also, he suggests that having a population of 50 using the sample of 10, the sampling fraction would be 1/5 (De Vaus, 1996:64). Emory and Cooper (1991) suggest that the absolute size of a sample is much more important than its size relative to the population: "How large a sample should be is a function of the population parameters under study and the estimating precision needed by the researcher". In this respect, distribution of the sample in terms of industry is an important element of variation in the population, which can affect sampling size.

As far as this study is concerned, the information from 250 Banks from the intended population was gathered. This number of banks represents about 100. % of the whole population. The sample size chosen was expected to fulfil the requirements of all the statistical techniques used, as well as to justify the cost and time limitations of the researcher.

5.5.4.1.2 Respondents and Unit of Analysis

A unit of analysis is the unit from which information is obtained: it is the unit whose characteristics we describe (De Vaus, 1991). The subjects should be those for whom the instrument is intended (Nunnally, 1978). To sum up, it refers to the entities about which the theory poses concepts and relationship, and it can be individuals, groups, organisations, or society.

However, since the main objective of this study is to clarify the domain constructs and to propose the CSFs of TQM, the unit of analysis is conducted at the organisational level of analysis. Therefore, the quality managers' perceptions are measured. They are regarded as the main source of the information because they are directly responsible for planning and implementing TQM.

5.5.5 Data Collection and Analysis

Once the sample selection was complete, 250 questionnaires were mailed to the selected banks. From these companies, a total of 162 questionnaires were returned. This included 9 returned not completed. A further 24 were returned with a covering letter explaining why they had not been completed. Most of the responses indicated that it was not bank policy to participate in surveys due to lack of time and work pressures. Therefore, the number of returned completed questionnaires was 129, including 5 unusable, so that the total of usable questionnaires was 124. (Table 5-2) provides a summary of the responses' distribution and rate.

Table 5-2: Survey response summary

| | |
|---|--------|
| Total number of questionnaires distributed | 250 |
| Number of questionnaires completed and returned | 129 |
| Unreachable banks | 9 |
| Declined participation | 24 |
| Response rate | 59.44% |

According to De Vaus (1991:99), a common way of computing the response rate is to use the following formula: Response rate = Number of completed and returned / [N in sample - (Ineligible + Unreachable)]. Therefore the response rate = $129 / [250 - (9 + 24)] = 59.44\%$

This high 59.44 % response rate may be explained by several factors.

- First, the questionnaire was designed in such a way that it took only 20 minutes to be completed.
- Second, attempts were made to contact each bank up to five times by e-mails and phone calls before the firm was dropped from the sample.
- Third, most banks studied were likely to perceive their participation in the study as further evidence of their success regarding implementing TQM.

Based on the above, the answers of each respondent were coded into the Statistical Package for Social Science (SPSS), which Cramer (1998) describes as one of the most

widely used, and were analysed to achieve the research objectives. Frequency analysis was used for data reduction purposes and to develop an overall understanding of the survey responses and a general picture of how the sample group responded. The initial analysis used descriptive analysis for the whole sample. Furthermore, a number of statistical techniques have been used to study the research variables and their relationships. The next part gives a brief discussion of these techniques.

5.5.5.1 Factor Analysis

Factor analysis (FA) is a generic name given to a class of multivariate statistical methods whose primary purpose is to define the underlying structure in a data matrix (Hair et al., 1998). It addresses the problem of analysing the structure of the interrelationship (correlation) among a large number of variables by defining a set of common underlying dimensions, known as factors. Factor analysis is used also to check whether indicators bunch in the ways proposed by a priori specifications of the specified dimensions (Bryman and Cramer, 2001).

FA involves setting up a number of new variables called factors. These variables cannot be observed, nor can they, to all intents and purposes, be expressed in terms of observations that we may have made. What can be done, however, is to calculate and interpret some of the properties of these new variables, and this is one of the most important aspects of carrying out a factor analysis.

In summary, data factor analysis derives underlying dimensions that, when interpreted and understood, describe data in much smaller numbers of items than the original individual variables. Calculating scores can achieve data reduction for each underlying dimension and substituting it for the original variable.

5.5.5.1.1 Objective of Factor Analysis

The basic purpose of factor analytic techniques is to find a way of condensing (summarising) the information contained in a number of original variables into a smaller set of new composite dimensions or variables (factors), with minimum loss of information, i.e., to search for and define the fundamental constructs or dimensions assumed to underlie the original variables (Gorsuch, 1983; Hair et al., 1998; Field, 2000; Rummel, 1970).

However, FA is often used on a stand-alone basis for achieving similar purposes:

- To select a subset of variables from a larger set based on which original variables have the highest correlations with the principal component factors.
- To create a set of factors to be treated as uncorrelated variables as one approach to handling multicollinearity in such procedures as multiple regressions.
- To validate a scale or index by demonstrating that its constituent items load on the same factor, and to drop proposed scale items which cross-load on more than one factor.
- To establish that multiple tests measure the same factor, thereby giving justification for administering fewer tests.
- To identify clusters of cases and/or outliers.
- To determine network groups by determining which sets of people cluster together.

In this study, the main objective of this analysis is to reduce the number of variables tested in the questionnaire to a more manageable and parsimonious set. Besides, since the resulting factors are to be used in the regression analysis, the equally important objective is to create a set of factors to be treated as uncorrelated variables as an approach to handling multicollinearity.

5.5.5.1.2 Factor Analysis Requirements

Undoubtedly, not all types of data can be used in factor analysis. Certain requirements need to be fulfilled before factor analysis can be successfully employed. These include

sample size requirements, Bartlett's Test of Sphericity, and Kaiser-Mayer Olkin measure of sampling adequacy.

1. Sample Size Requirement

Many statisticians mentioned the necessity of sample size for factor analysis in their work; almost by consensus, only large-scale samples were adequate to conduct the factor analysis (Comfrey and Lee, 1992). More recently, some authors have embraced new trends related to the issue. MacCallum et al. (1999) revealed that the minimum sample size or sample to variable ratio relies on other perspectives of the construct of the study. Their work notes that as communalities tend to become less, the importance of sample size increases. With all communalities above 0.6, relatively small samples (less than 100) may be perfectly adequate. With communalities in the 0.5 ranges, samples between 100 and 200 can be good enough, provided there are relatively few factors with only a small number of indicator variables.

2. Bartlett's Test (BTS)

Bartlett's test is a statistic that can be used to test the hypothesis that the correlation matrix is an identity matrix (a matrix in which all-diagonal terms are 1 and off-diagonal terms 0). The test requires that the data be a sample from a multivariate normal population. The best result in this test is when the value of the test statistics for sphericity (which is based on Chi-square transformation of determinant of the correlation matrix) is large, and significance level is small (Nunnally, 1978).

3. Kaiser-Meyer-Olkin (KMO)

KMO is a measure of sampling adequacy. It is an index used to compare the magnitudes of the observed correlation coefficients to the partial correlation coefficients. The sum of squared partial correlation coefficients between all pairs of variables ranges from 0.0 to 1.0. Small values indicate that factor analysis is not valid, since correlations between

pairs of variables cannot be explained by the other variables. Kaiser (1974) characterises KMO measures in the 0.90s as marvellous, in the 0.80s as meritorious, in the 0.70s as middling, in the 0.60s as mediocre, in the 0.50s as miserable, and below 0.50 as unacceptable. However, according to Kinnear and Gray (1999), the measure should be greater than 0.50 for a satisfactory factor analysis.

5.5.5.1.3 Steps in Factor Analysis

The first and the most important step in factor analysis is the computation of a correlation matrix for all variables to determine if they had adequate relationships and consequently shared common factors. The new factors are interpreted by the factor loadings that correlated to the variables that are grouped to the factor. The next step is to extract the factors through multiple iterations to determine the minimum number of common factors that will satisfactorily explain the observed correlations amongst the variables. The third step is factor rotations to transform the initial matrix obtained through extraction into one that is easier to interpret (Norusis, 1993). The final step is factor loading and the naming process. These steps are discussed in brief below:

1. Test of Appropriateness

Variables of factor analysis are generally assumed to be of metric measurement. Factor analysis requires variables to be at least of interval scale (Sproull, 1988). However, (Hair et al., 1998) suggest that in some cases, dummy variables (coded 0-1), although considered non-metric, can be used. If all variables are dummy variables, then specialised forms of factor analysis, such as Boolean factor analysis, are more appropriate. It is important to note that not all types of data can be used in factor analysis. There are certain requirements that must be met before factor analysis could be meaningfully employed.

2. Factor Extraction

Once the appropriateness of factor analysis is established, the next step is to decide on the method of factor extraction and the number of factors to be extracted. The main goal of factor extraction is to determine the factors, and to determine the minimum number of common factors that satisfactorily explain the observed correlation among the observed variables (Norusis, 1993). There are several factor extraction methods (Norusis, 1993):

- Principal Component Analysis (PCA)
- Principal Axis Factoring (PAF)
- Alpha Factoring
- Image Factoring, and
- Maximum Likelihood.

PCA is a factor model in which the factors are based upon the total variance. PCA is appropriate when a researcher is concerned about the minimum factors needed to account for the maximum portion of variance represented in the original set of variables (Hair et al., 1998).

Unlike PAF, which only analyses common variance, PCA analyses all the variance of a score or variable, include the unique variance, assuming that the test used to assess the variable is perfectly reliable and without error (Bryman and Cramer, 1990). Therefore, in this study, the PCA method was used throughout, to ensure consistency in factors.

To help decide how many factors we need to represent data, or when to end the extraction process, and evaluate the final number of factors to be extracted, there are a number of criteria such as communalities, eigenvalues, and scree plot.

A. Communality

Communality is a measure of the association between an original variable and all other variables included in the analysis (Hair et al, 1998). Communalities can range from 0 to

1, where 0 indicates that the common variance factors explain none of the variance, and 1 indicates that all the variance is explained by the common factors. The existence of high communalities is a sign of high degree of confidence in the factor solution. (Norusis, 1993).

B. Eigenvalue

An eigenvalue is the standard variability in the total data set (equal to the numbers of variables included), which is accounted for by an extracted factor in factor analysis. Only those factors that account for variances greater than 1 should be included (Norusis, 1993).

C. Scree Plot

Scree plot method produces a descending graph plotting the amount of variance accounted for (in eigenvalues) by the factors initially extracted. The plot usually shows two distinctive slopes, one steep slope of the initial factors, and a gentle one of the subsequent factors (Bryman and Cramer, 1990).

3. Factor Rotation

The objective of all rotation methods is to simplify the rows and columns of the factor matrix and to facilitate easy interpretation. However, no method of rotation improves the degree of 'fit' between the data and the factor structure; any rotated factor solution explains exactly as much co-variation in the data as the initial solution (Kim and Mueller, 1978). Factor rotation will also highlight the number of factor communalities of each variable, the percentage of the total variance explained (eigenvalues), and the factor loading.

Generally, the most common method of rotation is either Varimax Orthogonal rotation, or Oblimin Oblique rotation. However, Varimax is considered the most popular

orthogonal rotation scheme. Therefore, Varimax rotation was used throughout this study.

4. Factor Loading and Factor Naming Process

The final step is the interpretation of the factors. Most of the interpretations are based on the factor loadings values. Hair et al. (1995) defines factor loading as “correlation between the original variable and the key to understanding the nature of a particular factor. Squared factor loadings indicate what percentage of the variance in an original variable is explained by a factor”.

To identify the factor, it is necessary to group the variables that have large loadings for the same factors. One convenient strategy is to sort the factor pattern matrix, so that variables with high loadings on the same factor appear together (Norusis, 1993).

Comfrey and Lee (1973) suggested useful guidelines for this purpose: Thus any loading greater than + or - 0.71 is excellent, + or - 0.63 is very good, + or - 0.55 is good, + or - 0.45 is fair, and + or - 0.32 is poor. In this study, loading below 0.5 was ignored, to recognise that higher loading provides a clearer guide to what the factor is measuring (Rees, 1996).

5.5.5.2 Regression Analysis

Regression has become one of the most widely used techniques in the analysis of social science data. It is a powerful tool for summarising the nature of the relationship between variables and for making predictions of the dependent variable likely values (Bryman and Cramer, 2001). There are two kinds of linear regression: simple, two-variable regression, and multiple regression (Kinnear and Gray, 1999). In the simple, two-variable regression, the values of one variable (the dependent variable, y) are estimated from those of another (the independent variable, x) by a linear (straight line)

equation. In multiple regression, the values of one variable (the dependent variable, y) are estimated from those of two or more other variables (independent variables, X_1, X_2, \dots, X_p).

Using multiple regression to test research hypotheses, there are two statistical tests: 1) for overall equation, and 2) for each regression coefficient (Bryman and Cramer, 2001; Cohen and Cohen, 1983; Eye and Schuster, 1998; Freund and Wilson, 1998; Hair et al., 1998; Kinnear and Gray, 1999; Remenyi et al., 1998; Weisberg, 1980). These tests are explained below.

5.5.5.2.1 Test of Overall Equation

When testing the overall equation, the F test is used to test the hypothesis that we have at least one significant regression coefficient. If we accept the null hypothesis, the results would suggest that all coefficients are not significantly different from 0. Therefore:

$$H_0 : b_1 = b_2 = b_3 = \dots b_k = 0$$

H_a : at least one coefficient is significantly different from 0.

Consequently, when we reject the null hypotheses, H_0 , we guarantee at least one significant coefficient. So, any combination or all coefficients can be different from 0.

5.5.5.2.2 Test of Each Regression Co-Efficient

It should be clear that only when one rejects the null hypothesis does one test for each regression coefficient. In this case, what we are testing is whether a coefficient is significantly different from zero. The hypothesis for the i th variables is:

$$H_0: b_i=0$$

H_a : b_i is significantly different from 0.

Since we will have to test the hypothesis for each variable, the number of tests would depend on the number of coefficients that exist in the data set. There are two methods of testing the significance of the overall equation: the critical F technique or the P-value technique. On the other hand, for each regression coefficient, the coefficients can be tested using the critical T-statistic, as well as the P-value technique. This is summarised in Table 5.3.

Table 5-3: Summary of Regression Procedures

| Type of test | Critical F/or t Statistics | P-Value |
|--|---|--|
| Test for overall equation | <p>Critical F technique requires that we obtain critical F based on three pieces of information: α, df_1 and df_2.</p> <p>$H_0: F_{\text{actual}} < F_{\text{Critical}}$</p> <p>$H_1: F_{\text{actual}} > F_{\text{Critical}}$</p> <p>$F_{\text{Critical}}$ is denoted as F_{α, df_1, df_2}</p> | <p>By using information from statistical software output, we can quickly determine if equation is significant. Guiding rules are:</p> <p>Accept H_0 if $p > \alpha$</p> <p>Accept H_1 if $p < \alpha$</p> |
| Test for each regression coefficient | <p>T-statistic has only one degree of freedom. In regression analysis, degree of freedom will be degree of freedom associated with the sum of square error (or residual). Critical t (that value of t-statistic which actual has to exceed to reject null hypothesis) is referred to as: $t_{\alpha/2, df(\text{error})}$</p> <p>Using this technique we would reject null hypothesis only when actual t-statistic (in absolute terms) is greater than critical t. That is $t > t_{\alpha/2, df(\text{error})}$. Otherwise we would fail to reject null hypothesis</p> | <p>When viewing computer output, it is far easier to assess significance by looking at exact tail significance-p values. Idea is to reject the null hypothesis if:</p> <p>$H_1: P < \alpha$</p> <p>We fail to reject null hypothesis if:</p> <p>$H_0: p > \alpha$</p> <p>If $\alpha = .01$.</p> |
| <p>df_1 is number of predictors (including constant) minus one</p> <p>df_2 is sample size minus number of predictors (including constant)</p> <p>α is significance level</p> | | |

Source: Based on Cramer, 1998; Eye and Schuster, 1998; Sekaran, 1984

However, the estimated regression function describes the nature of the relationship between independent and dependent variables. In addition, it determines the strength of

relationship between the variables. This is measured by the coefficient of determination, denoted by R^2 . This measures the percentage of the total variation in *dependent variable* that is 'explained' by the variation in *independent variable*. The R^2 statistic ranges from 0.000 to 1.000. If there is a perfect linear relationship between *independent variable* and *dependent variable* then $R^2 = 1.000$. At the other extreme, if there is no relationship between *independent variable* and *dependent variable*, then none of the variation in *dependent variable* is explained by the variation in *independent variable* and $R^2 = 0.000$. On the other hand, the degree to which two or more *independent variables* are related to the *dependent variable* is expressed in the correlation coefficient R , which is the square root of R^2 . The value of R can range from -1.00 to $+1.00$. The value of -1.00 represents a perfect negative correlation, while a value of $+1.00$ represents a perfect positive correlation. If $R = 0$, then there is a lack of correlation between *independent variable* and *dependent variable*.

As previously stated, one of the main purposes of the questionnaire was to assess the level of organisational experiences with TQM, as well as the factors that contribute to the success of it. Therefore, to determine the relationship between main factors that affect using TQM, and TQM critical success factors (independent variables) and the success of TQM efforts (dependent variable), linear regression was used. The result of linear regression shows relationship between dependent variable and independent variables. The results of these techniques are described in Chapter 7.

5.5.6 Statistical Techniques usage

The previous statistical techniques have been used to achieve the research objectives discussed in chapter 1 (1.3). However, Factor Analysis has been used to find out factors

the affect the success of the TQM in United Arab Emirates. Each factor has been tested by factor and regression analysis in the first part of this chapter. The main factors arising from this analysis are "Top Management Support", "Strategy", "Continuous improvement", "Benchmarking", "Customer Focus", "Quality Department", "Quality Systems", "Human Resources Management", "Recognition and Rewards", "Problem Analysis", "Quality Technologies", "Service Design", "Employees", "Servicescapes", "Service Culture" and "Social Responsibility".

To examines how these critical success factors can predict the successful implementation of TQM a regression analysis has been used. Regression analysis is devoted to determine these implementation factors and uses regression analysis to relate TQM success as dependent variable to the critical success factors as independent variables. Factor analysis is used as well to validate each factor.

Finally, Ranking analysis and One sample T-Test have been used to assess the degree of criticality of each critical success factors. The results are then presented to assess the degree of importance of each factor and the significant level of the degree of importance.

5.5.7 Case Studies

A case study is a typical example of a qualitative approach where one or a small number of cases are being studied (Bryman, 1989; Bryman and Cramer, 1997; Yin, 1989). It typically studies and observes the characteristics of an individual unit, an organisation (Nettleton and Taylor, 1990). The ultimate aim of a case study is to study situations from the respondents' point of view (Burgess, 1984), thus enabling the researcher to discover the world as perceived by the respondents (Wong, 1992). In other words,

while the survey questionnaire provides assessments on the importance and relatedness of key elements of TQM implementation, it is the role of the case studies to explore how these elements are being implemented to engender the level of change intended by the organisation in order to improve its performance and competitive position.

Remenyi et al. (1998) argue that the case study has two features. Firstly, it can be used in establishing valid and reliable evidence. Secondly, it can be used also as a vehicle for creating a story or narrative description of the situation being studied.

This method has some limitations as well. The main drawback, as discussed by Bryman (1989:170), is

“A major reason for the loss of faith in case studies was a prevailing view that it was not possible to generalise the results of research deriving from just one or two cases”

In this study, a case study approach was used to investigate how TQM is being implemented in selected banks. Issues of interest in the case studies are related to the operationalisation of key elements of TQM implementation in real organisational settings.

5.5.7.1 Sample Selection

Gummesson (1991) describes gaining access as “the ability to get close to the object of study, to really be able to find out what is happening”. As supported by Yin (1989), this study is exploratory in nature, and the sampling of the case studies is not representative of a particular population. This part of study was seen as a ‘complementary’ study, to further assess and test the applicability of critical factors of TQM and to investigate any potential benefits or challenges associated with it.

The criteria for selecting the banks to participate were simple:

- A quality manager had to be available to participate in the interview.
- Had already used or were in the process of using TQM.

Several banks were contacted, of which four prominent ones expressed interest and met the criteria. The decision was taken to use all four.

The diversity of issues represented by the four case studies has the advantage of enriching the data collected (Yin, 1989). This richness of data facilitates comparative analysis between the cases, and therefore leads to theory improvement.

5.5.7.2 Data Collection and Analysis

The technique chosen for data collection was face-to-face interviews. This was seen to be the most suitable approach, mainly due to the 'exploratory' nature of the study, which meant that a comprehensive discussion was required regarding several issues (e.g., marketing strategy, web site, international related factors, etc.): This would provide the opportunity for interaction rather than answering specific questions. The number of interviews that could be conducted was limited due to the lack of time and resources. However, follow-up phone calls were made to cover some aspects that were not fully covered in the interview:

In order to give a structure to the interview, some guidelines were prepared and documented. These were based on the study outcomes and aimed to achieve the study objective. Interviewees were encouraged to talk about any issues that they felt were important to ensure that the various elements of TQM were addressed. All critical factors were covered with all interviewees, and there was flexibility to rephrase or reframe questions according to the context of a particular interview.

The interviews were recorded using a tape recorder and were transcribed. These transcripts were computerised as a database. After data were collected, all data taken from interviews, observations and document study were consolidated and linked together to create a full picture of the entire process of implementation undertaken by the bank.

5.6 MEASUREMENT ISSUES OF RESEARCH VARIABLES

The measurement issue is very important to the success of any research work. Peter (1979) stated that assessing measurement is crucial because;

“.... Behavioural measures are seldom if ever totally reliable and valid, but the degree of their validity and reliability must be assessed if research is to be truly scientific.”

The key concepts of validity and reliability are now discussed as follows:

5.6.1 Validity

Measurement validity is concerned with the assessment that the scale measures what it is supposed to measure (Cooper and Emory, 1995). In other words, validity is concerned with whether we are measuring the right concept or not. Parasuraman (1986) describes validity as “The extent to which it is a reflection of the underlying variable it is attempting to measure”. Researchers can use several types of approaches to test how valid the measures are, including content validity, criterion-related validity, and construct validity.

5.6.1.1 Content Validity

Content validity is the degree to which the domain of properties or characteristics of a concept one desires to measure are in fact captured by the measures (Bagozzi, 1994). A measure has content validity if there is a general agreement among the subjects and

researchers that the instrument has measurement items that cover all the content domain of the variables being measured (Nunnally and Bernstein, 1994). The researcher can satisfy content validity through careful definition of the research problem, the items to be scaled, and the scale to be used. This logical process is somewhat intuitive and is unique to each researcher (Emory, 1991) and Cooper. However, the measurement scale must satisfy certain criteria before it can be applied in the empirical work. These criteria include (McDaniel and Gates, 1996):

- Carefully defining what is to be measured
- Conducting a careful literature review and interviews with the target population
- Letting the scale be checked by experts
- Making sure that the scales could be pre-tested, and also open-ended questions asked that might identify other items to be included.

5.6.1.2 Criterion-Related Validity

This refers to the extent to which the measurement instrument is able to predict a variable, an assigned criterion. Criterion-related validity is the degree of correspondence between measures and some other accepted measured measure. Bagozzi (1994) discusses this as "... the degree of connectedness of a focal measure with other measures".

Establishing concurrent validity or predictive validity can do criterion-related validity. The former concerns the extent to which a measure is related to another measure (the criterion) when both are measured at the same point in time, while the latter examines the extent to which current scores on a given measure can predict future scores of another measure (the criterion) (Diamantopoulos and Schlegelmilch, 1997).

However, criterion-related validity is not widely used in marketing research for the reasons of difficulties and lack of criterion measures. Therefore, the study has not made use of it. Instead, it relies more on the construct validity measure.

5.6.1.3 Construct Validity

Construct validity is the most common cited validity assessment in the field of social science. It is established by relating a measuring instrument to a general theoretical framework in order to determine whether the instrument is tied to the concepts and the theoretical assumptions that the researcher is employing (Nachmias and Nachmias, 1996). It is significant because it can identify the unobservable dimensions of the construct being measured.

Construct validity can be divided into two categories discriminant and convergent validity. Discriminant validity is concerned with demonstrating that a measure does not correlate with another measure from which it is supposed to be different. Convergent validity, on the other hand, aims at measuring the degree of association among scale items developed to measure the same concept (Churchill, 1979). Factor analysis is the most commonly used instrument to test both types of construct validity. This is for of two reasons (McDaniel and Gates, 1996) first, it identifies the underlying constructs in the data, and second, it reduces the number of original variables into a smaller set of variates (factors).

5.6.1.4 Validity in this Research

In this study, the researcher believes that validity has been achieved, and that the instruments used have a good degree of validity. Several techniques have been used to accomplish such a goal:

1. The study instruments, the questionnaire and the interviews, were fully developed using a deductive process based on the literature, accomplished in an earlier stage of this research.
2. The questionnaire was tested and revised. Seven academic researchers experienced in questionnaire design at the School of Management, Bradford University, were asked to

give their feedback on it, and the questionnaire was piloted with TQM experts known to the researcher to make any suggestions concerning clarity of the wording, correct use of specific words, ambiguity, consistency of the questions, and overall presentation. Furthermore, the questionnaire was also given to four doctoral students to make any suggestions. As a result of this pilot, some amendments were made to improve the questionnaire.

4. Personal interviews were held with marketing managers of the selected banks, and issues related to TQM were discussed. This technique was used as a second data-gathering instrument, which contributed to the validity of this study.

5.6.2 Reliability

Reliability refers to whether the measurement scale is consistent and stable. In other words, reliability is the extent to which a test or procedure produces similar results under constant conditions on all occasions (Bell, 1996). Price and Muller (1986) state that reliability is “the consistency of a measure”, because it focuses on the items forming the scale. Reliability is a contributor to validity, and is a necessary but not sufficient condition of validity.

In general, there are three methods to measure reliability of a measurement scale: test-retest, alternative (equivalent) forms, and internal consistency reliability (Davis and Cosenza, 1993). However, the basic differences among them are the scale to compute the reliability coefficient (Peter, 1979).

5.6.2.1 Test-retest

In the test-retest approach, the same scale is applied to the same subject at different time intervals, and the correlation between the two sets of observations is computed. Although this method provides useful information about the stability of measure, it

leads to higher data gathering costs and often reduces the number of usable responses due to a respondent's unwillingness to engage in another test (McDaniel and Gates, 1996). Besides, using this approach may lead to different results due to the time intervals between the two tests (Churchill, 1979). Based on the above, test-retest is not favourable approach to be used as a sole method in reliability assessment.

5.6.2.2 Alternative Forms

In the alternative forms approach, two sets of items are applied to the same subject, then the score results of the two scales are correlated. In other words, two measures with a high degree of similarity, but with enough difference that ensure that the first measurement will not affect re-measurement (Peter, 1979). However, to develop similar but not identical items that exactly measure the same construct is difficult. Therefore, this approach was also ruled out in this research.

5.6.2.3 Internal Consistency

The internal consistency approach deals with the homogeneity of individual items to other items measuring the same construct (Peter, 1979). In other words, if two items are used to measure one construct, the item-to-item correlation should be high. 'Cronbach Alpha' is the results of a technique that calculates the mean reliability coefficient for all possible ways of splitting a set of items into two halves. High alpha scores mean more internal reliability in the measurement scale, whereas a low alpha indicates the items used do not really capture the construct and some items may have to be eliminated to improve the alpha level. Nunnally (1978) suggested that a reliability of 0.5 to 0.6 would be sufficient.

5.6.2.3 Sub liability in this research

The internal consistency approach is relevant to this study because Likert scales are used to measure the variables. Churchill (1979) stated that this approach is relevant to a multiple-item scale which consists of at least three items. Hence, Cronbach Alpha has been computed to evaluate the reliability of all scales that consists of three items or more.

5.7 MEASUREMENT

In this study, multiple-item Likert scales are used to measure the variables because Likert is an appropriate interval scale that measures behavioural variables. However, marketers are much better served with multiple-item than with single-item measures of their constructs, and they should take the time to develop them (Churchill, 1979).

Undoubtedly, in multiple-items scales, the reliability and validity of the scales tend to improve as the number of items increases (Peter, 1979). Besides, a Likert scale is very common in TQM studies.

There are no general rules in deciding on the type and number of scale points. The scale could be odd or even numbers and it normally ranges between five and ten categories. Parasuraman (1986) suggests that it would be better to examine the existing literature on the related studies.

The scale points in this study are restricted to five, for two reasons. First, it is consistent with previous studies in TQM that use the five-point scale. Second, it is much better for the respondents to answer using five-point scales.

5.8 SUMMARY

This chapter has provided a detailed discussion of the research design and methodology issues that a researcher needs to deal with. Perspectives of research design were elaborated to draw respective assumptions that underlie the methodology. The choice of methodology was been justified, and subsequent procedures have been highlighted to provide an integrated discussion and conclusive statements, which will guide the next phase of the research process. The triangulation approach has been adopted for combining the quantitative and qualitative approaches used to collect and analyse data. This has allowed richness of data and comprehensive treatment of different elements that constitute the whole process of using the TQM approach.

It also examined the study instruments used in this research. The researcher used two main methods throughout this study: the survey questionnaire and the case study interview. The author has defined the questionnaire, justified its use as the main source of data collection, and explained the process of its construction. The validity of the questionnaire was considered next, and then the manner of its distribution and collection was shown. Limitations of using the questionnaire as a data collection method were also discussed. The case study was then introduced as a confirmatory and secondary source of information in this study. The researcher adopted the second type (case study) for reasons given in this chapter. The advantages and disadvantages of using the case study interview as a data collection method were also reviewed, and then the interview sample was introduced.

This chapter also touches on the package which has been used in the computation of the data. The statistical analysis techniques, Factor Analysis, Regression Analysis and Path Analysis, which have been used to test the research framework and the proposed

relationships, have also been covered in this chapter. Finally, it explained the measurement issues of research variables. After explaining measurement validity and reliability, the chapter justified the use of multiple-item Likert scales to measure the variables.

To sum up, this chapter has set the foundation for data collection. The following chapters (Chapters 6 and 7) discuss analysis of data from the survey and the case studies.

Chapter 6

Quantitative Data Analysis

6.1 INTRODUCTION

This chapter is concerned with the analysis of the preliminary research findings. Firstly the descriptive analysis of the data provides some qualitative insights to investigate, describe and discuss the data obtained in terms of value and contribution to the aims of the research. Secondly, it focuses on the purification and computation processes of the measuring instruments. In this process, Cronbach's alpha is used as an indicator of reliability of the scale measurement.

Finally, an in depth analysis has been done to understand those factors which play a critical role in the success of the TQM on the Banking sector. The results of this part are structured in three parts to achieve three objectives:

1. To determine TQM Critical Success Factors.
2. To examine benefits from TQM implementation.
3. To develop a regression model for evaluating the effect of CSFs on TQM.

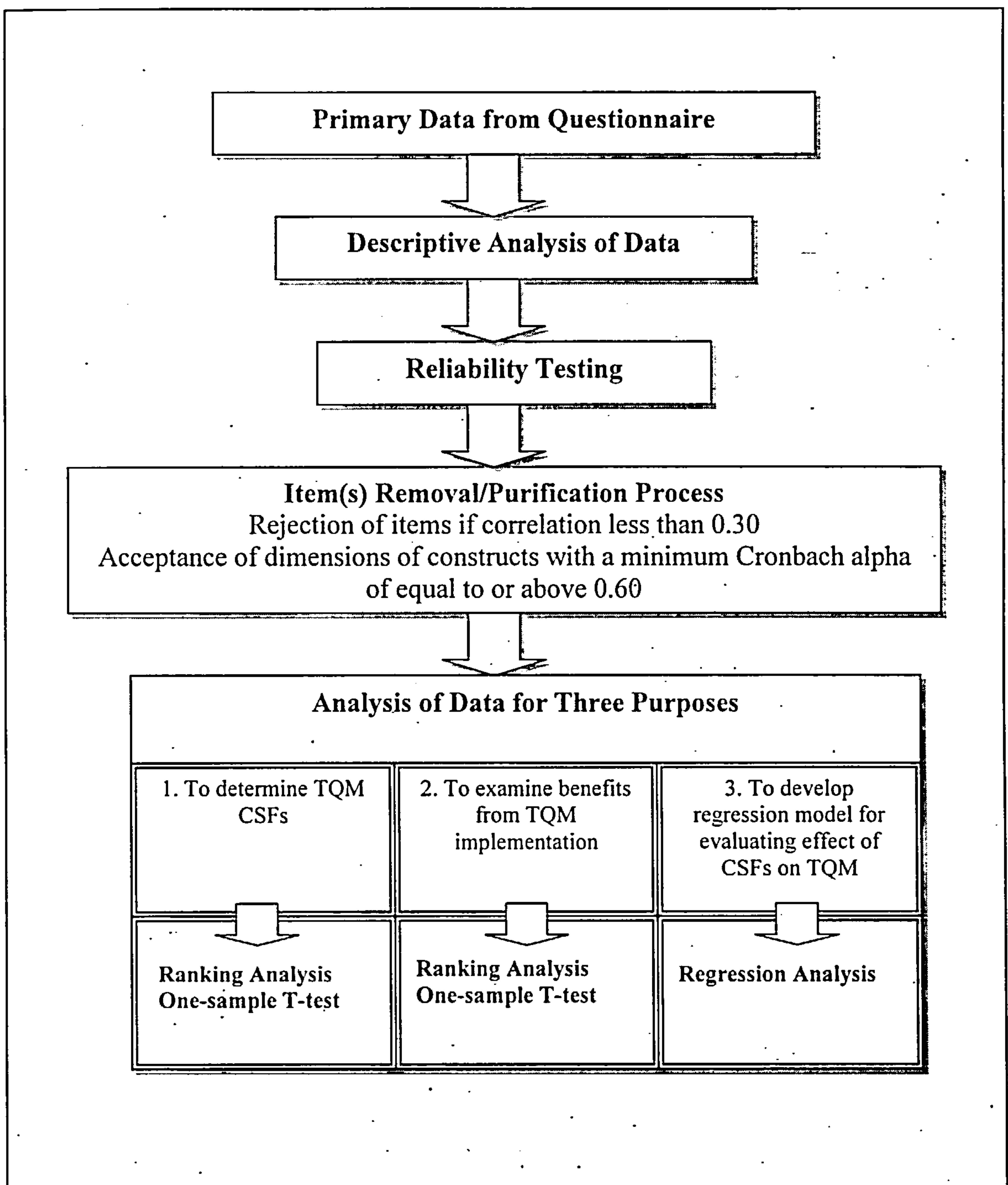
It is important to note that this chapter is aimed specifically to present the statistical results from the analysis. Chapter 8 will interpret and discuss the implications and findings of Chapters 6 within the context of the literature discussed in Chapters 2, 3 and 4. In other words, this chapter (Chapters 6) is restricted to presentation and analysis of the collected data, without drawing general conclusions or comparing results to those of other researchers. The conclusions and recommendations of these results are discussed in the final chapter (Chapter 9).

6.2 ANALYSIS PROCESS

The flow-chart (Figure 6.1) provides an overview of how the analysis process was carried out. The three main objectives in this process were:

1. To examine the profile of respondents and the distribution of responses on the question items.
2. To test the reliability of data by using item-to-total correlation and Cronbach alpha statistical measures
3. To evaluate the effect of CSFs on TQM on banks.

Figure 6.1: Model of Data Analysis Process



6.3 PROFILE OF RESPONDING BANKS AND RESPONDENTS

This section focuses on providing general information about respondents and participant banks. The aim is to provide a brief account of the profile of the sample in the study. Frequency analysis is used to distribute the participating banks according to the following characteristics:

- Participation in TQM implementation
- Location
- Types of ownership
- Number of branches

6.3.1 Participating in TQM Implementation

One of the objectives of this study is to define the CSFs for TQM. Hence, it is important for the respondent to be involved in the implementation of the TQM. In this case Table 6.1 shows that all (100 %) of the respondents participate in TQM implementation. Consequently, it can be concluded that respondents in this research can be used to validate our findings and provide valuable information about the CSFs of TQM.

Table 6-1: Participation in TQM Implementation

| | | Frequency | % | Valid % | Cumulative % |
|-------|--------------|-----------|-------|---------|--------------|
| Valid | No | 0 | 0 | 0 | 0 |
| | Yes | 124 | 100 | 100 | 100.0 |
| | Total | 124 | 100.0 | 100.0 | |

6.3.2 Location

As shown in Table 6.2, the majority of respondents (81) are based in Dubai, 65.3 % of the sample, followed by 33 respondents in Abu Dhabi, 26.6% of the sample. Only 10 respondents (8.1%) are based in Sharjah.

Table 6-2: Distribution of sample by Location

| | | Frequency | % | Valid % | Cumulative % |
|-------|----------|-----------|-------|---------|--------------|
| Valid | AbuDhabi | 33 | 26.6 | 26.6 | 26.6 |
| | Dubai | 81 | 65.3 | 65.3 | 91.9 |
| | Sharjah | 10 | 8.1 | 8.1 | 100.0 |
| | Total | 124 | 100.0 | 100.0 | |

6.3.3 Types of Ownership

Table 6.3 indicates that 66.15% of the samples are local banks, and 33.85 % are foreign banks. This reflects two phenomena first, as mentioned earlier in the literature review, local banks are very keen to increase the quality of services; Second, most local banks studies were likely to perceive their participation in the study as further evidence of their success regarding TQM implementation.

Table 6-3: Types of Ownership

| | | Frequency | % | Valid % | Cumulative % |
|-------|---------------|-----------|-------|---------|--------------|
| Valid | Local | 82 | 66.15 | 66.15 | 66.15 |
| | Foreign Banks | 42 | 33.85 | 33.85 | 100 |
| | Total | 124 | 100.0 | 100.0 | |

6.3.4 Number of Branches **Error! Reference source not found.** Table 6.4 shows that more than two-thirds of banks in the sample are made up of fewer than 5 branches. 31 have 5-10 branches (25%), and only 15 banks have more than 10 branches (12.1%).

Table 6-4: Number of Branches

| | | Frequency | % | Valid % | Cumulative % |
|-------|--------------|-----------|-------|---------|--------------|
| Valid | Less than 5 | 78 | 62.9 | 62.9 | 62.9 |
| | 5-10 | 31 | 25.0 | 25.0 | 87.9 |
| | More than 10 | 15 | 12.1 | 12.1 | 100.0 |
| | Total | 124 | 100.0 | 100.0 | |

6.4 DATA PREPARATION AND PURIFICATION OF MEASURES

According to Nachmias and Nachmias (1996), after collecting the data, researchers must undertake several steps in order to obtain meaningful results from the analysis stage. The following sections will discuss these steps in detail.

6.4.1 Data Preparation

The first step in preparing the data for analysis was the process of data editing, coding and data entry to SPSS. Firstly, raw data were edited for the purpose of detecting any errors and omissions, correcting them where possible, and certifying that minimum data quality standards were achieved.

Secondly, the study variables were coded into formats for the Statistical Package for the Social Sciences (SPSS), version 10.1, that was used in data analysis. The variables were given unique labels.

Finally, SPSS was used to enter the data. Each questionnaire received was first checked for errors and omissions, then answers were entered manually into the computer, and the data became ready for analysis.

6.4.2 Purification of Measures

After the entry and recording processes had been completed, all measures were then purified by assessing their reliability and validity. There are a number of reasons for the emphasis on the validity and reliability of the measurements. One, a reliable and valid measuring instrument enhances the methodological rigour of the research. Two, it permits a co-operative research effort and provides support for triangulation of results.

Three, it provides a more meaningful explanation of the phenomena that are being investigated.

In this study, the validity and reliability measurement is done using the item-to-total correlation. The aim was to remove items if they have a low correlation, unless they represent an additional domain of interest. This method is considered as the most common procedure used by the researchers in guaranteeing the reliability of a multi-item scale (Churchill, 1979). As mentioned earlier (Section), the purpose of the item-to-total correlation measure is to determine the relationship of a particular item to the rest of the items in that dimension. The process helps to ensure the items making up that dimension share a common core (Churchill, 1979). In this purification process, the items should have item-to-total correlation scores of 0.30 and above to be retained for further analysis, because they are considered to have high reliability (Edgett, 1991).

Additionally, the estimation of reliability is also based on the average correlation among items within a dimension, which is concerned with 'internal consistency' (Nunnally, 1978). The basic statistic for determining the reliability based on this internal consistency is called coefficient alpha (Cronbach's alpha). This technique has proved to be a good estimate of reliability in most research situations. As Nunnally mentioned in Section 5.6.2.3, (1978) suggested that the reliability of 0.5 to 0.6 would be sufficient.

The following section will precede the discussion on the process of computing reliability. This reliability analysis has been conducted for all the measuring instruments in the questionnaire, namely Top Management Support, Strategy; Continuous Improvement, Benchmarking, Customer Focus, Quality Department, Quality Systems, Human

Resource Management, Recognition and Reward, Problem Analysis, Quality Technologies, Service Design, Employees, Servicescapes, Service Culture, Social Responsibility, Management Response, Services Improvement, Customer Orientation, Human Resource Excellence and Economic Advantage.

6.4.3 Reliability Analysis Results

Computing the item-to-total correlation and also a coefficient alpha using the SPSS package constitutes the reliability analysis process. As mentioned earlier, item-to-total correlation and the Cronbach's Alpha coefficient are considered to be very popular rather than a cross-item reliability index in the field of social science research.

All items were found to have a high item-to-total correlation, which is above the acceptable level 0.30. As shown in the last column of Table 6.5, the reliability coefficient ranged from 0.8708 to 0.9742, which was significantly higher than the acceptable level of 0.60 (Nunnally, 1978). These results confirm that the scales used are reliable.

Table 6-5: Reliability Analysis for Research Variables

| Item Code | Item | Item-total correlation | Cronbach's Alpha |
|-----------|--|------------------------|------------------|
| TOP | Top Management Support | | .8908 |
| A | Commitment of the top management to the philosophy of TQM | .8251 | |
| B | Inclination of the top management to allocate adequate resources and time for quality improvement efforts | .8415 | |
| C | Tendency of the top management to view employees as valuable and long-term resources | .7551 | |
| D | Degree to which the senior executives are dynamic | .5621 | |
| E | Degree to which the senior executives act as friends, philosophers, and guides to their subordinates | .4464 | |
| F | A clear quality vision (based on customer focus) and the extent to which the vision forms the basis for strategic planning and decision making | .8710 | |
| ST | Strategy | | .8840 |
| A | Process control and improvement of core processes in accordance with design | .6452 | |
| B | Active leadership by managers in quality issues | .7590 | |
| C | Inclusion of employee well-being considerations in | .7790 | |

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| | improvement activities | | |
| D | Senior executive commitment to quality through involvement and communication | .6936 | |
| E | Development/implementation of long-term plans/strategies focused on quality | .6214 | |
| F | Analysis of performance and cost data to support improvement priorities: | .6676 | |
| COI | Continuous Improvement | | .8708 |
| A | The bank believes that continuous improvement results in a competitive advantage | .7087 | |
| B | Emphasis of continuous improvement in all operations and at all levels | .8472 | |
| C | The need for obtaining immediate results overrides (or dominates) the drive for quality processes and improvement | .8382 | |
| D | The bank is characterised by a divine discontent which drives/motivates it to seek continuous improvement in every aspect of everything it does | .5470 | |
| E | Quantification of continuous improvement strategies on the basis of factors such as cost, time and performance | .7300 | |
| BEN | Benchmarking | | .9202 |
| A | Emphasis on benchmarking the services and processes with respect to those of other banks | .8244 | |
| B | Emphasis on benchmarking the training programmes with those of other banks | .5894 | |
| C | Emphasis on benchmarking the level of customer focus with those of other banks | .8350 | |
| D | Emphasis on benchmarking the effectiveness of human resource management (HRM) with those of other banks | .8299 | |
| E | Emphasis on benchmarking the level of 'servicescapes' (i.e. the aesthetics, appeal, comforts and the facilities) with that of other banks | .7091 | |
| F | Emphasis on benchmarking the level of commitment of the bank for the society as a whole, with those of other banks | .8502 | |
| CUS | Customer Focus | | .9040 |
| A | Our Bank collects extensive complaint information from customers | .8421 | |
| B | Quality-related customer complaints are treated with top priority | .7110 | |
| C | Our Bank conducts a customer satisfaction survey every year | .7342 | |
| D | Our Bank always conducts market research in order to collect suggestions for improving our products | .8402 | |
| E | Our Bank provides warranty on our sold products to customers | .5250 | |
| F | Our Bank has been customer-focused for a long time | .7755 | |
| QD | Quality Department | | .9131 |
| A | Visibility of the quality department | .7588 | |
| B | Quality department's access to top management | .7448 | |
| C | Autonomy of the quality department | .5464 | |
| D | Utilisation of quality staff professionals as a consulting resource | .8016 | |
| E | Amount of coordination between the quality Department and other departments | .8292 | |

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| F | Effectiveness of the quality department in improving quality | .8561 | |
| QS | Quality Systems | | .8818 |
| A | The quality system in our Bank is continuously improved | .5874 | |
| B | Our Bank uses Dubai quality award as a guideline for establishing our quality system | .6564 | |
| C | Our Bank has a clear quality manual | .7160 | |
| D | Our Bank has clear procedure documents | .7957 | |
| E | Our Bank has clear working instructions | .8281 | |
| HRM | Human Resource Management | | .9453 |
| A | Effectiveness of the selection and recruitment process (in terms of objectivity and 'right man for the right job'). | .8109 | |
| B | Degree to which promotion and career development programmes emphasise quality management in the organisation | .7651 | |
| C | Extent to which the organisation takes steps to deepen the applicant pool to enhance employee quality | .6810 | |
| D | Effectiveness of the organisation to link education and training of employees to its long-term plans and strategies | .7985 | |
| E | Evaluation and improvement of the training and education programmes for employees. | .8608 | |
| F | Frequency of TQM training programmes conducted for employees working in all functional areas | .7891 | |
| G | Extent to which the employees are given commensurate authority and operational independence to achieve results. | .6862 | |
| H | Extent of accountability of employees for customer service | .9002 | |
| I | Encouragement of employee suggestions and innovation | .7908 | |
| RAR | Recognition and Reward | | .9623 |
| A | Our Bank improves working conditions in order to recognize employee quality improvement efforts | .9449 | |
| B | Our Bank has a salary promotion scheme for encouraging employee participation in quality improvement | .9456 | |
| C | Position promotions are based on work quality in our Bank | .9549 | |
| D | Excellent suggestions are financially rewarded | .7865 | |
| E | Employees' rewards and penalties are clear | .7632 | |
| F | Recognition and reward activities effectively stimulate employee commitment to quality improvement | .8775 | |
| PA | Problem Analysis | | .9071 |
| A | Employee training in problem-solving skills | .8655 | |
| B | Most employees in our plant are trained to use quality problem-solving techniques such as cause and effect diagrams | .8535 | |
| C | Effectiveness of supervisors in solving problems/issues | .6233 | |
| D | Line workers are encouraged to fix problems they find | .8245 | |
| E | Line workers are given the resources necessary to | .6673 | |

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| | correct quality problems they find | | |
| QT | Quality Technologies | | .9267 |
| A | Degree to which the processes and procedures are fool-proof | .8777 | |
| B | Extent to which the service delivery processes are standardised, simplified and documented so that services are delivered without any hassle (seamlessness of service). | .8012 | |
| C | Enhancement of technological capability (e.g. computerisation, networking of operations, etc.) to serve customers more effectively | .7483 | |
| D | Regular tracking and maintenance of the key processes that are critical to the business | .8749 | |
| E | Systematic documentation of procedures for investigation of causes of errors and subsequent corrective actions | .7832 | |
| F | Emphasis on developing procedures for reducing the overall service delivery times | .6500 | |
| SD | Service Design | | .9476 |
| A | Thoroughness of new service design reviews before the service is produced and marketed | .8746 | |
| B | Coordination among affected departments in the service development process | .7793 | |
| C | Quality of new service emphasised in relation to cost or schedule objectives | .9273 | |
| D | Extent to which implementation/servicibility is considered in service design process | .8212 | |
| E | Extent to which sales and marketing people consider quality as a saleable attribute | .8821 | |
| EMP | Employees | | .9355 |
| A | Self-inspection by workers | .7964 | |
| B | Stability of production schedule/work distribution | .8153 | |
| C | Various policies and plans are well communicated to the employees | .7416 | |
| D | Employees from different levels are involved in marking policies and plans | .8236 | |
| E | Employees are actively involved in quality-related activities | .7959 | |
| | Most employees' suggestions are implemented after an evaluation | .7452 | |
| | Employees are encouraged to fix problems they find | .8137 | |
| SERV | Servicescapes | | .9488 |
| A | Extent to which the bank ensures that there is a positive impact of the prevailing physical environment on customers | .7701 | |
| B | Extent to which the ambient conditions such as temperature, ventilation, noise, odour, etc. prevailing in the organizational premises are comfortable to customers | .8752 | |
| C | Degree to which signs, symbols, advertisement boards, pamphlets and other artifacts in the organisation are appealing to the customers | .9022 | |
| D | Extent to which the equipment, physical facilities and the materials associated with service have an appeal to the customers | .8445 | |
| E | Degree to which the physical layout of premises, facilities, and other furnishings are comfortable for the employees to work | .8547 | |

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| F | Extent to which the physical layout of equipment and other furnishings are comfortable for the customers to interact with the employees | .8064 | |
| G | Extent to which housekeeping is kept as a priority and of the highest order in the organisation | .6302 | |
| H | Degree to which the way employees are dressed has a pleasing and neat appearance | .8247 | |
| SERCUL | Service Culture | | .9428 |
| A | Extent to which the employees at all levels realize that the real purpose of their existence is 'service to customers' | .8487 | |
| B | Degree to which the employees believe that TQM plays a vital role in strengthening the organisation's ability to compete in a highly competitive market place | .7520 | |
| C | Resistance of the employees to change | .7434 | |
| D | Trust, openness and good relationships among the employees | .8109 | |
| E | Level of prevalence among employees, feelings such as my bank and we work towards the bank's excellent performance, image and customer service | .8043 | |
| F | Extent to which 'team spirit' dominates individualistic preferences and projections | .8431 | |
| G | A strong belief in the philosophy of 'right first time' and 'right every time' among employees | .8221 | |
| H | Extent to which the organisational structure facilitates fast decision-making and enables quick response to customers' requirements | .7293 | |
| SR | Social Responsibility | | .9404 |
| A | Extent to which the bank leads as a corporate citizen, and the level to which it promotes ethical conduct in everything it does | .8278 | |
| B | 'Service transcendence' - making customers realise their unexpressed needs by giving more than what they expect | .8623 | |
| C | Giving equal treatment to all the customers, stemming from the belief that every one, big or small, should be treated alike | .7920 | |
| D | Providing good service at a reasonable price, but not at the expense of quality, to people from all walks of life | .8469 | |
| E | Having branch locations in most places convenient to all sections of the society (e.g. remote villages, slum areas, etc.) | .6746 | |
| F | Having a sense of public responsibility among employees (in terms of being punctual, regular, sincere, and without going on strike). | .7863 | |
| G | Having a sense of social responsibility characterized by giving loans to economically and socially downtrodden people, needy ones, entrepreneurs, etc., with less rigid loan conditions | .8224 | |
| MR | Management Response | | .9374 |
| A | Top management actively participates in quality management and improvement process | .8243 | |
| B | Top management learns quality-related concepts and skills | .9137 | |
| C | Top management strongly encourages employee | .7617 | |

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| | involvement in quality management and improvement activities | | |
| D | Top management empowers employees to solve quality problems | .8521 | |
| E | Having branch locations in most places convenient to all sections of the society (e.g. remote villages, slum areas, etc.) | .7122 | |
| F | Top management arranges adequate resources for employee education and training | .7862 | |
| G | Top management discusses many quality-related issues in top management meetings | .8505 | |
| H | Top management focuses on product quality rather than yields | .5778 | |
| I | Top management pursues long-term business success | .6003 | |
| SI | Services Improvement | | .9605 |
| A | Enhanced reputation | .8908 | |
| B | Reduced liability risks | .9111 | |
| C | Reduction in customer complaints | .8878 | |
| D | Smoother delivery of services and better customer response | .7359 | |
| E | Increasing to organisation's direct personal contacts with customers | .8912 | |
| F | Using customer requirements as the basis for quality | .8908 | |
| G | Involving customers in product or service design | .8235 | |
| CO | Customer Orientation | | .9742 |
| A | Providing services to the customers as promised | .8495 | |
| B | Providing services to the customers as per the promised schedule | .7831 | |
| C | Providing prompt service to customers | .8763 | |
| D | Willingness to help customers and the readiness to respond to customers requests | .9043 | |
| E | Extent to which the organisation strives to develop the necessary capabilities in terms of manpower and facilities to meet the needs and expectations of customers | .8752 | |
| F | Effective evaluation of the banks performance with respect to customer satisfaction and service by means of a definite mechanism | .8850 | |
| G | Effective use of customer feedback to improve the service standards | .8757 | |
| H | Customer satisfaction | .9074 | |
| I | Providing services right the first time | .8119 | |
| J | Cohesive workforce | .8678 | |
| K | Making customers feel safe and secure in their transactions with the bank | .9032 | |
| HRE | Human Resource Excellence | | .9131 |
| A | Improvement in communication | .7409 | |
| B | Improvement in training | .8649 | |
| C | Improvement in information and accountability | .8329 | |
| D | Proper co-ordination of all the activities of the task groups. | .7730 | |
| EA | Economic Advantage | | .9569 |
| A | Increase in sales | .8302 | |
| B | Reduction in costs | .8610 | |

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| C | Increase in value of services | .8553 | |
| D | Improve the efficiency and effectiveness of internal operations to serve all types of customers better | .8915 | |
| E | Reduce/eliminate errors in all types of transactions | .8867 | |
| F | Ensure timeliness of all operations | .7964 | |
| G | Eliminate unnecessary paperwork and bottlenecks | .8080 | |
| H | Ensure quick handling of enquiries | .7627 | |

NB: The findings are used, discussed and interpreted in the next chapter

6.5 SCALE DEVELOPMENT OF TQM CONSTRUCTS

This section reports the scale development for the TQM constructs in part one. A sequence of steps has been followed in the scale development process. It involved the examination of internal reliability of the data set using item-total correlation, reliability test, and exploratory factor analysis. Items which fulfilled all requirements in the exploratory factor analysis were then submitted to a reliability analysis to measure the item-total correlation and Cronbach's alpha before use in further analysis. This type of procedure was undertaken to sustain the reliability and validity of the data. This section will report the item scale development based on the survey questionnaire.

6.5.1 Conducting Factor Analysis

Certain requirements need to be met before factor analysis can be successfully employed. One of the important is to measure the variables by using interval scales. Using a 5-point Likert scale in the survey questionnaire fulfilled this requirement. A number of reasons account for this use of Likert scales. Firstly, they communicate interval properties to the respondent, and therefore produce data that can be assumed to be intervally scaled (Madsen, 1989; Schertzer and Kernan, 1985). Secondly, in the TQM literature, Likert scales are almost always treated as interval scales (see for example, Aaker *et al.*, 1995;

Bagozzi, 1994; Kohli and Jaworski, 1990; Naerver and Slater, 1990; Tansuhaj *et al.*, 1989).

Another important criterion is that the sample size should be more than 100, since the researcher generally cannot use factor analysis with fewer than 50 observations (Hair *et al.*, 1998). However, this requirement has been fulfilled because there were 124 respondents in this research. The results of the tests are briefly discussed below.

6.5.2 RESULTS OF FACTOR ANALYSIS

This is an important part of the survey. Here, respondents were asked to assess the criticality of the major success factors distilled from the TQM literature and previous case studies on a scale of 1=not critical, 2=minor, 3=moderate, 4=major, 5=critical. As discussed in Chapter 3, the factors were categorised into sixteen dimensions, namely *Top Management Support (TMS)*, *Strategy (ST)*, *Continuous Improvement (CI)*, *Benchmarking (BE)*, *Customer Focus (CF)*, *Quality Department (QD)*, *Quality Systems (QS)*, *Human Resource Management (HRM)*, *Recognition and Reward (RR)*, *Problem Analysis (PA)*, *Quality Technologies (QT)*, *Service Design (SD)*, *Employees (EM)*, *Servicescapes (SE)*, *Service Culture (SC)* and *Social Responsibility (SR)*, covering nearly all aspects of TQM in the banking sector.

6.5.2.1 Scale Development for Critical Success Factors

This section reports the scale development for the CSF constructs. First, a sequence of steps was followed through the scale development process. It involved examination of internal reliability of the data set using item-total correlation, reliability test, and exploratory factor analysis. Secondly, items which fulfilled all requirements in

exploratory factor analysis were then submitted again to reliability analysis to measure the item-total correlation and Cronbach alpha before they were finalised to be used in further analysis. This type of procedure was undertaken to sustain the reliability and validity of the data. This section will report the item scale development based on the survey questionnaire findings.

6.5.2.2 Results of Factor Analysis

A factor analysis was applied to reduce data and elicit CSFs. This part includes 16 items that present CSFs for TQM. The results of the rest of the tests are briefly discussed below.

Discriminant validity was assessed using factor analysis. All items (variables) measuring the sixteen CSFs in the research model were subjected to principal component factor analysis. Eigenvalues and scree plot were used to determine the number of factors to be extracted. Moreover, in order to ensure the use of factor analysis, the Berlett Test of Sphericity (BTS) and Kaiser-Meyer-Olkin (KMO) test of appropriateness were carried out accordingly (See table 6.6). The results (the BTS ranged from 344.151 to 1370.773 and the level of significance at $P=0.000$) indicated that the data is appropriate for the purpose of factor analysis. Statistically, this means that there exist relationships between the variables and that they can be appropriately included in the analysis. As shown the result of sampling adequacy ranged from 0.745 to 0.899 which, following Kaiser-Meyer-Oklin measure of sampling adequacy, reflected high sampling adequacy.

Items was loaded on the sixteen factors as suggested using the criteria of an eigenvalue greater than 1, and the extracted factors account for a range from 63.504 to 83.891 of the

total variance. A varimax rotation was also performed. All items loaded onto the expected factors as they were originally designed. Factor loading were all higher than 0.5 on its own factors. As suggested by Hair et al. (Norusis, 1993; Hair *et al.*, 1998), a factor loading higher than 0.35 is considered statistically significant at an alpha level of 0.05.

Table 6-6: KMO and Bartlett's Test

| | KMO | Bartlett's Test | | | No. of Extracted Item(s) | Eigenvalues | % of variance explained |
|------------------------------|-------|-----------------|----|------|--------------------------------|-------------|----------------------------|
| | | Chi-Square | df | Sig. | | | |
| Top Management Support | 0.745 | 595.467 | 15 | .000 | 1 | 3.932 | 65.530 |
| Strategy | 0.783 | 414.021 | 15 | .000 | 1 | 3.810 | 63.504 |
| Continuous Improvement | 0.783 | 547.300 | 15 | .000 | 1 | 3.489 | 69.779 |
| Benchmarking | 0.851 | 574.320 | 15 | .000 | 1 | 4.318 | 71.973 |
| Customer Focus | 0.859 | 485.340 | 15 | .000 | 1 | 4.096 | 68.261 |
| Quality Department | 0.806 | 585.213 | 15 | .000 | 1 | 4.217 | 70.284 |
| Quality Systems | 0.856 | 344.151 | 10 | .000 | 1 | 3.415 | 68.308 |
| Human Resource Management | 0.684 | 1370.773 | 36 | .000 | 1 | 6.288 | 69.863 |
| Recognition and Reward | 0.899 | 1201.188 | 15 | .000 | 1 | 5.033 | 83.891 |
| Problem Analysis | 0.800 | 671.728 | 10 | .000 | 1 | 3.675 | 73.501 |
| Quality Technologies | 0.809 | 1004.124 | 15 | .000 | 1 | 4.411 | 73.522 |
| Service Design | 0.796 | 707.500 | 10 | .000 | 1 | 4.139 | 82.782 |
| Employees | 0.820 | 708.232 | 21 | .000 | 1 | 5.051 | 72.150 |
| Servicescapes | 0.876 | 1003.53 | 28 | .000 | 1 | 5.921 | 74.009 |
| Service Culture | 0.876 | 896.907 | 28 | .000 | 1 | 5.723 | 71.533 |
| Social Responsibility | 0.843 | 845.952 | 21 | .000 | 1 | 5.169 | 73.846 |

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalisation.

6.6 Testing CSFs

The questions in this part were based on the theoretical framework set out in Chapters 2, 3 and 4. CSFs have been measured in terms of a Likert-type rating scale ranging from 1 to 5 with the following equivalences, '1': 'Not important' or 'Not at all'; '2': 'Minor'; '3': 'Neutral' or 'Moderate'; '4': 'Important' or 'Major'; and '5': 'Very important' or 'Critical'.

6.6.1 Overall Assessment of Success Factors

With respect to the overall assessment of these factors, Table 6.7 shows that the top 16 most critical factors were rated in a range between 4 and 4.46, representing a considerable level of criticality. All of these variables were rated above 4, and can be said to be very critical. They include Top Management Support (Tendency of the top management to view employees as valuable and long-term resources - A clear quality vision (based on customer focus) and the extent to which the vision forms the basis for strategic planning and decision making - Inclination of the top management to allocate adequate resources and time for quality improvement efforts- Commitment of the top management to the philosophy of TQM), factors related to the Quality Department (Quality department's access to top management - Visibility of the quality department), factors related to the Strategy (Active leadership by managers in quality issues- Analysis of performance and cost data to support improvement priorities), Servicescapes (Extent to which the bank ensures that there is a positive impact of the prevailing physical environment on customers - Degree to which the physical layout of premises, facilities, and other furnishings are comfortable for the employees to work- Extent to which the equipment, physical facilities and the materials associated with service have an appeal to the customers- Extent to which the ambient conditions such as temperature, ventilation, noise, odour, etc. prevailing in the organizational premises are comfortable to

customers), Customer Focus (Quality-related customer complaints are treated with top priority), Social Responsibility (Extent to which the bank leads as a corporate citizen, and the level to which it promotes ethical conduct in everything it does), Benchmarking (Emphasis on benchmarking the level of servicescapes (i.e. the aesthetics, appeal, comforts and the facilities) with those of other banks) and Quality Systems (Our Bank uses Dubai quality award as a guideline for establishing our quality system).

Similarly, the next 55 factors, ranked between 3.5 and 4.00, include Continuous Improvement, Problem Analysis Factors, Recognition and Reward Factors, Service Culture Factors and Human Resource Management Factors. The remaining 29 factors were all ranked between 3.5 and 3 and they include the Employees factors and Service Design factors.

Table 6-7: Ranking of TQM Success Factors

| Factor | Group | Mean* | Rank |
|--|------------------|--------|------|
| Tendency of the top management to view employees as valuable and long-term resources | TMS ¹ | 4.4597 | 1 |
| Quality departments access to top management | QD ⁶ | 4.2500 | 2 |
| A clear quality vision (based on customer focus) and the extent to which the vision forms the basis for strategic planning and decision making | TMS | 4.2258 | 3 |
| Active leadership by managers in quality issues | ST ² | 4.2097 | 4 |
| Extent to which the bank ensures that there is a positive impact of the prevailing physical environment on customers | SE ¹⁴ | 4.2097 | 4 |
| Quality-related customer complaints are treated with top priority | CF ³ | 4.1855 | 5 |
| Degree to which the physical layout of premises, facilities, and other furnishings are comfortable for the employees to work | SE | 4.1855 | 5 |
| Inclination of the top management to allocate adequate resources and time for quality improvement efforts | TMS | 4.1452 | 6 |
| Analysis of performance and cost data to support improvement priorities. | ST | 4.1290 | 7 |
| Extent to which the bank leads as a corporate citizen, and the level to which it promotes ethical conduct in | SR ¹⁶ | 4.1129 | 8 |

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| everything it does | | | |
| Emphasis on benchmarking the level of servicescapes (i.e. the aesthetics, appeal, comforts and the facilities) with that of other banks | BE ⁴ | 4.0968 | 9 |
| Visibility of the quality department | QD | 4.0887 | 10 |
| Extent to which the equipment, physical facilities and the materials associated with service have an appeal to the customers | SE | 4.0887 | 10 |
| Extent to which the ambient conditions such as temperature, ventilation, noise, odour, etc. prevailing in the organisational premises are comfortable to customers | SE | 4.0565 | 11 |
| Commitment of the top management to the philosophy of TQM | TMS | 4.0161 | 12 |
| Our Bank uses Dubai quality award as a guideline for establishing our quality system | QS ⁷ | 4.0000 | 13 |
| Degree to which signs, symbols, advertisement boards, pamphlets and other artifacts in the organisation are appealing to the customers | SE | 3.9677 | 14 |
| Degree to which the senior executives act as friends, philosophers, and guides to their subordinates | TMS | 3.9597 | 15 |
| Extent to which housekeeping is kept as a priority and of the highest order in the organisation | SE | 3.9516 | 16 |
| Having branch locations in most places convenient to all sections of the society (e.g. remote villages, slum areas, etc.) | SR | 3.9355 | 17 |
| Development/implementation of long-term plans/strategies focused on quality | ST | 3.9194 | 18 |
| Our Bank conducts a customer satisfaction survey every year | CF | 3.8710 | 19 |
| Excellent suggestions are financially rewarded | RR ⁹ | 3.8710 | 19 |
| Degree to which the senior executives are dynamic | TMS | 3.8548 | 20 |
| Senior executive commitment to quality through involvement and communication | ST | 3.8548 | 20 |
| Process control and improvement of core processes in accordance with design. | ST | 3.8387 | 21 |
| Our Bank provides warranty on our sold products to customers | CF | 3.8145 | 22 |
| Our Bank has clear working instructions | QS | 3.8145 | 22 |
| The quality system in our Bank is continuously improved | QS | 3.8065 | 23 |
| Having a sense of public responsibility among employees (in terms of being punctual, regular, sincere and without going on strike). | SR | 3.7823 | 24 |
| Our Bank has clear procedure documents | QS | 3.7742 | 25 |
| Effectiveness of supervisors in solving problems/issues | PA ¹⁰ | 3.7661 | 26 |
| Effectiveness of the selection and recruitment process (in terms of objectivity and "right man for the right | HRM ⁸ | 3.7581 | 27 |

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| job"). | | | |
| Extent to which the organisation takes steps to deepen the applicant pool to enhance employee quality. | HRM | 3.7581 | 27 |
| Having a sense of social responsibility characterised by giving loans to economically and socially downtrodden people, needy ones, entrepreneurs, etc., with less rigid loan conditions | SR | 3.7581 | 27 |
| Emphasis on benchmarking the services and processes with respect to those of other banks | BE | 3.7500 | 28 |
| Trust, openness and good relationships among the employees | SC ¹⁵ | 3.7500 | 28 |
| Amount of coordination between the quality | QD | 3.7339 | 29 |
| Enhancement of technological capability (e.g. computerisation, networking of operations, etc.) to serve customers more effectively | QT ¹¹ | 3.7339 | 29 |
| Emphasis on developing procedures for reducing the overall service delivery times | QT | 3.7339 | 29 |
| Extent to which the physical layout of equipment and other furnishings are comfortable for the customers to interact with the employees | SE | 3.7339 | 29 |
| Effectiveness of the quality department in improving quality | QD | 3.7258 | 30 |
| Inclusion of employee well-being considerations in improvement activities | ST | 3.7177 | 31 |
| The bank believes that "continuous improvement" results in a competitive advantage | CI ³ | 3.7177 | 31 |
| Emphasis of continuous improvement in all operations and at all levels | CI | 3.7177 | 31 |
| The need for obtaining immediate results overrides (or dominates) the drive for quality processes and improvement | CI | 3.7177 | 31 |
| Emphasis on benchmarking the level of commitment of the bank for the society as a whole, with those of other banks | BE | 3.7177 | 31 |
| Our Bank has a clear quality manual | QS | 3.7177 | 31 |
| Our Bank collects extensive complaint information from customers | CF | 3.7097 | 32 |
| Employees' rewards and penalties are clear | RR | 3.7097 | 32 |
| Quantification of continuous improvement strategies on the basis of factors such as cost, time and performance | CI | 3.6935 | 33 |
| Our Bank has been customer focused for a long time | CF | 3.6855 | 34 |
| Giving equal treatment to all the customers, stemming from the belief that every one, big or small, should be treated alike | SR | 3.6855 | 34 |
| Frequency of TQM training programmes conducted for employees working in all functional areas | HRM | 3.6774 | 35 |
| Recognition and reward activities effectively stimulate employee commitment to quality improvement | RR | 3.6774 | 35 |

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| Level of prevalence among employees, feelings such as "my bank" and "we work towards the bank's excellent performance, image and customer service" | SC | 3.6774 | 35 |
| Effectiveness of the organization to link education and training of employees to its long-term plans and strategies | HRM | 3.6694 | 36 |
| Emphasis on benchmarking the effectiveness of human resource management (HRM) with that of other banks | BE | 3.6613 | 37 |
| Utilization of quality staff professionals as a consulting resource | QD | 3.6532 | 38 |
| Line workers are given the resources necessary to correct quality problems they find | PA | 3.6532 | 38 |
| Our Bank improves working conditions in order to recognise employee quality improvement efforts | RR | 3.6452 | 39 |
| Our Bank has a salary promotion scheme for encouraging employee participation in quality improvement | RR | 3.6452 | 39 |
| Position promotions are based on work quality in our Bank | RR | 3.6452 | 39 |
| Providing good service at a reasonable price, but not at the expense of quality, to people from all walks of life | SR | 3.6371 | 40 |
| "Service transcendence" - making customers realise their unexpressed needs by giving more than what they expect | SR | 3.6290 | 41 |
| Emphasis on benchmarking the level of customer focus with those of other banks | BE | 3.6210 | 42 |
| Our Bank always conducts market research in order to collect suggestions for improving our products | CF | 3.6210 | 42 |
| Evaluation and improvement of the training and education programmes to employees. | HRM | 3.6210 | 42 |
| Degree to which the way employees are dressed has a pleasing and neat appearance | SE | 3.6210 | 42 |
| Extent to which 'team spirit' dominates individualistic preferences and projections | SC | 3.6129 | 43 |
| Extent of accountability of employees for customer service | HRM | 3.5565 | 44 |
| Self-inspection by workers | EM ¹³ | 3.4758 | 45 |
| Employees are actively involved in quality-related activities | EM | 3.4677 | 46 |
| Systematic documentation of procedures for investigation of causes of errors and subsequent corrective actions | QT | 3.4355 | 47 |
| Employees from different levels are involved in marking policies and plans | EM | 3.4355 | 47 |
| Coordination among affected departments in the service development process | SD ¹² | 3.4274 | 48 |
| The bank is characterised by a divine discontent which drives/motivates it to seek continuous improvement in | CI | 3.3952 | 49 |

| | | | |
|---|-----|--------|----|
| every aspect of everything it does | | | |
| Extent to which the employees are given commensurate authority and operational independence to achieve results. | HRM | 3.3952 | 49 |
| Degree to which the processes and procedures are fool-proof | QT | 3.3952 | 49 |
| Extent to which the service delivery processes are standardised, simplified and documented so that services are delivered without any hassle (seamlessness of service). | QT | 3.3871 | 50 |
| Regular tracking and maintenance of the key processes that are critical to the business | QT | 3.3871 | 50 |
| Emphasis on benchmarking the training programmes with those of other banks | BE | 3.3790 | 51 |
| Extent to which sales and marketing people consider quality as a saleable attribute | SD | 3.3710 | 52 |
| Employee training in problem-solving skills | PA | 3.3548 | 53 |
| Most employees in our plant are trained to use quality problem-solving techniques such as cause and effect diagrams | PA | 3.3548 | 53 |
| Extent to which the employees at all levels realise that the real purpose of their existence is 'service to customers' | SC | 3.3548 | 53 |
| Autonomy of the quality department | QD | 3.3468 | 54 |
| Thoroughness of new service design reviews before the service is produced and marketed | SD | 3.3468 | 54 |
| Stability of production schedule/work distribution | EM | 3.3306 | 55 |
| Quality of new service emphasised in relation to cost or schedule objectives | SD | 3.3145 | 56 |
| Employees are encouraged to fix problems they find | EM | 3.3145 | 56 |
| Various policies and plans are well communicated to the employees | EM | 3.2984 | 57 |
| Degree to which the employees believe that TQM plays a vital role in strengthening the organisation's ability to compete in a highly competitive market place | SC | 3.2984 | 57 |
| Extent to which the organisational structure facilitates fast decision-making and enables quick response to customers' requirements | SC | 3.2903 | 58 |
| Encouragement of employee suggestions and innovation | HRM | 3.2823 | 59 |
| Degree to which promotion and career development programmes emphasise on quality management in the organisation | HRM | 3.2742 | 60 |
| Line workers are encouraged to fix problems they find | PA | 3.2661 | 61 |
| Extent to which implementation/serviceability is considered in service design process | SD | 3.2661 | 61 |
| A strong belief in the philosophy of 'right first time' and 'right every time' among employees | SC | 3.2661 | 61 |

| | | | |
|--|----|--------|----|
| Most employees suggestions are implemented after an evaluation | EM | 3.2016 | 62 |
| Resistance of the employees to change | SC | 3.1694 | 63 |
| * Mean is based on the five point Likert scale | | | |
| 1 Top Management Support (TMS) | | | |
| 2 Strategy (ST) | | | |
| 3 Continuous Improvement (CI) | | | |
| 4 Benchmarking (BE) | | | |
| 5 Customer Focus (CF) | | | |
| 6 Quality Department (QD) | | | |
| 7 Quality Systems (QS) | | | |
| 8 Human Resource Management (HRM) | | | |
| 9 Recognition and Reward (RR) | | | |
| 10 Problem Analysis (PA) | | | |
| 11 Quality Technologies (QT) | | | |
| 12 Service Design (SD) | | | |
| 13 Employees (EM) | | | |
| 14 Servicescapes (SE) | | | |
| 15 Service Culture (SC) | | | |
| 16 Social Responsibility (SR) | | | |

6.6.2 One-Sample Test of Statistical Significance of the Critical Success

Factors

A one-sample test was conducted to determine whether these observed means of the CSFs (see Table 6.7 above) are significantly different from the mid-point 3.0. The results are given in Table 6.8.

Table 6.8: One-Sample Test of Statistical Significance of TQM CSFs

| | Test Value = 3 | | | | | |
|---|----------------|-----|-----------------|-----------------|---|--------|
| | t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | |
| | | | | | Lower | Upper |
| Commitment of the top management to the philosophy of TQM | 9.741 | 123 | .000 | 1.0161 | .8096 | 1.2226 |
| Inclination of the top management to allocate adequate resources and time for quality improvement efforts | 13.166 | 123 | .000 | 1.1452 | .9730 | 1.3173 |
| Tendency of the top management to view employees as valuable and long-term resources | 19.811 | 123 | .000 | 1.4597 | 1.3138 | 1.6055 |

| | | | | | | |
|---|--------|-----|------|--------|--------|--------|
| Degree to which the senior executives are dynamic | 13.474 | 123 | .000 | .8548 | .7293 | .9804 |
| Degree to which the senior executives act as friends, philosophers, and guides to their subordinates | 16.010 | 123 | .000 | .9597 | .8410 | 1.0783 |
| A clear quality vision (based on customer focus) and the extent to which the vision forms the basis for strategic planning and decision making | 15.641 | 123 | .000 | 1.2258 | 1.0707 | 1.3809 |
| Process control and improvement of core processes in accordance with design | 12.490 | 123 | .000 | .8387 | .7058 | .9716 |
| Active leadership by managers in quality issues | 14.611 | 123 | .000 | 1.2097 | 1.0458 | 1.3736 |
| Inclusion of employee well-being considerations in improvement activities | 9.722 | 123 | .000 | .7177 | .5716 | .8639 |
| Senior executive commitment to quality through involvement and communication | 12.495 | 123 | .000 | .8548 | .7194 | .9903 |
| Development/implementation of long-term plans/strategies focused on quality | 10.579 | 123 | .000 | .9194 | .7473 | 1.0914 |
| Analysis of performance and cost data to support improvement priorities. | 11.787 | 123 | .000 | 1.1290 | .9394 | 1.3186 |
| The bank believes that 'continuous improvement' results in a competitive advantage | 8.729 | 123 | .000 | .7177 | .5550 | .8805 |
| Emphasis on continuous improvement in all operations and at all levels | 8.815 | 123 | .000 | .7177 | .5566 | .8789 |
| The need for obtaining immediate results overrides (or dominates) the drive for quality processes and improvement | 8.815 | 123 | .000 | .7177 | .5566 | .8789 |
| The bank is characterised by a divine discontent which drives/motivates it to seek continuous improvement in every aspect of everything it does | 4.990 | 123 | .000 | .3952 | .2384 | .5519 |
| Quantification of continuous improvement strategies on the basis of factors such as cost, time and performance | 8.550 | 123 | .000 | .6935 | .5330 | .8541 |
| Emphasis on benchmarking the services and processes with respect | 10.276 | 123 | .000 | .7500 | .6055 | .8945 |

| | | | | | | |
|---|--------|-----|------|--------|--------|--------|
| to those of other banks | | | | | | |
| Emphasis on benchmarking the training programmes with that of other banks | 4.902 | 123 | .000 | .3790 | .2260 | .5321 |
| Emphasis on benchmarking the level of customer focus with that of other banks | 7.477 | 123 | .000 | .6210 | .4566 | .7854 |
| Emphasis on benchmarking the effectiveness of human resource management (HRM) with that of other banks | 8.017 | 123 | .000 | .6613 | .4980 | .8246 |
| Emphasis on benchmarking the level of servicescapes (i.e. the aesthetics, appeal, comforts and the facilities) with that of other banks | 11.752 | 123 | .000 | 1.0968 | .9120 | 1.2815 |
| Emphasis on benchmarking the level of commitment of the bank for the society as a whole, with that of other banks | 9.186 | 123 | .000 | .7177 | .5631 | .8724 |
| Our Bank collects extensive complaint information from customers | 9.589 | 123 | .000 | .7097 | .5632 | .8562 |
| Quality-related customer complaints are treated with top priority | 13.789 | 123 | .000 | 1.1855 | 1.0153 | 1.3557 |
| Our Bank conducts a customer satisfaction survey every year | 9.436 | 123 | .000 | .8710 | .6883 | 1.0537 |
| Our Bank always conducts market research in order to collect suggestions for improving our products | 7.407 | 123 | .000 | .6210 | .4550 | .7869 |
| Our Bank provides warranty on our sold products to customers | 10.123 | 123 | .000 | .8145 | .6553 | .9738 |
| Our Bank has been customer-focused for a long time | 8.607 | 123 | .000 | .6855 | .5278 | .8431 |
| Visibility of the quality department | 10.629 | 123 | .000 | 1.0887 | .8860 | 1.2915 |
| Quality departments access to top management | 15.496 | 123 | .000 | 1.2500 | 1.0903 | 1.4097 |
| Autonomy of the quality department | 4.239 | 123 | .000 | .3468 | .1848 | .5087 |
| Utilisation of quality staff professionals as a consulting resource | 7.984 | 123 | .000 | .6532 | .4913 | .8152 |
| Amount of coordination between the quality | 9.761 | 123 | .000 | .7339 | .5850 | .8827 |
| Effectiveness of the quality department in improving quality | 10.236 | 123 | .000 | .7258 | .5855 | .8662 |
| The quality system in our Bank is | 10.780 | 123 | .000 | .8065 | .6584 | .9545 |

| | | | | | | |
|---|--------|-----|------|--------|-------|--------|
| continuously improved | | | | | | |
| Our Bank uses Dubai quality award as a guideline for establishing our quality system | 13.984 | 123 | .000 | 1.0000 | .8584 | 1.1416 |
| Our Bank has a clear quality manual | 7.989 | 123 | .000 | .7177 | .5399 | .8956 |
| Our Bank has clear procedure documents | 11.139 | 123 | .000 | .7742 | .6366 | .9118 |
| Our Bank has clear working instructions | 11.483 | 123 | .000 | .8145 | .6741 | .9549 |
| Effectiveness of the selection and recruitment process (in terms of objectivity and 'right man for the right job'). | 10.829 | 123 | .000 | .7581 | .6195 | .8966 |
| Degree to which promotion and career development programmes emphasise on quality management in the organisation | 3.517 | 123 | .001 | .2742 | .1199 | .4285 |
| Extent to which the organisation takes steps to deepen the applicant pool to enhance employee quality. | 10.170 | 123 | .000 | .7581 | .6105 | .9056 |
| Effectiveness of the organisation to link education and training of employees to its long-term plans and strategies | 7.902 | 123 | .000 | .6694 | .5017 | .8370 |
| Evaluation and improvement of the training and education programmes for employees. | 7.624 | 123 | .000 | .6210 | .4597 | .7822 |
| Frequency of TQM training programmes conducted for employees working in all functional areas | 8.239 | 123 | .000 | .6774 | .5147 | .8402 |
| Extent to which the employees are given commensurate authority and operational independence to achieve results. | 4.990 | 123 | .000 | .3952 | .2384 | .5519 |
| Extent of accountability of employees for customer service | 6.258 | 123 | .000 | .5565 | .3804 | .7325 |
| Encouragement of employee suggestions and innovation | 3.466 | 123 | .001 | .2823 | .1211 | .4434 |
| Our Bank improves working conditions in order to recognise employee quality improvement efforts | 7.798 | 123 | .000 | .6452 | .4814 | .8089 |
| Our Bank has a salary promotion scheme for encouraging employee participation in quality improvement | 7.874 | 123 | .000 | .6452 | .4830 | .8073 |
| Position promotions are based on | 7.798 | 123 | .000 | .6452 | .4814 | .8089 |

| | | | | | | |
|---|--------|-----|------|-------|-----------|--------|
| work quality in our Bank | | | | | | |
| Excellent suggestions are financially rewarded | 10.077 | 123 | .000 | .8710 | .6999 | 1.0421 |
| Employees' rewards and penalties are clear | 8.613 | 123 | .000 | .7097 | .5466 | .8728 |
| Recognition and reward activities effectively stimulate employee commitment to quality improvement | 8.671 | 123 | .000 | .6774 | .5228 | .8321 |
| Employee training in problem-solving skills | 4.715 | 123 | .000 | .3548 | .2059 | .5038 |
| Most employees in our plant are trained to use quality problem-solving techniques such as cause and effect diagrams | 4.715 | 123 | .000 | .3548 | .2059 | .5038 |
| Effectiveness of supervisors in solving problems/issues | 10.698 | 123 | .000 | .7661 | .6244 | .9079 |
| Line workers are encouraged to fix problems they find | 3.049 | 123 | .003 | .2661 | 9.334E-02 | .4389 |
| Line workers are given the resources necessary to correct quality problems they find | 8.145 | 123 | .000 | .6532 | .4945 | .8120 |
| Degree to which the processes and procedures are fool-proof | 4.990 | 123 | .000 | .3952 | .2384 | .5519 |
| Extent to which the service delivery processes are standardised, simplified and documented so that services are delivered without any hassle (seamlessness of service). | 5.056 | 123 | .000 | .3871 | .2355 | .5387 |
| Enhancement of technological capability (e.g. computerisation, networking of operations, etc.) to serve customers more effectively | 9.438 | 123 | .000 | .7339 | .5800 | .8878 |
| Regular tracking and maintenance of the key processes that are critical to the business | 4.795 | 123 | .000 | .3871 | .2273 | .5469 |
| Systematic documentation of procedures for investigation of causes of errors and subsequent corrective actions | 5.654 | 123 | .000 | .4355 | .2830 | .5879 |
| Emphasis on developing procedures for reducing the overall service delivery times | 10.119 | 123 | .000 | .7339 | .5903 | .8774 |
| Thoroughness of new service design reviews before the service is produced and marketed | 4.616 | 123 | .000 | .3468 | .1981 | .4955 |
| Coordination among affected departments in the service | 5.748 | 123 | .000 | .4274 | .2802 | .5746 |

| | | | | | | |
|--|--------|-----|------|--------|-----------|--------|
| development process | | | | | | |
| Quality of new service emphasised in relation to cost or schedule objectives | 3.870 | 123 | .000 | .3145 | .1536 | .4754 |
| Extent to which implementation/servicibility is considered in service design process | 3.189 | 123 | .002 | .2661 | .1009 | .4313 |
| Extent to which sales and marketing people consider quality as a saleable attribute | 4.702 | 123 | .000 | .3710 | .2148 | .5271 |
| Self-inspection by workers | 6.162 | 123 | .000 | .4758 | .3230 | .6286 |
| Stability of production schedule/work distribution | 4.095 | 123 | .000 | .3306 | .1708 | .4905 |
| Various policies and plans are well communicated to the employees | 3.802 | 123 | .000 | .2984 | .1430 | .4538 |
| Employees from different levels are involved in marketing policies and plans | 5.365 | 123 | .000 | .4355 | .2748 | .5962 |
| Employees are actively involved in quality-related activities | 6.676 | 123 | .000 | .4677 | .3291 | .6064 |
| Most employees suggestions are implemented after an evaluation | 2.596 | 123 | .011 | .2016 | 4.791E-02 | .3553 |
| Employees are encouraged to fix problems they find | 4.078 | 123 | .000 | .3145 | .1618 | .4672 |
| Extent to which the bank ensures that there is a positive impact of the prevailing physical environment on customers | 14.082 | 123 | .000 | 1.2097 | 1.0396 | 1.3797 |
| Extent to which the ambient conditions such as temperature, ventilation, noise, odour, etc. prevailing in the organisational premises are comfortable to customers | 11.003 | 123 | .000 | 1.0565 | .8664 | 1.2465 |
| Degree to which signs, symbols, advertisement boards, pamphlets and other artefacts in the organisation are appealing to the customers | 8.720 | 123 | .000 | .9677 | .7481 | 1.1874 |
| Extent to which the equipment, physical facilities and the materials associated with service have an appeal to the customers | 11.614 | 123 | .000 | 1.0887 | .9032 | 1.2743 |
| Degree to which the physical layout of premises, facilities, and other furnishings are comfortable for the employees to work | 14.040 | 123 | .000 | 1.1855 | 1.0184 | 1.3526 |
| Extent to which the physical layout | 9.995 | 123 | .000 | .7339 | .5885 | .8792 |

| | | | | | | |
|--|--------|-----|------|--------|-----------|--------|
| of equipment and other furnishings are comfortable for the customers to interact with the employees | | | | | | |
| Extent to which housekeeping is kept as a priority and of the highest order in the organisation | 11.653 | 123 | .000 | .9516 | .7900 | 1.1133 |
| Degree to which the way employees are dressed has a pleasing and neat appearance | 7.339 | 123 | .000 | .6210 | .4535 | .7884 |
| Extent to which the employees at all levels realise that the real purpose of their existence is 'service to customers' | 4.559 | 123 | .000 | .3548 | .2008 | .5089 |
| Degree to which the employees believe that TQM plays a vital role in strengthening the organisations ability to compete in a highly competitive market place | 3.483 | 123 | .001 | .2984 | .1288 | .4680 |
| Resistance of the employees to change | 2.290 | 123 | .024 | .1694 | 2.294E-02 | .3158 |
| Trust, openness and good relationships among the employees | 9.205 | 123 | .000 | .7500 | .5887 | .9113 |
| Level of prevalence among employees of feelings such as 'my bank' and 'we work towards the banks excellent performance, image and customer service' | 7.867 | 123 | .000 | .6774 | .5070 | .8479 |
| Extent to which 'team spirit' dominates individualistic preferences and projections | 6.706 | 123 | .000 | .6129 | .4320 | .7938 |
| A strong belief in the philosophy of 'right first time' and 'right every time' among employees | 3.103 | 123 | .002 | .2661 | 9.634E-02 | .4359 |
| Extent to which the organisational structure facilitates fast decision-making and enables quick response to customers requirements | 3.558 | 123 | .001 | .2903 | .1288 | .4518 |
| Extent to which the bank leads as a corporate citizen, and the level to which it promotes ethical conduct in everything it does | 11.682 | 123 | .000 | 1.1129 | .9243 | 1.3015 |
| 'Service transcendence' - making customers realise their unexpressed needs by giving more than what they expect | 7.657 | 123 | .000 | .6290 | .4664 | .7916 |
| Giving equal treatment to all the customers, stemming from the belief that every one, big or small, should be treated alike | 8.119 | 123 | .000 | .6855 | .5184 | .8526 |

| | | | | | | |
|---|--------|-----|------|-------|-------|--------|
| Providing good service at a reasonable price, but not at the expense of quality, to people from all walks of life | 7.691 | 123 | .000 | .6371 | .4731 | .8011 |
| Having branch locations in most places convenient to all sections of the society (e.g. remote villages, slum areas, etc.) | 9.036 | 123 | .000 | .9355 | .7305 | 1.1404 |
| Having a sense of public responsibility among employees (in terms of being punctual, regular, sincere, and without going on strike). | 7.807 | 123 | .000 | .7823 | .5839 | .9806 |
| Having a sense of social responsibility characterised by giving loans to economically and socially downtrodden people, needy ones, entrepreneurs, etc., with less rigid loan conditions | 10.550 | 123 | .000 | .7581 | .6158 | .9003 |

In Table 6.8 above, the results are found to be very significantly different from the mid-point 3.0 ($p < 0.01$). This confirms that all the critical factors for TQM are on the positive side. Consequently, we can safely accept the statement that TQM success is dependent upon a group of CSFs.

6.7 CSFs and TQM Success

This relationship can be expressed in a multiple linear regression equation as:

$$\text{TQM Success} = \text{Constant} + B_1 \text{ Top Management Support} + B_2 \text{ Strategy} + B_3 \text{ Continuous Improvement} + B_4 \text{ Benchmarking} + B_5 \text{ Customer Focus} + B_6 \text{ Quality Department} + B_7 \text{ Quality Systems} + B_8 \text{ Human Resource Management} + B_9 \text{ Recognition and Reward} + B_{10} \text{ Problem Analysis} + B_{11} \text{ Quality Technologies} + B_{12} \text{ Service Design} + B_{13} \text{ Employees} + B_{14} \text{ Servicescapes} + B_{15} \text{ Service Culture} + B_{16} \text{ Social Responsibility} + \epsilon$$

To investigate the relationship, entering all variables in a single block, we found that the proposed model explains a significant percentage of variance in TQM success. Table 6.9

shows that 97.8 % of the observed variability in the relative advantage is explained by the sixteen independent variables ($R^2 = 0.981$, Adjusted $R^2 = 0.978$).

Table 6.9: Model Summary

| Model | R | R^2 | Adjusted R^2 | Std. Error of Estimate |
|-------|-------------------|-------|----------------|------------------------|
| 1 | .990 ^a | .981 | .978 | .1498 |

a. Predictors: (Constant), Top Management Support, Strategy, Continuous Improvement, Benchmarking, Customer Focus, Quality Department, Quality Systems, Human Resource Management, Recognition and Reward, Problem Analysis, Quality Technologies, Service Design, Employees, Servicescapes, Service Culture and Social Responsibility

Source: Analysis of survey data

To test the equivalent null hypothesis that there is no linear relationship in the population between the dependent variable and the independent variables, the ANOVA in Table 6.10 is used.

Table 6.10: Summary of ANOVA Table
ANOVA^b

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|---------|-------------------|
| 1 | Regression | 121.945 | 16 | 7.622 | 339.507 | .000 ^a |
| | Residual | 2.402 | 107 | 2.245E-02 | | |
| | Total | 124.347 | 123 | | | |

a. Predictors: (Constant), Social Responsibility, Problem Analysis, Service Design, Quality systems, Quality Technologies, Recognition and Reward, Benchmarking, Service Culture, Continuous Improvement, Employees, Quality Department, Customer Focus, Human Resource Management, Servicescapes, Strategy, Top Management Support

b. Dependent Variable: TQM Success

Source: Analysis of survey data.

Results from Table 6.10 show that the ratio of the two mean squares (F) was 339.507 (F-value=339.507, $P < 0.001$). Since the observed significance level was less than 0.001, all variables influence managers' attitudes toward implementing the TQM for their activities.

To test the null hypothesis that the population partial regression coefficient for a variable is 0, the t-statistic and its observed significance level were used. The results are shown in Table 6.11 below.

Table 6.11: Results of Regression Coefficients^a

| | | | Standardised Coefficients | t | Sig. |
|-------|-------------------------------|------------|---------------------------|-------|------|
| Model | 1 | Std. Error | Beta | | |
| | (Constant) | .149 | | 4.775 | .000 |
| | 3.1 Top Management Support | .121 | .218 | 2.565 | .012 |
| | 3.2 Strategy | .113 | .187 | 2.374 | .019 |
| | 3.3 Continuous Improvement | .068 | .212 | 3.468 | .001 |
| | 3.4 Benchmarking | .059 | .075 | 1.664 | .099 |
| | 3.5 Customer Focus | .064 | .280 | 4.634 | .000 |
| | 3.6 Quality Department | .061 | .253 | 4.447 | .000 |
| | 3.7 Quality Systems | .055 | .275 | 5.382 | .000 |
| | 3.8 Human Resource Management | .092 | .196 | 2.882 | .005 |
| | 3.9 Recognition and Reward | .063 | .061 | 1.172 | .244 |
| | 3.10 Problem Analysis | .027 | .010 | .429 | .669 |
| | 3.11 Quality Technologies | .059 | .086 | 1.975 | .051 |
| | 3.12 Service Design | .065 | .182 | 3.523 | .001 |
| | 3.13 Employees | .068 | .125 | 2.478 | .015 |
| | 3.14 Servicescapes | .086 | .193 | 2.647 | .009 |
| | 3.15 Service Culture | .055 | .053 | 1.228 | .222 |
| | 3.16 Social Responsibility | .091 | .028 | .362 | .718 |

a. Dependent Variable: TQM success

Source: Analysis of survey data

Results from Table 6.11 indicate that we can see that the coefficients are 0 Top Management Support ($B=0.218$, $t= 2.565$, $p<0.05$), Strategy ($B=0.187$, $t= 2.374$, $p<0.05$), Continuous Improvement ($B=0.212$, $t= 3.468$, $p<0.001$), Benchmarking ($B=0.075$, $t= 1.664$, $p<0.10$), Customer Focus ($B=0.280$, $t= 4.634$, $p<0.001$), Quality Department ($B=0.253$, $t= 4.447$, $p<0.001$), Quality Systems ($B=0.275$, $t= 5.382$, $p<0.001$), Human Resource Management ($B=0.196$, $t= 2.882$, $p<0.001$), Quality Technologies ($B=0.086$, $t= 1.975$, $p<0.10$), Service Design ($B=0.182$, $t= 3.523$, $p<0.001$), Employees ($B=0.125$, $t= 2.478$, $p<0.05$), Servicescapes ($B=0.193$, $t= 2.647$, $p<0.10$). The beta weights show that Customer Focus ($B= .280$) has a strong significant influence on TQM success. Also, Quality Systems ($B= .275$), Quality Department ($B= .253$), Top Management Support ($B= .218$), Continuous Improvement ($B= .212$), Human Resource Management ($B= .196$), Servicescapes ($B= .193$), Strategy ($B= .187$), Service Design ($B=.182$), Employees ($B= .125$), ($B= .218$) and Benchmarking ($B= .075$) have a significant influence TQM success.

Table 6.11 also shows that Recognition and Reward, Problem Analysis, Service Culture and Social Responsibility variables have no significant influence on TQM success.

6.8 Testing TQM Benefits

6.8.1 Overall Benefits Assessment

With respect to the overall assessment of these benefits, Table 6.12 shows that the top 7 benefits were rated in a range between 4 and 4.16. Human Resource Excellence (Improvement in communication- Improvement in training-), Economic Advantages (Reduction in costs- Increase in sales- Improve the efficiency and effectiveness of internal operations to serve all types of customers better) and Top Management Response

(Top management arranges adequate resources for employee education and training- Top management strongly encourages employee involvement in quality management and improvement activities).

Similarly, the rest of the benefits (32) were rated between 3.3145 and 4, and include Top Management Response, Services Improvement, Customer Orientation, Human Resource Excellence, and Economic Advantage.

Table 6.12: Ranking of TQM Success Factors

| Factor | Group | Mean* | Rank |
|--|------------------|--------|------|
| Improvement in communication | HRE ⁴ | 4.1694 | 1 |
| Improvement in training | HRE | 4.1290 | 2 |
| Reduction in costs | EA ³ | 4.1210 | 3 |
| Top management arranges adequate resources for employee education and training | TMR ¹ | 4.1129 | 4 |
| Increase in sales | EA | 4.0887 | 5 |
| Top management strongly encourages employee involvement in quality management and improvement activities | TMR | 4.0565 | 6 |
| Improve the efficiency and effectiveness of internal operations to serve all types of customers better | EA | 4.0000 | 7 |
| Providing services right the first time | CO ³ | 3.8468 | 8 |
| Smoother delivery of services and better customer response | SI ² | 3.8306 | 9 |
| Making customers feel safe and secure in their transactions with the bank | CO | 3.8065 | 10 |
| Providing services to the customers as promised | CO | 3.7742 | 11 |
| Enhanced reputation | SI | 3.7581 | 12 |
| Using customer requirements as the basis for quality | SI | 3.7581 | 12 |
| Eliminate unnecessary paperwork and bottlenecks | EA | 3.7500 | 13 |
| Customer satisfaction | CO | 3.7419 | 14 |
| Top management discusses many quality-related issues in top management meetings | TMR | 3.7339 | 15 |
| Ensure timeliness of all operations | EA | 3.7339 | 15 |
| Extent to which the organisation strives to develop the necessary capabilities in terms of manpower and facilities to meet the needs and expectations of customers | CO | 3.7258 | 16 |
| Willingness to help customers and the readiness to respond to customers requests | CO | 3.7177 | 17 |
| Effective use of customer feedback to improve the service standards | CO | 3.7177 | 17 |
| Ensure quick handling of enquiries | EA | 3.7097 | 18 |
| Reduced liability risks | SI | 3.7016 | 19 |

| | | | |
|--|-----|--------|----|
| Involving customers in product or service design | SI | 3.6935 | 20 |
| Proper co-ordination of all the activities of the task groups | HRE | 3.6935 | 20 |
| Increasing to organisations direct personal contacts with customers | SI | 3.6855 | 21 |
| Providing prompt service to customers | CO | 3.6855 | 21 |
| Effective evaluation of the banks performance with respect to customer satisfaction and service by means of a definite mechanism | CO | 3.6855 | 21 |
| Reduce/eliminate errors on all types of transactions | EA | 3.6855 | 21 |
| Reduction in customer complaints | SI | 3.6774 | 22 |
| Cohesive workforce | CO | 3.6774 | 22 |
| Top management actively participates in quality management and improvement process | TMR | 3.6613 | 23 |
| Top management learns quality-related concepts and skills | TMR | 3.6532 | 24 |
| Improvement in information and accountability | HRE | 3.6452 | 25 |
| Increase in value of services | EA | 3.6452 | 25 |
| Top management empowers employees to solve quality problems | TMR | 3.6290 | 26 |
| Having branch locations in most places convenient to all sections of the society (e.g. remote villages, slum areas, etc.) | TMR | 3.6048 | 27 |
| Top management pursues long-term business success | TMR | 3.4194 | 28 |
| Top management focuses on product quality rather than yields | TMR | 3.3871 | 29 |
| Providing services to the customers as per the promised schedule | CO | 3.3145 | 30 |
| <p>* Mean based on 5 point Likert scale</p> <p>1 Top Management Response (TMR)</p> <p>2 Services Improvement (SI)</p> <p>3 Customer Orientation (CO)</p> <p>4 Human Resource Excellence (HRE)</p> <p>5 Economic Advantage (EA)</p> | | | |

6.10.2 One-Sample Test of Statistical Significance of TQM Benefits

A one-sample test was conducted to determine whether these observed means of the TQM Benefits (see Table 6.12 above) are significantly different from the mid-point 3.0.

The results are given in Table 6.13.

Table 6.13: One Sample Test of Statistical Significance of TQM Benefits

| | Test Value = 3 | | | | | |
|--|----------------|-----|--------------------|--------------------|---|--------|
| | t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | |
| | | | | | Lower | Upper |
| Top management actively participates in quality management and improvement process | 7.795 | 123 | .000 | .6613 | .4934 | .8292 |
| Top management learns quality-related concepts and skills | 8.064 | 123 | .000 | .6532 | .4929 | .8136 |
| Top management strongly encourages employee involvement in quality management and improvement activities | 10.493 | 123 | .000 | 1.0565 | .8572 | 1.2557 |
| Top management empowers employees to solve quality problems | 7.064 | 123 | .000 | .6290 | .4528 | .8053 |
| Having branch locations in most places convenient to all sections of the society (e.g. remote villages, slum areas, etc.) | 8.168 | 123 | .000 | .6048 | .4583 | .7514 |
| Top management arranges adequate resources for employee education and training | 12.422 | 123 | .000 | 1.1129 | .9356 | 1.2902 |
| Top management discusses many quality-related issues in top management meetings | 10.248 | 123 | .000 | .7339 | .5921 | .8756 |
| Top management focuses on product quality rather than yields | 5.000 | 123 | .000 | .3871 | .2338 | .5403 |
| Top management pursues long-term business success | 5.644 | 123 | .000 | .4194 | .2723 | .5664 |
| Enhanced reputation | 10.292 | 123 | .000 | .7581 | .6123 | .9039 |
| Reduced liability risks | 9.942 | 123 | .000 | .7016 | .5619 | .8413 |
| Reduction in customer complaints | 8.404 | 123 | .000 | .6774 | .5179 | .8370 |
| Smoother delivery of services and better customer response | 12.137 | 123 | .000 | .8306 | .6952 | .9661 |
| Increasing to organisation's direct personal contacts with customers | 8.987 | 123 | .000 | .6855 | .5345 | .8365 |
| Using customer requirements as the basis for Quality | 10.292 | 123 | .000 | .7581 | .6123 | .9039 |
| Involving customers in product or service design | 8.913 | 123 | .000 | .6935 | .5395 | .8476 |
| Providing services to the customers as promised | 11.982 | 123 | .000 | .7742 | .6463 | .9021 |
| Providing services to the customers as per the promised schedule | 3.725 | 123 | .000 | .3145 | .1474 | .4816 |
| Providing prompt service to customers | 8.887 | 123 | .000 | .6855 | .5328 | .8382 |
| Willingness to help customers and the readiness to respond to customers' requests | 9.722 | 123 | .000 | .7177 | .5716 | .8639 |
| Extent to which the organisation strives to develop the necessary capabilities in terms of manpower and facilities to meet the needs and expectations of customers | 9.311 | 123 | .000 | .7258 | .5715 | .8801 |

| | | | | | | |
|---|--------|-----|------|--------|--------|--------|
| Effective evaluation of the bank's performance with respect to customer satisfaction and service by means of a definite mechanism | 8.887 | 123 | .000 | .6855 | .5328 | .8382 |
| Effective use of customer feedback to improve the service standards | 9.286 | 123 | .000 | .7177 | .5647 | .8707 |
| Customer satisfaction | 10.818 | 123 | .000 | .7419 | .6062 | .8777 |
| Providing services right the first time | 12.317 | 123 | .000 | .8468 | .7107 | .9829 |
| Cohesive workforce | 9.290 | 123 | .000 | .6774 | .5331 | .8218 |
| Making customers feel safe and secure in their transactions with the bank | 12.135 | 123 | .000 | .8065 | .6749 | .9380 |
| Improvement in communication | 14.064 | 123 | .000 | 1.1694 | 1.0048 | 1.3339 |
| Improvement in training | 12.525 | 123 | .000 | 1.1290 | .9506 | 1.3075 |
| Improvement in information and accountability | 7.516 | 123 | .000 | .6452 | .4752 | .8151 |
| Proper co-ordination of all the activities of the task groups. | 8.550 | 123 | .000 | .6935 | .5330 | .8541 |
| Economic advantage | 11.197 | 123 | .000 | .8417 | .6929 | .9905 |
| Increase in sales | 11.791 | 123 | .000 | 1.0887 | .9059 | 1.2715 |
| Reduction in costs | 12.681 | 123 | .000 | 1.1210 | .9460 | 1.2959 |
| Increase in value of services | 7.262 | 123 | .000 | .6452 | .4693 | .8210 |
| Improve the efficiency and effectiveness of internal operations to serve all types of customers better | 9.644 | 123 | .000 | 1.0000 | .7947 | 1.2053 |
| Reduce/eliminate errors on all types of transactions | 8.887 | 123 | .000 | .6855 | .5328 | .8382 |
| Ensure timeliness of all operations | 9.650 | 123 | .000 | .7339 | .5833 | .8844 |
| Eliminate unnecessary paperwork and bottlenecks | 10.276 | 123 | .000 | .7500 | .6055 | .8945 |
| Ensure quick handling of enquiries | 8.298 | 123 | .000 | .7097 | .5404 | .8790 |

In Table 6.13 above, the results are found to be very significantly different from the mid-point 3.0 ($p < 0.01$). This confirms that all the TQM Benefits are on the positive side.

6.9 SUMMARY

This chapter emphasises the preliminary analysis of the collected data. This includes first, examining the general descriptive analysis of the respondents' profile and their response distribution. In addition, some initial interpretations are also put forward as a start for the data analysis process. This is followed by the reliability test, which covers all the research constructs to find the extent to which the measurements are reliable and valid. Item-to-total correlation was calculated for each variable. All variables have

acceptable correlation values ranging from 0.4464 to 0.9549. Cronbach alphas were used to assess the internal consistency reliability. As shown in Table 6.5, the reliability coefficient ranged from 0.8708 to 0.9742, which was significantly higher than the acceptable level of 0.60 (Nunnally, 1978), and therefore data were acceptable for further analysis.

This chapter also reports on inferential statistics that enable the researcher to come to conclusions that extend beyond the immediate data. This chapter describes the procedures and findings of factor analysis, multiple regression analysis, one-sample test and ranking analysis, which were used for analytic purposes.

Factor analysis for all TQM constructs was undertaken mainly to first, validate the measures, second to reduce the specific CSFs tested to a more general classification to enrich theory development of TQM and, finally, to create a set of factors to be treated as uncorrelated variables as an approach to handling multicollinearity. Factor extraction results using PCA show that three factors were identified with eigenvalue more than 1. These factors were then taken to be the most interpretable, and thus were accepted as the final factor solution. The sixteen factors support the literature review (Chapters 2,3 and 4) and were identified and defined as:

Each dimension of the CSFs has been submitted to factor analysis to reduce the number of variables. Factor analysis results using PCA show that each dimension has been loaded onto one factor. Consequently, the 100 CSFs have been reduced to 16 factors identified and defined as:

- Top Management Support (TMS)
- Strategy (ST)

- Continuous Improvement (CI)
- Benchmarking (BE)
- Customer Focus (CF)
- Quality Department (QD)
- Quality Systems (QS)
- Human Resource Management (HRM)
- Recognition and Reward (RR)
- Problem Analysis (PA)
- Quality Technologies (QT)
- Service Design (SD)
- Employees (EM)
- Servicescapes (SE)
- Service Culture (SC)
- Social Responsibility (SR)

Finally, the study has identified the TQM benefits which have been tested using the ranking analysis and one-sample T-Test. These TQM benefits were identified and defined as:

- Top Management Response (TMR)
- Services Improvement (SI)
- Customer Orientation (CO)
- Human Resource Excellence (HRE)
- Economic Advantage (EA)

With respect to the overall assessment of these benefits, it has been found that the TQM benefits were ranked in the upper range of the scale (more than 3). A one-sample test was conducted to determine whether these observed means of the TQM benefits are significantly different from the mid-point 3.0 and the results have shown a significant positive difference from the mean.

Chapter 7

Qualitative Analysis: Examination of CSFs at the Implementation Stage

7.1 INTRODUCTION

This context will focus on the description and analysis of the qualitative data collected for the study. It will consider each critical factor of TQM, and also look at the broader picture of similarities and differences between the experiences of TQM (CSFs) used in four Banks.

To this end, data were collected from in-depth case study research of four banks: First Gulf Bank, National Bank of Abu Dhabi, Commercial Bank of Dubai PSC, and Habib Bank AG Zurich.

7.2 PARTICIPATING BANKS

Each of the four banks is now examined in respect of its history, and the CSFs responsible us successful implementation of TQM.

7.2.1 First Gulf Bank

First Gulf Bank was first established in the emirate of Ajman in 1979. It is a public joint stock company, categorised as a large company in the financial sector. In 1998, the bank was acquired by a majority of shareholders from Abu Dhabi, and transferred its head quarters to the capital (Abu Dhabi). First Gulf Bank distributes its branches in 4 other sites located in Dubai, Ajman, Al Ain and Abu Dhabi. It has a regional office in Dubai overlooking the business in Dubai and northern emirates. The bank, as a design concept,

reflects the joint effort and brainstorming sessions with the strategic suppliers who have worked together from design to delivery. The interview has been conducted with the TQM manager. A list of the sixteen critical success factors has been given to him. The TQM manager then has been asked a group of questions about how his bank has operationalised these factors. At the end of the interview, the manager has been given the option to add any other critical factors that he think playing a role on the success of the TQM efforts within his bank. The results of this procedures resulted on the following factors:

7.2.1.1 Products & Services

The standard product range is accounts such as Fixed Deposit, Current Account, and Savings. However, the main product offered by the bank is corporate relationship management, where the lending products are designed to fit each customer need individually.

7.2.1.2 Vision

The vision of First Gulf Bank is to "Make the MOST of the capital and resources to optimise value of the shareholders, employees and customers". The tactical approach was to evaluate the past and simultaneously focus on the future niche business of First Gulf Bank, and the bank witnessed significant changes in a very little time.

7.2.1.3 Mission

The mission of First Gulf Bank is "To transform the bank into a Premier Financial Institution by optimising value for the shareholders through the building of First Gulf

Bank's brand and capabilities to serve the needs of selected institutions (public and private) and upscale customers".

7.2.1.4 Values

Senior management, with inputs from staff, has established the following five core values: Operational Excellence, Customer Care, Team Spirit, Integrity and Innovation. The management was keen in planting these values into the work environment of First Gulf Bank.

7.2.1.5 Operation Excellence

The underlying purpose of this value is to create the process that minimises costs while maximising productivity and efficiency. An excellent operational environment is created and induced from product/service creation to delivery. Companies like Motorola, General Electric and Citibank have successfully used such a methodology. The same has been introduced to First Gulf Bank, which assists the bank in identifying the operational sigma level of the organisation.

7.2.1.6 Customer Care

The underlying purpose of this value is creating customer solutions, how customer expectations are managed, and the ideal way of handling customer inquiries and complaints.

7.2.1.7 Team Spirit

The power of a team's thinking, energy and creativity is much more than an individual's. The management works to build an environment of high enthusiasm and

energy. Such value is promoted in the various events organised by Gulfers Club (Staff Club of First Gulf Bank) wherein all staff participate in fun activities, outside the work environment. This encourages interpersonal relationships, friendliness and a sense of belonging amongst all staff, thereby bringing in attachment to the organisation.

7.2.1.8 Ethics & Integrity

Honesty and forthrightness is at the heart of all business activities. Integrity is built into every staff member's 'Code of ethics agreement' with the bank and Gift policy. Truth, honesty and trust are the cornerstones of all First Gulf Bank relationships.

7.2.1.9 Innovation

The underlying purpose of an innovation value is to create the future. Competitive advantage is gained by unleashing the power of technology to create new products, new markets, and new niches within existing markets. The management doors are wide open for new ideas from everyone.

The framing of First Gulf Bank's new identity, i.e., "*putting the first into banking*" reflected the bank's commitment to focus on its target clientele. With the introduction of new management in 1999, several new departments were established, one of which is the **Quality Group**. The Group's mission statement is "To make First Gulf Bank a better place to work in by supporting the employees development needs, and improving their day to day activities". This mission statement signals the direction and focus of the Quality Group, which is primarily on process improvement, i.e., improving employees' day to day activities, and secondly on motivational and development needs, i.e., recognition and training needs of an employee.

A **Quality Policy** has been evolved which states: "It is the belief of First Gulf Bank that the main source and generator of excellence is our employees. We are making the most of our capital and resources to create value for our shareholders, customers and employees. Through our people, who are our main asset, we aim to exceed the expectation of our shareholders and delight them. Our frame of operations is totally quality driven. We adopt the best and most recent business excellence tools and approaches. With those tools, we become the best in class. In line with this policy, we are implementing the ISO 9001 standard requirement, which shall complement our continuous improvement efforts and quality initiatives. First Gulf Bank is committed to provide its customers with premier excellence."

7.2.1.10 ISO 9001:2000

The adoption of ISO 9001:2000 by mid-2001 was one of the tools for monitoring processes and continuous improvement. This strategy has been supported by the management, which is seen by the training given to 16 officers (including 3 directors) to become qualified Internal ISO auditors. The mission of this team is to ensure that the Quality Management System is well deployed and understood by every member of the organisation. This team of 16 auditors conducts semi-annual quality audits to assess the conformance to policies and standard operating procedures. They also assess the employees' understanding level of processes. Upon completion of audit, non-conformity reports are written and signed by both the auditor and the auditee. Within 3 working days, the auditor develops a summarised auditor trend analysis and preventive action. These audits are discussed in the weekly management meeting review. The internal

quality audit ensures a proper control management system is in place. Gaps found would call for an update to the policy or procedures.

7.2.1.11 Technology

The First Gulf Bank collects and manages information through various structured approaches and channels. It makes use of the knowledge of their intellectuals and outside bodies to the maximum extent. The data included in the business are selected to support the business strategies, its mission as a corporate business institute, and fulfil the bank's internal or external customer requirements.

8.2.1.11.1 Information System Management

The First Gulf Bank maintains a highly structured system for data and information, which are collected from various sources to meet its requirements they are?

- A super-mini computer (AS400) which houses the server for the core banking system called the Equation.
- Databases like
- DB2 (customer information and transactions are stored)
- BEAM is the front-end system which converts the customer information held in DB2 into user-friendly formats and gives easy access to branches' customer contact personnel.
- Oracle, used for other Banking application, HR system, Payroll system, stationery and fixed asset system. These systems have been developed in-house by the bank's development team. Oracle is also used to house new software (Perception) to test Training effectiveness.
- COLD – Archival systems to retrieve preserved data from historical records.
- Communications Systems like Microsoft Exchange and IVR systems to help First Gulf Bank attain internal and external customer satisfaction.
- Personal computers to feed, extract and process data using tools according to need.
- BRIO – Advanced report-generating tool.

Table 7-1: Number of users given access to different systems

| | |
|--------------------------------|-----|
| Equation | 129 |
| BEAM | 62 |
| COLD (Document Imaging System) | 11 |

| | |
|-----------------------------------|-------------------------------|
| Bridge | All users |
| Intranet | All users |
| Internet | 64 |
| BRIO | 7 |
| Stationery and Fixed Asset System | 87 |
| Payroll System | All HR staff |
| TOA System | All Branch CSO and Supervisor |
| Shares Registration System | 5 |

All employees enjoy an electronic mail facility to simplify communication and reduce paperwork. Employees are also offered browsing access on the Internet. An internal web-site has been established to collectively summarise all bank policies, procedures, quality news, forms, service indicators, training events and many other details in one central location that is easily accessible to all staff.

The First Gulf Bank regularly reviews its policy and strategy, and updates and improves them based on regular information collection and usage. It categorises its data gathering and assessment into two major groups: External Factors and Internal Factors.

7.2.1.12(a) External Indicators

Apart from the financial analysis conducted to ascertain the market performance, an economic analysis of UAE is conducted to assess the risk and yield of each industry and the overall economic state. This analysis helps the Corporate Banking Group and Business Development to plan the credit exposure of the bank. The external indicators are:

- Demographics
- Economic growth by industry
- Strength, trends and key learning by industry
- Special focus on banking industry trends
- Benchmarking and comparisons of First Gulf Bank with other banks' financial performance.

Table 7-2: Strengths & Trends

| AED (Mn) | 2001 | 2002 | 2003 | 2004 |
|------------------|--------|--------|--------|---------|
| Agriculture | 5,052 | 5,503 | 6,325 | 6,541 |
| Oil Sector | 57,700 | 54,119 | 36,676 | 49,365 |
| Manufacturing | 17,926 | 20,230 | 22,458 | 24,009 |
| Electricity | 3,466 | 3,729 | 3,841 | 4,014 |
| Construction | 14,491 | 15,612 | 16,392 | 16,319 |
| Trade | 18,203 | 19,483 | 20,931 | 21,690 |
| Hotels & Rest. | 2,899 | 3,105 | 3,395 | 3,560 |
| Transport | 11,184 | 11,650 | 13,347 | 13,818 |
| Financing & Ins. | 9,883 | 10,408 | 11,677 | 12,174 |
| Real Estate | 16,864 | 17,351 | 17,496 | 17,421 |
| Social Services | 2,846 | 3,150 | 3,306 | 3,432 |
| Government | 17,644 | 18,637 | 20,010 | 20,8733 |

7.2.1.12 (b) Internal Indicators

With regard to the internal factors, they are of two types: **leading** indicators, which reflect internal monitoring of performance, and **lagging**, which reflect the stakeholders' perceptions and satisfaction. Various surveys are conducted to measure these, from which major issues are drawn, with corrective action and target dates for implementation.

7.2.1.13 Human Resource Management

7.2.1.13.1 HR Policy & Strategy

The management, through its HR Policy and Strategy, which forms the framework of its future operations and which relies fully on innovation and creating value for its stakeholders, has been able to define the following:

- Organisation structure it requires to deliver the strategy and meet the bank's mission & manpower capacity requirement.
- People skills and expertise needed to meet the needs of business and to create value for the bank and its stakeholders, i.e., training and development needs.

The above listed requirements are surrounding the following major focal objectives the bank is striving to achieve:

- To make first Gulf Bank a better workplace to live in.
- To attract new prospect use employees, and become an employer of choice.

After defining the business needs, the management was forced to optimise its human resources by shedding the non-contributing, further develop and invest in its remaining human resources till they meet the organisation's expectations, and attract new highly experienced, talented individuals. Such new hires were appointed and assigned in the functional gaps that the new organisation structure had created. The bank had centralised the processing in one central department, re-engineering its processes, and thus increasing productivity. The work force in sales and service points were tripled from 30 to 89.

7.2.1.13.2 Annual Manpower Requirement

An annual exercise for manpower requirement is conducted in the end of the third quarter each year, whereby all departments coordinate with the HR Department to identify their manpower requirement for future. First and foremost are the business generating centres like the Corporate Banking Group. Each department places its manpower requirement in terms of identified positions and projected expansion in business. While identifying new requirements, each department head also gets involved in evaluating the capacity utilisation of the present employee strength. Capacity Utilisation Analysis (CUA), assists the HR Department in analysing the actual task performance against work load of an employee. Besides all the advantages, one of the prominent advantages is that the loss of man-hour is avoided. Besides the execution of this procedure in identifying manpower requirement based on CUA, part of the

manpower planning also entails re-deployment of manpower based on business requirement and strategies. It becomes a part of the process to run an analysis that would assist HR Department and individual department heads to re-deploy present and existing manpower to attain to maximum utilization.

7.2.1.13.3 Recruitment Plan including Emiratisation

The Manpower plans to take into consideration Emiratisation strategy in First Gulf Bank. The Management of First Gulf Bank has been very much inclined towards the recruitment and development of UAE Nationals. HRD has conducted a market study to establish a benchmarking that would ensure an inflow of UAE candidates towards the Bank.

Nationals Recruitment strategy for year 2004

| | | |
|--|---|----|
| UAE Nationals with experience 1 to 3 yrs | - | 17 |
| Fresh Graduates (executive trainees) | - | 5 |
| Part-time Candidates | - | 2 |

7.2.1.13.4 Choice of Positions

These have been identified in such a manner that each position, when filled by a UAE National will be backed with required training. This way each position and each employee will have a chance to go higher in grade and organisational hierarchy.

The next segment that First Gulf Bank concentrates on in relation to its Nationalization plan and for encouragement of Fresh UAE Nationals with no experience is selection and recruitment of young nationals with no experience. All UAE Nationals with no experience who are below the educational level of Bachelor Degree or Higher Diploma are considered for the post of "Trainee" and fresh UAE Nationals holding a Bachelor's

Degree or Higher Diploma are considered for the post of “Executive Trainees”. The training period for all trainees and executive trainees range to 12 months.

7.2.1.13.5 Part-Time Candidates

A new segment of identifying and utilising potential UAE talent is part-time candidates. HR Department is looking into applications for all candidates who are still in their educational phase but wish to seek part-time employment, either to have a practical exposure to banking, or to support their education. First Gulf Bank frequently visits educational institutes to headhunt talented students who can prove to be a potential candidate keenly interested in developing their exposure in the banking world.

During the self-assessment of the organisation, conducted in 2000, First Gulf Bank identified People as a CSF. It identified the causes and effects of the People behaviour and performance. This process was based on the output of:

- Employee satisfaction survey (ESS)
- One-to-one meetings with employees.
- Market perception of the bank and its work force (from the Customer Satisfaction Surveys)
- Shareholder’s perception (from the Annual General Meetings)
- Brainstorming sessions with managers and senior management.
- Benchmarking First Gulf Bank employment packages and services against the market.

As a result of the above, First Gulf Bank posted in year 2000 an increase of 202% in net profit. In the year 2001, the budgeted increment is at 20%. During the past 3 years, to 200, Total Assets grew by 42%, Total liabilities by 49%. Dividends were paid to shareholders @ 7.5%. To add to this success story, the employee satisfaction rates also saw an improvement of 16% from December 1999 to January 2001.

The success of the new identity given to First Gulf Bank wholly goes to its Chairman, Sheikh Mansour Bin Zayed Al Nahyan, the Board of Directors, and the CEO, Mr. Abdul Hamid Saeed who says “The main ingredient to our success is our people”, and hence the bank's international slogan “You are the brand”, and to his team who have come from non-banking experiences and backgrounds. The new look is a commitment to bring change to the world of corporate banking.

7.2.2 National Bank of Abu Dhabi

National Bank of Abu Dhabi (NBAD) was incorporated in 1968 to serve as bankers to the UAE Government and Emirate of Abu Dhabi. It also fulfilled the role as central bankers in the UAE before the Currency Board was established in 1975. Since then, NBAD has continued to play a major role in the development of UAE as one of its leading commercial banks. In 2002, NBAD achieved a record net profit of AED 654 million, representing an increase of 7% over that of 2001. With a dedicated workforce of over 1,700 employees covering its domestic and global operations, NBAD is now able to provide one-stop financial solutions to its customers.

The National Bank of Abu Dhabi was regarded as one of the most conservative and reverse averse institutions in the Gulf till 1999. The arrival of the new Chief Executive was a great boon for NBAD. He introduced an integrated strategic business-planning concept, which has systematically been implemented during the last four years. This has resulted in increasing profits by more than 10%. The National Bank of Abu Dhabi has introduced a five-year Strategic Plan, which is refreshed annually, and which has laid the foundations for a variety of initiatives. The Strategic Plan emphasises the need for the organisation to be arranged around the customer rather than internal convenience.

Year 2003 was declared the 'Year of the Customer' and incorporated a service pledge of 10 main undertakings. To provide an effective service to customers, NBAD has been split into three businesses, supported by eight support units and two control units. Further refinement has taken place, with all support functions now reporting to a Chief Operating Officer upon whom more responsibilities have devolved from the Chief Executive. This has enabled the Chief Executive as well as his Business Managers to devote more time to serving customers.

The interview has been conducted with the TQM manager. A list of the sixteen critical success factors has been given to him. The TQM manager then has been asked a group of questions about how his bank has operationalised these factors. At the end of the interview, the manager has been given the option to add any other critical factors that he think playing a role on the success of the TQM efforts within his bank. The results of this procedures resulted on the following factors:

7.2.2.1 Mission

The Mission of NBAD is to offer innovative financial solutions better than anyone else, whereas the First Gulf Bank's mission is to transform the bank into a Premier Financial Institution.

7.2.2.2 Values

The following are the stated values of the bank:

- To understand customer and market needs and offer the right solutions.
- To nurture, recognise and reward innovation by our people.
- To deploy prudent policies and strategies, best practices and international excellence standards.
- To be transparent and deploy ethical business standards.
- To be the employer of choice in the UAE financial sector.

- To empower our people and recognise them to be NBAD's most important assets.
- To attract, retain and value UAE nationals as a growing part of our team.
- To encourage teamwork, learning and collaboration internally and externally.
- To put the customer at the heart of our business.
- To honour our commitment to society and act as a responsible corporate citizen.
- To be partners in the development of UAE.
- To provide value to our shareholders.

In contrast, First Gulf Bank has established the following five core values – Operational Excellence, Customer Care, Team Spirit, Integrity, and Innovation.

7.2.2.3 Key Financial Objectives

These objectives are

- To increase profit before provisions to AED 1 billion in 2004 and 12% p.a. thereafter.
- To increase the dividend to 45% by 2007, and maintain an increase thereafter.
- To achieve a return on capital net of taxes and provision in excess of 20% in all the years of the plan.

7.2.2.4 Key Non-Financial Objectives

- To instil Business Excellence throughout NBAD.
- To serve all our stakeholders – customers, suppliers, shareholders, partners.
- To provide the best customer service of any bank in the UAE.

The NBAD's chosen customer segments include:

- UAE Nationals.
- Government of Abu Dhabi and its associated entities.
- UAE ruling families.
- Major international companies and institutions.
- Major UAE-owned corporates and well-established expatriate businesses.
- Expatriates living in the UAE with monthly income in excess of AED 4,000 and/or net assets in excess of AED 250,000.
- Major Corporates, and domestic High Net Worth individuals in Egypt and Oman.
- Major Correspondent Banks and Institutions.
- NBAD's suppliers, including auditors, lawyers, service providers, etc.

Within the UAE, NBAD offers corporate, consumer, private and elite banking services to its customers through its network of 57 branches and 111 ATMs, the largest in UAE, supported by its Internet Banking Services and 24-hour Call Centre. As part of its social responsibilities, it operates in the more remote areas of the UAE, including Das Island, Delma Island, Ruwais and Al Mirfa, which are not served by other banks. Internationally, NBAD operates in Egypt, Oman, Sudan, France, United Kingdom, United States of America, and Bahrain. With 12 branches located in Cairo and other major centres, NBAD is now one of the largest foreign banks in Egypt.

Clear and achievable policy and strategy are the foundations upon which a successful business is built. NBAD's Policy and Strategy process was initiated in 1999. It incorporates a structured planning, review, measurement and improvement approach. Fundamental to NBAD's Strategic Plan is the responsibility to its stakeholders, defined under two categories; Primary and Secondary. Primary stakeholders include:

- Shareholders
- Employees
- Customers

In order to ensure that the stakeholder's interest is incorporated in the policy and strategy process in an effective and efficient manner, a thorough analysis is conducted by all divisions with the following objectives:

- To understand stakeholder needs and expectations, proactively.
- To understand stakeholder perception of NBAD.
- To service level agreements.
- To encourage knowledge sharing and joint learning.

Markets were defined initially in the first strategic plan prepared in 1999, and are updated and revised annually. NBAD 2002-2007 Strategic plan identified the markets as follows:

- Abu Dhabi
- The UAE
- Egypt
- The Gulf
- Arab world more generally

The following services were identified and agreed to, in the strategic plan:

- Retail banking in UAE.
- Investment banking in UAE.
- Private and premier banking for UAE resident customers worldwide.
- Corporate banking for leading local and foreign corporates operating in, or doing business with, the UAE.
- Overseas banking in the region and UAE corporates abroad.

With a continued emphasis on quality and ongoing improvements, the 2003 strategic planning exercise reviewed the market segments of interest and made necessary revisions. Some of these changes include customer base and marketing strategies.

The 2004-2008 Strategic Plan includes:

- Inclusion of a separate chapter on Quality and Business Excellence in the corporate strategy document, to highlight NBAD's commitment to quality improvement.
- Redefinition of NBAD's retail strategy and customer segments.

The policy and strategy process effectively addresses the short-term and long-term needs and requirements of all stakeholders. In the long term, the target is very clear, to achieve AED 1 billion profit. However, as a National bank, great emphasis is placed on commitment to society, particularly in the training and development of UAE nationals. Whilst this has an impact on the cost/income ratio in the short term, employment and effective integration of the UAE national workforce has sustained long-term benefits both for NBAD and the nation as a whole. With the percentage of UAE national workforce progressively rising and the profits registering a steady growth, NBAD has successfully managed to strike the right balance in this regard.

Monitoring the market activities is done on an ongoing basis, specifically in the monthly strategy meetings, wherein competitor activity is a fixed agenda item. Examples include Chief Executive presentation on flexi-hours in comparison to the experience of Mashreq Bank, during the February 2003 monthly strategy meeting. An earlier example of benchmarking was during the May 2002 strategy meeting, wherein statistics related to Abu Dhabi Commercial Bank (ADCB), Union National Bank (UNB), National Bank of Dubai (NBD) and Mashreq Bank were tabled by the Chief Executive in comparison to NBAD. Some other means of monitoring the market activity are:

- Central Bank Statistics.
- Mystery Shopper Programme.
- Trade Publications.
- Business Publications.
- Bloomberg.
- Reuters

Effectiveness of the Strategic Planning approach is regularly assessed and benchmarked by NBAD. This is done both in a formal manner and informally. As a formal means of

benchmarking, NBAD successfully launched a consortium style project during 2003, wherein over 10 leading national and international organisations meet and benchmark on areas of interest.

7.2.2.5 Human Resource Management

Human Resource Management is one of the most important functions at NBAD. Head of Human Resource was appointed as the Human Resource Advisor during 2002, and later elevated to the rank of Board Member during 2003, thereby reaffirming NBAD's commitment to people and human resource management. The NBAD Strategic Plan 2002-2007 reaffirms this commitment. Excerpts include:

- We recognise our people are our single most important resource.
- We will hire and retain the best talent, offering well-rewarded, structured and exciting careers.
- We will reach the UAE Emiratisation targets. By 2007, at least 40% of our staff in the UAE will comprise UAE Nationals.

A 5-year HR strategic plan was prepared and approved by the Board in 2001. Subsequently, annual objectives are developed and plans prepared in accordance with the corporate strategies. HR plays a key role in continuous review of the organisation structure and advises on necessary changes. Some specific cases of organisational changes are cited here, as applicable to the Dubai region:

- Centralisation of trade finance activity.
- Creation of Corporate Banking Group.
- Creation of Investment Banking Desk.
- Creation of Japanese Desk.

- Creation of Elite Banking Centre.

In quest of continuous improvement, NBAD has invested in a state-of-the-art HR Management system, structured in line with international best practices, to provide better internal service. Documented procedures are developed and communicated to all staff members, ensuring transparency and objective implementation.

7.2.2.6 Manpower Planning

Annual manpower plan is prepared concurrently with the business planning and budgeting exercise, during the last quarter of the year. Head of Human Resource is invited to attend the Annual Strategy Away Day Workshop, and is an active participant in the development of the corporate strategic objectives and plans.

7.2.2.6.1 Job Analysis

Job descriptions are evaluated by means of an established internationally recognised methodology, ensuring complete objectivity. Job descriptions exist for all positions, and a grade is assigned to the position, irrespective of who is assigned to perform the task, thus ensuring complete fairness in the employment terms and conditions.

7.2.2.6.2 Recruitment and Compensation

Recruitment and selection of team members are done in accordance with documented policies and procedures. Upon selection, all newly recruited team members undergo extensive orientation. They are issued with the Staff Handbook and attend a 3-day orientation programme, introducing them to NBAD vision, mission, quality standards and relevant plans. Effectiveness of the orientation program was reviewed during 2003,

with the objective of transforming it to suit internationally recognised best practices. A completely new orientation programme was thus developed, wherein the new team members meet the Chief Executive, Head of Quality and Head of Human Resource during the orientation workshop, prior to detailed presentations and meetings with respective business and support division managers.

7.2.2.6.3 Benchmarking, Surveys and Innovative Means

In order to ensure that NBAD's compensation package and other benefits are in line with the industry standards, regular internal and external surveys are conducted, and results incorporated in the policies, accordingly. The first such survey was conducted 10 years ago, wherein NBAD commissioned an independent external organisation (Hay) to benchmark its compensation package with the UAE market. This survey is done annually, coupled with specific country surveys (Egypt and Sudan) and discipline-focused surveys (Investment Banking), on a need basis. Over 40 generic positions are benchmarked in each market during the annual survey, highlighting NBAD's standing in comparison to the top 10-25%, and bottom 10-25% median.

Following feedback from the Quality Road Show, wherein issues of concern are documented and reported to the Business Excellence Committee and findings of the Employee Motivation and Retention Quality Improvement Team, Human Resource conducted specific surveys during 2003. Resultant actions led to categorisation of the branches and re-evaluation of positions.

Some other actions taken as an outcome of the surveys include:

- Job evaluation system.

- Introduction of revised salary scales, with wider bands and reduced number of grades.
- Reassessment of 24 different positions.

Outcome of the actions resulted in enhanced people satisfaction and better bank performance. NBAD launched a consortium-style-benchmarking forum during 2003, comprising the leading 10 UAE-based local and international companies, representing a variety of business segments. Two of the areas included in the benchmarking study were:

- Training need analysis (TNA)
- Employee satisfaction.

Outcomes of the benchmarking projects were reviewed by the Business Excellence Committee and appropriate decisions taken, with heavy emphasis on employee involvement through cross-functional teams in ensuring effective development of training need analysis and execution of employee satisfaction surveys and ensuing action planning.

7.2.2.6.4 Training

Training is viewed as an investment, and an essential tool for organisational and people development. As a UAE-owned bank, special emphasis is given to the training and development of UAE-national staff. In order to maximise the value of training and encourage organisational learning, post-training knowledge sharing sessions are held for relevant team members and training material shared through the Intranet. A recent example was Head of Domestic Banking Division's knowledge sharing session

conducted after his return from a conference in Singapore, for the Chief Executive and management team. Over 50% of all NBAD internal training courses are conducted by staff members. This role modelling encourages others to learn and impart their knowledge to team members.

Discussions are held with leading e-learning solution providers and there is a gradual shift from traditional training to e-learning mode. The annual training plan is a living document, which is continuously updated and revised, as new training needs arise. The Senior Management Team is actively involved in this process. As a general policy, NBAD does not subscribe to off-the-shelf training packages. Instead, customised and business-specific programmes are prepared in partnership with the training providers, including but not limited to Arab Academy, Emirates Institute for Banking and Financial Studies (EIBFS), and Emirates Hospitality Academy Dubai. The training and development approach and methodology were benchmarked during 2003 with 10 leading UAE-based national and international organisations. Resultant actions were reviewed at the highest level of management and accordingly adopted, specifically in the training needs analysis area. Examples of actions agreed include teamwork, customer service and communication training for all staff members who have not attended these earlier.

7.2.2.7 Performance Management System (PMS):

NBAD developed its own new integrated Performance Management System in year 2000. Main features of the system are:

- It incorporates management by objective concepts of performance evaluation.
- It introduces a weighting concept to the evaluation process, whereby objectives are given high, medium and low weighting.
- It links personal objectives to NBAD's business objectives.

- It also links personal competencies to corporate competencies.
- It rewards performance according to achievement of business objectives, competencies and skills development.

Each employee sets individual and business performance objectives for the following year in collaboration with his/her line manager. These are formally appraised at year-end, and continually reviewed and measured throughout the year. As a means of continuous review and improvement, it was agreed during 2003 that employees' contribution to quality initiatives would be recognised and included in PMS.

7.2.2.8 Reward, Recognition & Care

Reward, recognition and care for people are fundamental to NBAD strategy. Regular reviews and benchmarking are carried out through independent external sources to ensure that the remuneration is in accordance with the industry standards.

Performance Management System evaluation is linked to the following weightings:

- Management by Objectives: 50% weight.
- Staff Contribution to Bank Success Factors: 30% weight
- Individual Staff Competencies' Development: 20% weight

Performance rewards are given on the basis of a flexible quota, where each division is allocated a percentage of the net profits, to be distributed amongst the staff in the form of bonus. Individual performance contracts are developed and agreed with line managers, and linked directly to the PMS since year 2000. Success of this approach is evidenced by the sound financial performance of NBAD and the balance sheet figures.

Types of instantaneous recognition of work well-done and individual achievement are too many to be listed here; some examples include e-mails by the Chief Executive upon successful completion of International Monetary Fund 2003 event in Dubai, bonuses to

all staff members at the Umm Al Quwain branch and a branch in Egypt, during 2002-2003.

Some standard benefits include:

7.2.2.8.1 Medical

All staff members and their eligible dependants are provided comprehensive medical coverage.

7.2.2.8.2 Housing and Utilities

Employees receive accommodation allowance and furniture allowance, according to policy applicable to the respective grade.

7.2.2.8.3 Life and Disability Insurance

All staff are insured for adequate amounts against natural/accidental death and disability due to accidents.

7.2.2.8.4 Retirement and Pension Benefits

Staff resigning or retiring from bank services are granted end-of-service indemnity at rates more generous than those stipulated in labour law.

7.2.2.8.5 Paid Vacations and Other Leave

Following policy, all staff are entitled to at least 30 days of annual leave and 30 days of paid sick leave each year. Managerial staff can take 45 days of annual leave.

7.2.2.8.6 Staff Loans

Generous policies are in place to ensure the welfare of people.

7.2.2.8.7 Promotions

Staff are promoted to higher grades to reflect increased responsibilities.

7.2.2.8.8 Long Service Recognition Awards

Long-serving employees who have completed fifteen, twenty or twenty-five uninterrupted years with NBAD are felicitated by the Chief Executive and awarded a wrist watch/gold coins and a citation.

7.2.2.8.9 Appreciation Letters / E-mails

Employees are sent Letters / E-mails of Appreciation signed by the Chief Executive and/or Divisional heads in recognition of their special contributions.

7.2.2.8.10 Appreciation Certificates

All the Quality Improvement Team members receive Appreciation Certificates upon project completion.

7.2.2.8.11 Health & Safety

NBAD has introduced a 'Health Awareness Programme' to focus on health issues of general interest covering common diseases, their prevention, early diagnosis and treatment. Seminars are regularly arranged on various health-related subjects.

Proper measures are in place to ensure safety and security of staff members. Emergency procedures are in place, and evacuation drills are regularly conducted.

7.2.2.8.12 Monthly Customer Service Awards and Annual & Branch of the Year Award

Special recognition for customer service and good business results.

7.2.3 Commercial Bank of Dubai PSC

Commercial Bank of Dubai (CBD) was established in 1969 as a Public Shareholding Company by an Emiri Decree issued by His Highness the late Sheikh Rashid bin Saeed Al Maktoum, the founder of modern Dubai. Starting with a 10-employee branch, CBD now has 20 branches throughout the UAE, employing 562 staff.

The bank's consistent drive to consolidate its capital base over the years has increased its competitive edge and now allows it to maintain growth and expansion into this millennium. This growth, coupled with prudent policies, has given the bank a prominent status in international banking circles. The bank is implementing a comprehensive strategic plan to promote its relations with its shareholders and correspondents, to strengthen its capital base, acquire modern technology, upgrade its services, and extend the skills of its human resources through a policy of attracting and retaining UAE nationals. CBD has built itself into a progressive and modern banking institution, endowed with a strong financial structure and management, as well as a loyal and ever-increasing customer and correspondent base. The bank's achievements over the past three decades represent great strides in quality and progress achieved by the local banking sector and symbolise the comprehensive development which has taken place in the UAE.

The interview has been conducted with the TQM manager. A list of the sixteen critical success factors has been given to him. The TQM manager then has been asked a group of questions about how his bank has operationalised these factors. At the end of the interview, the manager has been given the option to add any other critical factors that he think playing a role on the success of the TQM efforts within his bank. The results of this procedures resulted on the following factors:

7.2.3.1 Products and Services:

The Bank offers diversified products and services to meet the needs and expectations of its customers within the framework of total quality standards.

1. Product Range encompasses Current, Savings, Call & Time Deposit Accounts, Card Products (Visa Electron Card, Visa Charge and credit Cards – Classic & Gold), Safe Deposit Lockers, Remittances – Outward & Inward, Traveller's Cheques, Personal Loans, Local Bills Discounting, Letters of Credit – Imports & Exports, Collections – Imports & Exports, Guarantees, etc..
2. Account-Related Services are Attijari Phone Banking Service, Cheque Clearing – Special & Normal, Cheque Collection, Stop Payments, Standing Orders, Hold Mail Facility, and Transactions involving Foreign Currencies.

7.2.3.2 Objectives:

The management, after intensive deliberations, drew up the bank's mission for the period 1999 – 2002. The Mission was then converted into corporate-level focused activities using the Balanced Scorecard approach that is divided into following four stages:

1. Translating Mission to Strategy – Bank's Mission translated into 3-Year Corporate Strategic Priorities & Goals.
2. Communicating & Linking – Quantified medium term (3-Year) outcomes.
3. Business Planning – Annual Plans – Strategy deployed through Annual Plans of Branches and Head Office Departments.
4. Feedback & Learning – 'Double Loop' learning – fulfilment as well as

effectiveness of planned strategy.

The leadership of CBD at the highest level comprises the Chairman, Deputy Chairman and the Board of Directors. At the senior executive level are the General Manager, Deputy General Manager and Assistant General Manager. Managers of Head Office Departments and Branches, in turn support the three senior executives. The objective of the leadership for CBD, as articulated in Bank's formal Mission Statement, is to add increasing and significant value to all its stakeholders, be a responsible member of the local community, and be supportive to the economy of the country.

Beginning from 1999, the bank embarked determinedly on the Quality Journey. A Quality unit was set up under the wing of Planning & Business Development Department. The bank is determined to steadily embed and weave Total Quality in the very fabric of the organisation. The Management realises that it is not an overnight achievement and the road is long and requires change of culture in order to be successful in this critical area. The Quality unit is working on various fronts, such as training, i.e., Quality-related (mandatory) workshops, on-going surveys, and feedback mechanisms and systems to assess the level of service satisfaction for customers (internal and external) and the employees.

MISSION STATEMENT

Our Mission is to be recognised as a quality-focused, customer-driven and financial sound and socially responsible bank. Through innovative utilisation of technology and other resources, we are committed to:

- Satisfying the financial needs of our customers.
- Developing, encouraging and rewarding superior performance of our employees.
- Generating good long-term results for our shareholders.

- Strengthening mutually beneficial relationships with our associates worldwide.

Some of the ground-breaking initiatives are (a) Customer Feedback Programme, (b) Internal Customer Satisfaction Survey (ICS), (c) 'We Care' Programme (Staff Suggestion Programme), (d) Outstanding Performance Award, (e) Employee Satisfaction Survey, (f) Customer Satisfaction Survey, (g) Compiling Corporate Minimum Service Standards followed by Mystery Shopping Programme to assess them through independent third party.

The top management's commitment to excellence and TQM is evidenced in several ways:

1. The bank's mission begins with the need to be '*...recognised as a Quality-focused organisation...*'
2. When the bank established its own Training Centre in 1999, the very first set of bank-wide workshops that were held was on Quality.
3. The Quality workshops are mandatory for every bank employee, irrespective of rank or position.
4. The first batch of Quality workshops was comprised primarily of the senior management team.
5. Further when the 'Planning' department was set up, the department structure comprised three key areas, and one of them is a dedicated 'Quality' Unit.
6. Compilation of bank's Quality Standards.
7. Commissioning of various surveys to track and measure quality in different spheres of organisational activity.

The Quality unit conducts Customer (internal and external) Satisfaction Survey, Service Standards (measured through a Mystery Shopping Programme) etc. on a regular basis, to assess how well the employees are meeting the Quality Standards of the Bank. This feeds into the Head Office Departmental and Branches level objectives that contain a constant, annual target of increase in satisfaction level by 20% (minimum).

Additional organisational improvement initiatives such as the 'We Care' Staff Suggestion Programme and cross-functional WIT (Work Improvement Teams) ensure commitment and involvement for building and maintaining, in a sustained manner, an Excellence culture and mind set. The management recognises that improving quality can provide the organisation with a competitive edge in a crowded market place. The WIT programme is the cornerstone for Quality Improvement. A premise of this programme is that every employee holds the key to organisational excellence and quality improvement. Lastly, WIT also recognises that quality improvement takes place in organisations through teamwork, breaking down silos and working together to solve defined/specific identified problems.

At an individual performance level, excellence and improvement are covered through a robust Performance Management System (PMS). It integrates key managerial activities towards the achievement of the bank's goals through the development of employees. The very purpose of PMS is to align individual goals and efforts of each employee in line with the bank's goals. In the process, it facilitates employees to understand the bank's (department's/branches') expectations of them, and it provides opportunities for them to develop their career as well. The performance management process leads to business results and employee development schematically. The PMS is undergoing major revamp and enhancement under the guidance of world-renowned HR consultants.

At CBD, '*Continuous Improvement*' is not viewed as an isolated programme, but an on-going activity in all spheres of organisational activity. This is reflected, at a strategic level, in the following brief extract from the bank's 3-year Corporate Strategic Priorities & Goals:

1. To achieve a minimum of 60% improvement over current level of satisfaction for employees and customers.
2. Re-engineering of all core processes.
3. Develop cross-functional culture through Quality Action Teams (called WIT – Work Improvement Teams).
4. Develop, encourage and reward creativity by participation in ‘We Care’ staff suggestion programme.
5. Pursue reductions in unit and transaction cost.
6. Benchmark 10 core processes turnaround times in the ‘best in class’ and cover the gap by 100%.

Each of the above initiatives has clearly defined ‘owner’ and ‘support’ roles. The Annual Plans of Head Office Departments and branch include the above-mentioned and many other similar strategic goals/priorities of the bank.

The able leadership of the bank is reflected in its excellent business performance. The bank Balance Sheet has recorded steady expansion in its operational results, as well as increased visibility (number of branches and ATMs all over UAE).

7.2.3.3 Human Resource Management

Every department's, including the Human Resource Department's Annual Plans are derived from the bank's Mission and 3-Year Strategic Priorities & Goals.

The HR Department follows a structured and planned approach to provide effective support to functional heads in meeting their manpower requirements, thus contributing indirectly to corporate objectives. At the year-end, all functional heads prepare their annual manpower plan in a standardised format immediately after the finalisation of the business plan. The format clearly explains the reasons for the proposed manpower requirements (such as business expansion, past turnover trend, restructuring of jobs) and

along with the job descriptions, for newly created positions. HR consolidates these requirements, reaches agreement with the functional heads on the action plan in meeting their manpower requirements, and ensures adherence to it. In the process of meeting the manpower requirements, HR maintains the role of a partner in the common endeavours.

7.2.3.4 Awards & Recognition

The Bank has received ratings of 'IC-A' for Intra-Country Issuer, and 'LC-1' for Local Currency Short-Term by an internationally renowned credit agency, Thomson Bank Watch. The definition for the rating is that the bank possesses an exceptionally strong balance sheet and earnings record, translating into an excellent reputation, and a very good access to its natural money markets.

The staff suggestion programme launched by the Quality Unit, justifiably titled 'We Care', has a main objective to harness the latent untapped intellectual capital of the organisation. Suggestions are categorised based on clearly defined criteria into (1) Minor benefit, (2) Noticeable benefit, (3) Major benefit, and (4) Breakthrough suggestions. Each category has financial as well as non-financial rewards attached to them to ensure timely recognition of winners and contributors. Non-financial rewards include a certificate signed by the Chairman, a special T-shirt, and a mention in the bank's newsletter (Attijari II Youm). The rewards will be accumulated and distributed in a special ceremony to be held at year-end. The Chairman personally hands out citations signed by him, as a token of his appreciation, to individuals who contributed to a successful project or event.

At the highest level, the Board recognises and rewards organisational performance by awarding bank employees financial reward, in the form of bonuses, at the end of the year, as a percentage of profits earned. Further, to reward excellent employees, an Outstanding Performance Award programme is in place. The various categories for the award are (1) Best Service Provider (Branch & HO), (2) Best Manager (Branch & HO), (3) Best Branch, and (4) Best Support Unit (HO). Incentives include both financial and non-financial rewards.

7.2.3.5 Interviewee

The interview was conducted with the General Manager, Mr. Omar A.R.Leyas.

7.2.4 Habib Bank AG Zurich

Habib Bank AG Zurich (to be referred as HBZ) was incorporated in 1967 in Zurich, Switzerland, by a renowned family of bankers in Pakistan (the Habib family) with paid-up capital of Swiss Francs 2 million. At the time of formation of HBZ, the Habib family also owned Habib Bank Ltd. (HBL) in Pakistan, with an asset base of over Pakistan Rupees 12,597 million, and had over 927 branches in Pakistan and 42 branches overseas. HBL was the largest commercial bank in Pakistan and ranked amongst the 200 largest banks in the world. In 1974, with the nationalisation of Pakistani banks, the Habib family lost the ownership of HBL and was left with only HBZ, which at that time had very modest operations, with only one branch in Zurich.

Since, Mr. H.M.Habib was a regular visitor to the court of His Highness Sheikh Rashid Bin Saeed Al Maktoum in Dubai, when the banks in Pakistan were nationalised, H.H.Sheikh Rashid extended an invitation to the Habibs to open a bank in Dubai, which

they wholeheartedly accepted. HBZ, as a foreign bank, now has 8 established branches in the UAE. HBZ also has presence in 12 countries through 33 established branches and subsidiaries. The Habib family has been associated with the banking industry for over six decades. The bank has a strong tradition, solid foundation, and a history of superior management. It enjoys a rich fund of goodwill with international banks and the business community, which is associated with the name of Habib.

The interview has been conducted with the TQM manager. A list of the sixteen critical success factors has been given to him. The TQM manager then has been asked a group of questions about how his bank has operationalised these factors. At the end of the interview, the manager has been given the option to add any other critical factors that he think playing a role on the success of the TQM efforts within his bank. The results of this procedures resulted on the following factors:

7.2.4.1 HBZ Motto.

Service With Security: The motto is a reflection of the bank's drive towards excellence, with continual emphasis on its conservative management philosophy, which is also evident from the mission statement.

7.2.4.2 HBZ Mission:

- To retain and expand the customer base by providing a competitive, specialised and personal quality service in full compliance with the Swiss and local regulatory requirements.
- To provide a comprehensive range of commercial, consumer and private banking services to a broad base of personal and business customers, especially from our niche market.

- To support the sound and efficient operations of the bank by regular monitoring and development of the infrastructure in terms of human resource, IT, procedures and processes.
- To be a well and conservatively managed bank, showing reasonable and controlled growth, ensuring an adequate return for the shareholders.
- To keep risks to a minimum through a clear policy of broad diversification in terms of geography and product mix by spreading the bank's credit and trade financing activities over a wide range of customers, with emphasis on secured, short-term, and self-liquidating lending.

7.2.4.3 Organisation Structure:

HBZ, being a Swiss incorporated bank, has its Board of Directors based in Zurich assisted by the General Management.

7.2.4.4 Products & Services:

HBZ provides a wide range of financial services, including deposit accounts, credit facilities, funds transfer, investment banking, private banking, electronic banking and various other services. The bank has a very strong base in import and export trade such as letters of credit, letters of guarantee, pre-and post-shipment finance for exporters, bridge financing, and loan against merchandise and corporate finance.

The private banking group, with its strong expertise in investment, is well placed to cater to the needs of high net worth individuals for investment in fixed income instruments, equities, options, futures, funds, etc.. The bank's treasury department is fully equipped to assist and advise clients on profitable investments in various currencies. Investments in metal and safe custody services are also offered as part of international financial planning.

Last year, HBZ became the first bank in the UAE, and possibly in the Middle East, to offer WAP-based banking services. The facilities that are provided use leading-edge technology that can be accessed through WAP. Other services include Web Banking, accessing ATM SWITCH facilities, and GSM push banking for both commercial and private customers. Recently, the bank has again made a break-through by introducing an online LC facility and third party money transfers 24 hours a day, 365 days a year.

7.2.4.5 Customer Base/Key Suppliers:

HBZ's niche market consists of the trading segment generally banking for their import and export needs. The bank also has a good client base of local customers and is now moving to capture a high net worth client base for priority and private banking services. The key suppliers are correspondent banks, IT suppliers and consultants, auditors, banking institutions, and relevant vendors.

7.2.4.6 Policy and Strategy:

Business and Operational Strategy is formulated by the Zonal Management within the framework of HBZ's motto, mission, Global Corporate Strategy and Policy (issued by the General Management and the Board of Directors), and the guidelines of the Central Bank of the UAE.

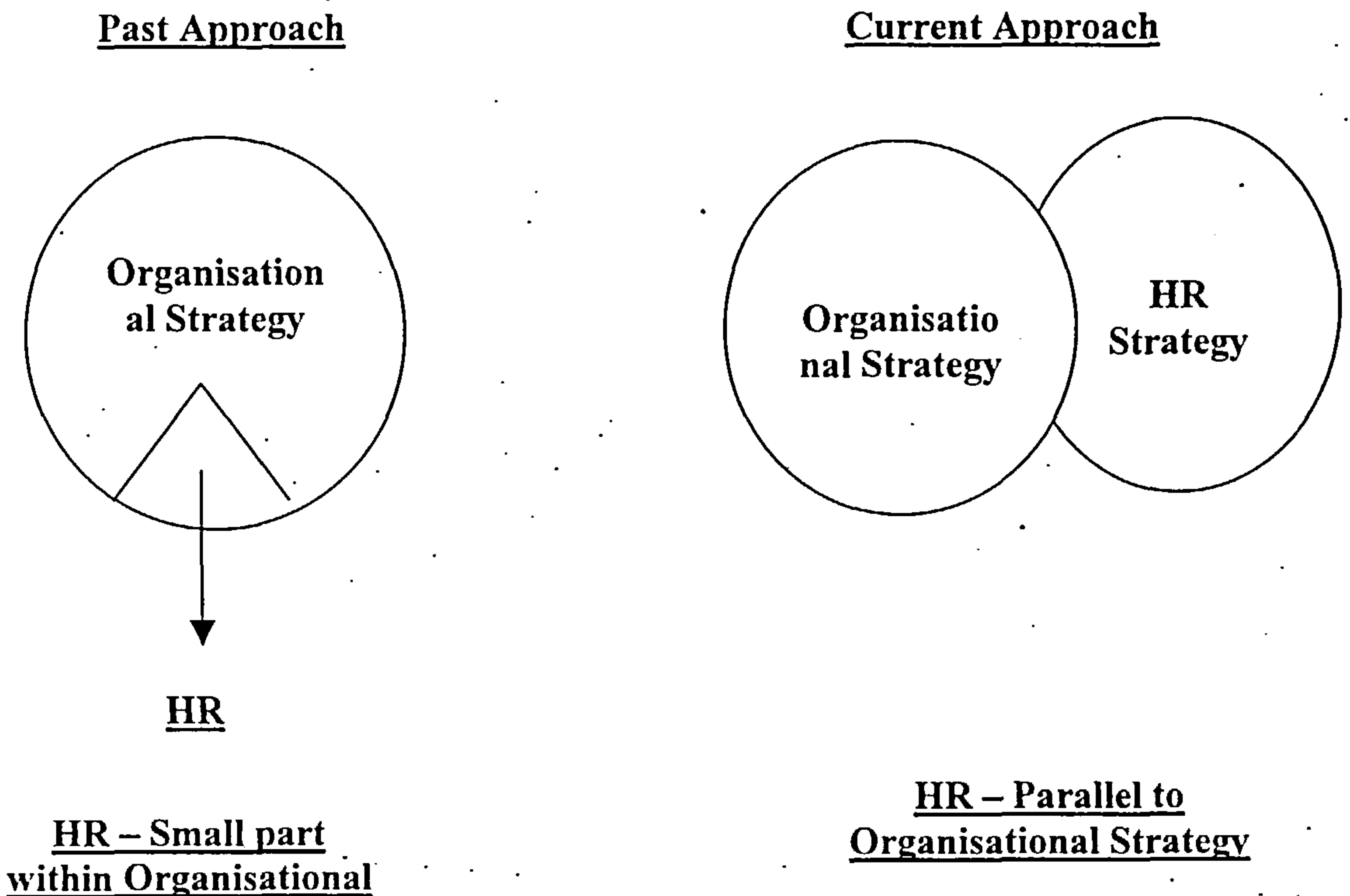
All personnel of the branch or department contribute to planning and developing strategies and policies. The branch managers feed information to the Zonal Management through the Strategic Planning and Control Department for processing and making the information meaningful for them. All the information requirements are centrally met through the Strategic Planning and Control Department that is also responsible for

ensuring accuracy, completeness and timeliness of the information generated. The Branch Managers meet with the Zonal Management every month to review the policies based on the new information, and formulate any new strategy or policy.

7.2.4.7 Human Resource Management

HBZ is a customer-centred organisation and recognises people as the key to competitive advantage, rather than just the way to implement organisational strategies. The approach has been to shift human resource from implementers of HBZ's motto, mission and organisational strategy, to being a driving force in formulation of strategies for the achievement of the objectives.

Figure 7-1: HRM.



HBZ has seen a sea change in the HR planning and development strategies in the last few years. This change has been triggered by the globalisation process and competitive pressures, coupled with the advent of newer technologies into the financial sector, especially the emphasis placed on Information Technology. This has generated the need to channel the human resource with a higher level of knowledge, both technical and general IT literacy, so as to optimise the resources and effectively channel their competence. Further, HBZ's endeavour to maximise recruitment of UAE nationals as employees has significantly affected the HR strategy.

The Head of HR meets with the Zonal Management and the Branch Managers on a regular basis to plan the short-term and long-term policies and strategies to be adopted vis-à-vis the human resource. The planning covers a domain of 1 to 10 years, with importance given to special HR areas:

- Recruitment planning and strategies.
- Training Need, Analysis and models.
- Remuneration and other staff benefit structures (including improvement in working conditions).
- Succession planning, career spread, career paths and transfers, etc.
- Capacity planning issues, especially with reference to the ongoing process re-engineering within HBZ.
- Feedback on new intakes.
- Interim fine-tuning of existing strategies.

HBZ Management believes that no survey or test can be more effective than personal contact and discussion with the employees at all levels. Accordingly, in HBZ, despite the enormous time and effort needed, the Head of HR carries out annual employee meetings by personally visiting all the HBZ Branches. The Head of HR invites individual employees to meet him in a private room, and carries out a detailed informal

discussion on a one-to-one basis. The discussion, as a policy, has no scope limitations and any official or personal matter/problem can be discussed. These staff meetings also do not have any time restrictions and are usually as short as 10 minutes, with few being as long as 2 hours per person.

Based on HBZ's cumulative 5-year experience of these HR Meetings (initiated in 1997), generally the following pattern has been witnessed by the HR Management:

1. Meetings with lower level staff, i.e. office boys, clerks, etc., take less time. The discussion mainly revolves around personal problems. Usually, HBZ is in a position to help solve such problems within HBZ's policy guidelines.
2. As the level of staff goes higher, the meetings tend to take longer, and more official and career-related matters are initiated and discussed by the staff.

The Head of HR makes a record of all the meetings, and fully updates the Zonal Management. The importance of the meetings can be justified from the fact that the most significant changes in the HR area in the last 5 years have been an outcome of these meetings.

Major changes in the organisational structure and HR approach have been:

- Adjustment in retirement age; introduction of official retirement policy.
- Changes in the branch organizational structure to provide for succession planning and effective career charting for competitive staff.
- Centralisation of Trade Finance, Credit and Compliance Departments, with a motive to channel the energies of like-minded people to work at a single goal, and give autonomy to people to deploy their skills and commitments.
- Changes in the recruitment policy, supporting the Nationalisation drive.

7.2.4.8 Sustaining People's Capability and their Development:

Managing, sustaining and developing the capabilities of people is a very crucial and meticulously planned process at HBZ. Apart from the general measures to enhance the capabilities of the staff, HBZ has undertaken many people-specific initiatives.

7.2.4.8.1 Specific Measures

HBZ's core employee base consists of the following two distinct sets:

- Staff members who have been with the bank for a very long time. These staff members at all levels, on one hand, provide HBZ's human resource with a wealth of experience and stability and, on the other hand require more focused training and development to keep abreast with the latest trends, technology, etc..
- Staff members who have been inducted recently into HBZ's human resource to give a boost and a fresh outlook to the latest developments. These members are from the younger generation, and are fully equipped with the latest tools and techniques.

In view of the above blend of HR, HBZ's training and development philosophy has been targeted to employee-specific training as well as a general raising of standards.

Accordingly, a carefully specified training and development programme was launched for the first time in 1997, with the following facilities:

- A full-fledged training facility was established at one of the prominent HBZ branches (Sikkat Al Khail). Other facilities included all the latest equipment-multimedia projectors, digital cameras, etc..
- A management-consulting firm was hired in 1997-1998 to carry out at least 50 days per year of staff training at the HBZ training centre. The total outlay was AED 240,000/-.
- In 1999, having fully reformed the culture of HBZ towards training and development, it was felt that in order to optimise the benefits of training and

development, a change was needed. Accordingly, a new initiative of in-house training (Continuing Professional Education) was launched, where approximately 20 qualified staff members were selected to conduct training and development on HBZ's systems and procedures. A two-day 'Train the Trainer' seminar was organised by Mercuri International covering this 20-member faculty.

- This year, too, HBZ has hired Mercuri International to provide specific training to HBZ's UAE nationals employees. The contract outlay is 1.71% (AED 500,000/) of the total administration expenses for 40 days of training for approximately 60 UAE nationals employees over a six-month period.

At HBZ, no one from the top to the bottom is outside the scope of Continuing Professional Education. Recently Mercuri International conducted a two-day Management seminar, attended for the top management, including the Joint President. Since the programme was extremely useful, it was repeated twice, covering the management at all levels.

Apart from the above specific measures undertaken by the HBZ to re-engineer its staff training and development, regular initiatives are also taken to optimise the training and development function.

7.2.4.8.2 General Measures

Training Need Analysis (TNA) for existing staff is undertaken through reviews and a systematic flow of information from the following sources:

- Annual Appraisals
- Team Leaders
- Department Heads
- Branch Managers
- Annual Individual Employee Meetings with the Head of HRD.

Extensive TNA for the staff is done on a higher level through meetings and reviews like the Annual HRD meetings, which are held over the months of August to November, where the Head of HR visits each Branch and meets all the staff on a one-to-one basis.

Training and Development methodology depends on the job profile and immediate training needs.

HBZ has endeavoured to participate in specialized training programmes held across the country. HBZ has sent key personnel to attend these programmes, some of them being:

- Training programmes by high level IT firms such as Cisco, Sun Microsystems etc.
- Programmes on Accounting, Finance, Statistical Process Control etc. conducted by leading consultants such as KPMG etc.
- Programmes on Risk Management and Treasury Operations conducted at the Global Training Centre of Emirates Bank Group.
- Seminars, workshops organized by Emirates Institute For Banking and Financial Studies and other consulting firms.

7.2.4.9 People Involvement, Empowerment, Recognition & Care

Teamwork and employee involvement forms an integral part of the decision-making and policy formulation and execution process at HBZ. The efforts of the Bank to achieve continuous involvement, empowerment and motivation of people are illustrated below:

7.2.4.9.1 Involvement

Employee participation is invited at even the most sensitive levels, such as setting of targets and determination of performance objectives. The information for formulating strategies and policies and deciding on targets is collected from the grass root levels, which then goes up to the level where the decisions are made. The decisions are then communicated down the line and acceptance or discussion of the decision is invited. This open door policy at the Bank allows the junior most staff to comfortably communicate even with the Joint President. Feedback is continuously invited by the

management on all policy matters and other relevant issues, which can affect the staff both professionally and personally.

Most of the special projects/assignments are executed jointly through different groups of employees selected from all the branches. These groups are given full freedom of action and decision making to achieve the project targets. This approach on one hand results in gross involvement of people at all levels and on the other hand enables HBZ Management to achieve timely and successful completion of major projects.

7.2.4.9.2 Empowerment

Empowerment of staff is through dual delegation of discretionary powers that are updated from time to time. Circulars are issued as and when a change is made in the discretionary powers. The empowerment of employees is used as an effective motivational tool by HBZ. Accordingly in addition to actual recognition in the form of awards, incentives, promotions etc. staff with outstanding performance are gradually given more autonomy and empowerment. The Zonal Management frequently authorises employees to independently complete major projects with no restrictions from their end.

7.2.4.9.3 Recognition

The bank has in place certain policies with regards to awarding superior performances, long service tenures and significant contributions. Performance Appraisal meetings during the second part of every year act as basis for performance evaluation, salary adjustments and promotions. Financial performance every month is awarded with the "Branch of the Month" award; yearly individual citations are "Man of the Year" awards and "Employee of the Year" award.

Seniors at all levels ensure that any extra ordinary achievement by individuals/teams is promptly recognized to further boost the confidence and motivation level of the employees.

Senior employees are rewarded appropriately with promotions, salary adjustments and inter country transfers. Recently, one of the branch managers with a service of +20 years with the Bank was transferred to the South Africa Office, as the Country Head. In recent years, the Bank also sponsors outstanding employees for courses such as MBA etc. Employees with outstanding performance are also recognized by grooming them vigorously and assigning them more responsible and senior positions. This is evident from the fact that most of the existing senior management members have grown within HBZ from lower levels to the present higher level of management.

7.2.4.9.4 Care

Transformations in society and transitions in culture as a result of the modern competitive era have not affected HBZ's traditional care for people. The undiminished purpose behind HBZ's HR policy is people's satisfaction and prevalence of high morale among the staff. The support and care shown towards the staff is visible from the welfare benefits, health facilities, leisure opportunities and support for people's involvement in the community endowed from time to time in various forms and activities.

HBZ is an equal opportunity employer, and does not discriminate on religion, nationality, gender, etc.. Further, the following overriding principles are prevalent at HBZ, resulting in a higher level of care for its people:

1. Staff policies and procedures are handled with minimal use of management discretion by formulating well-defined and measurable criteria as far as possible. This results in application of consistent policies across the board, with no discrimination based on difference of opinion or human judgments.

Example. Instead of reviewing and approving staff loan requests on a case-to-case basis, a fixed criteria loan limit was introduced.

2. A distinction should be made between necessities and luxuries while formulating staff benefits-related policies.

Example. Medical insurance includes all staff members at all levels (100%). Similarly, Group Life Insurance, which earlier excluded lower staff, was amended to include 100% staff members.

3. Instead of adopting a strict, to the letter, approach towards the implementation of HR policies, a flexible approach is applied, whereby in special cases HBZ goes beyond the policies to help resolve staff problems.

Example By the regulations, staff are entitled to privilege leave after the completion of one year of service. However, in the case of genuine emergencies, HBZ allows staff to take leave in advance.

4. Staff entitlements should be given/paid, even if the concerned staff fails to claim it for any reason.

Example. At times, staff apply for leave without pay, owing to non-availability of privilege leave balance. However, in cases of genuine situations, HR rejects the application and asks the staff to instead apply for advance privilege leave.

7.2.4.9.5 Health & Safety:

- The staff of HBZ are well supported by the Habib Medical Trust that has been working towards the cause of supporting the members of the society.
- Staff are provided with medical and life insurance cover.
- Staff are adequately reimbursed in case of any unusually high medical expenditure, if the same is not covered under the Insurance cover.
- The layout of the workplace is continuously upgraded to cater for increasing staff strength and provide large and comfortable working space. Recently, renovation was carried out at one of the branches in Duabi. The PCs in use are of the latest configuration, with filter screens to protect the eyes of the employees extensively working on the PCs.
- HBZ encourages a no smoking environment, and this policy is implemented through-out the organisation.

7.2.4.9.6 Staff Benefits:

- Credit facilities to staff at reduced interest rates, e.g. Auto loans at 0% interest.
- One time loan instalment deferral is permitted for staff, and can go up to three times in case of exceptional circumstances.
- An extra bonus during the Holy festival (Ramadan), apart from the two-yearly bonuses, is given to the staff as a gesture of goodwill during the Holy month.
- Travel arrangements for staff are co-ordinated by HBZ, whereby all staff can benefit from HBZ's corporate client status to obtain favourable rates.
- Employment opportunity through a new policy of appointing the sons of retiring non-clerical staff (NCS).
- Immense feeling of job security. This is the result of the 'No Firing Philosophy', except in cases of disciplinary action.
- HBZ provides employment visa to female employees.
- Ex-gratia payments to retiring staff based on prevailing situation.

7.2.4.9.7 Welfare Activities:

- Financial support to deserving wards of lower level bank staff for higher studies abroad is provided by the Habib Education Trust.
- HBZ sponsors Haj (Holy Pilgrimage) for 4 non-clerical staff every year. Special paid leave is also granted for the period. The selection is based on the seniority of the staff.
- Exams for NCS staff are held once a year, which enable performing NCS to be promoted to clerical grade. This is a unique promotion strategy followed by HBZ to completely change the career path for the NCS showing extraordinary skills (1998 – 2 NCS; 1999 – 1 NCS; 2000 – 5 NCS promoted).

7.2.4.9.8 Leisure Activities:

- The HBZ Cricket team is an active member of Dubai's Cricket fraternity. An annual budget is set for the team.
- HBZ sponsors Club Membership for its executive staff in top market clubs.
- There is an Annual Staff Party, which is an informal gathering of all HBZ staff at venues such as Beaches, Hotels and Desert Safaris.
- HBZ management fully recognizes the fact that to have a fully motivated and dedicated employee it is vital to provide the employees a work environment which will enable them to spend quality time with their families also. Accordingly, late sittings or working after office hours is discouraged.
- As a policy it is compulsory for all the employees to go on annual vacation. This is evident from the fact that accumulation of privilege leave entitlement beyond 60 days is not allowed.

7.2.4.10 Management of Technology

Information Technology Management of HBZ is very unique. HBZ uses only one in-house application known as hPLUS. It considerably deviates from the strategies of similar organizations all over the world. The application is developed on a single data server concept. There is a base application on which the whole software has been developed in-house by a handful (less than 10) of HBZ's IT developers. Since the development was not resource-intensive, the firm spent only a fraction of what others spend in such an environment. The IT strategy is to:

- Give top priority to Customer convenience.
- Conduct research on new technologies.
- Check the effectiveness of these technologies on HBZ's business.
- If effective, add this technology to the base application architecture.

HBZ IT does not develop new applications using new technologies. Instead, it adds forthcoming technologies to the existing application architecture. HBZ IT is unique in the IT industry because of the following:

- Does not believe in any technology hype until it is felt that it is very useful and cost-effective.

- Does not use any propriety technology even if it is widely used by others.
- Generally does not use software component from third parties.

HBZ IT has outperformed its competitors with a handful of developers. There is no day-to-day maintenance for the application and there is no branch wise update required. The information is real time i.e. any transaction processed is automatically recorded and posted in the system.

The system has a strict in-built access control. There are basically seven types of access controls: (1) Physical Access (2) Network Access (3) Operating System Access (4) Application Access (5) Banking Option Access (6) WEB Access (7) WAP Access. All these controls are reviewed by a number of independent departments including the internal auditors.

The IT steering committee which is headed by the Joint President of the IT Chief and 2nd Officer of IT and the Head of Strategic Planning and Control Department is responsible for overall control and management of IT development in the bank including the following:

- Set and oversee the direction of research and implement results in new projects.
- Identify areas of banking which require new application modules.
- Control and oversee banking control set up in the system.
- Explore new areas of banking control by extensive analysis with existing data in the system.
- Control and oversee user access to the system based on end-user responsibilities.

HBZ developed its own web banking technology. HBZ neither use any technology like web server, application server etc. from the market to drive its web application nor any ancillary technology/software like proxy server, authentication technologies etc.

HBZ has achieved a name par excellence and one of the major contributors is IT.

Following are some achievements:

- The most technologically innovative bank in the Middle East during year 2000 (Bankers ME Award).
- The first bank in the world whose name was listed in Sun Microsystem's JAVA Technology Manual along with renowned companies like IBM, NASA's Jet Propulsion Laboratories etc.
- The first bank in the Middle East to offer secure WAP banking to its customers.
- The only bank in the world that developed SSL (Secured Socket Layer) wrapper technology to access RDBMS, which does not support SSL.
- The only bank in the Middle East that added UAE SWITCH connectivity to its in-house package.
- The only bank in the Middle East that integrated equipment like cheque printers, cheque encoders, cheque sorter and cheque readers to its in-house application to automate cheque encashment and clearing systems.
- The first bank in the world that used JAVA JDBC connectivity to access RDBMS from their application.
- The only bank in the Middle East where customers can open/amend Letters of Credit via the Internet.

8.2.4.11 Customer Satisfaction

In today's highly competitive environment, the only way to survive and be successful is by winning customer trust and respect for the bank. This is the only way to distinguish HBZ from its competitors that generally include International Banking Giants. In spite of this competition, HBZ is among the top 5 foreign banks in terms of deposits. HBZ fully appreciates that, to win customer confidence, the bank must give first priority to the security and safe custody of the customer's money, even if this results in adverse pressure on profitability. The bank believes in high liquidity to safeguard customer interests and, as a matter of policy, does not lend more than 60% of its deposits, even if high quality and profitable lending opportunities are available.

In order to measure the customer's satisfaction level and to assess itself, the bank uses the following methods:

1. Customer Satisfaction Survey.
2. Counter Service Survey.

In order to become a truly customer-driven organisation, the bank has identified a few guidelines that every employee at HBZ should practise:

- Spend time meeting customers, and listen to their problems.
- Continuously improve the products and services on the basis of customer feedback.
- Not to compromise quality for price savings in any aspect.
- Measure company image and customer satisfaction on a continuous basis.
- Strive to give the customer the best solution.
- Set high standard for service delivery time and meet this standard consistently.
- Operate a knowledgeable and friendly customer service department that can answer questions, handle complaints, and resolve problems in a satisfactory and timely manner.

7.3 SUMMARY

This chapter has provided a detailed description and discussion of the qualitative primary data collected. This involved four Banks: First Gulf Bank, National Bank of Abu Dhabi, Commercial Bank of Dubai and Habib Bank AG Zurich.

In general, this chapter provides an assessment of various components relating to TQM implementation, as well as a determination of the critical success factors in the implementation process. It summarises the findings of the critical success factors found in the four bank. These findings are obtained through the use of cross-case and within-case analysis. Several dimensions are found to be common among these banks.

The chapter also analysed these banks' experience of TQM as viewed through the critical factors of TQM. Similarities and differences between the experiences of TQM in four banks were considered and analysed. The description of these banks' experience of the factors that affect the success of TQM has provided many insights, and it confirms the results of quantitative analysis presented in chapter 6.

Chapter 8

Interpretations and Discussion of Key Findings

8.1 INTRODUCTION

It is hoped that the study findings presented earlier give a better understanding of the Critical Success Factors (CSFs) that have helped in attaining TQM in the banking sector. This chapter interprets the study findings and provides a comprehensive discussion on the analysis of the results and findings presented earlier. Furthermore, it provides comparisons and external validation against previous empirical studies on TQM (see Table 8.1). Following from that, a proposed generic model for the effective implementation of TQM is suggested, based on a holistic perspective.

Table 8-1: Empirical Studies on Total Quality Management

| Sl.No. | Study | Major Focus | Methodology |
|--------|-------------------------------------|---|-------------|
| 1 | Motwani, Mahmoud and Rice (1994) | Quality practice | Survey |
| 2 | Mann and Kehoe (1995) | Factors affecting TQM implementation | Survey |
| 3 | Badri, Davis and Davis (1995) | Specification and measurement of critical factors of quality management | Case Study |
| 4 | Lakhe and Mohanty (1995) | Dimensions of TQM | Case Study |
| 5 | Tamimi (1998) | Second-order factor analysis of critical TQM factors | Survey |
| 6 | Quazi, et al., (1998) | Critical factors in quality management | Survey |
| 7 | Zhang, Waszink and Wijngaard (2000) | Instrument for measuring TQM implementation | Survey |
| 8 | Yusof and Aspinwall (2000) | CSFs in small and medium enterprises | Survey |

| | | | |
|----|--|--|---------------------|
| 9 | Bilich and Neto (2000) | Quality macro function model for banks | Case Study |
| 10 | Longo and Cox (2000) | TQM in financial services | Survey |
| 11 | Sureshchandar, Rajendran and Anantharaman (2001) | TQM in service organisations | Study |
| 12 | Lau and Idris (2001) | CSFs in TQM implementation | Survey |
| 13 | Houston and McKean (2002) | Key issues in shaping quality management | Case Study |
| 14 | Hasan and Kerr (2003) | Relationship between TQM practices and organisational performance in service organisations | Survey |
| 15 | Johnson (2004) | Organisational variables applied in quality management | Study (Qualitative) |
| 16 | Escrig-Tena (2004) | TQM as competitive factor | Survey |
| 17 | Williams, et al., (2004) | TQM design and development | Study |
| 18 | McAdam and Henderson (2004) | Future of TQM and its driving factors | Case Study |

The results presented in previous context are in a format relating to the main dimensions of the study, i.e. the Critical Success Factors (CSFs) that affect the process of TQM in the banking sector. The study was developed a strategic, integrative approach for the successful implementation of TQM

To date, as far as this research could ascertain, there does not appear to have been systematic attempt to synthesis the various critical factors that contribute towards the success of TQM in banking industry . Consequently, in this section of the chapter, the aim is to validate the critical success factors (CSFs) for TQM implementation in banking sector from two main aspects; quantitative and qualitative data. CSFs can be

used to guide and motivate banks when making decisions about TQM, thereby reducing some of the risks involved.

8.2 Survey Finding 1: CSFs Operationalisation

This study has displayed a list of the potential CSFs that relate to previous literature in TQM, Service excellence and Service quality . These critical success factors have been categorised into sixteen dimensions (See section 6.5.2.2) and were built into the survey questionnaire. Furthermore, when these sixteen dimensions were submitted to factor analysis, the sixteen main factors that emerged were found to relate directly to TQM practice. Table 8.2 presents these sixteen factors for TQM that have been confirmed by factor analysis techniques.

Table 8.2: Critical success factors for TQM

| TQM Critical Success Factors | % of variance explained |
|-------------------------------------|--------------------------------|
| ▪ Top Management Support (TMS) | 65.530 |
| ▪ Strategy (ST) | 63.504 |
| ▪ Continuous Improvement (CI) | 69.779 |
| ▪ Benchmarking (BE) | 71.973 |
| ▪ Customer Focus (CF) | 68.261 |
| ▪ Quality Department (QD) | 70.284 |
| ▪ Quality Systems (QS) | 68.308 |
| ▪ Human Resource Management (HRM) | 69.863 |
| ▪ Recognition and Reward (RR) | 83.891 |
| ▪ Problem Analysis (PA) | 73.501 |
| ▪ Quality Technologies (QT) | 73.522 |
| ▪ Service Design (SD) | 82.782 |
| ▪ Employees (EM) | 72.150 |
| ▪ Servicescapes (SE) | 74.009 |
| ▪ Service Culture (SC) | 71.533 |
| ▪ Social Responsibility (SR) | 73.846 |

Theoretically, top management commitment, Strategy, Customer Focus, Quality Department and Benchmarking support a very strong tie with the **Strategic Level**. Thus these factor was labelled Strategic Level on the research model.

The second set of factors reveals elements that are highly related to the **Tactical Factors** required for TQM implementation. In this case, a “Human Resource Management”, “Quality Technologies”, “Service Design” and “Quality Systems”. Consequently, these factors labelled Tactical Level on the research model.

8.3 Finding 2: CSFs and TQM (Successful Practice)

Here the roles of the quantitative and qualitative findings are complementary. The quantitative analysis provides an assessment of various components relating to TQM implementation, as well as determination of the critical success factors in the implementation process. The qualitative findings, on the other hand, provide reach insights into ‘how’ the process of TQM implementation is being carried out by Banks adopting different approaches and perspectives.

However, the quantitative results in chapter 6 suggest that there is significant relationship ($R^2 = 0.981$, $F=339.507$, $P<0.001$) between the CSFs and TQM success. As mentioned earlier TQM success is defined in terms of achievements of some predetermined goals i.e., improved efficiency and lower costs, improved speed, responsiveness in meeting customer needs and greater market access. However, the model fits very well with Adjusted R^2 of 0.978 showing that 97.8% of the observed variability in TQM success explained by the Sixteen CSFs.

The results of regression coefficients reveal that Customer Focus ($B=0.280$) is the strongest factor that affects TQM Success and Quality Systems ($B=.275$) is the second most important factor that affects TQM success. These are followed by Quality Department ($B=.253$), Top Management Support ($B=0.218$), Continuous Improvement ($B= 0.212$), Human Resource Management ($B=0.196$), Servicescapes ($B=0.193$), Strategy ($B=0.187$), Service Design ($B=0.182$), Employees ($B=0.125$), Quality Technologies ($B=0.086$) and Benchmarking ($B=0.075$), all of which affect the relating success of TQM.

8.3.1 Strategic Level

The study helped us to determine the most critical success factors for TQM implementation. Those factors may be classified as a strategic factors which require a significantly change in the manner of which business is being done. Those factors include; Management Support, Strategy, Customer Focus, Quality Department, and Benchmarking.

The study findings of Cooke and Peterson, 1998; Holland and Light, 1999; Parr et al., 1999; Sumner, 1999; Somers and Nelson, 2001 support the results of this study that top management support play a critical role on achieving excellence in service. It is no surprise that this is so; a review of literature reveals the emphasis placed on top management commitment and support (e.g. Davenport, 1998a; Bancroft, et al., 1998; Bingi et al., 1999; Sivara, 1999; Sumner, 1999; Welti, 1999; Davenport, 2000; Gupta, 2000; O'Leary, 2000; Rao, 2000; Nah et al., 2001).

The study findings of Motwani, Mahmoud and Rice (1994) support the findings of this study that successful quality performance requires that top management be dedicated to that goal. In other words, those in top management must provide the initiative for successful quality assurance practices and must support the quality programme in the organisation if such a programme is to be successful.

As supported by Davenport (1998a) and Holland and Light (1999), this study reveals that the organisation has to determine the impact of the TQM on its organisation to determine the best implementation strategy for TQM. The study by Holland and Light (1999) supported strategy also as an important factor for successful TQM implementation. This present study also supports the fact that this factor has an important effect on TQM implementation.

A clear project vision is one of the main ways to avoid unsuccessful implementation of TQM. It clarifies the direction in which an organisation needs to move. As supported by Welti (1999), Sivara (1999), Davenport (2000), Markus et al. (2000), Peak (2000), Wee (2000), and Nah et al. (2001), and the study results of Cooke and Peterson (1998), Holland and Light (1999), Parr et al. (1999), Sumner (1999) and Somers and Nelson (2001), this study clearly reveals that clear project vision and scope are critical in TQM implementation.

The study by Bilich and Neto (2000) points out the following with reference to strategy: The actuation of a bank strategy has to be directed towards the continuous search for quality, the preoccupation with quality should already be clear from the strategic planning, quality of services is an important element for differentiation of the bank

because it provides consistent competitive advantages, quality should be approached as a macro-function permeating the other functions in the organisation, the necessity of adoption by the banks in relation to the clients of the concept of 'relationship banking', The need for developing a system of information for quality, the actuation of strategy within the concept of 'strategic business units', intensive use of informatics and telecommunications, and finally, creation of instruments that will allow the evaluation of how quality is perceived by clients in banks. Another author Johnson, (2004), also supported the view that strategy is an important factor in implementing TQM. But many authors gave less emphasis to strategy as an important factor for successful TQM implementation.

This study supports the results of Zhang, Waszink and Wijngaard (2000) who point out that , to achieve TQM, it is essential to know what customers want and to provide products or services that meet their requirements. A successful organisation recognises the need to put the customer first in every decision made. The key to TQM is maintaining a close relationship with the customer in order to fully determine the customer's needs, as well as receive feedback on the extent to which those needs are being met. The customer should be closely involved in the product design and development process, with inputs at every stage of the process, so that there is less likelihood of quality problems once full production begins. The ultimate measure of company performance is customer satisfaction, which may very well predict the future success or failure of an organisation. In order to improve customer satisfaction, customer complaints should therefore be treated with top priority. Methods that can be used for customer focus efforts include collection of customer complaint information, market investigations, and customer satisfaction surveys. This is supported by many

authors, who include Sureshchandar, Rajendran and Anantharaman (2001), and Hasan and Kerr (2003)

McAdam and Henderson (2004) also supported Customer Focus as one of the main CSFs in implementing TQM, and said Customer satisfaction and understanding are vital within the organisation.

The results of this research are in line with those of Motwani, Mahmoud and Rice (1994) who discussed that for an organisation to be efficient, the quality department should be visible, autonomous and have direct access to top management. They further said the major responsibilities of the quality department in any organisation include formulating and improving major quality improvement programmes and working closely with other departments. Further, the quality department should also prepare various types of summary reports, mentioning any failures encountered at any stage of the process. Quazi, et al.,(1998) also supported the role of the quality department as an important factor for effective implementation of TQM.

Finally, this study suggests that the benchmarking, learning from others, is an important tool for successful implementation of TQM. Indeed, benchmarking can play a significant role in implementation by capturing both external and internal best practices related to the project, and transfer this knowledge across all levels of implementation. However, the organisation should do benchmarking based on its specific business and project objectives. Generally speaking, benchmarking can bring in new ideas, knowledge, and best practice in dealing with the TQM implementation, and therefore will help to make a proper decision on it. The study by Sureshchandar, Rajendran and

Anantharaman (2001) gave importance to benchmarking, and said that any organisation can attain newer heights, if benchmarking is used during any important process.

8.3.2 Tactical Level

The next group of factors can be classified as tactical factors. Those factors include; Human Resource Management, Quality Technologies, Service design and Quality System.

The results of this research support the findings of Sureshchandar, Rajendran and Anantharaman (2001) that HRM as one of the main factors in the implementation of TQM, and said it is the cornerstone upon which the corporate strategy is built. According to Lakhe and Mohanty (1995), HRM can be assessed by developing an organisation profile, which can be used to analyse the organisation and its processes. The HR profile of the organisation provides management with insights and data to improve and simplify work process, job duties, staffing, compensation, and organisational structure. HRM can be assessed by the attributes such as improvement in communication, training, information, and accountability.

The results of this study support the findings of Porter and Parker (1993) that Quality Technologies enable continuous improvements and reductions in variation to be achieved (Porter and Parker 1993). Goal-orientation and zeal for data, with constant performance measurement, often using statistical methods (Powell, 1995). Statistical Process Control (SPC) techniques are often used to detect assignable causes contributing to the variation in manufacturing quality, to provide useful information for product design, and to determine process capability. Although some limitations of SPC in quality improvement have been recognised, it helps quality-oriented firms, beginners in particular, to monitor quality variations and to investigate critical areas where improvement ments are needed (Ahire et al., 1996).

The results of this study are in line with the results of Bilich and Neto (2000) who found that service design as an important factor in implementing TQM, and pointed out some factors, which should be taken into account before service design: Adoption of mechanisms for control of processes. Performing periodic auditing in the quality systems. Systematic utilisation of suggestions/complaints of clients. Evaluation of the costs of non-quality. Utilisation of systematic procedures for checking results and analysis of faults and their respective causes. Elimination of activities that do not have value and do not contribute to the security of the operations. Sureshchandar, Rajendran and Anantharaman (2001) and Hasan and Kerr (2003) also supported service design as an important factor in implementing TQM.

Managers should also re-examine the calculus by which they measure, estimate, and account for quality-related decisions. Most of the measurement and performance systems encountered simply ignored quality issues. Those that did explicitly consider quality were often biased toward short-term measures of performance and thus grossly understated the costs of not getting quality right the first time. Many capital appropriation processes, for example, downplayed the benefits of improved quality as 'probabilistic', 'subjective', or 'qualitative'. These benefits are indeed long-term and highly uncertain (an increase in market share, say, or customer loyalty; a reduction in warranty costs), but any movement to a lower-cost, higher-quality position as requires at some point a leap of faith. what a good quality measurement system should do is provide a diving board.

8.3.3 Operational Level

At the other end of the list (i.e., the least important or less critical) were the Continuous Improvement, Employees and Servicecape.

The study by Zhang, Waszink and Wijngaard (2000) support the results of this study and are in line with the results of Sureshchandar, Rajendran and Anantharaman (2001) study who gave importance to quality improvement as having no finish point but a continuous journey that offers more and more chances for improvement. Lau and Idris (2001), in their study, said the extent to which quality values, principles and practices are adopted is routinely reviewed and improved.

The study done by Escrig-Tena (2004) discussed certain practices concerning continuous improvement, as follows: work methods and processes are identified, defined and documented; quality and procedures manuals are reviewed on a regular basis; self-assessment activities are carried out on a regular basis; and a system of indicators is used to review the changes introduced into processes. The result of these practices is improvement in the efficiency of the process, and improvement in the knowledge of the most effective form of managing operations.

Employees are another important factor for the successful implementation of TQM. The study by Badri, Davis and Davis (1995) lists certain points with reference to employee relations, as follows: Extent to which quality circle or employee involvement type programmes are implemented in the division. Effectiveness of quality circle or employee involvement type programmes in the division. Extent to which employees are held responsible for error-free output. Amount of feedback provided to employees in

their quality performance. Degree of participation in quality decisions by hourly/non-supervisory employees. Extent to which quality awareness-building among employees is ongoing. Extent to which employees are recognised for superior quality performance. Effectiveness of supervisors in solving problems/issues. Later, these points were supported by Quazi, Jemangin, Kit and Kian (1998) with one addition to the original listings: Impact of labour union on quality improvement.

The study by Tamimi (1998) also supported the factor of employees, and listed two points with reference to providing assurance to employees, as follows: The setting of realistic goals for employees by the top management, and Employees feel they have job security.

Zhang, Waszink and Wijngaard (2000), too, supported the role of the employee as an important factor. According to them, by personally participating in quality improvement activities, employees acquire new knowledge, see the benefits of quality disciplines, and obtain a sense of accomplishment by solving quality problems. The participation leads to lasting changes in behaviour. Participation is decisive in inspiring action on quality improvement (Juran and Gryna, 1993). Participation may enable the employees to improve their personal capabilities, increase their self-respect, commit themselves to the success of their organisation, and/or change certain personality traits. Participation may also change employee negative attitudes and instil in the employees a better understanding of the importance of total quality. Participation may contribute to the establishment of a company-wide quality culture. Employees in organizations should be encouraged to report their work problems. Good employee suggestions should be implemented after being evaluated. Methods such as cross-functional teams, within

functional teams, voluntary teams and suggestion activities can be used for encouraging employee participation.

The studies by Sureshchandar, Rajendran and Anantharaman (2001), Lau and Idris (2001), Johnson (2004) McAdam and Henderson (2004) supported employee satisfaction as a major CSF, thereby achieving key organisational goals.

The study by Motwani, Mahmoud and Rice (1994) does not support the hypothesis that employee involvement in quality efforts improves the level of quality and helps in implementing TQM. This may be attributable to the cause that in the organisations which had introduced employee involvement programmes such as quality circles for tackling quality-related problems, some indicated that their circles had become non-functional.

Finally, servicescape has been found to play a critical role on the successful TQM implementation. This factor was supported by Sureshchandar, Rajendran and Anantharaman (2001,2002). Similarly, the finding of this study support the results of Bitner (1992), Berkley (1994) and Angur (1999) that servicescape play a critical role in achieving excellence in services. However, this factor is highly unique to service organizations (Sureshchandar, 2002).

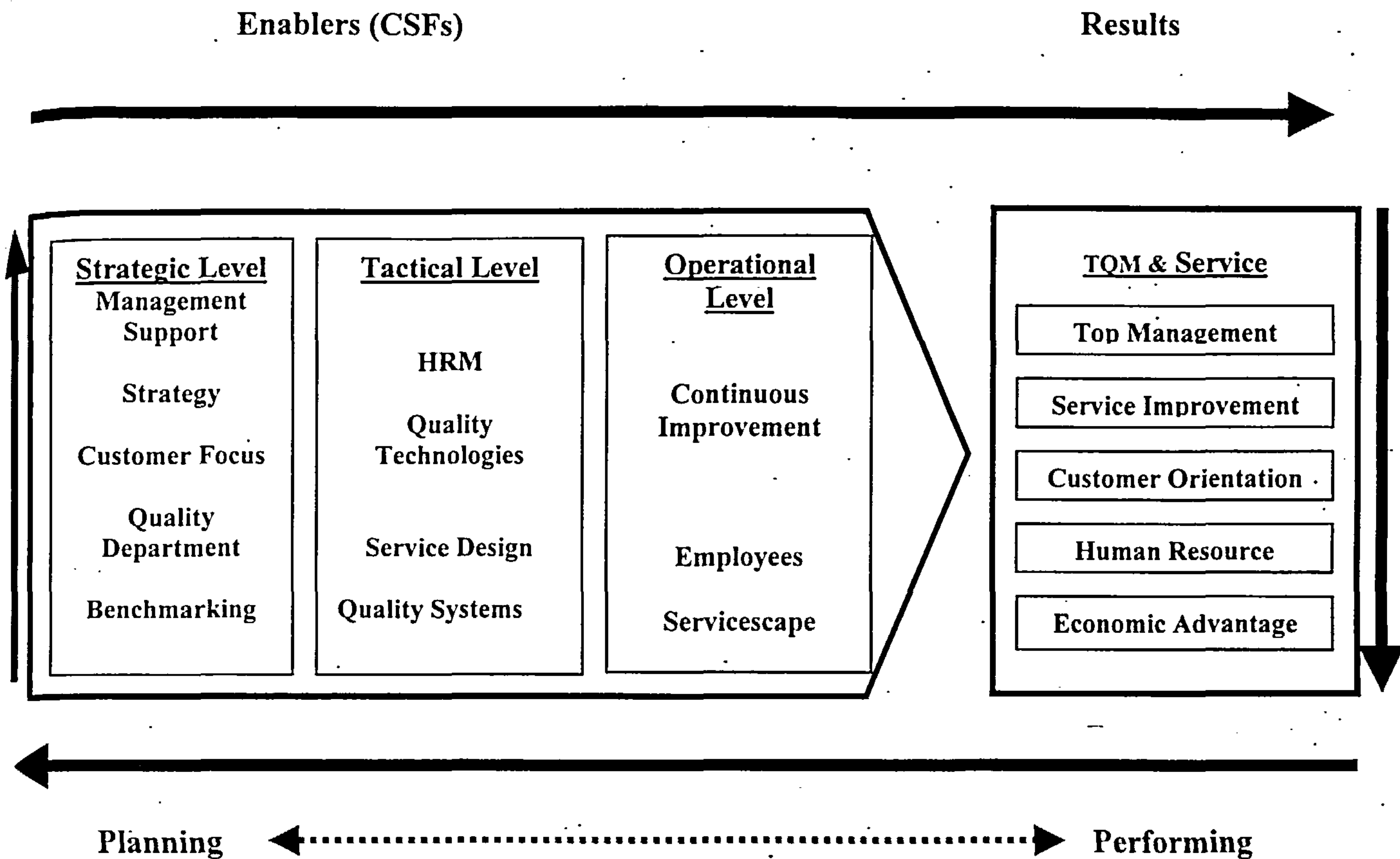
8.4 Proposed Generic Model for TQM Implementation

Here the roles of the quantitative and qualitative findings are complementary. The quantitative analysis provides an assessment of various components relating to TQM implementation, as well as determination of the CSFs in the implementation process.

The qualitative findings, on the other hand, provide reach insights into 'how' the process of TQM implementation is being carried out by the service organisations representing different services and adopting different approaches and perspectives. However, the results of the study suggest that there is significant relationship between the CSFs and TQM success. As discussed earlier, TQM success is defined in terms of achievements of some predetermined goals i.e., improved efficiency, responsiveness in meeting customer needs, greater market access, and enhanced ability to overcome time and distance barriers of global markets.

As mentioned earlier, this study brings out several critical factors that affect the implementation of TQM. Quality Management is a key factor in gaining competitive advantage, and many authors have written about how quality should be managed in an organisation. Several studies have examined the quality management practices in different organisations, and all these studies have mentioned many CSFs. Moreover, it is critical to address all these factors at the same time for successful implementation. In essence, failure in one factor can affect the overall TQM implementation. This is a crucial finding, as it highlights aspects that have not been given enough emphasis in the early stages.

Figure 8-1: Generic Model for TQM Implementation Service



The entire findings discussed in this section are in terms of the major issues related to TQM implementation. Each of these factors is supported by all or nearly all the authors in their philosophies. The discussion is based on the integration of the whole research study: secondary data, survey, and case studies.

8.5 SUMMARY

The above discussion presents the study framework, which covers all aspects of TQM implementation, to gain an in-depth understanding of the concept. The study suggests three main aspects to achieve such an objective:

Identification of TQM critical success factors by a holistic literature review and a series of statistical and qualitative analysis of the relevant data have been presented. However, the chapter highlighted a number of elements that have been found to be critical to use the TQM which follows a holistic approach. These factors have been classified into sixteen that cover three aspects; Strategic Level, Tactical Level and Operational Level. In order for Banks to achieve the benefits of the TQM at a high level, they have to concentrate on these factors which should exist in their internal environment. But it can be recognised that these critical success factors would not be sufficient unless they were structured as integrated factors. By exploiting the sub-factors and variables, it was found that segregating each factor would minimise the efficiency of each factor that led to targeted objectives. For example, considering Tactical factors with out paying attention to the strategical factors might result on a service level that is not effective for targeting different customers needs..

Finally, the study documents the role of the TQM in banking sector and identifies different activities that are affected by the use of the TQM. The study found that the Critical Success Factors have a positive effect on the service excellence.

Chapter 9

Conclusions and Recommendations

9.1 INTRODUCTION

This study is one of the first to examine empirically and rigorously the different aspects of the TQM in the service sector in the UAE: the adoption, implementation and implications.

The process through which the thesis was developed and verified is reported in nine chapters. Chapter 1 provides the Introduction, Background and Outline of the research. Chapters 2, 3 and 4 were dedicated to the review of the relevant literature. Chapter 5 discussed the research design and methodology used. Chapter 6 discussed the analysis of the preliminary findings of the research. Chapter 7 described the next phase of data analysis which is the Qualitative Analysis. Chapter 8 deals with the interpretation and discussion of findings of the analysis (i.e. the Quantitative and Qualitative Analysis). Finally, Chapter 9 draws the conclusion of the thesis.

This chapter seeks to draw some conclusions of this study. It summarises the key research findings, points out the lessons learnt and the contributions to the knowledge the study has made, highlights the limitations of the study, makes recommendations for future research for the successful implementation of TQM in the service sector.

9.2 OVERVIEW OF STUDY AIM, OBJECTIVES AND ACHIEVEMENT

The main aim of this research was to develop a theoretical framework to explain the importance of TQM in the service sector, explore CSFs for the successful implementation of TQM, and develop a model depicting TQM. To achieve this aim, this research has carried out comprehensive investigation using various literature reviews, methodologies and models. Consequently, the main objectives achieved have been:

1. To assess the degree of understanding and criticality of TQM in Service.
2. To understand what is the established level of TQM awareness in service and the degree of its adoption in the UAE banking sector.
3. To develop a conceptual holistic view of TQM in service implementation from the literature, to be explored in the field through a complementary empirical investigation using a combination of qualitative and quantitative methods.
4. To use a case study approach to explore how the essential factors of TQM in service are being implemented and addressed.
5. To document key critical factors which facilitate the implementation of TQM in Service.
6. To provide a new model that will serve as a good theoretical model for improving the Service level provided by the UAE banks.

This study has found that the organisational experiences of TQM implementation in the service sector are far from being mature. There is a lot of evidence with reference to this in survey results and case studies presented in this study that TQM is still a new management

concept, and is widely unknown. In many cases, there is some reluctance to introduce it. Only a few organisations studied and actively focused on quality as a key approach to improve their competitiveness. The organisations that have started on the TQM processes are yielding clear results in top management commitment, strategy formulation, customer satisfaction, and employee involvement. However, still have a number of important areas to explore. Further, concepts like benchmarking and servicescapes are not yet a priority for organisations interested in TQM as a change process.

The research design chosen incorporates the concept of triangulation by using large-scale survey questionnaire (quantitative analysis), followed by semi-structured interviews of managers in four banks (qualitative analysis). The combination of survey questionnaire and follow-up case studies enabled the researcher to get a wider and a deeper understanding of the research dimensions and interpret the findings. While the survey assesses the level of importance of the elements that constitute the TQM framework, the use of case studies investigates how various elements related to TQM CSFs are applied to real organisational settings. Thus, the combination of both quantitative and qualitative methodologies provides a rich portrait of the phenomena under study.

The three aspects of TQM 'adoption, implementation and implications' were developed from an extensive literature review, which includes the TQM Fundamentals and other related concepts (Chapters 1, 2, 3, 4). Creative insights into the key issues involved were obtained from a series of secondary case studies, which highlights the Research Design and Methodology (Chapter 5). The concept of data for analysis, which includes both the

quantitative and qualitative aspects are appropriately covered (Chapters 6 and 7). Finally, Chapters 8 and 9 provide the interpretation and comprehensive discussion of both quantitative and qualitative findings, suggesting that the research objectives set out have been adequately addressed.

9.3 CONTRIBUTION OF THE STUDY

This study makes several significant contributions towards research and theory of TQM as a new field of knowledge. As theory in the field of TQM in UAE is still not well developed, fragmented, and the environment is rapidly changing, this study can be considered as a step towards the building of a more robust theory. It has brought together a large body of relevant literature, and unified different thoughts into one integrative perspective. Furthermore, main issues discussed in the following sub-sections are presented in three accessible parts: 1) Adoption of TQM, 2) Critical success factors for TQM implementation, and 3) Implications of TQM.

9.3.1 Contribution 1: Adoption of Total Quality Management

The concept of quality has always been evident in human activities for as long as human endeavour. The adoption of TQM by the service organisations is an important step. TQM has emerged as a concept of interest in many organisations, and has been evolving in various dimensions of contexts, principles and philosophy. TQM is not just an organisational management programme or management-initiative package, but a complete change in an organisation's culture. Following the use of TQM concepts and principles, many organisations have reported surprising gains from its implementation. Organisations

usually introduced TQM for various reasons, but foremost it is for quality improvement, with a view to satisfying customers, solving their problems, as a result of which they are able to mark their presence in this competitive world.

9.3.2 Contribution 2: Critical Success Factors for TQM Implementation

This study provides new theoretical grounds for studying the concept of TQM in the service sector. It also supplies a number of operative CSFs that may be essential if organisations are to remain competitive in this competitive world. Not only does this study provide an empirical assessment of the essential elements in TQM implementation, but it also assesses the CSFs that were distilled from a comprehensive review of the relevant literature. The study has identified twelve CSFs for the successful implementation of TQM: (1) Top Management Support, (2) Strategy, (3) Continuous Improvement, (4) Benchmarking, (5) Customer Focus, (6) Quality Department, (7) Human Resource Management, (8) Quality Technology, (9) Service Design, (10) Employees, (11) Servicescapes, (12) Quality Systems. Part of this thesis is devoted to the discussion of these CSFs in greater depth, but the key findings are summarised below:

- 1. Top Management Support:** Successful TQM requires the top management to have quality vision and values to be supported with plans and initiatives for improvement. Top management commitment and leadership are the ultimate drivers of organisational excellence. Quality leaders are supposed to lead the change process and provide all the guidance, and sanction the resources required. Quality leaders should be able to create a quality environment, and be committed to and

responsible for organisational performance. For quality to become a way of life, top management must carry out specific actions. Top management has to establish quality goals and make them an integral part of the business plan.

2. **Strategy:** Strategy is another important CSF for successful TQM implementation. Strategy has proved to be an effective way of establishing quality values and concepts of best practice management. It is beneficial for all organisations to frame a strategy, which acts as a platform for all their future operations.
3. **Continuous Improvement:** The proper formulation of strategies and their implementation by top management help the organisation in attaining new heights. As the concept of quality improvement has no specific destination, it is rather a continuous journey that gives up more and more chances of continuous improvement for the organisation as a whole.
4. **Benchmarking:** Benchmarking is another important CSF in successful TQM implementation. It is a method of learning from other organisations' success, and implementing similar strategies, similar quality management schemes in one's own organisation. This, too, helps the organisation in attaining TQM. Worldwide, many organisations have followed this path to attain their respective goals.
5. **Customer Focus:** Another important aspect in quality management is to understand customer requirements and expectations. Organisations should conduct improvement programmes based on customer feedback. If an organisation pays

attention to its customers' requirements and problems, it can certainly outscore its competitors.

6. **Quality Department:** Every organisation should have a quality department, which looks into the successful implementation of all the quality programmes, and investigates any problems arising from it. This body is wholly responsible for all the quality management issues concerning customers, employees, and the organisation.
7. **Human Resource Management:** HRM also plays an important role in successful TQM implementation. Actually, this is a wide concept, which covers staff selection, recruitment, education, training, teamwork, and employee empowerment to employee involvement. All these act as the building blocks upon which a corporate strategy is built.
8. **Quality Technology:** Statistical Process Control (SPC) techniques are often used to detect assignable causes contributing to the variation in manufacturing quality, to provide useful information for product design, and to determine process capability. Although some limitations of SPC in quality improvement have been recognised, it helps quality-oriented firms, beginners in particular, to monitor quality variations and to investigate critical areas where improvement measures are needed (Ahire et al., 1996).
9. **Service Design:** Service design essentially involves the procedures and systems that are required to streamline the service delivery so that customers can receive the

service without problems.

10. Employees: For the successful implementation of TQM, employee involvement is a must. When employees are involved to attain quality management providing suggestions on improvement, using problem-solving methods, and giving ideas for service design are the various ways in which employees can help in implementing TQM.

11. Servicescapes: The man-made physical environment, such as equipment, machinery, signage, and employee appearance etc., strongly influences both employees and customers in many cases. Thus, servicescapes is also an essential element in implementing TQM.

12. Quality Systems: Managers should also re-examine the calculus by which they measure, estimate, and account for quality-related decisions. Most of the measurement and performance systems encountered simply ignored quality issues. Those that did explicitly consider quality were often biased toward short-term measures of performance and thus grossly understated the costs of not getting quality right the first time.

9.3.3 Contribution 3: TQM Implications

The philosophy, theory, practices and terminology of TQM have emerged and continuously developed over the last few years. TQM is a top management concept and should be

handled at a strategic level. It is a long-term continuous improvement process geared towards customer satisfaction. TQM is a philosophy of quality improvement. The implication of management in achieving this objective is important. The transformation to a TQM organisation depends on the extent to which a firm successfully implements certain quality management practices. It was recognised that those practices constitute necessary but insufficient conditions for a successful TQM transformation. The study has made significant contributions towards the design, development and application of TQM. Many surveys were carried out and their results documented showed substantial increase in quality consciousness. The study has pointed out the CSFs for successful TQM implementation because it is vital for organisations to capture the minds of everybody, starting at the top and permeating throughout the whole organisation and beyond. The philosophy maintains that an organisation's primary objective is to enhance its ability to meet customer requirements by improving the quality of its services. People are the most important management resource and ultimate goal of business. TQM generally means a quest for excellence, creating the right attitudes and controls to make prevention of any possible errors, and optimise customer satisfaction by increased efficiency and effectiveness. Further, this study points out TQM as being an organisation-wide activity which has to reach every employee. Therefore, TQM has been an approach for continuously improving the quality of services delivered through the participation at all levels and functions of the organisation. From this study, it is evident that the effective transformation to TQM has been linked to the extent to which firms implement certain CSFs.

9.3.4 Contribution 4: Methodological Contribution

This study contributes methodologically by employing an empirical, and multi-disciplinary approach to business research. This was chosen because it incorporates the concept of triangulation and argues the case of combining in-depth interview, and large-scale survey questionnaire. Furthermore, the proposed framework and its relationships, which emerged from the literature search and secondary case study, was tested and validated by rigorous quantitative analysis (Factor and Regression) using SPSS.

As far as empirical study of service quality in less developed countries is concerned, this is the first study of service quality that combines quantitative and qualitative research into a single research design. Most of the previous empirical studies on service quality adopted either survey as their main method of research design. Therefore by combining in-depth literature review, quantitative survey research and confirmatory qualitative research, this study overcomes the limitation of previous research and provides new perspective for service quality and its implementation.

9.4 LIMITATIONS OF STUDY

It is hoped that the research contributes in some way to the knowledge of implementing TQM in service organisations. As is the case with other research studies, this study also has a number of limitations, the mentioning of which can be valuable to future research. These limitations are mainly related to the broadness of the topic under investigation. As with most empirical research, this study too was subject to limitations of time, access to information, scope of generalisability, and other resources. It is hence necessary to consider

these limitations which discussed in detail in the sub-sections below:

9.4.1 Research Topic

TQM in the service organisation is an area of research where theory is still inadequate. This paused for an option to follow an exploratory approach in this study. This is particularly the case, as the research seeks to develop a holistic and integrative understanding of TQM, a feature which demands broadening the scope of the study in reviewing a large body of relevant literature and collecting a huge set of appropriate data. However, while the researcher has attempted to meet such requirement by reviewing various bodies of literature, and seeking different types of data from both primary and secondary sources, it is not possible to claim that the empirical investigation of this study has come across all issues related to this perspective, at least those issues presented in the literature. Time frame and limited access to organisational information were the main constraints.

9.4.2 Research design

This study is limited by its cross-sectional nature. The use of cross-sectional design for survey research in the quantitative phase means that data were collected through interview, mail and survey, which captured the perception of the respondents at a point of time. Because the study was not longitudinal, the researcher can make no causal inferences for with-in firm order of effects between the dimensions of the study. Although survey research may be beneficial in predicting relationship between variables, causal relationships between the constructs cannot be determined on a temporal dimension. In

other words, it is impossible to prove casual relationship among the constructs of interest on a longitudinal basis. Although the case investigation in the qualitative phase allowed a more retrospective approach with a few selected organisations, the cross-sectional design of the overall study limited inferences about the true nature of the causal relationships among the constructs of the adoption elements, TQM CSFs, the implications elements, and the success. These constructs are dynamic in nature and require incorporation of the time element in order to study them precisely.

9.4.3 Generalisation of Study

Another limitation to this study is in representativeness and generalisability issues. As the sample targeted by this study was hard to reach with a full random selection, it cannot be considered as representative of its population. The lack of a mailing list of organisations involved in TQM implementation is the reason for this case. Although a high quality mailing list was developed by the researcher and used to draw the sample, generalisation of findings is restricted. The case studies also represent non-homogenous experiences with TQM implementation, as the banks approach it differently. However, this diversity enriches the data collected, but it inhibits generalisation and future comparison.

9.4.4 Time Constraints

The nature of TQM practices suggests that measuring impacts of the CSF efforts might be difficult to quantify over a short period of time. This may lead to choosing the longitudinal case study approach, which can most appropriately capture the organisational experience from adoption to completion stages. However, time constraints have inhibited this study

from venturing into such research approach. Even with the use of a questionnaire survey, more time would allow for conducting more than one survey, or using the initial analysis of responses to iterate the collection process in order to gain further data.

10.5 RECOMMENDATIONS FOR FUTURE RESEARCH

As this study covers a broad area of research, there are many directions in which future research is needed. The study, though preliminary in nature, has many potential implications for future research, which pertain both to methodology employed in collecting and analysing the data, and to the substantive findings of the research effort. However, during the course of this study, several findings indicated the need for further investigation.

The following are the major recommendations for future work and research:

1. Empirically testing and refining the proposed generic model, and exploring relationships among the various variables by collecting data from organisations that have already implemented a TQM package.
2. Further research is required that could more accurately provide assessment of the benefits and efforts involved in the TQM implementation.
3. There is a need to determine which contingency factors affect the choice of implementation approach and its impact on implementation success.
4. A logical progression would be to carry out a similar study involving a service

organisation and customer interaction, the results of which could be compared with this research. The same proposed factors developed by the current study could be employed in such a study.

5. A potentially fruitful area would be to develop the quantification of CSFs into an 'index of practice', so that companies could determine the level of performance on a time-based approach. The results from an audit, with regard to the index, could pinpoint areas that need attention and improvement.
6. Each CSF discussed in this study needs more in-depth study.
7. Finally, regarding research design and methodology, future research should consider taking into account the following: (1) Quantitative and qualitative data analysis that are heterogeneous, taking different service cultures, (2) Approaches and management configuration in data collection.

If these recommendations are met, there is chance of more rigorous research findings and possibility of a detailed study.

9.5 CLOSING REMARKS

This study has presented a holistic review of TQM implementation in service organisations through a comprehensive scrutiny of the relevant literature, case studies, survey, and in-depth study of four leading organisations. It has provided a detailed discussion of CSFs of

TQM implementation. These factors are shown in the proposed generic model. The concept of TQM in the service organisations and philosophy has emerged to be an integrated issue through time. A continuing challenge in quality management is sustainability, where it is necessary for service organisations to maintain a high level of performance. Therefore, the study points out the CSFs that are the backbone of any quality initiatives.

To sum up, TQM is essential for any service organisation to be successful. But TQM alone cannot act as the reagent for the success of an organisation, it is the organisation's policies or priorities that must be set right first.

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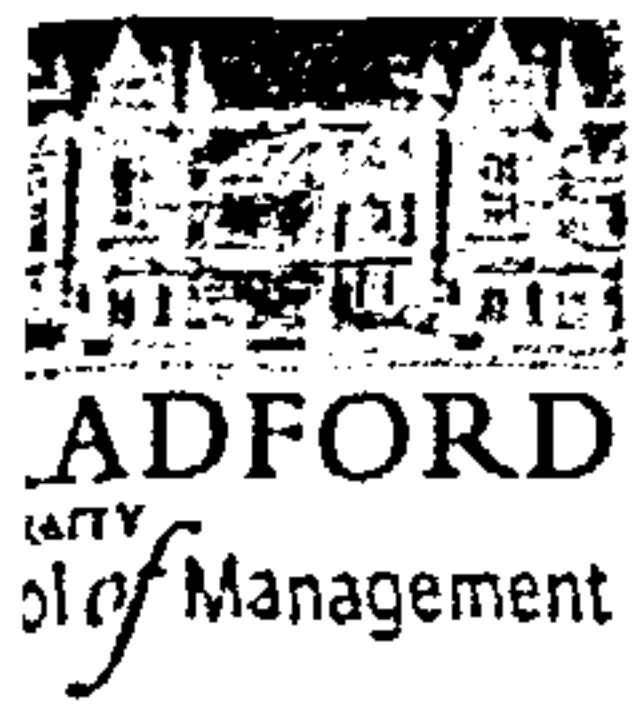
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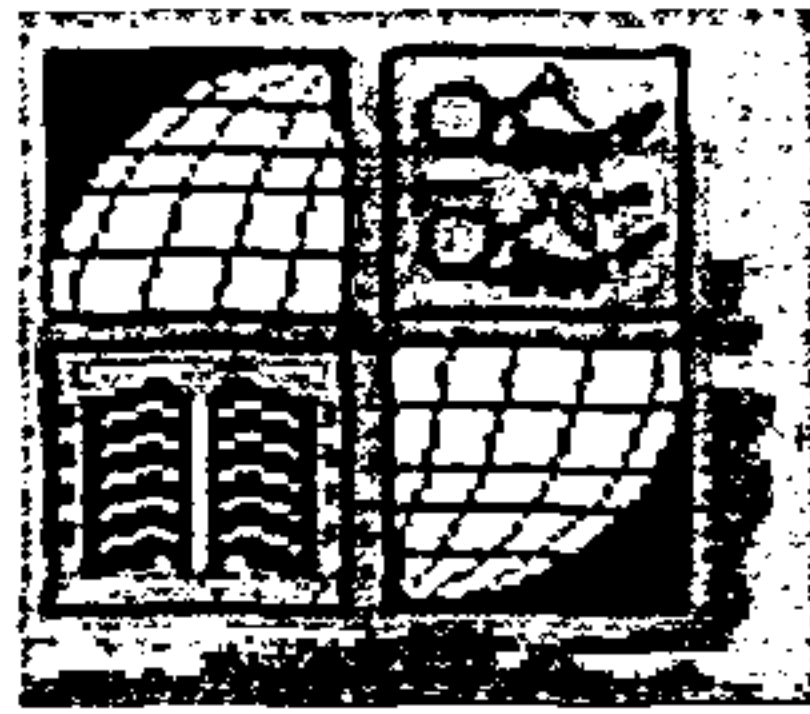
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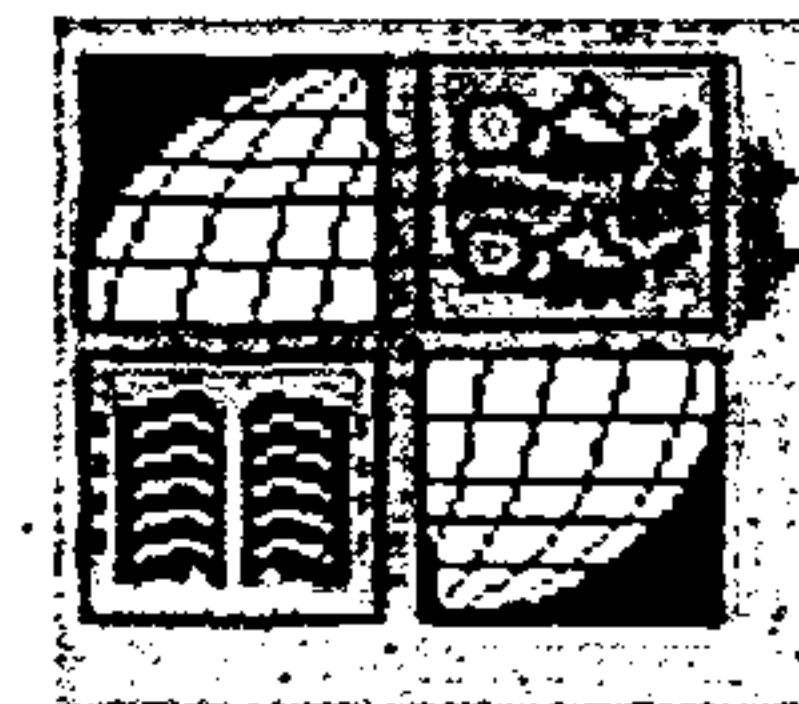
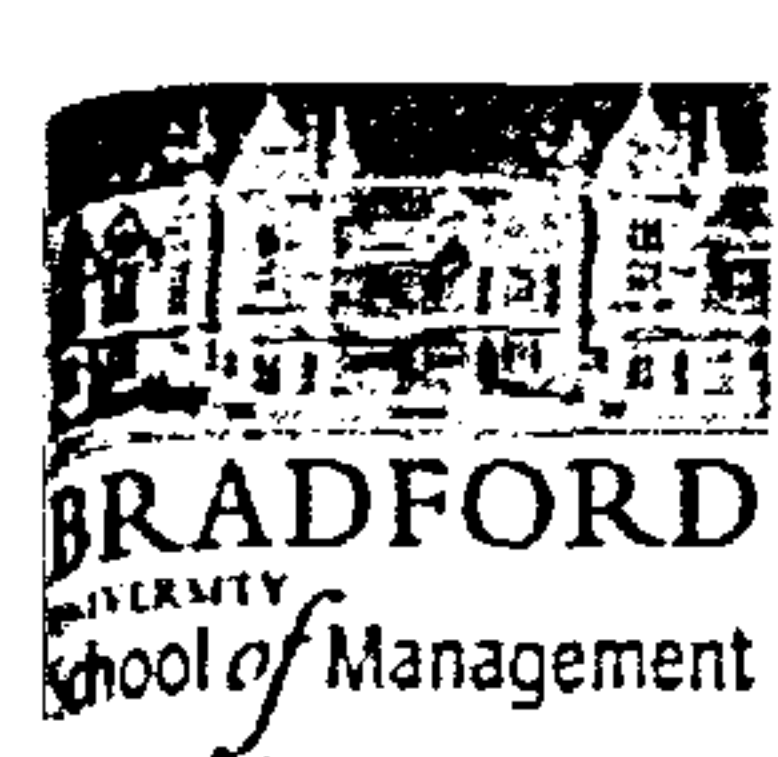
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Appendix A: Cover Letter for Mail Questionnaire



Re: Achieving Excellence in Service: An Empirical Study in the UAE Banking Sector

Dear Sir/Madam

I am pleased to inform you of the aforementioned study, which we are planning to conduct over the next few months. As you may already appreciate, Total Quality Management (TQM) is a very topical subject at the moment. Indeed, organisations of all sizes from various industries are immersing themselves in implementing it. Investment in TQM is also intended to support competition in markets and provide a seamless, agile and value added approach.

To understand what drives Banks such as yours to invest in such pioneering practices, and to highlight key, critical success factors, will of course be of interest to both the practitioners and academic communities. It is for this reason therefore, that the ECTQM at the School of Management- Bradford University, through the work of Mr Khalid Almarri (key researcher), is to embark on this research project for the following purposes:

1. To understand what is the established level of TQM awareness and the degree of its adoption in the UAE Banking Sector.
2. To identify through the literature and secondary case study analysis the building blocks (CSFs) for TQM implementation in the banking sector.
3. To provide a new model that will serve as a good theoretical model for improving the TQM level provided by the UAE' banks.

I am therefore writing to you to solicit your help and support in this matter. The experience of your Bank in this field will be extremely valuable to our research. I appreciate that the enclosed questionnaire (8 pages) may take some of your valuable time, however, we have ensured that this will not take more than 20 minutes to complete.

It goes without saying that the study is purely for academic purposes and any information provided will be treated in strict confidence and will not be used for any other purposes other than the stated objectives. The various responses will be computed by Bank types. We are planning to produce an executive summary of the research report and we would of course be more than pleased to let you have a copy.

If you need any further information or clarification, please do not hesitate to contact our key researcher, Mr Khalid Almarri, (khalid_almarri@hotmail.com). Alternatively, you can contact him on the above address to discuss the matter.

I appreciate your kind co-operation in this matter, and we look forward to receiving your input.

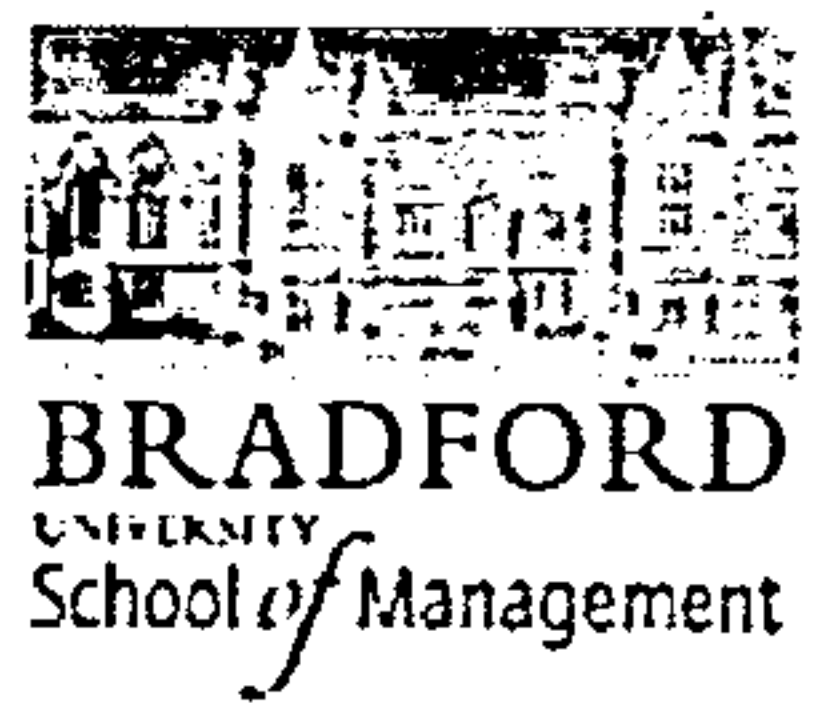
With very best wishes,

Dr A. Ahmed and Mr Khalid Almarri, TQM Project research Team



THE EUROPEAN CENTRE FOR TOTAL QUALITY MANAGEMENT
UNIVERSITY OF BRADFORD, UNITED OF KINGDOM

Achieving Excellence in Service in UAE Banking Sector



Appendix B: Mail questionnaire

Who should complete this questionnaire? How?

The questionnaire should be filled in by the Managers (or by the person who is in charge of Quality Initiatives implementation). This will be done through asking respondents:

1. To choose an answer in an appropriate box.
2. To indicate their extent of agreement about different issues. A five-point scale (1-5) has been designed as follows:

| | | | | |
|------------|-------|----------|-------|----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | Minor | Moderate | Major | Critical |

1. About You

- 1.1 Gender Male Female
- 1.2 Citizenship National Non-National
- 1.3 Role in the organisation _____
- 1.4 Are/were you involved in the TQM project implementation? Yes No
If so, what is/was your role? _____

2. About Your Bank

- 2.1 Location: Abu Dhabi Dubai Sharjah
 Other: _____
- 2.2 Types of Ownership
 Local International Foreign Banks
 Other: _____
- 2.3 Number of Branches
 Less than 20 20-40 More than 40

3. TQM Critical Success Factors

The following factors are distilled from the TQM literature as key facilitators for TQM implementation efforts. Choose a number between 1 and 5 to indicate the level of criticality that each factor has in making TQM implementation efforts successful in your Bank. (1= Not at all, 2= Minor, 3= Moderate, 4= Major, 5= Critical)

3.1 Top Management Support

| | Not at all | Minor | Moderate | Major | Critical | Not applicable |
|---|------------|-------|----------|-------|----------|--------------------------|
| A. Commitment of the top management to the philosophy of TQM | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| B. Inclination of the top management to allocate adequate resources and time for quality improvement efforts | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| C. Tendency of the top management to view employees as valuable and long-term resources | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| D. Degree to which the senior executives are dynamic | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| E. Degree to which the senior executives act as friends, philosophers, and guides to their subordinates | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| F. A clear quality vision (based on customer focus) and the extent to which the vision forms the basis for strategic planning and decision making | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| Other: _____ | 1 | 2 | 3 | 4 | 5 | |

Achieving Excellence in Service in UAE Banking Sector

3.2 Strategy

| | Not at all | Minor | Moderate | Major | Critical | Not applicable |
|---|------------|-------|----------|-------|----------|--------------------------|
| A. Process control and improvement of core processes in accordance with design | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| B. Active leadership by managers in quality issues | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| C. Inclusion of employee well-being considerations in improvement activities | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| D. Senior executive commitment to quality through involvement and communication | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| E. Development/implementation of long-term plans/strategies focused on quality | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| F. Analysis of performance and cost data to support improvement priorities. | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| Other: _____ | 1 | 2 | 3 | 4 | 5 | |

3.3 Continuous Improvement

| | Not at all | Minor | Moderate | Major | Critical | Not applicable |
|--|------------|-------|----------|-------|----------|--------------------------|
| A. The bank believes that "continuous improvement" results in a competitive advantage | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| B. Emphasis of continuous improvement in all operations and at all levels | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| C. The need for obtaining immediate results overrides (or dominates) the drive for quality processes and improvement | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| D. The bank is characterized by a divine discontent which drives/motivates it to seek continuous improvement in every aspect of everything it does | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| E. Quantification of continuous improvement strategies on the basis of factors such as cost, time and performance | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| Other: _____ | 1 | 2 | 3 | 4 | 5 | |

3.4 Benchmarking

| | Not at all | Minor | Moderate | Major | Critical | Not applicable |
|---|------------|-------|----------|-------|----------|--------------------------|
| A. Emphasis on benchmarking the services and processes with respect to those of other banks | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| B. Emphasis on benchmarking the training programmes with those of other banks | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| C. Emphasis on benchmarking the level of customer focus with those of other banks | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| D. Emphasis on benchmarking the effectiveness of human resource management (HRM) with those of other banks | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| E. Emphasis on benchmarking the level of servicescapes (i.e. the aesthetics, appeal, comforts and the facilities) with those of other banks | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| F. Emphasis on benchmarking the level of commitment of the bank for the society as a whole, with those of other banks | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| Other: _____ | 1 | 2 | 3 | 4 | 5 | |

3.5 Customer Focus

| | Not at all | Minor | Moderate | Major | Critical | Not applicable |
|--|------------|-------|----------|-------|----------|--------------------------|
| A. Our Bank collects extensive complaint information from customers | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| B. Quality-related customer complaints are treated with top priority | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| C. Our Bank conducts a customer satisfaction survey every year | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| D. Our Bank always conducts market research in order to collect suggestions for improving our products | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| E. Our Bank provides warranty on our sold products to customers | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| F. Our Bank has been customer focused for a long time | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| Other: _____ | 1 | 2 | 3 | 4 | 5 | |

3.6 Quality Department

| | Not at all | Minor | Moderate | Major | Critical | Not applicable |
|--|------------|-------|----------|-------|----------|--------------------------|
| A. Visibility of the quality department | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| B. Quality department's access to top management | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| C. Autonomy of the quality department | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| D. Utilization of quality staff professionals as a consulting resource | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| E. Amount of coordination between the quality | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| F. Department and other departments | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| G. Effectiveness of the quality department in improving quality | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| Other: _____ | 1 | 2 | 3 | 4 | 5 | |

3.7 Quality Systems

| | Not at all | Minor | Moderate | Major | Critical | Not applicable |
|---|------------|-------|----------|-------|----------|--------------------------|
| A. The quality system in our Bank is continuously improved | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| B. Our Bank uses Dubai quality award as a guideline for establishing our quality system | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| C. Our Bank has a clear quality manual | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| D. Our Bank has clear procedure documents | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| E. Our Bank has clear working instructions | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| Other: _____ | 1 | 2 | 3 | 4 | 5 | |

3.8 Human Resource Management

| | Not at all | Minor | Moderate | Major | Critical | Not applicable |
|--|------------|-------|----------|-------|----------|--------------------------|
| A. Effectiveness of the selection and recruitment process (in terms of objectivity and "right man for the right job"). | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| B. Degree to which promotion and career development programmes emphasize on quality management in the organization | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| C. Extent to which the organization takes steps to deepen the applicant pool to enhance employee quality. | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| D. Effectiveness of the organization to link education and training of employees to its long-term plans and strategies | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |

Achieving Excellence in Service in UAE Banking Sector

| | | | | | | |
|--|---|---|---|---|---|--------------------------|
| E. Evaluation and improvement of the training and education programmes to employees. | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| F. Frequency of TQM training programmes conducted for employees working in all functional areas | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| G. Extent to which the employees are given commensurate authority and operational independence to achieve results. | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| H. Extent of accountability of employees for customer service | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| I. Encouragement of employee suggestions and innovation | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| Other: _____ | 1 | 2 | 3 | 4 | 5 | |

3.9 Recognition and Reward

| | Not at all | Minor | Moderate | Major | Critical | Not applicable |
|---|------------|-------|----------|-------|----------|--------------------------|
| A. Our Bank improves working conditions in order to recognise employee quality improvement efforts | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| B. Our Bank has a salary promotion scheme for encouraging employee participation in quality improvement | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| C. Position promotions are based on work quality in our Bank | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| D. Excellent suggestions are financially rewarded | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| E. Employees' rewards and penalties are clear | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| F. Recognition and reward activities effectively stimulate employee commitment to quality improvement | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| Other: _____ | 1 | 2 | 3 | 4 | 5 | |

3.10 Problem Analysis

| | Not at all | Minor | Moderate | Major | Critical | Not applicable |
|--|------------|-------|----------|-------|----------|--------------------------|
| A. Employee training in problem-solving skills | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| B. Most employees in our plant are trained to use quality problem solving techniques such as cause and effect diagrams | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| C. Effectiveness of supervisors in solving problems/issues | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| D. Line workers are encouraged to fix problems they find | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| E. Line workers are given the resources necessary to correct quality problems they find | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| Other: _____ | 1 | 2 | 3 | 4 | 5 | |

3.11 Quality Technologies

| | Not at all | Minor | Moderate | Major | Critical | Not applicable |
|--|------------|-------|----------|-------|----------|--------------------------|
| A. Degree to which the processes and procedures are fool-proof | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| B. Extent to which the service delivery processes are standardized, simplified and documented so that services are delivered without any hassle (seamlessness of service). | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| C. Enhancement of technological capability (e.g. computerization, networking of operations, etc.) to serve customers more effectively | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| D. Regular tracking and maintenance of the key processes that are critical to the business | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| E. Systematic documentation of procedures for investigation of causes of errors and subsequent corrective actions. | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| F. Emphasis on developing procedures for reducing the overall service delivery times | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |

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Other: _____ 1 2 3 4 5

3.12 Service Design

| | Not at all | Minor | Moderate | Major | Critical | Not applicable |
|---|------------|-------|----------|-------|----------|--------------------------|
| A. Thoroughness of new Service design reviews before the Service is produced and marketed | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| B. Coordination among affected departments in the Service development process | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| C. Quality of new Service emphasized in relation to cost or schedule objectives | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| D. Extent to which implementation/servicibility is considered in Service design process | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| E. Extent to which sales and marketing people consider quality as a saleable attribute | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| Other: _____ | 1 | 2 | 3 | 4 | 5 | |

3.13 Employees

| | Not at all | Minor | Moderate | Major | Critical | Not applicable |
|---|------------|-------|----------|-------|----------|--------------------------|
| A. Self-inspection by workers | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| B. Stability of production schedule/work distribution | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| C. Self-inspection by workers | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| D. Various policies and plans are well communicated to the employees | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| E. Employees from different levels are involved in marking policies and plans | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| F. Employees are actively involved in quality-related activities | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| G. Most employees' suggestions are implemented after an evaluation | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| h. Employees are encouraged to fix problems the find | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| Other: _____ | 1 | 2 | 3 | 4 | 5 | |

3.14 Servicescapes

| | Not at all | Minor | Moderate | Major | Critical | Not applicable |
|---|------------|-------|----------|-------|----------|--------------------------|
| A. Extent to which the bank ensures that there is a positive impact of the prevailing physical environment on customers | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| B. Extent to which the ambient conditions such as temperature, ventilation, noise, odour, etc. prevailing in the organizational premises are comfortable to customers | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| C. Degree to which signs, symbols, advertisement boards, pamphlets and other artifacts in the organization are appealing to the customers | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| D. Extent to which the equipment, physical facilities and the materials associated with service have an appeal to the customers | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| E. Degree to which the physical layout of premises, facilities, and other furnishings are comfortable for the employees to work | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| F. Extent to which the physical layout of equipment and other furnishings are comfortable for the customers to interact with the employees | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| G. Extent to which housekeeping is kept as a priority and of the highest order in the organization | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| H. Degree to which the way employees are dressed has a pleasing and neat appearance | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| Other: _____ | 1 | 2 | 3 | 4 | 5 | |

3.15 Service Culture

| | Not at all | Minor | Moderate | Major | Critical | Not applicable |
|--|------------|-------|----------|-------|----------|--------------------------|
| A. Extent to which the employees at all levels realize that the real purpose of their existence is "service to customers" | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| B. Degree to which the employees believe that TQM plays a vital role in strengthening the organization's ability to compete in a highly competitive market place | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| C. Resistance of the employees to change | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| D. Trust, openness and good relationships among the employees | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| E. Level of prevalence among employees, feelings such as "my bank" and "we work towards the bank's excellent performance, image and customer service" | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| F. Extent to which "team spirit" dominates individualistic preferences and projections | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| G. A strong belief in the philosophy of "right first time" and "right every time" among employees | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| H. Extent to which the organizational structure facilitates fast decision-making and enables quick response to customers' requirements | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| Other: _____ | 1 | 2 | 3 | 4 | 5 | |

3.16 Social Responsibility

| | Not at all | Minor | Moderate | Major | Critical | Not applicable |
|---|------------|-------|----------|-------|----------|--------------------------|
| A. Extent to which the bank leads as a corporate citizen, and the level to which it promotes ethical conduct in everything it does | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| B. "Service transcendence" - making customers realize their unexpressed needs by giving more than what they expect | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| C. Giving equal treatment to all the customers, stemming from the belief that every one, big or small, should be treated alike | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| D. Providing good service at a reasonable price, but not at the expense of quality, to people from all walks of life | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| E. Having branch locations in most places convenient to all sections of the society (e.g. remote villages, slum areas etc.) | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| F. Having a sense of public responsibility among employees (in terms of being punctual, regular, sincere and without going on strike). | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| G. Having a sense of social responsibility characterized by giving loans to economically and socially downtrodden people, needy ones, entrepreneurs, etc. with less rigid loan conditions | 1 | 2 | 3 | 4 | 5 | <input type="checkbox"/> |
| Other: _____ | 1 | 2 | 3 | 4 | 5 | |

4. Benefits from TQM Implementation

To what Extent do you think that your TQM efforts have achieved the following benefits? (1= very low, 2= low, 3=moderate, 4= high, 5= very high).

4.1 Top Management Response

| Benefit | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| A. Top management actively participates in quality management and improvement process | 1 | 2 | 3 | 4 | 5 |
| B. Top management learns quality-related concepts and skills | 1 | 2 | 3 | 4 | 5 |
| C. Top management strongly encourages employee involvement in quality management and improvement activities | 1 | 2 | 3 | 4 | 5 |
| D. Top management empowers employees to solve quality problems | 1 | 2 | 3 | 4 | 5 |
| E. Having branch locations in most places convenient to all sections of the society (e.g. remote villages, slum areas etc.) | 1 | 2 | 3 | 4 | 5 |
| F. Top management arranges adequate resources for employee education and training | 1 | 2 | 3 | 4 | 5 |
| G. Top management discusses many quality-related issues in top management meetings | 1 | 2 | 3 | 4 | 5 |
| H. Top management focuses on product quality rather than yields | 1 | 2 | 3 | 4 | 5 |
| I. Top management pursues long-term business success | 1 | 2 | 3 | 4 | 5 |
| Other: _____ | 1 | 2 | 3 | 4 | 5 |

4.2 Services Improvement

| Benefit | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| A. Enhanced reputation | 1 | 2 | 3 | 4 | 5 |
| B. Reduced liability risks | 1 | 2 | 3 | 4 | 5 |
| C. Reduction in customer complaints | 1 | 2 | 3 | 4 | 5 |
| D. Smoother delivery of services and better customer response | 1 | 2 | 3 | 4 | 5 |
| E. Increasing to organization's direct personal contacts with customers | 1 | 2 | 3 | 4 | 5 |
| F. Using customer requirements as the basis for Quality | 1 | 2 | 3 | 4 | 5 |
| G. Involving customers in product or service design | 1 | 2 | 3 | 4 | 5 |
| Other: _____ | 1 | 2 | 3 | 4 | 5 |

4.3 Customer Orientation

| Benefit | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| A. Providing services to the customers as promised | 1 | 2 | 3 | 4 | 5 |
| B. Providing services to the customers as per the promised schedule | 1 | 2 | 3 | 4 | 5 |
| C. Providing prompt service to customers | 1 | 2 | 3 | 4 | 5 |
| D. Willingness to help customers and the readiness to respond to customers' requests | 1 | 2 | 3 | 4 | 5 |
| E. Extent to which the organization strives to develop the necessary capabilities in terms of manpower and facilities to meet the needs and expectations of customers | 1 | 2 | 3 | 4 | 5 |
| F. Effective evaluation of the bank's performance with respect to customer satisfaction and service by means of a definite mechanism | 1 | 2 | 3 | 4 | 5 |

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| | | | | | |
|--|---|---|---|---|---|
| G. Effective use of customer feedback to improve the service standards | 1 | 2 | 3 | 4 | 5 |
| H. Customer satisfaction | 1 | 2 | 3 | 4 | 5 |
| I. Providing services right the first time | 1 | 2 | 3 | 4 | 5 |
| J. Cohesive workforce | 1 | 2 | 3 | 4 | 5 |
| K. Making customers feel safe and secure in their transactions with the bank | 1 | 2 | 3 | 4 | 5 |
| Other: _____ | 1 | 2 | 3 | 4 | 5 |

4.4 Human Resource Excellence

| Benefit | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| A. Improvement in communication | 1 | 2 | 3 | 4 | 5 |
| B. Improvement in training | 1 | 2 | 3 | 4 | 5 |
| C. Improvement in information and accountability | 1 | 2 | 3 | 4 | 5 |
| D. Proper co-ordination of all the activities of the task groups. | 1 | 2 | 3 | 4 | 5 |
| Other: _____ | 1 | 2 | 3 | 4 | 5 |

4.5 Economic Advantage

| Benefit | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| A. Increase in sales | 1 | 2 | 3 | 4 | 5 |
| B. Reduction in costs | 1 | 2 | 3 | 4 | 5 |
| C. Increase in value of services | 1 | 2 | 3 | 4 | 5 |
| D. Improve the efficiency and effectiveness of internal operations to serve all types of customers better | 1 | 2 | 3 | 4 | 5 |
| E. Reduce/eliminate errors on all types of transactions | 1 | 2 | 3 | 4 | 5 |
| F. Ensure timeliness of all operations | 1 | 2 | 3 | 4 | 5 |
| G. Eliminate unnecessary paperwork and bottlenecks | 1 | 2 | 3 | 4 | 5 |
| H. Ensure quick handling of enquiries | 1 | 2 | 3 | 4 | 5 |
| Other: _____ | 1 | 2 | 3 | 4 | 5 |

Thank you for your co-operation

If you would like a copy of the study results report, please complete the following details

Name _____
 Bank _____
 Address _____
 E-mail _____

Appendix C: Regression Analysis Results

Descriptive Statistics

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|-----|---------|---------|--------|----------------|
| A. Top management actively participates in quality management and improvement process | 124 | 1.00 | 5.00 | 3.6613 | .9447 |
| B. Top management learns quality-related concepts and skills | 124 | 1.00 | 5.00 | 3.6532 | .9021 |
| C. Top management strongly encourages employee involvement in quality management and improvement activities | 124 | 2.00 | 5.00 | 4.0565 | 1.1211 |
| D. Top management empowers employees to solve quality problems | 124 | 1.00 | 5.00 | 3.6290 | .9916 |
| E. Having branch locations in most places convenient to all sections of the society (e.g. remote villages, slum areas etc.) | 124 | 2.00 | 5.00 | 3.6048 | .8246 |
| F. Top management arranges adequate resources for employee education and training | 124 | 2.00 | 5.00 | 4.1129 | .9976 |
| G. Top management discusses many quality-related issues in top management meetings | 124 | 2.00 | 5.00 | 3.7339 | .7974 |
| H. Top management focuses on product quality rather than yields | 124 | 1.00 | 5.00 | 3.3871 | .8621 |
| I. Top management pursues long-term business success | 124 | 2.00 | 5.00 | 3.4194 | .8273 |
| A. Enhanced reputation | 124 | 2.00 | 5.00 | 3.7581 | .8202 |
| B. Reduced liability risks | 124 | 2.00 | 5.00 | 3.7016 | .7858 |
| C. Reduction in customer complaints | 124 | 1.00 | 5.00 | 3.6774 | .8976 |
| D. Smoother delivery of services and better customer response | 124 | 2.00 | 5.00 | 3.8306 | .7621 |
| E. Increasing to organization's direct personal contacts with customers | 124 | 2.00 | 5.00 | 3.6855 | .8494 |
| F. Using customer requirements as the basis for Quality | 124 | 2.00 | 5.00 | 3.7581 | .8202 |
| G. Involving customers in product or service design | 124 | 2.00 | 5.00 | 3.6935 | .8665 |
| A. Providing services to the customers as promised | 124 | 2.00 | 5.00 | 3.7742 | .7195 |
| B. Providing services to the customers as per the promised schedule | 124 | 1.00 | 5.00 | 3.3145 | .9402 |
| C. Providing prompt service to customers | 124 | 1.00 | 5.00 | 3.6855 | .8589 |
| D. Willingness to help customers and the readiness to respond to customers' requests | 124 | 2.00 | 5.00 | 3.7177 | .8221 |
| E. Extent to which the organization strives to develop the necessary capabilities in terms of manpower and facilities to meet the needs and expectations of customers | 124 | 1.00 | 5.00 | 3.7258 | .8680 |

| | | | | | |
|--|-----|------|------|--------|--------|
| F. Effective evaluation of the bank's performance with respect to customer satisfaction and service by means of a definite mechanism | 124 | 2.00 | 5.00 | 3.6855 | .8589 |
| G. Effective use of customer feedback to improve the service standards | 124 | 1.00 | 5.00 | 3.7177 | .8607 |
| H. Customer satisfaction | 124 | 2.00 | 5.00 | 3.7419 | .7637 |
| I. Providing services right the first time | 124 | 2.00 | 5.00 | 3.8468 | .7656 |
| J. Cohesive workforce | 124 | 2.00 | 5.00 | 3.6774 | .8120 |
| K. Making customers feel safe and secure in their transactions with the bank | 124 | 2.00 | 5.00 | 3.8065 | .7400 |
| A. Improvement in communication | 124 | 2.00 | 5.00 | 4.1694 | .9259 |
| B. Improvement in training | 124 | 2.00 | 5.00 | 4.1290 | 1.0038 |
| C. Improvement in information and accountability | 124 | 1.00 | 5.00 | 3.6452 | .9559 |
| D. Proper co-ordination of all the activities of the task groups. | 124 | 1.00 | 5.00 | 3.6935 | .9033 |
| A. Increase in sales | 124 | 1.00 | 5.00 | 4.0887 | 1.0282 |
| B. Reduction in costs | 124 | 2.00 | 5.00 | 4.1210 | .9844 |
| C. Increase in value of services | 124 | 1.00 | 5.00 | 3.6452 | .9893 |
| D. Improve the efficiency and effectiveness of internal operations to serve all types of customers better | 124 | 1.00 | 5.00 | 4.0000 | 1.1547 |
| E. Reduce/eliminate errors on all types of transactions | 124 | 2.00 | 5.00 | 3.6855 | .8589 |
| F. Ensure timeliness of all operations | 124 | 1.00 | 5.00 | 3.7339 | .8469 |
| G. Eliminate unnecessary paperwork and bottlenecks | 124 | 2.00 | 5.00 | 3.7500 | .8128 |
| H. Ensure quick handling of enquiries | 124 | 1.00 | 5.00 | 3.7097 | .9523 |
| Valid N (listwise) | 124 | | | | |

Descriptive Statistics

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|-----|---------|---------|--------|----------------|
| A. Commitment of the top management to the philosophy of TQM | 124 | 1.00 | 5.00 | 4.0161 | 1.1616 |
| B. Inclination of the top management to allocate adequate resources and time for quality improvement efforts | 124 | 2.00 | 5.00 | 4.1452 | .9686 |
| C. Tendency of the top management to view employees as valuable and long-term resources | 124 | 2.00 | 5.00 | 4.4597 | .8205 |
| D. Degree to which the senior executives are dynamic | 124 | 2.00 | 5.00 | 3.8548 | .7065 |
| E. Degree to which the senior executives act as friends, philosophers, and guides to their subordinates | 124 | 2.00 | 5.00 | 3.9597 | .6675 |
| F. A clear quality vision (based on customer focus) and the extent to which the vision forms the basis for strategic planning and decision making | 124 | 2.00 | 5.00 | 4.2258 | .8727 |
| A. Process control and improvement of core | 124 | 2.00 | 5.00 | 3.8387 | .7478 |

| | | | | | |
|--|-----|------|------|--------|--------|
| processes in accordance with design | | | | | |
| B. Active leadership by managers in quality issues | 124 | 1.00 | 5.00 | 4.2097 | .9219 |
| C. Inclusion of employee well-being considerations in improvement activities | 124 | 2.00 | 5.00 | 3.7177 | .8221 |
| D. Senior executive commitment to quality through involvement and communication | 124 | 2.00 | 5.00 | 3.8548 | .7618 |
| E. Development/implementation of long-term plans/strategies focused on quality | 124 | 1.00 | 5.00 | 3.9194 | .9677 |
| F. Analysis of performance and cost data to support improvement priorities. | 124 | 1.00 | 5.00 | 4.1290 | 1.0666 |
| A. The bank believes that "continuous improvement" results in a competitive advantage | 124 | 1.00 | 5.00 | 3.7177 | .9156 |
| B. Emphasis of continuous improvement in all operations and at all levels | 124 | 1.00 | 5.00 | 3.7177 | .9067 |
| C. The need for obtaining immediate results overrides (or dominates) the drive for quality processes and improvement | 124 | 1.00 | 5.00 | 3.7177 | .9067 |
| D. The bank is characterized by a divine discontent which drives/motivates it to seek continuous improvement in every aspect of everything it does | 124 | 2.00 | 5.00 | 3.3952 | .8818 |
| E. Quantification of continuous improvement strategies on the basis of factors such as cost, time and performance | 124 | 1.00 | 5.00 | 3.6935 | .9033 |
| A. Emphasis on benchmarking the services and processes with respect to those of other banks | 124 | 2.00 | 5.00 | 3.7500 | .8128 |
| B. Emphasis on benchmarking the training programmes with those of other banks | 124 | 1.00 | 5.00 | 3.3790 | .8610 |
| C. Emphasis on benchmarking the level of customer focus with those of other banks | 124 | 2.00 | 5.00 | 3.6210 | .9248 |
| D. Emphasis on benchmarking the effectiveness of human resource management (HRM) with those of other banks | 124 | 1.00 | 5.00 | 3.6613 | .9185 |
| E. Emphasis on benchmarking the level of servicescapes (i.e. the aesthetics, appeal, comforts and the facilities) with those of other banks | 124 | 1.00 | 5.00 | 4.0968 | 1.0392 |
| F. Emphasis on benchmarking the level of commitment of the bank for the society as a whole, with those of other banks | 124 | 1.00 | 5.00 | 3.7177 | .8701 |
| A. Our Bank collects extensive complaint information from customers | 124 | 2.00 | 5.00 | 3.7097 | .8242 |
| B. Quality-related customer complaints are treated with top priority | 124 | 2.00 | 5.00 | 4.1855 | .9574 |
| C. Our Bank conducts a customer satisfaction survey every year | 124 | 2.00 | 5.00 | 3.8710 | 1.0278 |
| D. Our Bank always conducts market research in order to collect suggestions for improving our products | 124 | 1.00 | 5.00 | 3.6210 | .9335 |
| E. Our Bank provides warranty on our sold products to customers | 124 | 1.00 | 5.00 | 3.8145 | .8959 |
| F. Our Bank has been customer focused for a long time | 124 | 1.00 | 5.00 | 3.6855 | .8868 |
| A. Visibility of the quality department | 124 | 1.00 | 5.00 | 4.0887 | 1.1406 |
| B. Quality department's access to top management | 124 | 2.00 | 5.00 | 4.2500 | .8983 |

| | | | | | |
|--|-----|------|------|--------|--------|
| C. Autonomy of the quality department | 124 | 1.00 | 5.00 | 3.3468 | .9110 |
| D. Utilization of quality staff professionals as a consulting resource | 124 | 1.00 | 5.00 | 3.6532 | .9110 |
| E. Amount of coordination between the quality | 124 | 2.00 | 5.00 | 3.7339 | .8372 |
| F. Effectiveness of the quality department in improving quality | 124 | 2.00 | 5.00 | 3.7258 | .7896 |
| A. The quality system in our Bank is continuously improved | 124 | 2.00 | 5.00 | 3.8065 | .8330 |
| B. Our Bank uses Dubai quality award as a guideline for establishing our quality system | 124 | 2.00 | 5.00 | 4.0000 | .7963 |
| C. Our Bank has a clear quality manual | 124 | 1.00 | 5.00 | 3.7177 | 1.0005 |
| D. Our Bank has clear procedure documents | 124 | 2.00 | 5.00 | 3.7742 | .7740 |
| E. Our Bank has clear working instructions | 124 | 2.00 | 5.00 | 3.8145 | .7898 |
| A. Effectiveness of the selection and recruitment process (in terms of objectivity and "right man for the right job"). | 124 | 2.00 | 5.00 | 3.7581 | .7795 |
| B. Degree to which promotion and career development programmes emphasize on quality management in the organization | 124 | 2.00 | 5.00 | 3.2742 | .8680 |
| C. Extent to which the organization takes steps to deepen the applicant pool to enhance employee quality. | 124 | 2.00 | 5.00 | 3.7581 | .8300 |
| D. Effectiveness of the organization to link education and training of employees to its long-term plans and strategies | 124 | 1.00 | 5.00 | 3.6694 | .9433 |
| E. Evaluation and improvement of the training and education programmes to employees. | 124 | 2.00 | 5.00 | 3.6210 | .9070 |
| F. Frequency of TQM training programmes conducted for employees working in all functional areas | 124 | 1.00 | 5.00 | 3.6774 | .9155 |
| G. Extent to which the employees are given commensurate authority and operational independence to achieve results. | 124 | 1.00 | 5.00 | 3.3952 | .8818 |
| H. Extent of accountability of employees for customer service | 124 | 1.00 | 5.00 | 3.5565 | .9902 |
| I. Encouragement of employee suggestions and innovation | 124 | 1.00 | 5.00 | 3.2823 | .9067 |
| A. Our Bank improves working conditions in order to recognise employee quality improvement efforts | 124 | 1.00 | 5.00 | 3.6452 | .9212 |
| B. Our Bank has a salary promotion scheme for encouraging employee participation in quality improvement | 124 | 1.00 | 5.00 | 3.6452 | .9124 |
| C. Position promotions are based on work quality in our Bank | 124 | 1.00 | 5.00 | 3.6452 | .9212 |
| D. Excellent suggestions are financially rewarded | 124 | 2.00 | 5.00 | 3.8710 | .9624 |
| E. Employees' rewards and penalties are clear | 124 | 1.00 | 5.00 | 3.7097 | .9175 |
| F. Recognition and reward activities effectively stimulate employee commitment to quality improvement | 124 | 1.00 | 5.00 | 3.6774 | .8700 |
| A. Employee training in problem-solving skills | 124 | 2.00 | 5.00 | 3.3548 | .8381 |
| B. Most employees in our plant are trained to use quality problem solving techniques such as cause and effect diagrams | 124 | 2.00 | 5.00 | 3.3548 | .8381 |

| | | | | | |
|--|-----|------|------|--------|--------|
| C. Effectiveness of supervisors in solving problems/issues | 124 | 2.00 | 5.00 | 3.7661 | .7974 |
| D. Line workers are encouraged to fix problems they find | 124 | 1.00 | 5.00 | 3.2661 | .9720 |
| E. Line workers are given the resources necessary to correct quality problems they find | 124 | 1.00 | 5.00 | 3.6532 | .8930 |
| A. Degree to which the processes and procedures are fool-proof | 124 | 1.00 | 5.00 | 3.3952 | .8818 |
| B. Extent to which the service delivery processes are standardized, simplified and documented so that services are delivered without any hassle (seamlessness of service). | 124 | 2.00 | 5.00 | 3.3871 | .8526 |
| C. Enhancement of technological capability (e.g. computerization, networking of operations, etc.) to serve customers more effectively | 124 | 2.00 | 5.00 | 3.7339 | .8659 |
| D. Regular tracking and maintenance of the key processes that are critical to the business | 124 | 1.00 | 5.00 | 3.3871 | .8990 |
| E. Systematic documentation of procedures for investigation of causes of errors and subsequent corrective actions | 124 | 1.00 | 5.00 | 3.4355 | .8577 |
| F. Emphasis on developing procedures for reducing the overall service delivery times | 124 | 2.00 | 5.00 | 3.7339 | .8076 |
| A. Thoroughness of new Service design reviews before the Service is produced and marketed | 124 | 1.00 | 5.00 | 3.3468 | .8366 |
| B. Coordination among affected departments in the Service development process | 124 | 2.00 | 5.00 | 3.4274 | .8281 |
| C. Quality of new Service emphasized in relation to cost or schedule objectives | 124 | 1.00 | 5.00 | 3.3145 | .9050 |
| D. Extent to which implementation/servicibility is considered in Service design process | 124 | 1.00 | 5.00 | 3.2661 | .9293 |
| E. Extent to which sales and marketing people consider quality as a saleable attribute | 124 | 1.00 | 5.00 | 3.3710 | .8785 |
| A. Self-inspection by workers | 124 | 2.00 | 5.00 | 3.4758 | .8598 |
| B. Stability of production schedule/work distribution | 124 | 1.00 | 5.00 | 3.3306 | .8992 |
| C. Various policies and plans are well communicated to the employees | 124 | 1.00 | 5.00 | 3.2984 | .8740 |
| D. Employees from different levels are involved in marking policies and plans | 124 | 2.00 | 5.00 | 3.4355 | .9038 |
| E. Employees are actively involved in quality-related activities | 124 | 2.00 | 5.00 | 3.4677 | .7802 |
| F. Most employees' suggestions are implemented after an evaluation | 124 | 2.00 | 5.00 | 3.2016 | .8647 |
| G. Employees are encouraged to fix problems they find | 124 | 2.00 | 5.00 | 3.3145 | .8589 |
| A. Extent to which the bank ensures that there is a positive impact of the prevailing physical environment on customers | 124 | 1.00 | 5.00 | 4.2097 | .9566 |
| B. Extent to which the ambient conditions such as temperature, ventilation, noise, odour, etc. prevailing in the organizational premises are comfortable to customers | 124 | 2.00 | 5.00 | 4.0565 | 1.0692 |

| | | | | | |
|--|-----|------|------|--------|--------|
| C. Degree to which signs, symbols, advertisement boards, pamphlets and other artifacts in the organization are appealing to the customers | 124 | 1.00 | 5.00 | 3.9677 | 1.2359 |
| D. Extent to which the equipment, physical facilities and the materials associated with service have an appeal to the customers | 124 | 2.00 | 5.00 | 4.0887 | 1.0439 |
| E. Degree to which the physical layout of premises, facilities, and other furnishings are comfortable for the employees to work | 124 | 1.00 | 5.00 | 4.1855 | .9402 |
| F. Extent to which the physical layout of equipment and other furnishings are comfortable for the customers to interact with the employees | 124 | 2.00 | 5.00 | 3.7339 | .8176 |
| G. Extent to which housekeeping is kept as a priority and of the highest order in the organization | 124 | 2.00 | 5.00 | 3.9516 | .9093 |
| H. Degree to which the way employees are dressed has a pleasing and neat appearance | 124 | 1.00 | 5.00 | 3.6210 | .9422 |
| A. Extent to which the employees at all levels realize that the real purpose of their existence is "service to customers" | 124 | 2.00 | 5.00 | 3.3548 | .8667 |
| B. Degree to which the employees believe that TQM plays a vital role in strengthening the organization's ability to compete in a highly competitive market place | 124 | 1.00 | 5.00 | 3.2984 | .9541 |
| C. Resistance of the employees to change | 124 | 1.00 | 5.00 | 3.1694 | .8237 |
| D. Trust, openness and good relationships among the employees | 124 | 1.00 | 5.00 | 3.7500 | .9073 |
| E. Level of prevalence among employees, feelings such as "my bank" and "we work towards the bank's excellent performance, image and customer service" | 124 | 1.00 | 5.00 | 3.6774 | .9589 |
| F. Extent to which "team spirit" dominates individualistic preferences and projections | 124 | 1.00 | 5.00 | 3.6129 | 1.0178 |
| G. A strong belief in the philosophy of "right first time" and "right every time" among employees | 124 | 1.00 | 5.00 | 3.2661 | .9552 |
| H. Extent to which the organizational structure facilitates fast decision-making and enables quick response to customers' requirements | 124 | 1.00 | 5.00 | 3.2903 | .9086 |
| A. Extent to which the bank leads as a corporate citizen, and the level to which it promotes ethical conduct in everything it does | 124 | 1.00 | 5.00 | 4.1129 | 1.0608 |
| B. "Service transcendence" - making customers realize their unexpressed needs by giving more than what they expect | 124 | 2.00 | 5.00 | 3.6290 | .9148 |
| C. Giving equal treatment to all the customers, stemming from the belief that every one, big or small, should be treated alike | 124 | 1.00 | 5.00 | 3.6855 | .9402 |
| D. Providing good service at a reasonable price, but not at the expense of quality, to people from all walks of life | 124 | 1.00 | 5.00 | 3.6371 | .9225 |
| E. Having branch locations in most places convenient to all sections of the society (e.g. remote villages, slum areas etc.) | 124 | 1.00 | 5.00 | 3.9355 | 1.1529 |

| | | | | | |
|---|-----|------|------|--------|--------|
| F. Having a sense of public responsibility among employees (in terms of being punctual, regular, sincere and without going on strike). | 124 | 1.00 | 5.00 | 3.7823 | 1.1157 |
| G. Having a sense of social responsibility characterized by giving loans to economically and socially downtrodden people, needy ones, entrepreneurs, etc. with less rigid loan conditions | 124 | 1.00 | 5.00 | 3.7581 | .8001 |
| Valid N (listwise) | 124 | | | | |

Variables Entered/Removed

| Model | Variables Entered | Variables Removed | Method |
|-------|--|-------------------|--------|
| 1 | 13.16 Social Responsibility, 3.10 Problem Analysis, 3.12 Service Design, 3.7 Quality systems, 3.11 Quality Technologies, 3.9 Recognition and Reward, 3.4 Benchmarking, 3.15 Service Culture, 3.3 Continuous Improvement, 3.13 Employees, 3.6 Quality Department, 3.5 Customer Focus, 3.8 Human Resource Management, 3.14 Servicescapes, 3.2 Strategy, 3.1 Top Management Support | | Enter |

a All requested variables entered.

b Dependent Variable: AVER

Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|------|----------|-------------------|----------------------------|
| 1 | .990 | .981 | .978 | .1498 |

a Predictors: (Constant), 3.16 Social Responsibility, 3.10 Problem Analysis, 3.12 Service Design, 3.7 Quality systems, 3.11 Quality Technologies, 3.9 Recognition and Reward, 3.4 Benchmarking, 3.15 Service Culture, 3.3 Continuous Improvement, 3.13 Employees, 3.6 Quality Department, 3.5 Customer Focus, 3.8 Human Resource Management, 3.14 Servicescapes, 3.2 Strategy, 3.1 Top Management Support

b Dependent Variable: AVER

Coefficients

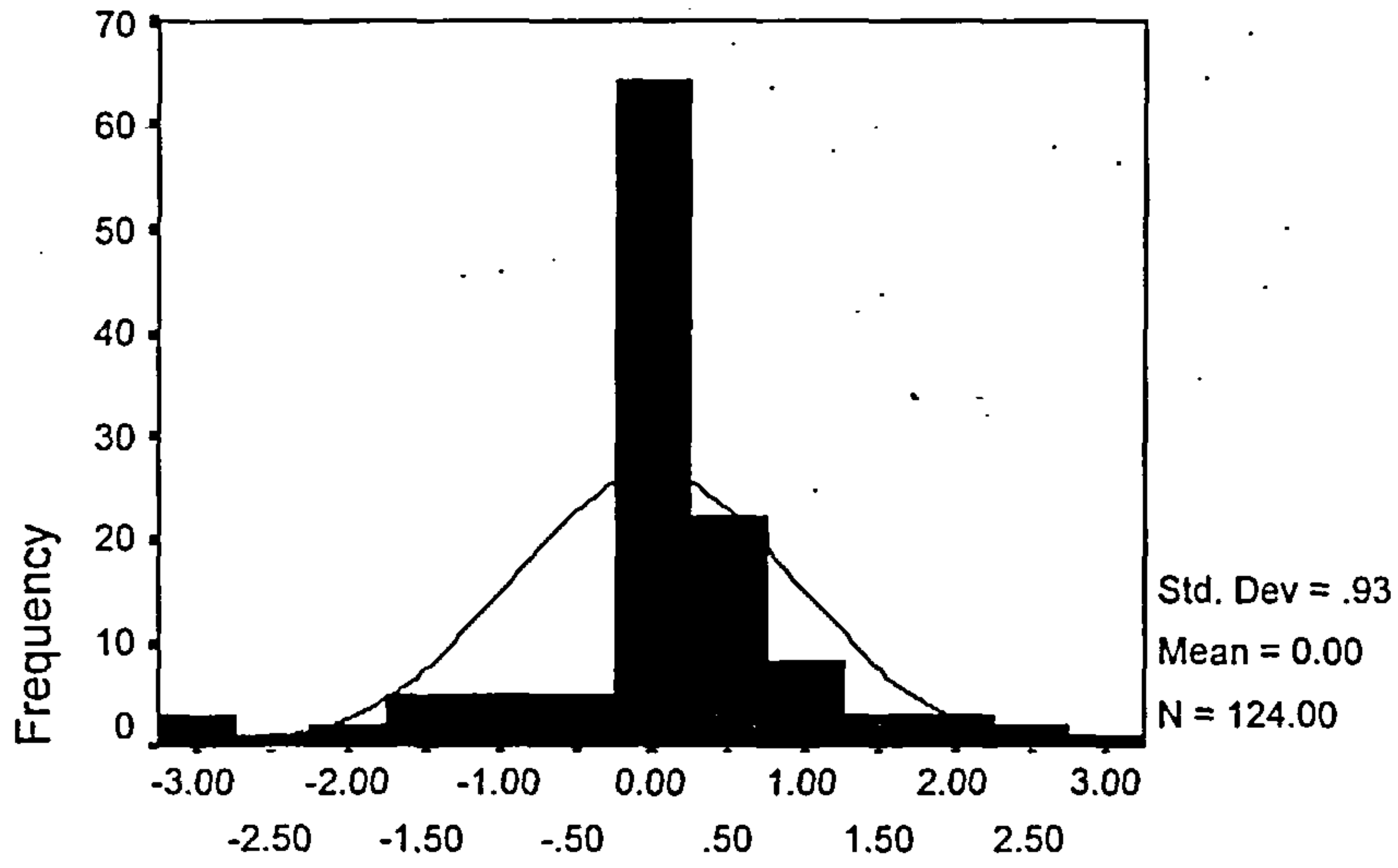
| Model | Unstandardized Coefficient B | Standardized Coefficient Beta | t | Sig. | Collinearity Statistics Tolerance | VIF |
|----------------------------|------------------------------|-------------------------------|--------|------|-----------------------------------|--------|
| 1 (Constant) | -.714 | | -4.775 | .000 | | |
| 3.1 Top Management Support | .309 | .218 | 2.565 | .012 | .025 | 40.059 |
| 3.2 Strategy | .268 | .187 | 2.374 | .019 | .029 | 34.368 |
| 3.3 Continuous Improvement | .236 | .212 | 3.468 | .001 | .048 | 20.724 |
| 3.4 Benchmarking | -9.889E-02 | -.075 | -1.664 | .099 | .089 | 11.295 |
| 3.5 Customer Focus | .296 | .280 | 4.634 | .000 | .049 | 20.229 |

| | | | | | | | |
|-------------------------------|------------|------|-------|--------|------|------|--------|
| 3.6 Quality Department | .270 | .061 | .253 | 4.447 | .000 | .056 | 17.887 |
| 3.7 Quality systems | .297 | .055 | .275 | 5.382 | .000 | .069 | 14.439 |
| 3.8 Human Resource Management | -.264 | .092 | -.196 | -2.882 | .005 | .039 | 25.616 |
| 3.9 Recognition and Reward | 7.327E-02 | .063 | .061 | 1.172 | .244 | .066 | 15.160 |
| 3.10 Problem Analysis | 1.166E-02 | .027 | .010 | .429 | .669 | .305 | 3.275 |
| 3.11 Quality Technologies | -.117 | .059 | -.086 | -1.975 | .051 | .095 | 10.472 |
| 3.12 Service Design | .230 | .065 | .182 | 3.523 | .001 | .067 | 14.823 |
| 3.13 Employees | -.170 | .068 | -.125 | -2.478 | .015 | .071 | 14.143 |
| 3.14 Servicescapes | -.228 | .086 | -.193 | -2.647 | .009 | .034 | 29.476 |
| 3.15 Service Culture | 6.800E-02 | .055 | .053 | 1.228 | .222 | .097 | 10.287 |
| 3.16 Social Responsibility | -3.307E-02 | .091 | -.028 | -.362 | .718 | .031 | 32.558 |

a Dependent Variable: AVER

Histogram

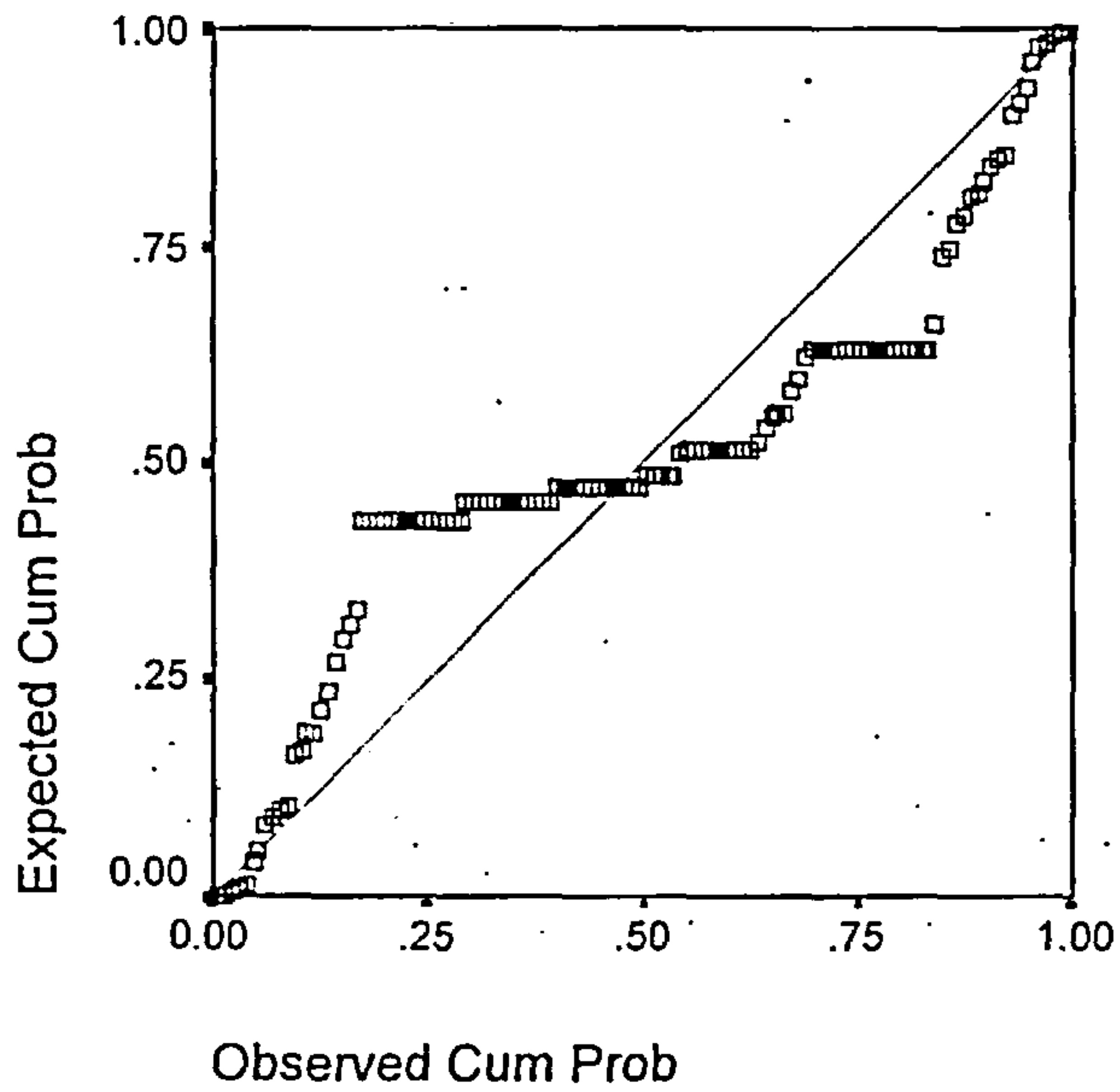
Dependent Variable: AVER



Regression Standardized Residual

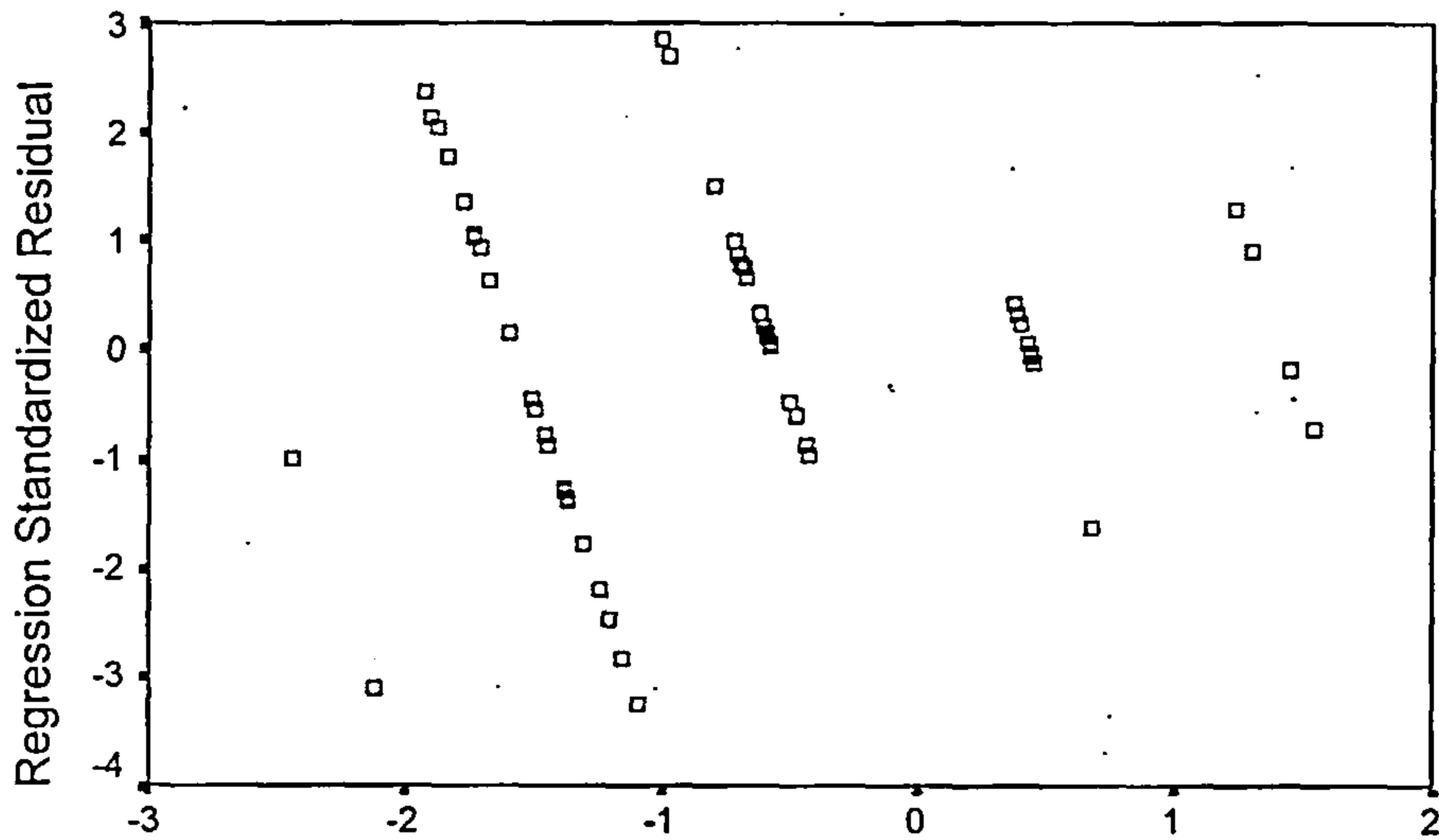
Normal P-P Plot of Regression Stand

Dependent Variable: AVER



Scatterplot

Dependent Variable: AVER



Regression Standardized Predicted Value

One-Sample

Statistics

| | N | Mean | Std. Deviation | Std. Error Mean |
|---|-----|--------|----------------|-----------------|
| A. Top management actively participates in quality management and improvement process | 124 | 3.6613 | .9447 | 8.484E-02 |
| B. Top management learns quality-related concepts and skills | 124 | 3.6532 | .9021 | 8.101E-02 |
| C. Top management strongly encourages employee involvement in quality management and improvement activities | 124 | 4.0565 | 1.1211 | .1007 |
| D. Top management empowers employees to solve quality problems | 124 | 3.6290 | .9916 | 8.905E-02 |
| E. Having branch locations in most places convenient to all sections of the society (e.g. remote villages, slum areas etc.) | 124 | 3.6048 | .8246 | 7.405E-02 |
| F. Top management arranges adequate resources for employee education and training | 124 | 4.1129 | .9976 | 8.959E-02 |
| G. Top management discusses many quality-related issues in top management meetings | 124 | 3.7339 | .7974 | 7.161E-02 |
| H. Top management focuses on product quality rather than yields | 124 | 3.3871 | .8621 | 7.742E-02 |
| I. Top management pursues long-term business success | 124 | 3.4194 | .8273 | 7.430E-02 |
| A. Enhanced reputation | 124 | 3.7581 | .8202 | 7.365E-02 |
| B. Reduced liability risks | 124 | 3.7016 | .7858 | 7.057E-02 |
| C. Reduction in customer complaints | 124 | 3.6774 | .8976 | 8.061E-02 |
| D. Smoother delivery of services and better customer response | 124 | 3.8306 | .7621 | 6.844E-02 |
| E. Increasing to organization's direct personal contacts with customers | 124 | 3.6855 | .8494 | 7.627E-02 |
| F. Using customer requirements as the basis for Quality | 124 | 3.7581 | .8202 | 7.365E-02 |
| G. Involving customers in product or service | 124 | 3.6935 | .8665 | 7.782E-02 |

| | | | | |
|---|-----|--------|--------|-----------|
| design | | | | |
| A. Providing services to the customers as promised | 124 | 3.7742 | .7195 | 6.461E-02 |
| B. Providing services to the customers as per the promised schedule | 124 | 3.3145 | .9402 | 8.443E-02 |
| C. Providing prompt service to customers | 124 | 3.6855 | .8589 | 7.713E-02 |
| D. Willingness to help customers and the readiness to respond to customers' requests | 124 | 3.7177 | .8221 | 7.382E-02 |
| E. Extent to which the organization strives to develop the necessary capabilities in terms of manpower and facilities to meet the needs and expectations of customers | 124 | 3.7258 | .8680 | 7.795E-02 |
| F. Effective evaluation of the bank's performance with respect to customer satisfaction and service by means of a definite mechanism | 124 | 3.6855 | .8589 | 7.713E-02 |
| G. Effective use of customer feedback to improve the service standards | 124 | 3.7177 | .8607 | 7.729E-02 |
| H. Customer satisfaction | 124 | 3.7419 | .7637 | 6.858E-02 |
| I. Providing services right the first time | 124 | 3.8468 | .7656 | 6.875E-02 |
| J. Cohesive workforce | 124 | 3.6774 | .8120 | 7.292E-02 |
| K. Making customers feel safe and secure in their transactions with the bank | 124 | 3.8065 | .7400 | 6.645E-02 |
| A. Improvement in communication | 124 | 4.1694 | .9259 | 8.315E-02 |
| B. Improvement in training | 124 | 4.1290 | 1.0038 | 9.014E-02 |
| C. Improvement in information and accountability | 124 | 3.6452 | .9559 | 8.584E-02 |
| D. Proper co-ordination of all the activities of the task groups. | 124 | 3.6935 | .9033 | 8.112E-02 |
| 4.5 Economic Advantage | 124 | 3.8417 | .8371 | 7.517E-02 |
| A. Increase in sales | 124 | 4.0887 | 1.0282 | 9.233E-02 |
| B. Reduction in costs | 124 | 4.1210 | .9844 | 8.840E-02 |
| C. Increase in value of services | 124 | 3.6452 | .9893 | 8.884E-02 |
| D. Improve the efficiency and effectiveness of internal operations to serve all types of customers better | 124 | 4.0000 | 1.1547 | .1037 |
| E. Reduce/eliminate errors on all types of transactions | 124 | 3.6855 | .8589 | 7.713E-02 |
| F. Ensure timeliness of all operations | 124 | 3.7339 | .8469 | 7.605E-02 |
| G. Eliminate unnecessary paperwork and bottlenecks | 124 | 3.7500 | .8128 | 7.299E-02 |
| H. Ensure quick handling of enquiries | 124 | 3.7097 | .9523 | 8.552E-02 |

One-Sample Test

| | Test Value = | | Mean Difference | 95% Confidence Interval of the Difference | |
|--|--------------|-----|-----------------|---|--------|
| | t | df | | Lower | Upper |
| A. Top management actively participates in quality management and improvement process | 7.795 | 123 | .6613 | .4934 | .8292 |
| B. Top management learns quality-related concepts and skills | 8.064 | 123 | .6532 | .4929 | .8136 |
| C. Top management strongly encourages employee involvement in quality management and improvement | 10.493 | 123 | 1.0565 | .8572 | 1.2557 |

| | | | | | | |
|---|------------|------|--------|--------|--------|--|
| activities | | | | | | |
| D. Top management empowers employees to solve quality problems | 7.064 123 | .000 | .6290 | .4528 | .8053 | |
| E. Having branch locations in most places convenient to all sections of the society (e.g. remote villages, slum areas etc.) | 8.168 123 | .000 | .6048 | .4583 | .7514 | |
| F. Top management arranges adequate resources for employee education and training | 12.422 123 | .000 | 1.1129 | .9356 | 1.2902 | |
| G. Top management discusses many quality-related issues in top management meetings | 10.248 123 | .000 | .7339 | .5921 | .8756 | |
| H. Top management focuses on product quality rather than yields | 5.000 123 | .000 | .3871 | .2338 | .5403 | |
| I. Top management pursues long-term business success | 5.644 123 | .000 | .4194 | .2723 | .5664 | |
| A. Enhanced reputation | 10.292 123 | .000 | .7581 | .6123 | .9039 | |
| B. Reduced liability risks | 9.942 123 | .000 | .7016 | .5619 | .8413 | |
| C. Reduction in customer complaints | 8.404 123 | .000 | .6774 | .5179 | .8370 | |
| D. Smoother delivery of services and better customer response | 12.137 123 | .000 | .8306 | .6952 | .9661 | |
| E. Increasing top management's direct personal contacts with customers | 8.987 123 | .000 | .6855 | .5345 | .8365 | |
| F. Using customer requirements as the basis for Quality | 10.292 123 | .000 | .7581 | .6123 | .9039 | |
| G. Involving customers in product or service design | 8.913 123 | .000 | .6935 | .5395 | .8476 | |
| A. Providing services to the customers as promised | 11.982 123 | .000 | .7742 | .6463 | .9021 | |
| B. Providing services to the customers as per the promised schedule | 3.725 123 | .000 | .3145 | .1474 | .4816 | |
| C. Providing prompt service to customers | 8.887 123 | .000 | .6855 | .5328 | .8382 | |
| D. Willingness to help customers and the readiness to respond to customers' requests | 9.722 123 | .000 | .7177 | .5716 | .8639 | |
| E. Extent to which the organization strives to develop the necessary capabilities in terms of manpower and facilities to meet the needs and expectations of customers | 9.311 123 | .000 | .7258 | .5715 | .8801 | |
| F. Effective evaluation of the bank's performance with respect to customer satisfaction and service by means of a definite mechanism | 8.887 123 | .000 | .6855 | .5328 | .8382 | |
| G. Effective use of customer feedback to improve the service standards | 9.286 123 | .000 | .7177 | .5647 | .8707 | |
| H. Customer satisfaction | 10.818 123 | .000 | .7419 | .6062 | .8777 | |
| I. Providing services right the first time | 12.317 123 | .000 | .8468 | .7107 | .9829 | |
| J. Cohesive workforce | 9.290 123 | .000 | .6774 | .5331 | .8218 | |
| K. Making customers feel safe and secure in their transactions with the bank | 12.135 123 | .000 | .8065 | .6749 | .9380 | |
| A. Improvement in communication | 14.064 123 | .000 | 1.1694 | 1.0048 | 1.3339 | |
| B. Improvement in training | 12.525 123 | .000 | 1.1290 | .9506 | 1.3075 | |
| C. Improvement in information and accountability | 7.516 123 | .000 | .6452 | .4752 | .8151 | |
| D. Proper co-ordination of all the activities of the task groups. | 8.550 123 | .000 | .6935 | .5330 | .8541 | |

| | | | | | | |
|---|--------|-----|------|--------|-------|--------|
| 4.5 Economic Advantage | 11.197 | 123 | .000 | .8417 | .6929 | .9905 |
| A. Increase in sales | 11.791 | 123 | .000 | 1.0887 | .9059 | 1.2715 |
| B. Reduction in costs | 12.681 | 123 | .000 | 1.1210 | .9460 | 1.2959 |
| C. Increase in value of services | 7.262 | 123 | .000 | .6452 | .4693 | .8210 |
| D. Improve the efficiency and effectiveness of internal operations to serve all types of customers better | 9.644 | 123 | .000 | 1.0000 | .7947 | 1.2053 |
| E. Reduce/eliminate errors on all types of transactions | 8.887 | 123 | .000 | .6855 | .5328 | .8382 |
| F. Ensure timeliness of all operations | 9.650 | 123 | .000 | .7339 | .5833 | .8844 |
| G. Eliminate unnecessary paperwork and bottlenecks | 10.276 | 123 | .000 | .7500 | .6055 | .8945 |
| H. Ensure quick handling of enquiries | 8.298 | 123 | .000 | .7097 | .5404 | .8790 |

One-Sample Statistics

| | N | Mean | Std. Deviation | Std. Error Mean |
|--|-----|--------|----------------|-----------------|
| A. Commitment of the top management to the philosophy of TQM | 124 | 4.0161 | 1.1616 | .1043 |
| B. Inclination of the top management to allocate adequate resources and time for quality improvement efforts | 124 | 4.1452 | .9686 | 8.698E-02 |
| C. Tendency of the top management to view employees as valuable and long-term resources | 124 | 4.4597 | .8205 | 7.368E-02 |
| D. Degree to which the senior executives are dynamic | 124 | 3.8548 | .7065 | 6.344E-02 |
| E. Degree to which the senior executives act as friends, philosophers, and guides to their subordinates | 124 | 3.9597 | .6675 | 5.994E-02 |
| F. A clear quality vision (based on customer focus) and the extent to which the vision forms the basis for strategic planning and decision making | 124 | 4.2258 | .8727 | 7.837E-02 |
| A. Process control and improvement of core processes in accordance with design | 124 | 3.8387 | .7478 | 6.715E-02 |
| B. Active leadership by managers in quality issues | 124 | 4.2097 | .9219 | 8.279E-02 |
| C. Inclusion of employee well-being considerations in improvement activities | 124 | 3.7177 | .8221 | 7.382E-02 |
| D. Senior executive commitment to quality through involvement and communication | 124 | 3.8548 | .7618 | 6.841E-02 |
| E. Development/implementation of long-term plans/strategies focused on quality | 124 | 3.9194 | .9677 | 8.691E-02 |
| F. Analysis of performance and cost data to support improvement priorities. | 124 | 4.1290 | 1.0666 | 9.579E-02 |
| A. The bank believes that "continuous improvement" results in a competitive advantage | 124 | 3.7177 | .9156 | 8.223E-02 |
| B. Emphasis of continuous improvement in all operations and at all levels | 124 | 3.7177 | .9067 | 8.142E-02 |
| C. The need for obtaining immediate results overrides (or dominates) the drive for quality processes and improvement | 124 | 3.7177 | .9067 | 8.142E-02 |
| D. The bank is characterized by a divine discontent which drives/motivates it to seek continuous improvement in every aspect of everything it does | 124 | 3.3952 | .8818 | 7.919E-02 |
| E. Quantification of continuous improvement strategies on the basis of factors such as cost, time and performance | 124 | 3.6935 | .9033 | 8.112E-02 |
| A. Emphasis on benchmarking the services and processes with respect to those of other banks | 124 | 3.7500 | .8128 | 7.299E-02 |
| B. Emphasis on benchmarking the training programmes with those of other banks | 124 | 3.3790 | .8610 | 7.732E-02 |
| C. Emphasis on benchmarking the level of customer focus with those of other banks | 124 | 3.6210 | .9248 | 8.305E-02 |
| D. Emphasis on benchmarking the effectiveness of human resource management (HRM) with those of other banks | 124 | 3.6613 | .9185 | 8.249E-02 |

| | | | | |
|---|-----|--------|--------|-----------|
| E. Emphasis on benchmarking the level of servicescapes (i.e. the aesthetics, appeal, comforts and the facilities) with those of other banks | 124 | 4.0968 | 1.0392 | 9.333E-02 |
| F. Emphasis on benchmarking the level of commitment of the bank for the society as a whole, with those of other banks | 124 | 3.7177 | .8701 | 7.814E-02 |
| A. Our Bank collects extensive complaint information from customers | 124 | 3.7097 | .8242 | 7.401E-02 |
| B. Quality-related customer complaints are treated with top priority | 124 | 4.1855 | .9574 | 8.597E-02 |
| C. Our Bank conducts a customer satisfaction survey every year | 124 | 3.8710 | 1.0278 | 9.230E-02 |
| D. Our Bank always conducts market research in order to collect suggestions for improving our products | 124 | 3.6210 | .9335 | 8.383E-02 |
| E. Our Bank provides warranty on our sold products to customers | 124 | 3.8145 | .8959 | 8.046E-02 |
| F. Our Bank has been customer focused for a long time | 124 | 3.6855 | .8868 | 7.964E-02 |
| A. Visibility of the quality department | 124 | 4.0887 | 1.1406 | .1024 |
| B. Quality department's access to top management | 124 | 4.2500 | .8983 | 8.067E-02 |
| C. Autonomy of the quality department | 124 | 3.3468 | .9110 | 8.181E-02 |
| D. Utilization of quality staff professionals as a consulting resource | 124 | 3.6532 | .9110 | 8.181E-02 |
| E. Amount of coordination between the quality | 124 | 3.7339 | .8372 | 7.519E-02 |
| F. Effectiveness of the quality department in improving quality | 124 | 3.7258 | .7896 | 7.090E-02 |
| A. The quality system in our Bank is continuously improved | 124 | 3.8065 | .8330 | 7.481E-02 |
| B. Our Bank uses Dubai quality award as a guideline for establishing our quality system | 124 | 4.0000 | .7963 | 7.151E-02 |
| C. Our Bank has a clear quality manual | 124 | 3.7177 | 1.0005 | 8.985E-02 |
| D. Our Bank has clear procedure documents | 124 | 3.7742 | .7740 | 6.950E-02 |
| E. Our Bank has clear working instructions | 124 | 3.8145 | .7898 | 7.093E-02 |
| A. Effectiveness of the selection and recruitment process (in terms of objectivity and "right man for the right job"). | 124 | 3.7581 | .7795 | 7.000E-02 |
| B. Degree to which promotion and career development programmes emphasize on quality management in the organization | 124 | 3.2742 | .8680 | 7.795E-02 |
| C. Extent to which the organization takes steps to deepen the applicant pool to enhance employee quality. | 124 | 3.7581 | .8300 | 7.454E-02 |
| D. Effectiveness of the organization to link education and training of employees to its long-term plans and strategies | 124 | 3.6694 | .9433 | 8.471E-02 |
| E. Evaluation and improvement of the training and education programmes to employees. | 124 | 3.6210 | .9070 | 8.145E-02 |
| F. Frequency of TQM training programmes conducted for employees working in all functional areas | 124 | 3.6774 | .9155 | 8.222E-02 |
| G. Extent to which the employees are given commensurate authority and operational independence to achieve results. | 124 | 3.3952 | .8818 | 7.919E-02 |
| H. Extent of accountability of employees for customer service | 124 | 3.5565 | .9902 | 8.892E-02 |
| I. Encouragement of employee suggestions and innovation | 124 | 3.2823 | .9067 | 8.142E-02 |
| A. Our Bank improves working conditions in order to recognise employee quality improvement efforts | 124 | 3.6452 | .9212 | 8.273E-02 |
| B. Our Bank has a salary promotion scheme for encouraging employee participation in quality improvement | 124 | 3.6452 | .9124 | 8.193E-02 |
| C. Position promotions are based on work quality in our Bank | 124 | 3.6452 | .9212 | 8.273E-02 |
| D. Excellent suggestions are financially rewarded | 124 | 3.8710 | .9624 | 8.643E-02 |
| E. Employees' rewards and penalties are clear | 124 | 3.7097 | .9175 | 8.240E-02 |
| F. Recognition and reward activities effectively stimulate employee commitment to quality improvement | 124 | 3.6774 | .8700 | 7.813E-02 |
| A. Employee training in problem-solving skills | 124 | 3.3548 | .8381 | 7.526E-02 |
| B. Most employees in our plant are trained to use quality problem solving techniques such as cause and effect diagrams | 124 | 3.3548 | .8381 | 7.526E-02 |
| C. Effectiveness of supervisors in solving problems/issues | 124 | 3.7661 | .7974 | 7.161E-02 |
| D. Line workers are encouraged to fix problems they find | 124 | 3.2661 | .9720 | 8.729E-02 |
| E. Line workers are given the resources necessary to correct | 124 | 3.6532 | .8930 | 8.019E-02 |

| | | | | |
|--|-----|--------|--------|-----------|
| quality problems they find | | | | |
| A. Degree to which the processes and procedures are fool-proof | 124 | 3.3952 | .8818 | 7.919E-02 |
| B. Extent to which the service delivery processes are standardized, simplified and documented so that services are delivered without any hassle (seamlessness of service). | 124 | 3.3871 | .8526 | 7.657E-02 |
| C. Enhancement of technological capability (e.g. computerization, networking of operations, etc.) to serve customers more effectively | 124 | 3.7339 | .8659 | 7.776E-02 |
| D. Regular tracking and maintenance of the key processes that are critical to the business | 124 | 3.3871 | .8990 | 8.074E-02 |
| E. Systematic documentation of procedures for investigation of causes of errors and subsequent corrective actions | 124 | 3.4355 | .8577 | 7.702E-02 |
| F. Emphasis on developing procedures for reducing the overall service delivery times | 124 | 3.7339 | .8076 | 7.252E-02 |
| A. Thoroughness of new Service design reviews before the Service is produced and marketed | 124 | 3.3468 | .8366 | 7.513E-02 |
| B. Coordination among affected departments in the Service development process | 124 | 3.4274 | .8281 | 7.437E-02 |
| C. Quality of new Service emphasized in relation to cost or schedule objectives | 124 | 3.3145 | .9050 | 8.127E-02 |
| D. Extent to which implementation/servicibility is considered in Service design process | 124 | 3.2661 | .9293 | 8.345E-02 |
| E. Extent to which sales and marketing people consider quality as a saleable attribute | 124 | 3.3710 | .8785 | 7.890E-02 |
| A. Self-inspection by workers | 124 | 3.4758 | .8598 | 7.721E-02 |
| B. Stability of production schedule/work distribution | 124 | 3.3306 | .8992 | 8.075E-02 |
| C. Various policies and plans are well communicated to the employees | 124 | 3.2984 | .8740 | 7.849E-02 |
| D. Employees from different levels are involved in marking policies and plans | 124 | 3.4355 | .9038 | 8.117E-02 |
| E. Employees are actively involved in quality-related activities | 124 | 3.4677 | .7802 | 7.006E-02 |
| F. Most employees' suggestions are implemented after an evaluation | 124 | 3.2016 | .8647 | 7.765E-02 |
| G. Employees are encouraged to fix problems the find | 124 | 3.3145 | .8589 | 7.713E-02 |
| A. Extent to which the bank ensures that there is a positive impact of the prevailing physical environment on customers | 124 | 4.2097 | .9566 | 8.590E-02 |
| B. Extent to which the ambient conditions such as temperature, ventilation, noise, odour, etc. prevailing in the organizational premises are comfortable to customers | 124 | 4.0565 | 1.0692 | 9.601E-02 |
| C. Degree to which signs, symbols, advertisement boards, pamphlets and other artifacts in the organization are appealing to the customers | 124 | 3.9677 | 1.2359 | .1110 |
| D. Extent to which the equipment, physical facilities and the materials associated with service have an appeal to the customers | 124 | 4.0887 | 1.0439 | 9.374E-02 |
| E. Degree to which the physical layout of premises, facilities, and other furnishings are comfortable for the employees to work | 124 | 4.1855 | .9402 | 8.443E-02 |
| F. Extent to which the physical layout of equipment and other furnishings are comfortable for the customers to interact with the employees | 124 | 3.7339 | .8176 | 7.342E-02 |
| G. Extent to which housekeeping is kept as a priority and of the highest order in the organization | 124 | 3.9516 | .9093 | 8.166E-02 |
| H. Degree to which the way employees are dressed has a pleasing and neat appearance | 124 | 3.6210 | .9422 | 8.461E-02 |
| A. Extent to which the employees at all levels realize that the real purpose of their existence is "service to customers" | 124 | 3.3548 | .8667 | 7.783E-02 |
| B. Degree to which the employees believe that TQM plays a vital role in strengthening the organization's ability to compete in a highly competitive market place | 124 | 3.2984 | .9541 | 8.568E-02 |
| C. Resistance of the employees to change | 124 | 3.1694 | .8237 | 7.397E-02 |

| | | | | |
|---|-----|--------|--------|-----------|
| D. Trust, openness and good relationships among the employees | 124 | 3.7500 | .9073 | 8.148E-02 |
| E. Level of prevalence among employees, feelings such as "my bank" and "we work towards the bank's excellent performance, image and customer service" | 124 | 3.6774 | .9589 | 8.611E-02 |
| F. Extent to which "team spirit" dominates individualistic preferences and projections | 124 | 3.6129 | 1.0178 | 9.140E-02 |
| G. A strong belief in the philosophy of "right first time" and "right every time" among employees | 124 | 3.2661 | .9552 | 8.578E-02 |
| H. Extent to which the organizational structure facilitates fast decision-making and enables quick response to customers' requirements | 124 | 3.2903 | .9086 | 8.160E-02 |
| A. Extent to which the bank leads as a corporate citizen, and the level to which it promotes ethical conduct in everything it does | 124 | 4.1129 | 1.0608 | 9.527E-02 |
| B. "Service transcendence" - making customers realize their unexpressed needs by giving more than what they expect | 124 | 3.6290 | .9148 | 8.215E-02 |
| C. Giving equal treatment to all the customers, stemming from the belief that every one, big or small, should be treated alike | 124 | 3.6855 | .9402 | 8.443E-02 |
| D. Providing good service at a reasonable price, but not at the expense of quality, to people from all walks of life | 124 | 3.6371 | .9225 | 8.284E-02 |
| E. Having branch locations in most places convenient to all sections of the society (e.g. remote villages, slum areas etc.) | 124 | 3.9355 | 1.1529 | .1035 |
| F. Having a sense of public responsibility among employees (in terms of being punctual, regular, sincere and without going on strike). | 124 | 3.7823 | 1.1157 | .1002 |
| G. Having a sense of social responsibility characterized by giving loans to economically and socially downtrodden people, needy ones, entrepreneurs, etc. with less rigid loan conditions | 124 | 3.7581 | .8001 | 7.185E-02 |

Appendix D

List of Banks

LIST OF LOCAL BANKS OPERATING IN THE UAE (As at 31/1/2003)

| no | Banks | Abu Dhabi | Dubai | Sharjah | Ras Al khaimah | Ajman | Umm Al Qaiwain | Fujairah | Total |
|----|---|--------------|-------|---------|-------------------|-------|----------------------|----------|-------|
| 1 | National Bank of Abu Dhabi | 29 | 6 | 5 | 2 | 1 | 1 | 2 | 46 |
| 2 | Abu Dhabi Commercial Bank | 23 | 6 | 2 | 1 | 1 | - | 2 | 35 |
| 3 | Arab Bank for Investment & Foreign Trade | 3 | 1 | 1 | - | - | - | - | 5 |
| 4 | Union National Bank | 13 | 10 | 1 | 1 | 1 | - | 1 | 27 |
| 5 | National Bank of Dubai | 2 | 20 | 1 | 1 | 1 | 1 | 1 | 27 |
| 6 | Commercial Bank of Dubai | 2 | 11 | 1 | 1 | 1 | - | - | 16 |
| 7 | Dubai Islamic Bank | 5 | 6 | 3 | 1 | 1 | - | 1 | 17 |
| 8 | Emirates Bank International | 1 | 17 | 2 | - | - | - | - | 20 |
| 9 | Middle East Bank | 3 | 6 | 1 | 1 | - | 1 | 1 | 13 |
| 10 | Mashreq Bank | 10 | 12 | 5 | 2 | 1 | 1 | 2 | 33 |
| 11 | National Bank of Sharjah | 1 | 1 | 7 | - | - | - | - | 9 |
| 12 | Bank of Sharjah | 1 | 1 | 1 | - | - | - | - | 3 |
| 13 | United Arab Bank | 2 | 3 | 3 | 1 | 1 | - | - | 9 |
| 14 | Invest Bank | 2 | 1 | 2 | - | - | - | - | 5 |

| | | | | | | | | | |
|--------------|---------------------------------|------------|------------|-----------|-----------|-----------|----------|-----------|------------|
| 15 | National Bank of Ras Al Khaimah | 2 | 4 | 1 | 5 | - | - | - | 12 |
| 16 | Commercial Bank International | 2 | 2 | 1 | 2 | - | - | - | 7 |
| 17 | National Bank of Fujairah | 1 | 2 | 1 | - | - | - | 2 | 6 |
| 18 | National Bank of Umm Al Qaiwain | 2 | 2 | 1 | - | 2 | 2 | 1 | 10 |
| 19 | First Gulf Bank | 3 | 1 | 1 | - | 1 | - | - | 6 |
| 20 | A Bu Dhabi Islamic Bank | 7 | 2 | 1 | 1 | - | - | 1 | 12 |
| 21 | Dubai Bank | 1 | 1 | - | - | - | - | - | 2 |
| Total | | 115 | 115 | 40 | 19 | 11 | 6 | 14 | 320 |

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List of Foreign Banks Operating in the U.A.E. (As at 31/3/2003)

| no | Banks | Abu Dhabi | Dubai | Sharjah | Ras Al khaimah | Ajman | UmmAlQaiwain | Fujairah | Total |
|----|--------------------------|-----------|-------|---------|----------------|-------|--------------|----------|-------|
| 1 | National Bank of Bahrain | 1 | - | - | - | - | - | - | 1 |
| 2 | Rafidain Bank | 1 | - | - | - | - | - | - | 1 |
| 3 | Arab Bank plc | 2 | 2 | 1 | 1 | 1 | - | 1 | 8 |
| 4 | Banque du Caire | 2 | 1 | 1 | 1 | - | - | - | 5 |
| 5 | El-Nilein Bank | 1 | - | - | - | - | - | - | 1 |

| | | | | | | | | | |
|----|---------------------------------|---|---|---|---|---|---|---|----|
| 6 | National Bank of Oman S.A.O.G | 1 | - | - | - | - | - | - | 1 |
| 7 | Credit Agricole Indosuez Bank | 1 | 1 | - | - | - | - | - | 2 |
| 8 | Bank of Baroda | 2 | 2 | 1 | 1 | - | - | - | 6 |
| 9 | BNP Paribas | 1 | 1 | - | - | - | - | - | 2 |
| 10 | Janata Bank | 2 | 1 | 1 | - | - | - | - | 4 |
| 11 | HSBC Bank Middle East | 2 | 3 | 1 | 1 | - | - | 1 | 8 |
| 12 | Arab African International Bank | 1 | 1 | - | - | - | - | - | 2 |
| 13 | BLC (France) S.A. | 1 | 1 | 1 | 1 | - | - | - | 4 |
| 14 | Al Ahli Bank of Kuwait K.S.C. | - | 1 | - | - | - | - | - | 1 |
| 15 | Barclays Bank Plc. | 1 | 1 | - | - | - | - | - | 2 |
| 16 | Habib Bank Limited | 3 | 3 | 2 | - | - | - | - | 6 |
| 17 | Habib Bank A.G.Zurich | 2 | 5 | 1 | - | - | - | - | 8 |
| 18 | Standard Chartered Bank | 4 | 5 | 2 | - | - | - | - | 11 |
| 19 | Citibank N.A. | 2 | 2 | 1 | - | - | - | - | 5 |
| 20 | Bank Saderat Iran | 2 | 3 | 1 | - | 1 | - | 1 | 8 |
| 21 | Bank Melli Iran | 2 | 3 | 1 | 1 | - | - | 1 | 8 |
| 22 | Banque Banorabe | - | 1 | 1 | - | - | - | - | 2 |
| 23 | Lloyds TSB Bank Plc. | - | 1 | - | - | - | - | - | 1 |
| 24 | ABN-Amro Bank N.V. | 1 | 1 | 1 | - | - | - | - | 3 |

| | | | | | | | | | |
|--------------|---------------------|-----------|-----------|-----------|----------|----------|----------|----------|------------|
| 25 | United Bank Limited | 4 | 3 | 1 | - | - | - | - | 8 |
| Total | | 39 | 42 | 17 | 6 | 2 | - | 4 | 110 |

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