

QUALITY MANAGEMENT IN MALAYSIAN ORGANIZATIONS:

The Relevance of Values to Improvement Process

**A thesis submitted to the University of Newcastle upon Tyne
for the degree of Doctor of Philosophy
in the Department of Management Studies**

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ABSTRACT

This study examines the improvement effort and issues of Malaysian organizations. A total of nine organizations, involved in different types of business activities, became the sample cases of this study.

There were two phases of fieldwork conducted in this study:

1. A three month period (May - July 1993) trip to Malaysia was undertaken in order to allow the researcher to gain a close 'first hand' knowledge with regard to quality issues in Malaysian organizations. A series of interviews were conducted with quality and senior managers of the organizations involved in the study.
2. The second fieldwork trip also covered a three month period (December 1994 - February 1995). This trip focused on the administration of the questionnaire survey to members in organizations. Five organizations (UTEL, UTEN, OPET, OSEDC and SLUTH), with a total of 210 respondents, participated in this survey. Some interviews with senior officials of these organizations were also carried out during this period.

The analysis of data obtained in this study was conducted in two stages: (i) an overall qualitative analysis of the quality and improvement issues in organizations, and (ii) an analysis of the survey data obtained in the above five organizations.

The main findings of this study are as follows:

1. In the Malaysian context, the nation's social and economic objectives seemed to exert significant influence over the emphasized aspects of improvement to organizations. Specifically, it was found that the organizations in this study were particularly concerned with the 'improvement' process which would reduce the imbalance of racial participation in economic activities.
2. A stress on values, especially those related to ethics and human relationship, was found to be instrumental in shaping the 'quality' culture of organizations. They include the values of honesty, responsibility, friendship, politeness, courage, love and helpfulness.
3. Quality and improvement issues in organizations are intricately complex. They evolve and are influenced by internal and external contextual factors.

DECLARATION

No portion of the work referred to in this thesis has been submitted in support of an application for another degree or qualification of this at any other university or other institute of learning.

DEDICATION

THIS IS DEDICATED

to

*my parents, Mohd Hassan Awang and Badariah Md Aris
- for their words of wisdom and prayer*

*my wife, Wasilah Sabron
- for her unwavering support and patience*

*and my children,
Muhammad Faheem, Muhammad Farhan, Nadiah Ameerah and Nadzirah Aqeelah
- for their entertainment and inspiration*

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A large number of people have been involved in my doctoral research, and they have given me a lot of help, cooperation, stimulation, and guidance. It may not be possible to mention all of them here but they all deserve my sincere thanks.

I am especially indebted to my supervisor, Prof. Elizabeth Chell, who introduced me to the tribulations of academic research, where "quality" is to be desired and relentlessly pursued. Without her invaluable guidance, timely advice, unfailing support and continued encouragement throughout the past four years, this research would not have been possible, and to her I owe my deepest gratitude.

I am especially grateful to my employer and sponsor, Universiti Kebangsaan Malaysia, who offered me this opportunity to embark on a Ph.D. study. Special thanks go to Asoc. Prof. Jaafar Muhammad, the head of Management Department; Associate Professor Dr. Kamaruddin Sharif and Professor Aziz A. Hamid, the former deans of the UKM's Faculty of Business Management; and Dr. Muhammad Muda, the current dean, for their continued moral support.

Also, I wish to thank Mrs. Sara Edmonds who edited the initial draft of my thesis. Her valuable suggestions and professional comments on the writing contributed greatly towards a better presentation of the thesis.

My heartfelt thanks and appreciation are rendered to my friends, both as colleagues at the Department of Management Studies, School of Business Management and outside: Abdul Rahman Deen, Azhar, Anne Parker, Carlos Longos and many others including lecturers and departmental staff (especially Moira and Beverly) for their company, support, feedback, insights and ready willingness in helping me in different ways towards completion.

My thanks also go to the managers and staff of the companies involved in this study, many of whom gave much needed co-operation in the interviews and to the respondents who completed my survey questionnaire.

Every effort has been made to achieve accuracy in this presentation. I accept full responsibility for the conclusions and inferences drawn herein, as well as any errors or omissions.

PREFACE

"Quality Management in Malaysian Organizations" became my chosen Ph.D. research topic after a rigorous consideration of feasible topics fulfilling the following chosen criteria:

1. it should generate a variety of issues worthy of detailed investigation;
2. it should assure reasonable accessibility of data; and
3. it should be able to sustain my interest for many years to come, since it is likely to be the most important, single, independent piece of research I may ever conduct.

Perhaps my years of teaching at the Department of Management, Universiti Kebangsaan Malaysia, as well as an interest in quality and organizational issues, also helped in this decision. Further review of literature in the area derived further insights and urged me to deepen my understanding of the subject.

I would like to highlight several features that emerged from the approach taken by this research:

1. It concerns with the overall improvement process of organizations. The issues involved in this process are related to the effectiveness, organizational impacts, and the internal and external influences of improvement initiatives;
2. It recognises the importance of non-economic or material considerations (in organizational decisions and strategies);
3. It recognises the profound influence of the human dimension and human values in quality;
4. It identifies a set of quality factors that are especially important for improvement process in organizations,
5. It identifies several aspects of organizational values and quality practices which are typical of government-influenced organizations (GIOs);
6. It is managerially oriented and non-technical in nature;
7. The thesis is not written in chronological order as each data collection stage progresses. It is structured by key topics, so that evidence from both the interviews and the questionnaire survey in both phases of fieldwork are integrated, in discussing the findings of the results. The available literature is related to at all times throughout the discussions.

THE AUTHOR

The author obtained his B.S. degree, with double majors in Operations Management and Computer Science from Northern Illinois University, USA in 1982. Thereafter, he continued for a master degree in the same university and obtained his M.S. degree in Industrial Management. Upon returning to his home country, he was offered a post as a lecturer at the Universiti Kebangsaan Malaysia (UKM) in 1985. Since then, he has spent more than six years as a lecturer at UKM's Management Department, teaching courses at both the graduate and undergraduate levels and participated in several research and consultancy projects funded by the university and industry. Under a study leave scheme, he left Malaysia for the United Kingdom and registered for a Ph.D degree in the School of Business Management, University of Newcastle upon Tyne, in June 1992.

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CHAPTER ONE: INTRODUCTION

"The test of an organization is the spirit of performance. The spirit of performance requires that there be full scope for individual excellence. The focus must be on the strengths - on what people can do rather than on what they cannot do. ... Spirit of performance in a human organization means that energy output is larger than the sum of efforts put in. It means the creation of energy. This cannot be accomplished by mechanical means. A machine cannot deliver more energy than is put into it. To get out more than is being put in is possible only in the moral sphere" (Drucker, 1974; pp. 361-2).

The opening quotation of this chapter, quoted from Drucker's book, *Management: Tasks, Responsibilities, Practices*, illuminates an important idea with regard to the improvement process within an organization. In this statement, Drucker considers that the 'additional energy' necessary to deliver excellence and performance to an organization can only be provided from the moral sphere. Elaborating on this point, he stresses the cultivation of a habit of achievement, focusing on opportunities, expressing the values and beliefs of the organization, and demonstrating the integrity of management. These opinions expressed by Drucker have many resemblances to today's quality movement, which places emphasis on the human aspects of the improvement process in an organization.

The interest which led to this research on quality management, however, was not only aroused by the above statement by Drucker. The researcher's motivation for this study can be greatly attributed to academic endeavour, as well as to his previous encounters with quality and human issues in organizations (Abd-Hamid, Mat-Hassan and Agus, 1988, 1991; Mat-Hassan, 1992, 1993; Mat-Hassan, Agus and Poon, 1991). When the researcher was offered a grant to conduct a doctoral research, it was natural that the area chosen was that of quality management, a discipline which is also relatively new and still underdeveloped.

The purpose, specific objectives, justification and research questions for this study are presented in Section 1.1. This is followed by brief descriptions of the research conceptual framework (Section 1.2) and the research methodology and design (Section 1.3) adopted for this study. Then, in Section 1.4, the contribution of this study is highlighted. The last section of this chapter, Section 1.5, lays out the organization of chapters for the whole thesis.

1.1 PURPOSE OF THE RESEARCH

Building upon the literature and existing concept of quality management, a study was conducted to explore the meanings and rationales for quality initiatives, and their significance for improvement and change efforts within Malaysian organizations. The findings from the study are expected to provide further understanding of the improvement efforts employed by these organizations.

Thus, the purpose of this research is two-fold. First, the purpose is to study quality in general, with quality initiatives and values as the focus area of interest. Second, it is intended as a contribution to existing quality management theory. In short, it is the aim of this research to explore and gain understanding of how certain elements, particularly the influence of values, can be relevant to the management of quality in an organization.

1.1.1 Specific Objectives of the Research

The specific objectives of the research are: (1) to describe and explain elements and issues that are related to the 'improvement' process of organization, (2) to seek and describe the importance or relevance of values to the improvement process, (3) to describe the value orientation of Malaysian organizations and the implications for the quality movement in the country.

As mentioned earlier, the focus area of interest in this study is on the relevance of values to quality improvement effort of the organization, which is then useful to describe and explain (1) the nature of quality and improvement issues of the organization, and (2) the impact of implementing certain quality initiatives or priorities on organizational change and improvement.

1.1.2 Justification for Research

The justification for the research are elucidated in the paragraphs below; claiming that an understanding of the improvement process should be best looked at in the context of the involved organization. In recent years, this approach seems to be increasingly important in the development of quality management theory. The justifications are described in the statements below:

- (1) So far, there are few empirical studies conducted towards gaining an understanding of the holistic nature of quality. In particular, there are no known studies that attempt to relate the importance of values to the improvement process of the organization. This, limits our understanding of how and why organizations end up with certain 'quality' emphasis or priorities. This idea of holistic treatment on the nature of quality is consistent with the message spread by Imai (1986), who regard quality as a continuous improvement in one's personal life, home life, social life and work life.
- (2) The quality initiatives employed by organizations are concerned with overall organizational effectiveness and long-term survival; however, it is in this area that both theoretical and empirical work is limited. Thus, studies conducted focus empirically on a certain aspect of the quality system (for example, customers and suppliers relationship), or issues pertaining to improvements of products or technical elements. This partial treatment of quality avoids

addressing the subject in totality. Consequently, this type of study has provided little predictive power that enables an organization to adapt and coordinate effectively its activities towards internal and external exchanges.

- (3) The importance of studying quality also depends on the premise that through quality an organization's competitive advantage or survival in the long-term may be assured. The preoccupation with quality as a competitive force has gone as far as identifying it as the single most important force governing organizational success and growth (Garvin, 1988). Quality, it is argued, has replaced price as the determining factor of consumer choice, and therefore operating in a 'quality' way is more important than ever before. Quality management have been described as being greater than the sum of functions of quality inspection, control and assurance - it is a comprehensive approach to improving the total effectiveness, flexibility and competitiveness of an organization or in short, it is the way of running the organization or business (Terez, 1991; Ciampa, 1992). Therefore, it is crucial for an organization's development specialists or change agents to understand the quality process.
- (4) In the past, studies on quality have been conducted in Western or Japanese organizations, i.e., organizations of industrialized nations. However, there is no known evidence that indicates or implies that the management and practice of quality as employed in organizations in non-industrialized nations are similar to those in Western or Japanese organizations. It may be that differences in the techniques or value orientations exist due to the differences in social structure, culture, national aspirations and history of these organizations. Thus, no study has sought to explore the management of quality in organizations in a developing country such as Malaysia.

- (5) The importance of quality in Malaysia is being stressed by the government and private organizations. The benefit derived from quality improvement efforts are regarded by the government as crucial towards achieving the nation's Vision 2020 objective, i.e., to become a fully developed nation, not only economically but also in all other aspects, by the year 2020. Malaysia's Vision 2020 (see Chapter 3 for a more detailed description) is a comprehensive approach to the nation's development which aspires to balance the achievement of economic growth and prosperity with that of moral and social development.

The potential contribution derived from this study should be relevant mainly towards understanding the improvement efforts in Malaysian organizations. However, the findings are also expected to increase and deepen our understanding of the process and issues relating to quality improvement in organizations, which are useful to theory building in quality management in general.

1.1.3 Research Questions

In conjunction with the purpose of this study, a set of research questions were formulated:

- (1) How can quality be defined? How do members of the organizations view or understand 'quality'?
- (2) What aspects of quality have been emphasized by the organization? Why are they emphasized?
- (3) What kind of (quality) initiatives does the organization use to organize and control its resources in order to improve?

- (4) How does the organization relate 'quality' to effectiveness or performance of organization?
- (5) Which quality techniques and control methods does the organization use? To what extent does the organization adopt them?
- (6) In what ways do values have an influence on quality improvement in the organization? What type of values would be relevant to the improvement process?
- (7) To what extent have quality initiatives been instrumental in transforming the organization?

These questions have been useful in providing the researcher with direction and focus areas of interest of the study. Issues relating to these questions have been dealt with in different parts of the thesis.

1.2 CONCEPTUAL FRAMEWORK

In studies on quality management, knowledge motivated by technical and practical interests tend to dominate the scene and they often relegate the relevancy of the 'soft' quality dimension to the improvement process. However, this study attempts to approach issues of quality in organizations in a holistic manner and it recognizes the multifaceted nature of organizational phenomena. Thus, the research framework designed for this study incorporates both the 'hard' and 'soft' dimensions of quality improvement in organizations.

In Chapter 4, the research framework developed for this study is presented. This framework is broad and it allows the investigation of both 'hard' and 'soft' dimensions of

quality. The schematic diagram (see Chapter 4) for the conceptual framework depicts multiple and inter-related elements or factors which could influence the overall functioning and improvement process of the organization.

The treatment of values and their relevance to the improvement process was emphasized in this study. There were at least three reasons for this emphasis:

- (1) Firstly, values, as indicated by Hofstede (1980) and Schein (1984) are the fundamental or core elements of organizational culture. Hence, a greater understanding of the existing value orientation would be extremely useful in handling the cultural transformation process and change within the organization.
- (2) Secondly, values have strong influence on the behaviour and attitudes of individuals (Rokeach, 1973). A better understanding needs to be developed of how values can be effective in the shaping of 'quality' behaviour and attitudes of members in the organization. This idea of incorporating 'soft' dimensions, such as values, in understanding quality improvement is consistent with the views of Wilkinson and Witcher (1991), who suggested that 'quality' must be integrated into theories of organizational behaviour.
- (3) Thirdly, values endure long-term commitment and motivation of members to the organization. This aspect is important to the continuous process and sustainability of quality in organizations.

Thus, an understanding of the value orientation in an organization may be beneficial in guiding top management to determine an appropriate improvement strategy. This is because, for some organizations, especially those that are inspired by national and ideological commitment, values are important elements, which can influence the functioning of the organization more than other factors such as markets or competition.

Although this study places emphasis on values and 'soft' elements, other issues related to quality have not been neglected. In fact, the framework's categories have served as an important guide in the analysis stage of this study. As reported in Chapter 7, these categories were found to be useful and adequate in classifying quality-related issues of the organizations concerned.

1.3 RESEARCH METHODOLOGY AND DESIGN

The approach taken in this research views the social world as an evolving process and conceives it as an open system. Here, it is assumed that human beings exist in an interactive relationship with their world and it is very difficult to find determinate causal relationships between constituent processes or elements. In short, the methodological approach adopted for this study largely subscribed to the qualitative or interpretative research paradigm.

Although this research was primarily based on the qualitative approach, it does not advocate the exclusive use of either the extreme qualitative or quantitative techniques. In this study, a balance of methods or techniques have been used. Thus, by employing the case study (Yin, 1984) and grounded theory approach (Glaser and Strauss, 1967), this study has used multiple techniques (interviews, documents and survey) to gain empirical evidence (see Chapter 5). The empirical data were mainly gathered during the two fieldwork periods in Malaysia, the host country of the nine case organizations involved in this study.

The first phase fieldwork, which was a three-month period (May - July 1993), sought to gain an overall view of the history, social and economic development of the country in which this study was to be conducted. It also served as an important step for gaining access into organizations in this study. During this period, some interviews were carried

out with senior managers in organizations. In the interviews with these managers, issues relating to the quality and improvement process, especially the 'soft' issues such as culture and values, were given emphasis.

The second phase of fieldwork, which was also a three-month period (December 1994 - February 1995), focused on studying government-influenced organizations (GIOs). During this period, a questionnaire survey was developed and administered. The questionnaire focused on the value orientation of these organizations (based on Rokeach's terminal and instrumental values) as well as on members' expectations and perceptions of quality. A total of 210 members from five GIOs (UTEL, UTEN, OPET, OSEDC and SLUTH) cooperated and participated in this survey. Interviews were also carried out with senior managers from these organizations.

1.4 CONTRIBUTION OF THIS STUDY

This study makes contributions to the area of quality management in particular, and to the field of organizational behaviour in general, in the following manner:

- (1) Past research on 'quality' has been overwhelmingly conducted in organizations from developed countries in the West or in Japan. In general, the concern for quality in these organizations was driven mainly by competition and market consideration, i.e., in order to remain competitive organizations or companies must become more efficient and effective. However, this study demonstrates that 'improvement' to organizations must also take into account the achievement of larger social and economic objectives of a nation. The 'burden' of social responsibility felt by these organizations, especially those related to the government's interest, could have significant influence on their priorities or emphasis.

- (2) This study also provides evidence of the relevance of values to the improvement process in organizations. Particularly, it has shown that some aspects of values related to ethics or virtues (such as honesty and responsibility) and values related to relationships between people (such as self-respect, helpfulness, true friendship and courtesy), play an influential role in shaping the belief system of successful organizations. These values were thought to have a long-term impact on the quality improvement process of the organizations.
- (3) The method of evaluating the 'performance' of organizations in this study was based on calculating the difference between members' expectations and perceptions of quality in their respective organizations. The result of this method was found to be consistent with the quality assessment made by the QMEA (Quality Management Award) committee. However, this method is much simpler to use and it is internally derived from the evaluation of quality aspects made by the organization's own members.
- (4) This study also suggests a 'journey' metaphor for understanding the quality improvement process in organizations. Various analogies from a 'journey', such as speed, purpose and routes, could be related to concepts of efficiency, goal and strategy in an organization's quality process. The 'journey' metaphor demonstrated complex interactions among and between the external and internal organizational elements which influence effectiveness and performance.
- (5) Finally, this research contributed to the literature on quality management by providing a non-Western perspective on the subject. By investigating such phenomena in a developing, non-Western country, additional insights were generated. These insights will be useful, in particular, for theory development in this discipline.

1.5 ORGANIZATION OF THE THESIS

This thesis is divided into eight chapters. This chapter, Chapter 1 presents an overview of the thesis. The content of the subsequent chapters are highlighted in the following paragraphs:

Chapter 2: Chapter 2 reviews the quality management literature. Various views and concepts of quality from the gurus of quality (Deming, Juran and Crosby) and other experts are presented. The evolutionary and broadening of understanding of the concept of quality is also highlighted. The two main approaches of studying quality in organizations are discussed. They include: a piece-meal approach, which is primarily focused on products of organization, and a wider quality approach, which is concerned more with the overall effectiveness of the whole organization.

Chapter 3: Since the study was conducted in Malaysia, it is important to provide some background descriptions of the social and economic issues in the country. Thus, the early part of the chapter is devoted to presenting the major social, economic and developmental issues of the country. This is followed by a description of activities from those organizations that are highly involved in promoting quality. Also, this chapter brings attention to the influence and implications of ethical and moral values in quality management.

Chapter 4: This chapter presents the conceptual framework for this study. The framework is creatively developed and based on the ideas and concepts found in the literature. The framework is broad to ensure a variety of quality-related issues are covered or accommodated. The discussion of quality-related issues was arranged to fit into one of the following framework categories: (1) mission and objectives of the organizations, (2)

quality systems and techniques, (3) context (internal and external), (4) organizational culture, and (5) organizational effectiveness and performance.

Chapter 5: In this chapter, the methodology and design of research was discussed. Two strands of research approach, the hypothetico-deductive and the symbolic-interpretative, were highlighted. Customarily, the hypothetico-deductive approach mainly uses quantitative techniques and the symbolic-interpretative approach uses qualitative methods of data collection. In this study, a balance of methods or techniques have been used. Thus, by employing the case study (Yin, 1984) and grounded theory approach (Glaser and Strauss, 1967), this study used multiple techniques (interviews, documents and survey) to gain empirical data.

In this study, two fieldwork trips were made to Malaysia, the host country of the nine case organizations involved in this study. During the second phase, a survey was conducted on members of five GIOs (government-influenced organizations). This survey focused on studying the value orientation of these organizations (based on Rokeach's terminal and instrumental values) as well as on members' expectations and perceptions of quality.

Chapter 6: This chapter reports the process of conducting the two phases of fieldwork and describes the nine case organizations (MCISB, MSPH, SMAS, SLUTH, MMTR, UTEL, UTEN, OSEDC and OPET) of the study. These organizations were involved in different types of business activities: the manufacture of air conditioning equipment, telecommunications, airline business, the manufacture of electronic items, fund management and specialized services, electricity provision, land and property development and petroleum production.

Chapter 7: The analysis and findings of this study are reported in this chapter. There were two stages of data analysis: (1) a holistic and a more qualitative-oriented analysis, and (2) a focused and a more quantitative-oriented analysis. The first stage analysis was primarily

based on the interview data, site observations and limited (mini) survey data. Whereas, the second stage analysis was based on the responses of organizational members given in the questionnaire survey (Appendix 6).

Chapter 8: This chapter discusses significant issues relating to the quality improvement process of organizations. The implications of the findings to theory development and managerial practices and policies are highlighted. Finally, the chapter ends with a suggestions for potentially interesting and useful research that could be followed up from this study.

CHAPTER TWO: REVIEW OF QUALITY MANAGEMENT

"Quality can be divided. Subjects and objects are just one of the ways. The question was, which way was best? Different metaphysical ways of dividing up reality have, over the centuries, tended to fan out into a structure that resembles a book on chess openings. If you say that the world is 'one,' then somebody can ask, 'Then why does it look like more than one?' And if you answer that it is due to faulty perception, he can ask, 'How do you know which perception is faulty and which is real?' Then you have to answer that, and so on. " (Pirsig, 1991: p.131)

This chapter begins with a review on concepts of quality (Section 2.1) as described in the literature. In this opening section, concepts of quality from gurus and other experts on quality are discussed. In Section 2.2, it is pointed out that three things must be taken into account when conceptualizing or understanding the meaning of 'quality' used in organizations: (i) its contextual usage and application, (ii) the subjective-objective dimension of its meaning, and (iii) operationalization of the meaning of quality.

The concept and meaning of quality is the basis for a management philosophy known as the total quality management or TQM. In Section 2.3, the development and fundamentals of TQM are described. The strategic role of quality and the major elements required for effective TQM are also discussed in the same section.

Finally, Section 2.4 concludes the chapter with a discussion on several approaches of studying quality in organizations. Notably, there are two dominant approaches of studying quality in organizations: (1) the approach which is concerned with the improvement of products produced by the organizations, and (2) the approach which is concerned with the overall effectiveness of organization. This study has adopted a holistic approach in order

that it might embrace discussion on all aspects of organizational life and activities including issues of values and culture.

2.1 CONCEPTS OF QUALITY

The explosion of interest in quality has led to widespread deliberation about the concept's meaning. Dictionary definitions of 'quality' (Oxford, Webster) suggest four specific connotations of meaning. Thus, 'quality' can mean: (1) an essential or distinctive character or property or attribute; (2) a character or nature, as belonging to or distinguishing a thing; (3) a character with respect to fineness or grade of excellence; (4) high grade, superiority, or excellence; and so on. Various writers (e.g. Garvin, 1988; Hardie, 1993; Smith, 1993) have reviewed different definitions of quality. Most definitions of quality relate to the products and services produced or offered by organizations. Some definitions of quality suggested in the literature are given in Table 2.1.

The multiplicity of meanings for quality results in the ambiguity as to what is meant when the term is used. This is especially true in organizations since at different organizational levels and for each functional area, quality takes on a specific and different meaning. The definition or understanding of quality of a shop-floor worker would be very much different from that at the top management. The shop-floor would most likely understand quality in terms directly related to his or her task whereas the top management would conceive quality from an overarching organizational perspective.

Also, the differences in meaning for quality can occur between members of different functional areas of the organization. The meaning of quality to the finance personnel may be in terms of better utilization of money and its management while the meaning of quality to the production personnel may refer to the efficiency of machines and better control of

production process. Therefore, the concept of quality held by organizational members depends on his or her position or location within the organization.

Table 2.1: Some Definitions of Quality

Source	Quality Definitions
Webster's New Collegiate Dictionary, 1977	"quality, <i>n.</i> 1) peculiar and essential character; an inherent feature; ... 2) degree of excellence; superiority in kind; ... 3) social status; an acquired skill... 4) a special or distinguishing attribute."
Deming, 1986; p168	"Quality can be defined only in terms of the agent. ... In the mind of the production worker, he produces quality if he can take pride in his work ... [and] quality to the plant manager means to get the numbers out and to meet specifications."
Juran, 1988a; p.5	"... quality is 'fitness for use'."
Crosby, 1984; p.60	"Quality has to be defined as conformance to requirements."
Adam, Hershauer and Ruch, 1986; p.9	"Quality is the degree to which a product or service conforms to a set of predetermined standards related to the characteristics that determine its value in the marketplace and its performance of the function for which it was designed."
Grocock, 1986; p. 27	"The quality of a product is the degree of conformance of all of the relevant features and characteristics of the product to all of the aspects of a customer's need, limited by the price and delivery he or she will accept."
Thurston, 1985; p. 31	"Quality is the index that reflects the extent to which the customer feels that his need, the product, and his expectations for the product overlap. The relevant measure of quality does not reside in the product. It resides between the customer's ears."
Ross, 1988; p.1	"The quality of a product is measured in terms of these characteristics [of performance relative to customers or expectations]. Quality is related to the loss to society caused by a product during its life cycle [i.e., Taguchi Loss Function]."
Gitlow, Gitlow; Oppenheim and Oppenheim, 1989; p.3	"Quality is a judgment by customers or users of a product or service; it is the extent to which the customers or users believe the product or service surpasses their needs and expectations."
Hanan and Karp; 1989	"Quality is an assessment of the general goodness of a product. It is the sum total of all the ingredients or components that compose the product and that contribute to the value it adds."
Collier, 1990; p.239	"Quality is the distinctive tangible and intangible properties of a product and/or service that are perceived by the customer as being better than the competition."
Senior and Akehurst, 1991; p.102	"... a word used by an individual to describe whether his or her perception of a product or service has reached a satisfactory level of excellence."

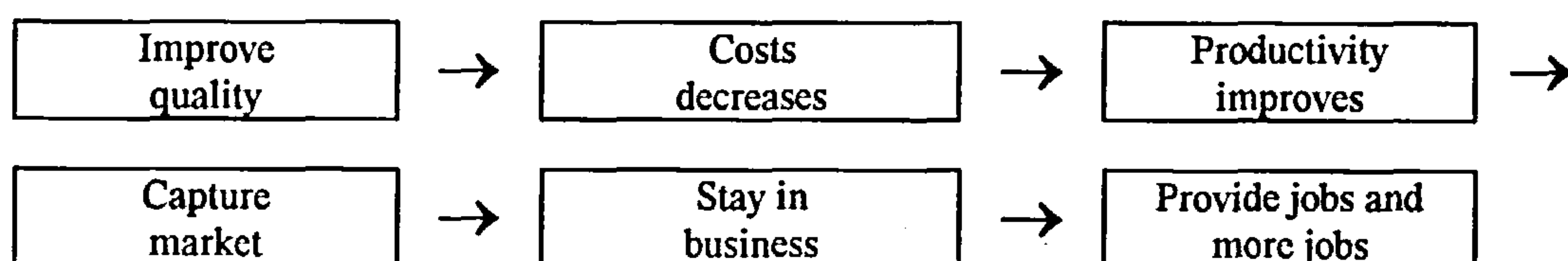
The primary purpose of this section is not to delve into a lengthy presentation of quality definitions and understandings given by various writers. Rather, the purpose is an attempt to expose those quality meanings and concepts towards the development of a conceptual framework that will enable us to understand quality and its related issues better. Thus, this section begins with descriptions and conceptualizations of quality by each of the three early prominent figures of quality movement, or the quality gurus: Deming, Juran and Crosby. It then reviews conceptualizations of quality by other quality experts or writers. The review made in this chapter will become the basis for the development of a conceptual framework that would fill in the gaps of our understanding of quality and quality-related issues in organizations.

2.1.1 Deming's View

W. Edwards Deming is perhaps the most influential among the quality gurus and is regarded as the founding father of the quality management movement (Macdonald and Piggot, 1990; Collard, 1993). Deming's quality concept is in large part the result of his lifelong involvement with the production side of business operations.

Deming (1986) believes that the key to successful business is through improving quality as demonstrated in his 'quality-chain' (Figure 2.1) argument:

Figure 2.1: Deming's Quality-Chain



Source: DEMING, W. E. (1986, p.3)

The prevailing notion of Deming's (1986) quality concept is focused on the satisfaction of users or customer needs. To satisfy customers is not an easy task because it involves a continual process of improvement and evaluation. Deming paraphrases Shewhart (1931) to illustrate this difficulty of defining quality in the eyes of the customer:

"The difficulty with defining quality is to translate future needs of the user into measurable characteristics, so that a product can be designed and turned out to give satisfaction at a price that the user will pay. This is not easy, as soon as one feels fairly successful in the endeavour, he finds that the needs of the consumer have changed, competitors have moved in, there are new materials to work with, some better than the old ones, some worse; some cheaper than the old ones, some dearer" (Deming, 1986; p. 169)

Being a statistician, Deming's approach to quality is highly influenced by his professional background. He believes that quality and productivity increase as variability decreases and, because all things vary, that is why statistical methods of quality control must be used. He explains that statistical control does not imply absence of defective items. Rather, it is a state of random variation in which the limits of variation are predictable. According to Deming (1986), many organizations waste their money in their attempts to solve quality problems. This occurs because without using statistical methods the probability for causes of poor quality could not be determined. He advocates the use of statistics to measure performance in all areas, not just conformance to product or service specifications. Furthermore, he points out that it is not enough to meet specifications, continued efforts must be made to reduce the process variation still further. He believes that reducing process variation can be applied to every job and task, since a process, in its broadest definition, is simply something with an input, a transformation or added value function performed on the input, and an output (Deming, 1986).

With respect to the management's role, according to Deming (1986), it should be continuous improvement of their processes, but he states that this will not be achieved by

simply exhorting people to achieve zero defects or to do things right first time. Deming refers to the "fallacy of zero defects" and describes:

"There is obviously something wrong when a measured characteristic barely inside a specification is declared to be conforming; outside it is declared to be non-conforming. The supposition that everything is all right inside specifications and all wrong outside does not correspond to this world. A better description of the world is the Taguchi loss function in which there is minimum loss at the desired value, and an ever-increasing loss with the departure either way from the nominal value" (Deming, 1986; p.46).

Deming also suggests that managers should develop a deep understanding of their organizations as a system, or network of processes, and then learn to understand the effects of different types of variation on that system. The concept of reducing process variation and of processes being either in or out of control is fundamental to Deming's meaning of "continuous improvement", and his claim that increased quality implies increased productivity. He states that it is possible to obtain a high quality product from a low quality process, by thorough inspection and checking of the output, but this will involve extra overheads and a high reject and rework rate. If the quality of the process itself is improved however, then overheads will actually be reduced, through having less rework and less wasted effort.

2.1.2 Juran's View

Juran (1988a) coins the phrase "fitness for use" to conceptualize the meaning of quality. This concept is basically a product-based definition of quality, i.e., it describes the readiness of product for usage. Elaborating on the concept, Juran mentioned four "parameters" of fitness for use: availability, reliability, maintainability and producibility.

The first parameter, "availability", refers to the product operational readiness. If products never failed, availability would be in perfect form. However, Juran admits that products

do fail. As such, the second parameter, "reliability", which he defines as "the probability of a product performing without failure a specified function under given conditions for a specified period of time" (Juran, 1988a; p. 29) is essential to limit and to quantify operational readiness. The third parameter, "maintainability", refers to the effort which could be exerted to improve product life. This is achieved by two activities of maintenance: (1) the ease of conducting scheduled inspections and servicing (serviceability), and (2) the ease of restoring service after failure (reparability). Finally, the fourth parameter, "producibility", measures the extent to which the product design can be readily produced with the facilities and process available to operators. Producibility has no direct relation to fitness for use of external customers (consumers), but obviously of great importance to internal customers.

Juran (1964, p.15) puts forward the idea that managers can manage by using "breakthrough" or by using "control". By "breakthrough" he means that managers realise that the present levels of performance (productivity, quality and waste) are not acceptable, action is taken to identify what the chronic causes are, and then steps are taken to eliminate them. This leads to a new and improved level of performance. "Control", on the other hand, means attempting to maintain performance levels as they are, as if they are a means within specifications. Juran states that there are times when "control" is needed but managers must always be looking to achieve "breakthrough", i.e. continuous improvement.

With respect to peoples' attitudes, Juran believes that they will be changed by changing their behaviour. Therefore, by creating a structure where people are "forced" to consider quality, their attitude to quality will be changed. In this manner, Juran (1964) believes that a quality improvement programme which is backed by necessary education and training would have a profound impact on the cultural pattern. As people are required to carry out quality improvement activities, they become trained and familiar with them. Juran (1964) argues that peoples' attitudes and perceptions towards work would change through

education and training in quality. Through this process, quality improvement would not be perceived by them as additional activities in their job but rather it is considered as part of their normal work.

One of the problems facing organizations. Juran believes, is that there exists multiple functions and levels within organization. Members of different functions regard their work to be unique and special. For example, members of finance department perform quite a different job as compared to those in the manufacturing department. Also, a member at different organizational level, from CEO to shop floor worker, all have different responsibilities, experience and training. These differences constitute an obstacle to a universal way of thinking about quality. Moreover, he believes that people have a "different" language dependent upon their function and level within an organization. The directors and executives at the top would be talking "the language of money" (profitability, sale, revenue and market share), the junior managers and "blue collar workers" at the bottom would be talking the "language of things" (machine breakdown, defects, reject rate) and the middle managers in the middle acting as "communicators" between the two would be concerned on issues such as control, efficiency and productivity. This, Juran believes, must be borne in mind when implementing quality improvement (Juran, 1964).

In implementing his philosophy in an organization, Juran talks of an organization being like a biological entity that will reject anything that seems unusual or alien to it. Thus, Juran (1964) emphasizes the similarity of his quality implementation methods with those of normal business functions and structures. He suggests that Financial Planning equates to Quality Planning, Financial Control equates to Quality Control and Financial Improvement equates to Quality Improvement. These three factors of Quality Planning, Quality Control and Quality Improvement have come to be known as the Juran Trilogy. Juran suggests that the Trilogy can be used to move away from the traditional way of managing. Furthermore, Juran advocates that an administrative structure for implementing quality improvement is created, to exist in parallel with the normal structures within a business

organization. This usually takes the form of a Quality Steering Group and local steering committees. The Quality Steering Group co-ordinates the organization-wide implementation, and consists of the organization's top management. The local steering committees usually consist of one member from the Steering Group plus local managers. Their role is to identify and co-ordinate local improvement projects. According to Juran, these administrative arrangements for quality would be similar to those found in a hierarchical structure of normal organizations and by they should not cause unnecessary anxiety to the members when they are introduced. Thus, Juran's approach to the implementation of quality in organization is to seek harmony with the existing organisational arrangements and to avoid negative receptions from members of the organization.

2.1.3 Crosby's View

Along with Deming and Juran, Crosby is considered to be one of the early leaders in the quality field. Crosby (1979) defines quality as "conformance to requirements". Crosby pointed out that requirements must be clearly stated so that measurements could be taken continually to determine conformance to those requirements. To him, "the non conformance detected is the absence of quality" (Crosby, 1979, p.15). Subsequently, he rejected the notion that quality is an intangible and not measurable (Crosby, 1979). In asserting this type of view, he states:

"... quality is precisely measurable by the oldest and most respected of measurements - cold hard cash. ... Quality is measured by the cost of quality which, as we have said, is the expense of non conformance - the cost of doing things wrong. These costs are divided into prevention, appraisal, and failure categories. But they are a result of not doing things right first time." (p. 15)

The expense of non-conformance according to Crosby is the cost of loss of sales if customer requirements are not met or cost of failure to meet internal company standards,

resulting in defect or scrap costs. Crosby reduces these ideas into his Four Absolutes of Quality:

- (1) The definition of quality is conformance to requirements.
- (2) The system of quality is prevention.
- (3) The performance standards is zero defects.
- (4) The measurements of quality is the price of non-conformance.

With regards to the first absolute, Crosby (1984, p.17) simply says that "the best brains and most useful knowledge will be invested in establishing the requirements", and that "setting requirements is a process that is readily understood." For the second absolute, he says "Statistical quality control may be helpful for prevention ... SQC is made out to be very complicated and difficult to do, but there really isn't that much to it. The people who make up charts for the variables and teach the measurement techniques have to be skilled, but everyone else only has to learn to understand a few things." The third absolute is intended by Crosby to give a clear statement of what people are to aim for. Unlike AQLs (acceptable quality levels) which are still widely used in acceptance sampling and assume that some defects are acceptable and inevitable, the zero defects concept is aimed at excellence rather than mediocrity. The fourth absolute is deemed necessary by Crosby so that a standard measure of the cost of quality is available and any improvements that are made can be measured against this common yardstick.

In some aspects, Crosby's approach to quality improvement is almost similar to Deming's, for example, on reducing variation and using statistical methods. He believes quality can be achieved from planned reduction of variation. Following that, productivity should improve as variability decreases. Since all things vary, according to him, we need to use statistical methods to control work processes. By using these statistical methods the limits of variation in work processes will be more predictable. He believes it is "the statistical understanding of systems that allows accurate diagnosis and solution of problems" (Crosby, 1984; p. 17).

On the issues of the responsibility for quality improvement and the blame for quality related problems, Crosby (1984) believes that they rest with the management and that the main obstacle to improvement is the change attitude of management. Like Deming, Crosby believes that real improvement can only begin when there is determination of management to change themselves. The management are expected to play a leading role as exemplars in quality improvement effort.

Table 2.2: Views of the Quality Gurus Compared

	Deming	Juran	Crosby
Definition of quality	A predictable degree of uniformity and dependability at low cost and suited to the market	Fitness for use	Conformance to requirements
General approach	Reduce variability by continuous improvement; cease mass inspection	Functional management approach to quality	Prevention, not inspection
Performance standard/motivation	Use statistics to measure performance in all areas; critical of zero defects	Avoid campaigns to 'do perfect work'	Zero defects
Quality improvement prescriptions	14 points for quality improvement	14 steps to quality improvement	10 points for quality improvement
Top management responsibility	Responsible for more than 90% of quality improvement efforts in the organization	Less than 20% of quality problems are due to workers	Responsible for quality
Basis for improvement	Steady approach towards reducing variability	Project-by-project approach; set goals	A 'process' not a programme; improvement goals
Cost of quality	No optimum, continuous improvement	Quality is not free, there is an optimum	Cost of non conformance; quality is free
Use of statistical methods	Statistical methods must be used	Recommends the use of statistical methods	AQLs (acceptable quality levels) should be regarded as a step for further improvement

Views and concepts of the three gurus on quality is summarized in Table 2.2. While there are some differences in views on some of the elements described in the table, all the gurus

seem to point towards the top management as being mostly responsible for quality improvement efforts in the organization. The top management are regarded as role models and exemplars and through their influence and authority they can shape the cultural pattern of the organization. The leaders' example and their commitment towards quality carry great influence in creating a quality-conscious culture; their roles are especially important at the initial period of introducing quality concept and awareness in the organization.

All the three gurus, being technically trained, prescribe a very structured approach of instituting quality programmes in the organization. Checklists of steps or points have been prescribed for use by organizational practitioners. Also, they advocate and use statistics as a main tool for quality control and measurement methods. In their understanding, quality must be measured so that control and comparative evaluation can be made. Such understanding, that quality is always a measurable thing, portrays the objective approach of conceptualizing its meaning. This approach is very useful when one deals with or involves in the measurement and quantification of quality of tangible products and process.

2.1.4 Views from the Japanese Quality Experts

Three Japanese personalities have been regularly associated with quality: Kaoru Ishikawa, Genichi Taguchi and Masaki Imai. Ishikawa and Taguchi are noted more for technical and process improvement of quality while Imai is more concerned with the organizational and management aspects of quality.

2.1.4.1 Kaoru Ishikawa

In order to improve the production process, Ishikawa (1985) suggests the use of three categories of statistical tools and methods: elementary statistical methods, intermediate statistical methods and advanced statistical methods (see Table 2.3). The elementary methods, also referred to as the "Seven Q Tools" can be used by top

management (president or CEO), middle management and shop floor workers. He claimed that as much as ninety-five percent of all problems within an organization can be solved by means of these tools. The intermediate statistical methods are generally taught to engineers and the advanced methods are taught to only a limited number of engineers who need them for complex analyses.

Table 2.3: Categories of Statistical Tools and Methods

<i>Elementary</i>	<i>Intermediate</i>	<i>Advanced</i>
Pareto Chart Cause and Effect Diagram Stratification Data and Check sheet Scatter Diagram Graph and Control Charts Histogram	Theory of Sampling Surveys Statistical Sampling Inspection Statistical Hypothesis testing Methods for Sensory testing Design of Experiments	Advanced Design of Experiments Multivariate Analysis Operations Research Methods

The cause-effect diagram, one of the techniques that Ishikawa advocates is sometimes known as a fish-bone diagram because it resembles a fish skeleton. This technique systematically identifies the causes of poor quality and remedial actions to be undertaken to improve the situation. The diagram is the most widely taught and used technique for analyzing causes of poor quality outcomes (Macdonald and Piggot, 1990).

2.1.4.2 Genichi Taguchi

Taguchi is known for his method of minimizing variation in a production process popularly known as the Taguchi Method. This method of quality improvement depends heavily on statistical concepts and tools, especially statistically designed experiments. Taguchi (1986) defines quality as "those losses a product imparts to the society from the time the product is shipped Quality means less trouble, less power consumption, or longer life for the same function. Better quality imparts less trouble to the consumer." The Taguchi loss function points out that Crosby's idea of zero defects, based on

conformance to specifications, does not always result in a quality product. He states that the aim should be to reduce the variation around the perfect value of the desired functional characteristic, and the reduction of variation should be the measure of quality improvement. This concept of continuing to try to reduce variation, even if specifications are being met, aligns with the TQM concept of continuous improvement.

2.1.4.3 Masaki Imai

Imai (1986, p.xxix) states "it is the process orientated way of thinking versus the West's results orientated thinking" which marks the most important divergence between Japanese and Western quality management concepts. Imai (1986) considers the quality movement in Japan as part of *Kaizen* (which means improvement) movement. He points out that Total Quality Control (TQC) activities in Japan are not concerned solely with the narrow meaning of product quality control. To him, TQC undergoes perpetual change and improvement, that it is never quite the same from one day to the next. He regards *Kaizen* as management tools within the TQC movement and he regrets "that in the West TQC has been dealt with mainly in technical journals when it is more properly the focus of management journals" (Imai, 1986; p.13).

2.1.5 Broadening the Concept of Quality

Although the original concepts of quality brought by Deming, Juran and Crosby were initially focused on products' quality but their approaches towards achieving quality are an organization-wide activity. This means that in order to achieve products' quality other organizational elements are also considered and significant. In this respect, the three gurus led the way for organizational practitioners to consider wider organizational elements when dealing with quality. The prescriptions for product improvement provided by the three gurus, namely, Deming's Fourteen Points, Crosby's Fourteen-step Quality Improvement Process and Juran's Prescriptions (Table 2.4), has broadened the concept of quality and includes management commitment, education and training, motivation, reward

and recognition, communication and information, relationships with suppliers and sustaining conducive working environment. The elements prescribed by them are not only useful for product improvement but more importantly they have been used and expanded by organizational developers to institute a culture of quality and excellence in organizations.

Table 2.4: Quality Gurus Organization-wide Approach to Quality

Deming's Fourteen Points for Quality Improvement	Juran's Prescriptions for Quality Improvement	Crosby's Fourteen-step Quality Improvement Process
(1) Constancy of purpose	(1) Build awareness of the need and opportunity for improvement	(1) Management commitment
(2) The new philosophy	(2) Set goals for improvement	(2) The quality improvement team
(3) Cease dependence on inspection	(3) Organize to reach the goals	(3) Quality measurement
(4) End the 'lowest tender' contracts	(4) Provide training	(4) The cost quality
(5) Improve every process	(5) Carry out projects to solve problems	(5) Quality awareness
(6) Institute training and education on the job	(6) Report progress	(6) Corrective action
(7) Institute leadership	(7) Give recognition	(7) Zero defects planning
(8) Drive out fear	(8) Communicate results	(8) Supervisor training
(9) Breakdown barriers	(9) Keep score	(9) ZD Day
(10) Eliminate exhortations	(10) Maintain momentum by making annual improvement part of the regular systems and processes of the company	(10) Goal setting
(11) Eliminate arbitrary numerical targets		(11) Error-cause removal
(12) Permit pride of workmanship		(12) Recognition
(13) Encourage education		(13) Quality councils
(14) Top management's commitment		(14) Do it over again

Source: DEMING, 1986; JURAN and GRZYNA, 1988b; CROSBY, 1984

Broadening the concept such that quality does not primarily refer to organization's products is also the understanding of many other quality experts. For example, Feigenbaum (1956) marks an important point in the evolution of the quality concept when he first used the word "total" in conjunction with it. He emphasized that quality control cannot be achieved by concentration on just the production function since quality is determined at all stages in business cycle. Similarly, Ishikawa (1985) says "broadly interpreted, 'quality' means quality of work, quality of service, quality of progress, quality of division, quality of people, including workers, engineers, managers, and executives, quality of system, quality of company, quality of objectives, etc. " (p. 45)

Apart from advocating an organization-wide approach to quality, the quality gurus also suggested that quality should be defined and judged by customers or users. This customer-oriented definition has become a popular one and used by quality experts. (Feigenbaum, 1983; Kanji, 1990). For example, Feigenbaum (1983) defines quality as "customer determination, not an engineer's determination, not a marketing determination or a general management determination" (p.7).

Finally, the concept of quality as a "continuous process" of improvement is also evident in the gurus' approach. Deming's "constancy of purpose", Juran's "maintain momentum" and Crosby's "do it over again" suggest that quality is a never-ending quest for improvement. In Japanese, this concept of continuous improvement is known as *Kaizen* (Imai (1986). To the Japanese *Kaizen* is regarded as management philosophy and it should not be dealt solely in technical terms.

2.2 THE MEANING OF 'QUALITY' USED IN ORGANIZATIONS

The previous section reviewed concepts of quality as espoused by various experts on the subject. It appears that when the meaning or concept of 'quality' in the organization

is needed to be understood or interpreted, three things must be taken into account: (1) the contextual usage and application of the meaning, (2) the objective-subjective dimension of the meaning, and (3) the operationalization of the meaning of quality.

2.2.1 The Contextual Usage and Application

The meaning of 'quality' is contextually related to its usage or application. The meaning in a service organization will not be exactly the same as in a manufacturing one; producers' understanding of quality is not the same as that of users; and the meaning used for a product will be different from that which refers to the whole organization. Thus, quality must be contextually understood with reference to the type of organization, level of organization it refers to, and from which stakeholders (users or producers) it is viewed (Dotchin and Oakland, 1992).

Garvin (1988) provides a useful framework towards understanding the concept of quality. He suggests that quality should have different meanings in different contexts and he has suggested five main approaches. Approaches of various writers in describing the meaning and concept of quality seem to fit in the Garvin's classification scheme for quality meanings (Table 2.5).

The classification scheme created by Garvin illuminates the often contrary and competing views held about quality. People in marketing often employ a user-based approach when talking about quality whereas people in production use a manufacturing-based definition. Consequently, the different approaches adopted by different functions have resulted in different measures for quality. Those employing manufacturing-based definitions of quality normally rely on more objective and tangible measures of quality or specifications such as by measuring the number of defective products. In contrast, those employing user-based definitions of quality often rely on subjective measures of quality, for example, by operationalizing the notion of customer's satisfaction. Thus, to them perfect products

would not mean anything if they are not able to sell them; the ultimate result is to get the customers satisfied and this is reflected from the customers' preference in choosing or buying the products that are produced by the organization.

Table 2.5: Five Meanings of 'Quality'

Meaning of 'quality'	Description of the meaning
(1) <i>Transcendent</i>	Quality is understood only after exposure to a series of objects that develop its characteristics. The example that is often used to explain this definition is that the quality of a particular artist only becomes apparent when a number of his or her works have been viewed. The idea here is that quality can't be defined, and you recognize it only when you see it.
(2) <i>Product-based</i>	Quality is based on the presence or absence of a particular attribute. If an attribute is desirable, greater amounts of that attribute, under this definition, would label that product or service as one of higher quality.
(3) <i>Manufacturing-based</i>	Quality in manufacturing is defined as the conformance of a product or service to a set of predetermined requirements or specifications. Failure to meet these requirements is, by definition, a deviation and, as such represents a lack of quality. This approach assumes that specification is a valid surrogate for a customer requirement and that, if met, it would satisfy the customer.
(4) <i>User-based</i>	Quality "lies in the eye of the beholder." The ability to satisfy customers' requirements, expectations, or wants is the sole criterion by which quality will be determined. This definition supports the marketing concept in which the ultimate aim of the organization is the complete satisfaction of the customer.
(5) <i>Value-based</i>	Quality under this definition consists of offering a product or service to a customer with certain characteristics at an acceptable cost or price. This definition combines the idea of worth or value with the offering.

Source: GARVIN, 1984

Understanding the meaning of quality in context is vital because the differences in the context will often produce different criteria or measures of quality in a particular organization or in a department within the organization. A measure of quality used in one department, for example, may not necessarily be applicable to another department, even though it is within the same organization. Thus, to establish a single measure of quality

for the whole organization is problematic and misleading when measures of quality at different levels or departments are aggregated.

2.2.2 The Objective-subjective Dimension of Quality

Several meanings of quality given in the dictionary as indicated earlier and the classification scheme for the meaning of quality by Garvin (1984) in the previous section reveals both the objective and subjective faces of quality. We can rank or quantify a product or a subject superiority against the others objectively using a certain measure. This ranking or quantification for the meaning of quality takes different forms, such as identifying and measuring the presence of certain defined characteristics or properties (as that of Garvin's product- and manufacturing-based definitions). Hence, the objective meaning presupposes two things: (1) that agreement is reached on what characteristics or attributes should be present to constitute quality, and (2) that to measure the presence of these characteristics and attributes would be possible by using a certain instrument. Thus, the objective dimension is the "hard" side of quality. But there is also the "soft" side of quality which is embedded in the viewer's value system (as that of Garvin's transcendent and user-based definitions). Aesthetics, beauty and transcendental quality elements are soft in nature and subjectively measured through one's own taste or preference. In this respect, the meaning of quality depends on one's value judgement and experience. A saying, "beauty (an attribute of quality) is the eye of the beholder" very well describes the subjective element in the meaning of quality.

Hardie (1993) extends the concept of quality suggesting that its discussion should not be limited only to theories inside the quality movement disciplines. By using ideas and concepts from other disciplines, such as economics, environment, philosophy, law and psychology, he developed a matrix framework towards understanding 'quality' based on six forms of quality (essence, attributes, grade, rank, value, excellence) against three types of object to which quality applies (organization, product, transaction).

In both Garvin (1984) and Hardie (1993), there seem to be two sides or dimensions of quality, that is, an objective dimension (quality meaning with definable characteristic and specifications) and a subjective dimension (quality meaning embedded in one's value system) definition. The objective dimension focuses on a uniform, consistent product meeting specifications and concerned about doing things right the first time. Whereas, the subjective dimension is about perception of the perceiver (customer) regarding certain attributes or characteristics of product or service. Thus, the perception on quality is value-laden and culturally influenced.

Subjective meaning of quality can lead to choices which are irrational in commercial or economic sense. The competition by companies to provide for better and appealing products to customers is not only for the objective meaning (functional, performance, efficiency) but it has also been fiercely contested on its subjective meaning (aesthetic, creative design, perceived value). When quality is being regarded by an organization for a competitive strategy it is necessary to consider both the objective and subjective dimension of quality (Smith, 1993)

2.2.3 The Operationalization of the Meaning of Quality

The need to operationalize the meaning of quality arises from concern for its improvement and control. However, operationalizing quality is difficult and problematic because there exists subjective meaning attached to it. Smith (1993) points out that the popular way of operationalizing the meaning of quality is through measuring customer satisfaction. The customer satisfaction measures are usually derived from customers' perceptions, feelings, expectations or needs for a certain kind of product or service. This popular customer-oriented operationalisation was being used by many organizations as a gauge for a quality indicator in their improvement programmes. By focusing on what will satisfy the customer or what the customer requires, organizations are then driven to continually improve their products and services.

The prevailing usage of describing quality from the customers' point of view assumes that quality is externally and commercially driven. This is not necessarily true because quality could also be driven internally by producer's concern, responsibility and pride. By incorporating this view, that quality is also internally driven, we can explain better the behavioural, motivational and cultural side of the quality drive in the organization. Smith (1993), for example, analyses and challenges the popular notion of customer-oriented quality. The analysis sheds light on prevailing definitions of quality, challenging and extending the conclusions of prevailing customer-oriented definitions. The conceptual analysis suggests the possibility of expanding beyond the customer-oriented view that dominates current quality thinking and practice. A broadened account of quality for organizational goals is proposed, which explicitly recognizes that quality can be assessed from an organization (or a producer) standpoint.

Smith's (1993) analysis provides a valuable critique to the established and customer-oriented approach in that it is suggested that a more "balanced approach to quality" is essential. This approach should consider the interests of various constituents of quality: users, organizations and society. He claimed this to be a better and more appropriate perspective for explaining quality issues in organizations and its relationship to the user's needs.

2.3 TOTAL QUALITY MANAGEMENT

Total quality management (TQM) is the term used to identify a philosophy of management based upon the concept of quality. However, TQM and its precise meaning is still vague. This section will demonstrate that the understanding and concept of TQM is not static. It is the result of an evolutionary process that has expanded its meaning and application. Thus, this section does not attempt to limit the borders for the definitions of TQM but rather it serves to portray the broad concept of TQM. The section begins by

looking into its historical development. Then, the fundamentals of TQM are described and it is followed with a description of a strategic role of quality in TQM. Finally, the section ends by discussing those critical elements needed for successful implementation of TQM.

2.3.1 Development of Quality Management

The development of quality management can be defined, basically in four phases: quality inspection (QI), quality assurance (QA), total quality control (TQC) and total quality management (TQM). The four phases demonstrate that the quality management discipline has moved from a technical-orientation to a managerial-orientation. In the earlier phases of quality management, QI and QA, quality concern is mainly the sphere of the manufacturing division of an organization. However, in the later phases, the quality concern has embraced all other departments and divisions in the organization.

With regard to the four phases of development in quality management, Bossink, Gieskes and Pas (1992) have analyzed these phases of development from three perspectives: (1) technological and utilitarian perspective, (2) cultural and structural perspective, and (3) maintenance, improvement and innovation perspective (see Table 2.6). Their analysis shows that TQM is a concept developed from the evolutionary process of quality understanding which has broadened out over the years. When quality was at the initial stages of development, all the three perspectives regard quality as playing a limited role in the organization. Nevertheless, as understanding of quality develops towards a management philosophy and as a way of doing things, it is no longer regarded as referring only to technical matters but it also embraces the whole function of organization. Additionally, their analysis also shows that TQM could be understood from a varied perspective or view of quality: the technological and utilitarian perspective which emphasizes technical and technological improvement; the cultural and structural perspective which emphasizes human resources, structure and organization; the

maintenance, improvement and innovative perspective which emphasizes aspects of maintenance and innovation.

Table 2.6: Phases of Quality Management

Phases ↓	Technological and utilitarian perspective	Cultural and structural perspective	Maintenance, improvement and innovative perspective
QI	Attention to the technological perspective: quality is considered to be a technical matter.	Manufacturing: personnel are workers ('hands') and have no voice. Staff: personnel are thinkers ('brains'), have much influence.	Maintenance in the manufacturing area. Innovation is a separate activity.
QA	Still the same as that in QI phase, i.e., quality is considered to be a technical matter and attention is given to the technological improvement.	Manufacturing is the centre of attention: manufacturing conform to specs and procedures. Staff: reduced influence.	Still remain the same as in QI phase, i.e., focus on maintenance in the manufacturing area and regards innovation as a separate activity.
TQC	Attention to the technological and utilitarian perspective; emphasis lies still on the technological perspective.	The organization as a whole is the centre of attention: everyone must work according to specs, procedures and requirements. Staff: continuing reduction of influence; plays more and more an advisory role.	Maintenance and improvement of products and processes. Innovation is still a separate activity.
TQM	Attention to the technological and utilitarian perspective; emphasis lies on the utilitarian perspective.	The organization as a whole is the centre of attention: habitual improvement; management is the supportive and stimulating factor.	Maintenance and improvement of products, processes and organization. Integration of maintenance improvement and innovation.

Source: BOSSINK, B.A.G., GIESKES, J.F.B. and PAS, T.N.M. (1992)

Although TQM is now being broadly understood as encompassing all aspects of an organizational behaviour and culture, there are still those who regard TQM as merely concerning quality tools and techniques. Those who regard TQM as mainly the improvement of the technical aspects (tools and techniques) of quality are usually the

technical people and of lower management level in the organization. On the other hand, the perspective given by non-technical people and those at the top management tends to be more human-oriented in nature and concerned with the whole organization. Their views are such that TQM is holistic; it embraces both the technical and behavioural aspects of organization as well as the environment surrounding the organization. Thus, they believe that successful implementation of TQM depends on many factors (political, environmental, technical, managerial, human and cultural factors) which influence it.

The broadened view of TQM involves all levels in the organization. Members of the organization believe that they are part of the whole organization who together contribute to providing quality products and services. In other words, they become part of the management process that strives for competitiveness and effectiveness. Oakland (1993), for instance, says that

"TQM is an approach to improving the competitiveness, effectiveness and flexibility of a whole organization. It is essentially a way of planning, organizing and understanding each activity, and depends on each individual at each level. For an organization to be truly effective, each part of it must work properly together towards the same goals, recognizing that each person and each activity affects and in turn is affected by others" (p. 22)

The above TQM approach regards management activities which improve the competitiveness, effectiveness and flexibility of an organization and that which harness each member of it towards shared goals as an essential component. Thus, in order to achieve continuous improvement as desired by TQM the responsibility for quality is a shared and collective one.

As mentioned above, the success of TQM is not only relying on the hard (technical and quantitative) technologies but also more important on the 'soft' (human and cultural) factors in the organization. In this respect, Mossard (1991) recognizes TQM as both

applying the technical and human requirements for quality improvement. To Mossard (1991), TQM is

"... the application of quantitative [and technical] methods and human resources to improve the material and services supplied to an organization, all the processes within an organization, and the degree to which the needs of the customer are met, now and in the future" (p. 223)

The reference to both quantitative methods and human resources in this definition is reflective of Mossard's attempt to strike a balance between two old, and somewhat antithetical, managerial processes - scientific management and the behaviourist approach. Scientific management (Taylor, 1911) attempts to find the best way to perform job functions and then seeks to mould workers' actions to fit the job. The behaviourist school (Mayo, 1945; Barnard, 1938) attempts to understand how organizational and human factors affect employee behaviour and then manipulates these factors to improve employee morale, motivation, and productivity.

2.3.2 Fundamentals of TQM

There are three elements central to TQM: customer-focus, the emphasis on continuous improvement, and involvement of all members of the organization.

The customer-focus element puts the customer or user as the king or judge (Deming, 1986) of quality. In this sense, quality must satisfy the customer needs and requirements who have their own individual markets. The significant outcome from this orientation is that this will drive an organization to pursue and refine these markets in order to reach its fullest potential in satisfying these needs or requirements.

Continuous improvement is accomplished by placing emphasis on the processes by which quality improvements are achieved. In a typical organization, there are interrelated processes: design, manufacturing, marketing, and customer service. Thus, errors

committed in one process will be carried on through the whole system. Therefore, the operators or controllers of the processes need to know how they affect and relate to one another. This helps break down the barriers between functional areas and encourages communication to uncover the areas that need improvement. In this manner, the improvement made on a particular process should lead to the overall improvement of the organization.

Finally, TQM involves all members of the organization in quality activities. Members of the organization, individually and collectively, share the organization's aspirations and objectives. Also, the members participate in the planning and organizing activities of the organization.

2.3.3 Strategic Role of Quality in TQM

In recent years, quality has come to be recognized as a critical strategic tool. Evidence showing a link between quality considerations, general organizational performance and ultimately increased profit (e.g., Deming, 1986; Jacobson and Aaker 1987; Phillips et al., 1983; Schonberger, 1982) continues to accumulate. This quality consciousness has alerted many top management of organizations that, in order for an organization to survive as a competitive one in the markets, quality should be treated as a primary organizational goal.

The beginnings of addressing quality in a strategic manner cannot be dated precisely, for no single literature marks the transition. It appears that total quality control (TQC) was the discipline's last important development prior to TQM. The quality programmes they are now adopting are almost similar to those that emerged two decades earlier. They rely on such well established principles as process simplification, inter functional coordination, zero defects, the cost of quality, and statistical process and quality control. Based on this evidence, the quality movement's last two decades (mid-1960 to mid-1980) would seem to

have been little more than conducting business as usual, with few improvements over past practice (Garvin, 1988). In a growing number of organizations, however, a new vision or philosophy has begun to emerge. It embodies a significant shift in perspective when top level management expressed an interest in quality. They have linked quality with profitability, defined it from the customer's view, and required its inclusion in the strategic planning process. Many of them insisted that quality must be viewed as an aggressive competitive weapon (Garvin, 1988).

These changes occur through an ongoing process of evaluation and examination. A variety of external forces, each linking losses of profitability and market share to poor quality, paved the way. Among the most important influences in shaping the strategic view on quality was the dramatic advances made by Japanese producers. Japanese producers, in the past twenty years, have been able to raise their products substantially in terms of quality and consequently they are able to increase their share in the market.

Defect-free production, the concern of both quality control and statistical control, was too limited in scope. A more outward looking and comprehensive perspective was needed to gain commitment of top level management, whose interests were strategic and competitive. The way out was to define quality from the customer's view. The essence of the approach, according to Garvin (1988) is as follows:

"It is not those who offer the product but those whom it serves - the customers, users, and those who influence or represent them - who have the final word on how well a product fulfills needs and expectations. Satisfaction is related to competitive offerings and is formed over the product lifetime, not just the time of purchase. A composite of attributes is needed to provide the most satisfaction to those whom the product serves."
(p.4)

Here, quality has been defined comparatively, relative to competitors, rather than against fixed, internal standards. Customers, and not internal departments, have been given the

final say in determining whether or not a product is acceptable. By implication, meeting specifications has become a secondary concern to be pursued only after users' needs have been carefully determined.

The strategic view on quality is more an extension of its predecessors, whereby aspects of both statistical and quality control can be seen in organizations adopting the new perspective. The strategic view is more comprehensive than its predecessors, more closely linked to profitability and basic business objectives, more sensitive to competitive needs and the consumer's view, and more firmly tied to continuous improvement. Moreover, today's quality professionals plays the role of managers as compared to previously being inspectors or controllers - they are sensitive to markets as well as to manufacturing. The role and the responsibility of today's quality managers are far greater as compared with their earlier counterparts; they are expected to be involved in higher levels of decision and policy makings of the organization.

2.3.4 Elements Required for Effective TQM

Various authors have pointed out to some elements required for effective TQM. These elements are summarized into Table 2.7 and can be classified into seven factors: (1) top management influence, (2) human resource development and management, (3) process management and systems, (4) employees work environment, (5) supplier quality management, (6) management of customers' values, and (7) quality organizations and technologies. A brief description for each factor is given below:

2.3.4.1 Management Influence

The management, through their vision and examples shape the thinking and approach of organizational members on quality. They are the prime movers of cultural change within an organization; they can impart new knowledge, concept and understanding of quality and of doing things. The need for management to initiate, to lead

and to engage in quality activities is a very significant factor in influencing the development of quality management in the organization. Without the commitment and participation of management it is very unlikely that quality enthusiasm and improvement programmes could be introduced and sustained.

2.3.4.2 Human Resource Development and Management

People in the organization will need to be trained on prescriptions, methods and the concept of quality (Deming, 1986; Crosby, 1984). Human resource development programmes should not be tailored to certain aspects of training and education - the programmes must be based on comprehensive development of human resources. In other words, training and education should not be concentrated only on skill development or task-oriented improvement but a balanced attention should also be given to the psychological and motivational aspects of workers. This is to ensure that the people who work in the organization are on the continuing path of improvement in their works and attitudes.

To take a quality route, the workforce should be seen as an asset. They should be continually developed and given adequate training and education. At the same time they must be appropriately rewarded for their contributions so that there will be continuous commitment and motivation for improvement. Thus, well managed human resource is considered to be a key reason for many successful quality initiatives or efforts within the organization.

2.3.4.3 Process Management and Systems

Process is a central element within an organization because it describes how products are made, i.e., it shows how inputs are transformed to desired outputs. To produce quality products consistently, an organization needs to have a reliable and

dependable process. This can be achieved by using some statistical techniques for control or by adopting some established quality systems such as ISO 9000/BS 5750.

A process which is simple, flexible and easily adjustable has the advantage of responding fast to market demand. The use of computers has become necessary in process management because a computer system can provide quick responses and feedback. From the responses and feedback new orders for products will be adjusted to meet the exact requirements.

2.3.4.4 Employees' Work Environment

Employees can be motivated by their work environment. The physical as well as behavioural aspects of work environment can make the employees comfortable to work in a cohesive team. In quality organizations it has been found that teamwork becomes an essential part for the organization to facilitate continuous involvement or participation of organizational members in quality improvement. Most companies or organizations that have instituted TQM require or encourage their members to be part of quality teams organized within the organization, such as a quality circles (QC) or quality improvement teams (QIT). In the Japanese companies these quality teams have been reported to make a significant contribution in solving their quality problems. The members of these teams meet regularly to discuss problems affecting their duties and they themselves will make suggestions on how to solve those problems.

2.3.4.5 Supplier Quality Management

The Japanese companies tend to be different in some aspects concerning the relationship with their suppliers. The Japanese do not necessarily go for the cheapest in the market for their source of inputs. The companies wish for a long term relationship with their suppliers and often participate in developing suppliers' products and quality improvement. Thus, they do not need many suppliers but what they need are reliable

suppliers. This type of relationship has been found to reduce costs to the organization in the long term because of less hassle, and greater reliability and predictability.

Table 2.7: Critical Elements Required for Effective TQM

TQM Elements	Deming (1986)	Juran (1988a, 1988b)
(1) Management influence	Define management's permanent commitment and obligation to implement the Deming principles; create constancy of purpose towards quality; adopt new management philosophy towards defects, mistakes and defective materials	Upper management leadership and quality policy
(2) Human resource development and management	Use modern methods of training using statistics; institute vigorous programme of training and education	Training, at all levels appropriate quality tools
(3) Process management and systems	Use statistical tools in mfg. and purchasing; search continually for problems in the system (design, materials, machines, training, supervision)	Process design emphasizing quality planning and quality improvement
(4) Employees work environment	Emphasizes teamwork for solving quality problems (sales, manufacturing, research, and design); remove all barriers to worker's pride of workmanship; eliminate quality-related numerical goals and quotas; modern supervision ensuring immediate action on quality problems; encourage communication	Employee relations including quality circles
(5) Supplier quality management	Reduce suppliers, award contracts on the basis of quality; do not choose suppliers based on cost alone	Vendor relations using statistical methods
(6) Management of customers' values		Product design emphasizing fitness for use
(7) Quality organization and technologies	Use statistical methods to improve quality continuously	Organizational mechanism/programme to improve quality; quality information system including cost of quality, external and internal failure data

Table 2.7: Critical Elements Required for Effective TQM (cont.)

TQM Elements	Crosby (1979)	Garvin (1983, 1988)	Ishikawa (1985)
(1) Management influence	Management commitment; quality goal setting	Setting quality programmes and policies; attitudes of management and employees	-
(2) Human resource development and management	Supervisor training and employee training		Training of employees in problem solving, data analysis and statistical techniques
(3) Process management and systems	Qualification of process; corrective action; zero-defect planning; error-cause removal	Production and workforce policies, smooth production schedule	Process improvement through problem analysis
(4) Employees work environment	Employee recognition; quality awareness; zero-defect day	Employee involvement in quality improvement at all levels and in all functions	Employee involvement in quality problem solving
(5) Supplier quality management		Vendor management by streamlining vendors, long-term relationships, emphasis on quality not costs	
(6) Management of customers' values	Understand fully customer product and service requirements	Product design through reliability planning, trial production, and testing and producibility	
(7) Quality organization and technologies	Quality councils; quality improvement teams; quality measurement; cost of quality	Quality information system	Quality function is the responsibility of all departments; quality data gathering and analysis at all levels

Table 2.7: Critical Elements Required for Effective TQM (cont.)

TQM Elements	Adam, Herschauer and Ruch (1986)	Mondon (1982)
(1) Management influence		Setting strategic role of quality in the organizations
(2) Human resource development and management	Employee training and orientation	Quality training at all levels including top management
(3) Process management and systems	Design and control of setup procedures; maintenance and repair; planning and scheduling, and control techniques and tools; process design, location, layout, job design, equipment, tooling, job enrichment	Statistical quality control; participation by all depts in quality control; autonomous process management; selective automation of process and inspection
(4) Employees work environment	Participation of employees; communication; employee selection; reward structure: monetary and non-monetary rewards	Suggestion schemes and employee involvement
(5) Supplier quality management	Effective purchasing to improve quality	Supplier participation in quality control activities by strong, interdependent and long-term relationships
(6) Management of customers' values	Product design, defining product/service quality characteristics	Product design by trial testing, coordination of affected depts. in product/service design, selective automation
(7) Quality organization and technologies		Proper use of qlty. staff as consultants for advance quality problems, extensive training by quality professionals; cost and quality committees gather company-wide data for mgmt. analysis

Table 2.7: Critical Elements Required for Effective TQM (cont.)

TQM Elements	Porter (1986, 1990)	Saraph et al. (1989)	Leonard and Sasser (1982)	Malcolm Baldrige Award (1992)
(1) Management influence	Managing behaviours; strategy for TQM	Role of top management and quality policy	Quality conscious mgmt. style; assign responsibility for quality; top management support for quality	Leadership; strategic quality planning
(2) Human resource development and management	Training for TQM	Training	Training and development of employees and management	Human resource development and management
(3) Process management and systems	Managing the process and systems of organization	Managing process of organization	Organization-wide analysis of quality problems	Management of process quality
(4) Employees work environment	Employee involvement in decision process	Employee relations and communications	Open participation by employees in quality improvement	
(5) Supplier quality management		Management of suppliers		
(6) Management of customers' values		Product and service design		Quality and operational results; customer focus and satisfaction
(7) Quality organization and technologies	Organization for TQM; quality technologies; communication for TQM	Role of the quality department; quality data and reporting	Professional quality assurance and control staff; quality information system for effective decision making at mgmt. and employee levels	Information and analysis

Source: Adapted from Saraph, et al (1989)

2.3.4.6 Management of Customers' Values

Since quality must reflect the value desired by customers, it is necessary for a company to be aware of changes that have occurred in the market place. Products that used to be popular before may no longer satisfy or meet the taste and requirements of customers. Market research and customer feedback could be utilized to assess the changing functional and aesthetic customers' requirements. Organizations responding to the change may need to redesign their products.

2.3.4.7 Quality Organization and Technologies

The scope for quality is wide and it involves members throughout the whole organization. Thus, a well defined and structured approach to handle this responsibility is necessary. Usually the responsibility for initiating and implementing quality activities is entrusted to a particular department. In many cases, a quality department is specially created for this purpose. The department responsible for quality will then promote and train other members in the organization to use quality technologies or methods in handling quality issues and problems.

The factors mentioned above mainly describing important elements needed for an organization which produced tangible products. However, for an organization which does not have obvious tangible products, a different set of critical factors would be needed or applicable. For example, Parasuraman, et al (1985) list ten quality features (Table 2.8) to be important when evaluating four types of services (retail banking, stock brokerage, product repair maintenance, and credit card) in the USA. These features, representing a marketing view of quality, are based on research survey of customers' perceptions on quality, called SERVQUAL method. The SERVQUAL questionnaire method asks customers to rate their perception from the service on a set of attributes, and then to rate

their perception after receiving the service. The gap between the two on each attribute is calculated, and the total gives an index of service quality.

Table 2.8: Service Quality Features

1	RELIABILITY	Keeping promises and consistency of performance.
2	RESPONSIVENESS	Willingness of contact workers to serve clients.
3	COMPETENCE	Employees have appropriate skills to perform the service.
4	ACCESS	How easy it is to contact or get to the service.
5	COURTESY	Politeness, friendliness and client-orientation of staff.
6	COMMUNICATION	Ways of keeping the client informed, in understandable terms, and interest in listening to the clients' concerns.
7	CREDIBILITY	Trustworthiness and honesty and reputation of staff.
8	SECURITY	Physical safety and confidentiality.
9	UNDERSTANDING	Staff work hard at understanding the clients' needs and concerns and demonstrate their understanding in action.
10	PHYSICAL TANGIBLES	Physical environment and appearance of staff and other clients.

Source: Parasuraman, et al (1985)

In recent years, there is growing criticism of the SERVQUAL method. Two popular criticisms are mentioned here: (1) the reliability of the method's attributes and (2) the universal application of the method.

(1) Reliability of attributes: The attributes were selected originally from focus group discussion and interviews to ascertain aspects of service that were important in some way to those studied. However, most services in competitive markets are interested in more specific perceptions that are more important in the sense that they relate to how customers behave in the market. It is likely that customers of different services value some attributes more than others, for example, health patients might value 'capability' more highly than

fast-food customers. The method does not put weights to the relative importance of these different attributes. Also, in competitive markets the type and weight of attributes will almost certainly change every six months (Ovretveit, 1993).

(2) Universality of the method: Different ethnic group and cultures are likely to value different attributes of service (Ovretveit, 1993) and also, users of public services are likely to value different attributes (Sargent, 1991). Therefore, different organizations will need to "tune up" to different set of customers' value in assigning the right weight for chosen attributes.

These criticisms suggest caution in using the method and in interpreting results. If the strengths and limitations are understood, the method can be of use to some organizations or in some situations.

2.4 APPROACHES TO STUDYING QUALITY

There are a number of ways in which quality can be studied. The criteria for choosing a particular approach would depend very much on the purpose of the study and issues to be investigated. In the literature, the studies on quality can be classified into two types: (1) studies which are concerned with the improvement of products produced by organization or simply termed here as product-based quality studies, and (2) studies which are concerned with the effectiveness of organization and which regarded quality philosophy and management approach such as TQM to be an effective prescription for the organization's ineffectiveness or lack of performance.

The primary objective of the first type of study is to improve the organization's products or services. Here, the focus of improvement is the products or services of the organization. In many cases, the studies of this type will first identify the products or services of the organization. Then, it seeks to establish criteria and measurement method that will enable

one to distinguish between the bad and the good products. Most of the times, such study would limit factors or variables under consideration. The nature of the study usually seeks to do testing or establish certain causal relationships between variables. The results for these type of studies are usually in the form of improved production process, less waste, better utilization of resources, reduced costs, increased productivity and efficiency. In short, the motive for quality initiatives is higher profitability for the organization by making an improvement on some aspects of its production process.

Since, the nature of a product-based quality study is largely very objective, i.e., quality of a product could be defined by certain criteria and measurement, its usage would normally be applicable universally. For example, a statistical control procedure used to control quality of a product in one country could be easily transferred or used in another country having the same technological capability. There is not much issue of cultural hindrance in the transfer or usage of technological improvement from one country to another. However, when some form of cultural elements were involved in the organizational process, then adjustments will be needed. For example, the quality circles practised in Japan has some form of Japanese cultural orientation and if they were to be practised elsewhere there should be some adjustments to align them with the local cultural orientation.

The second type of study on quality is more embracing and there the concern is on the organization as a whole. Product quality is only one of the outcomes brought about by an effective organization. The concern of this type of study is, therefore, to seek the appropriate method of management that will make the organization perform better and be able to compete with its rivals. Thus, management method such as TQM is considered to be a new and innovative business philosophy by which organizations must organize themselves in order to survive and to raise their performance levels. The issues involved in this type of study are much wider and the focus seems to shift from the making of products to the development of human potential (Russel, 1993). Thus, issues such as teamwork, leadership, attitudes and communication which relates to human elements,

becomes dominant in these types of studies. Also, management issues which are normally discussed in organizational behaviour discipline such as organizational politics (Wilkinson and Witcher, 1993), pay and rewards systems (Drummond and Chell, 1992) and human relations (Robinson and Schroeder, 1993) have been included in the quality management discipline. Lately, issues of culture and values have also entered and been discussed in the quality management literature.

However, the discussion on values and cultural elements in the quality literature are still scarce and empirical evidence on the subject is still lacking. So far, empirical studies are mostly conducted in the developed Western countries or Japan. Theoretical developments in this area are, therefore, based on the experience of organizations from these countries. The experience of those organizations in other countries, especially those in the developing countries, can enrich our understanding of the quality phenomenon. Their concern in quality may be not necessarily of market and competition but perhaps may be associated with certain policies and social objectives.

2.5 SUMMARY AND CONCLUSION

Quality is a complex and evolving concept. The early usage of quality was primarily referring to the product or tangible goods. However, over time the concept has evolved and when it is used in the context of improvement it is taken to mean the effectiveness or performance of the organization itself. This chapter has also discussed the ideas and prescriptions for quality improvement as advanced by the quality gurus (Deming, Juran and Crosby) and other experts.

Apparently, the meaning of quality has two dimensions, objective and subjective. Although the meaning of quality could be conceptualized as such, most of the time the objective dimension has become the criterion for evaluation and comparison because it is definable and can be operationalized. The pragmatic approach of many organizations in

managing quality is to operationalize quality and establish measures for it. From these measures quality in the organization can be assessed or improved.

TQM, the management philosophy which is based on quality is viewed differently by different people. The different views can be traced to different understandings of the concept of quality. The concept of quality no longer refers solely to the product quality; it refers to all the elements within an organization: management, systems, process, etc. Critical elements needed to implement TQM successfully include factors of management influence, human resources development and management, process management and systems, employees' work environment, supplier quality management, management of customers' values, and quality organization and technologies.

Often quality in an organization is treated as a technical or hard issue and it avoids linking to the established theories of organization behaviour. Even the approaches taken by gurus of quality (Deming, Juran and Crosby) are very much technically biased and concern those tangible sides of quality. Thus, soft issues of organization which may influence quality such as culture is often left out. By neglecting some of these issues (maybe the reason for this is that they are not easily definable and difficult to operationalize) the past researchers were not able to consider wider organizational issues simultaneously.

Although the literature on quality management offers insights into the concept of quality and on the development of quality movement and TQM, theoretical development is still in the infancy stage. Among the issues yet to be resolved include the question of definition, the purpose and the actual functioning of quality initiatives in organization, especially with regard to the kind of organizations that are of national importance to certain nations. The study on such organizations can be used to generate more knowledge and understanding of quality in general and furthermore, it could provide the opportunity to understand better the organizations in that particular country.

The next chapter, Chapter 3, will describe the historical, social and economic development of Malaysia, the location country of the organizations in this study.

CHAPTER THREE: QUALITY MANAGEMENT IN MALAYSIA

"... the problem of management in our country is how to manage worldly things without forgetting religious and spiritual things. ... We do not want to have a society that is so concerned about religious rights that we do not care whether we develop or not. We want to develop, we want to be as advanced as the most developed society in the world. But at the same time we do not want to forget religious values. And we want to combine religious values with our material development. We are trying to do that and we do not know whether we will succeed or not. But certainly in this outline of vision 2020, we included that as part of our target." (Mahathir Mohamed, the Prime Minister of Malaysia, 1993).

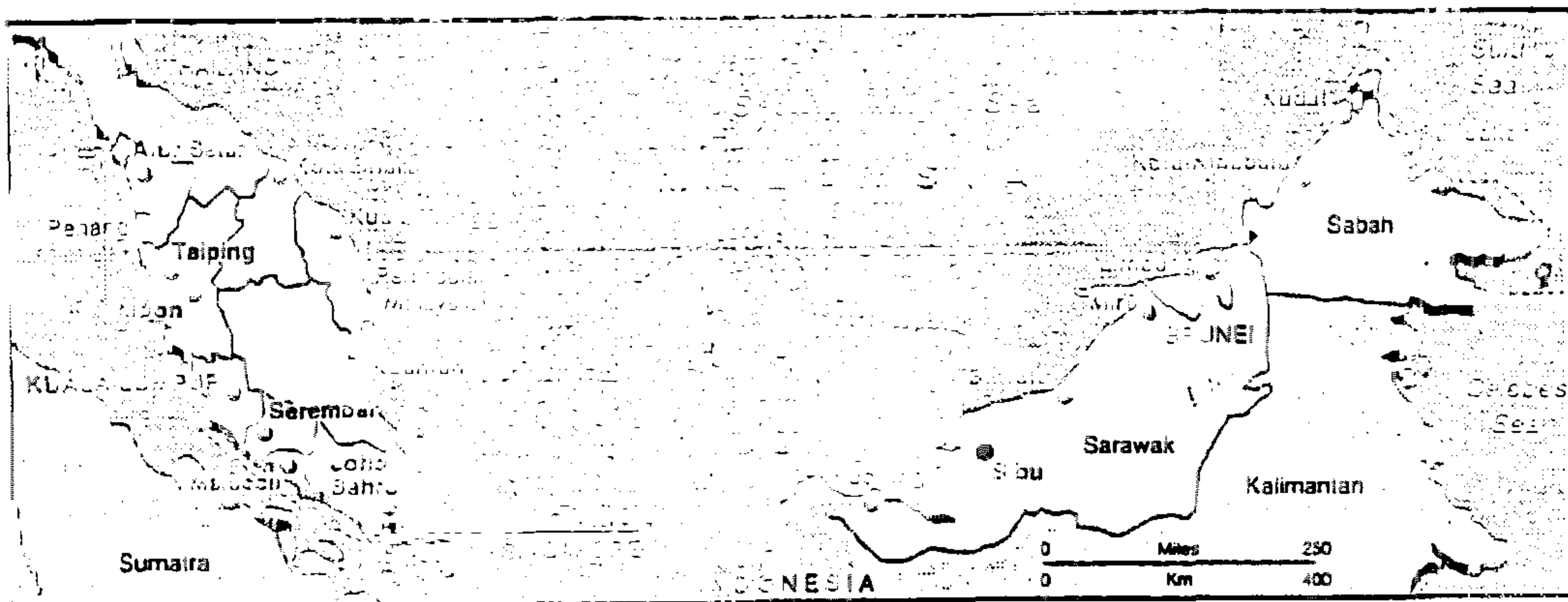
Since the research was carried out on the Malaysian organizations, it is important and relevant to point out to some information about the country. This chapter begins with a general description of the social and economic background of Malaysia (Section 3.1). Then, Section 3.2 looks at the role of some major organizations in the country in promoting quality. Section 3.3 follows with a discussion on the influence of values emanating from moral and religious teachings, particularly the dominant Malay-Islamic values, in the context of Malaysian society. Finally, Section 3.4 points out the implications arising from the emphasis given to moral and religious values in the management of organizations in Malaysia.

3.1 SOCIAL AND ECONOMIC BACKGROUND OF MALAYSIA

Malaysia comprises Peninsular Malaysia (consisting of 11 states and the Federal Territory of Kuala Lumpur) situated at the edge of continental Southeast Asia and the states of Sabah, Sarawak and the Federal Territory of Labuan in the north-western coastal part of Borneo Island. These two regions, covering an area of about 329,758 square kilometers (Peninsular Malaysia: 131,598 square kilometers; Sabah, Sarawak and the

Federal Territory of Labuan: 198,140 square kilometers), are separated by about 540 kilometers of the South China Sea. As economic zones, Malaysia is usually split into three areas, namely Peninsular, Sabah and Sarawak (see map in Figure 3.1).

Figure 3.1: The Location of Malaysia



The population of Malaysia is 17.8 million as of mid-1990. About 82% of the total population (14.6 million) live in Peninsular Malaysia. The remaining 3.2 million population live in the states of Sabah and Sarawak. Malaysia, as a multi-racial nation, comprises of 60% of the indigenous or the Bumiputeras (literally means "son of the soil"), 30% Chinese, 8% Indians and 2% other smaller communities such as the Thais, the Seranis (the descendants of Portuguese colonials) and the Babas (the Chinese who migrated in the fourteen and fifteen centuries to the country and they adopted many aspects of the Malay culture, including their language). The average population growth rate was 2.6% in the last decade.

The majority of the Chinese and Indian population are either themselves migrants or descendants of those who came to the country between 1930's and 1950's. When the country got her independence in 1957, the Chinese and Indians, who totaled more than five million, were all granted Malaysian citizenship. In return for the citizenship granted to

them, the Chinese and the Indian immigrants have agreed to some constitutional rights of the Bumiputeras. Among those rights include the position and privileges accorded to the Malay monarchs, the position of the Malay language as the national language and the status of Islam as the official religion of the country.

Though Malaysia has a relatively small population, industrialization of the nation is well advanced and the growth level is also in a moderate range. The economy of Malaysia has sustainable growth for the last two decades with the real Gross Domestic Product (GDP) growth averaged 6.7% per annum.

The launching of the New Economic Policy (NEP) in 1970 marked the beginning of a unique socio-economic plan designed to bring a more equitable distribution of wealth between the different races and groups in the various strata of society. The main thrust of this socio-economic plan was embodied in a two-pronged approach aimed at: (1) eradicating poverty irrespective of race, and (2) restructuring society to reduce the identification of race with economic activities.

As in many developing countries, the incidence of poverty in Malaysia was among the highest after the second world war. Compared to the immigrant Chinese, the Bumiputeras are poorer and they owned a small slice of the country's share capital. In the early 1970's the incidence of poverty in Malaysia was 52.4% and that the share capital in the corporate sector owned by the Bumiputeras was only at 2.4%. In the 1990, the incidence of poverty declined to 17.1% (at the poverty line of RM370) and the Bumiputeras' share of equity in the corporate sector has increased to 20.3%.

Apart from eradicating poverty, another major concern of the country's economic development is to restructure the society. In Malaysia, as a result partly attributed to the past colonial policies, the three main communities have been divided in their economic activities. The Bumiputeras were basically alienated from the mainstream business and

commercial activities. They lived and worked as peasants of the agricultural sector in the rural areas. The immigrant Chinese who came to the country occupied mainly the towns and cities situated along the country's major routes of business and commercial activities. On the other hand, the immigrant Indians who were brought into the country came to work in the rubber plantations owned by foreign companies. Rubber was the largest exporting commodity for the country at that time. While the Chinese are quite independent and they are a richer community, the Bumiputeras and the Indians depended very much on the Chinese in almost all aspects of business, commercial and professional dealings or transactions. Before 1970, a large majority of professionals (doctors, accountants, engineers, etc.) and business owners are Chinese. Thus, the NEP was designed to reduce this imbalance so that no particular community or race can be identified from their economic activities.

For the period of 1991-2000 a new government policy called the National Development Policy (NDP) was adopted as the successor to the NEP. This new policy will still maintain the basic strategies of the NEP of eradicating poverty and restructuring society so as to correct social and economic imbalances and thereby contribute towards national unity. As iterated by the Dr. Mahathir Mohamed, the prime minister of Malaysia, in his speech on 17 June 1991 that "national unity remains the ultimate goal of the NDP because a united society is essential to the promotion of social and political stability and sustained development". Therefore, while maintaining the basic strategies of the NEP, the NDP will aim to bring about a more balanced development encompassing the following critical aspects (Mahathir Mohamed, 1991):

- striking an optimum balance between the goals of economic growth and equity;
- ensuring a balanced development of the major sectors of the economy in order that growth will be more even mutually complementary and supportive;

- reducing, and ultimately, eliminating social and economic inequalities and imbalances to promote a fair and more equitable sharing of benefits of growth by all Malaysians;
- promoting and strengthening national integration by reducing the wide disparities in economic development between states and between the urban and rural areas in the country;
- developing a progressive society in which the welfare of citizens is spread to all, while being imbued with positive moral and spiritual values and an increased sense of national consciousness and pride;
- promoting human resource development, including creating a productive and disciplined workforce and developing the necessary skills to meet the challenges of an industrial society through a culture of merit and excellence without jeopardising restructuring objectives;
- making science and technology integral components of socio-economic planning and development and promoting a science and technology culture compatible with the process of building a modern industrial society; and
- ensuring that in the pursuit of economic development adequate attention is given to the protection of the environment and ecology so as to maintain the long-term sustainability of the country's development as well as the quality life.

The NDP objective obviously reflects the country's top leadership holistic vision for the country in the future. While emphasizing the economic prosperity, there is also a need for the future society to be imbued with positive moral and spiritual values. The leadership

believes in a balanced approach towards development of the country is the strategic way forward to the establishment of a more united and just society and towards the realization of the ultimate objective that Malaysia will become a fully developed nation not only economically but also in all other aspects of human life. This vision of the country's top leadership has become a source of influence in focusing and directing the thought of the Malaysian society and government machineries.

3.2 PROMOTION OF QUALITY IN THE COUNTRY

General quality awareness in Malaysia is promoted mainly through government efforts. This section begins with a description of the role played by some organizations in promoting quality awareness in the country (Section 3.2.1). Then, it follows with a description of the country's quality management awards (Section 3.2.2). These awards were designed to encourage competition among organizations and to recognize the outstanding achievement in quality.

3.2.1 Organizations Promoting Quality

At the national level, the promotional activities for quality awareness in the country are very much driven by certain government bodies. In Malaysia a movement to disseminate greater national awareness of quality has been promoted by the government since 1989. This movement was undertaken under the slogan "Kualiti Teras Kejayaan" (or *Quality is the Foundation for Victory*). The government's view is that on a national level an upgrading of quality management will not progress except by stimulating awareness among manufacturers and distributors. It is necessary to encourage increased awareness and expectations of quality among consumers and the general public as well.

There are four principal government bodies responsible or worth relating to the quality promotion and its development in Malaysia, namely: SIRIM (Standard and Industrial

Research Institute of Malaysia), NPC (National Productivity Corporation), MAMPU (Malaysian Administrative Modernization and Management Planning Unit) and INTAN (*Institut Tadbiran Negara* or The National Institute of Public Administration). MAMPU and INTAN are two bodies which play important roles in improving government machinery through modernization and training respectively. While SIRIM and NPC deal with both the government and private sector organizations in undertaking their roles, other organizations which also play an important role in promoting quality are the Institute of Quality Control Malaysia (IQCM), the Quality and Reliability Society of Penang (QRSP), the Centre for Instructor and Advanced Skill Training (CIAST) and a recently established academic institution based at the Northern University of Malaysia called the Institute of Quality Management or *Institut Pengurusan Kualiti* (IPQ). These organizations are briefly described below:

3.2.1.1 Standards and Industrial Research Institute of Malaysia (SIRIM)

SIRIM is an organization similar to that of the British Standards Institute (BSI). It is the implementing agency for standardization and the core body in the development of national standards and certification systems in Malaysia. As of December 1991, 1,651 standards were registered as the national standards of Malaysia (MS). About 12% of the total number of MS established were adopted from the international and foreign standards. The majority are based on BS standards, amounting to 96 MS standards, followed by 76 based on ISO standards (source: SIRIM).

SIRIM is responsible for the certification system in Malaysia, including the certification of all industrial products and primary products and also the assessment and registration of factories for the quality system. Mandatory certification items are regulated by relevant ministries or their agencies on behalf of which SIRIM undertakes the certification. There are two categories of the mandatory certification system operated by SIRIM, as follows:

- (a) Products of which importation, production, shipment or sales, are controlled under regulations in order to protect the safety of consumers, and for which the use of control labels (MS labels) is compulsory based on certification by SIRIM.
- (b) Products for which the indication of quality grade is compulsory so that confidence is maintained in Malaysian products in the world market.

Malaysia introduced the ISO 9000 standards in 1987, the year of their publication, through a scheme for the assessment and registration of quality systems. This scheme was introduced to provide a competitive edge for Malaysia's exports, as well as providing a catalyst for quality improvements on a national scale. SIRIM has conducted aggressive marketing and promotion efforts in getting companies to implement ISO 9000. The efforts include organizing seminars and having dialogues with business leaders to explain the need for quality management system to be implemented in Malaysia's companies.

3.2.1.2 National Productivity Corporation (NPC)

The NPC, placed under the control of the Ministry of International Trade and Industry, is the public institution mandated to carry out promotion of total quality management, and this institution undertakes the education of industry regarding quality management, and dissemination thereof, with government subsidy. NPC's budget is 80% funded by the government while the remaining 20% is met with income from seminars, training and consultancy fees.

The NPC is guided by the philosophy that an organization is as successful as the people who go to make it. The soft variable such as shared values, motivated people, skills, style are considered more important to the NPC. In 1992, the Excellence Culture Movement (ECM) was slotted into the NPC calendar as an important year long activity. The aim of

ECM was to create an environment conducive to excellent service performance with a high level of professionalism. Among the activities of ECM include seminars and workshops on quality and human resources development, Q-month, Q-camp and Q-quiz.

The stated mission of the NPC is to help increase the productivity and quality of the nation. This mission will be achieved through the NPC's three-pronged strategies: (1) development of the human resources and enterprise towards excellence, (2) advice to the government and private sectors on productivity and quality issues and development, and (3) creation of local experts and expertise in the area of productivity and quality, management, entrepreneurship and supervision.

The NPC has always been at the forefront of the quality and productivity movement in Malaysia. For example, when the idea of QCC was at its peak in the 1980's, the NPC undertook the active promotion of QCC among private firms. NPC also initiated the formation of the National Advisory Committee on TQC which comprises three sub-committees: (1) Information, Registration and Publication Working Committee, (2) Training, Consultancy and Follow-up Working Committee, and (3) Seminar, Convention, and Promotion Working Committee. The aims of these committees are to carry out the following activities: (i) clarification of the bodies and organizations which implement TQC, (ii) reviewing registered QCC of Malaysian industry, (iii) collecting data and information relating to TQC and QCC, (iv) conducting training and consultancy, and (v) organizing seminar, convention, promotion and presentation of award to the best QCC.

3.2.1.3 The National Institute of Public Administration

With the introduction of the New Economic Policy in 1971, there was a renewed sense of purpose and urgency of improvements in the public service. The role of the government also subsequently expanded and changed from one of regulatory and system maintenance to that of providing leadership and social engineering. The new expanded

role of government contributed to the subsequent rapid expansion of the civil service. There was thus a need to increase the emphasis on better human resource management. Training and upgrading of skills and knowledge was given a greater role so that the pace of the country's development would expand smoothly. These were among the reasons towards the formation of the National Institute of Public Administration, or better known as INTAN (the acronym for its Malay name, *Institut Tadbiran Negara*), in the early 1970's.

INTAN's primary role is to train human resources of the public sector. As a major training institution of the country, INTAN is always in touch and up-to-date with developments of issues and new concepts in management. In recent years, INTAN has been actively engaged in promoting and training quality to the government's civil servants. In early 1993, INTAN restructured its organization to include a special function to carry out management development programmes based on the quality concept. Since then, INTAN has also played an important role in developing a new series of circulars called the Development Administration Circulars. These circulars form the public managers' guide to productivity and quality management ranging from frontline quality customer focus through quality telephone and counter services to concepts of productivity and quality management such as TQM, QCC and techniques in quality assurance through the setting of standards and norms for various aspects of public management. TQM was introduced in government agencies with the issuance of Development Administration Circular No.1 of 1992 titled "Guideline On Total Quality Management in the Civil Service". Under the TQM concept, government agencies have been advised to implement seven important principles of quality management. These principles are top management support, strategic quality planning, customer focus, providing training and recognition, fostering teamwork, establishing performance measurement and quality assurance. Additionally, government agencies are also emphasized to cultivate among their workers on the need of quality values such as cost-saving, timeliness, meeting targets, innovativeness and responsiveness to customer needs.

One of the important process in the training conducted by INTAN is to enculturate excellent values among the trainees. The approach for this training has been the emphasis on the reaffirmation of a set of core values such as trustworthiness, a sense of responsibility, honesty, dedication, moderation, diligence, cleanliness, cooperativeness, kindness, a sense of gratitude and other moral values. The policy of inculcating the universal nature of Islamic values in the government administration, announced in 1985, is in line with this enculturation process of excellent values in the public sector.

3.2.1.4 MAMPU

MAMPU, the acronym for the Malaysian Administrative and Management Planning Unit, was formed in 1977 to play the role of a management consultant to the Malaysian government in bringing about changes and innovations into the public service and to study and propose measures on major problems in the nation's administrative system. The main thrust behind administrative modernization was that of upgrading the administrative system in order to promote organizational effectiveness and attain national development goals.

The economic recession in the 1980's influenced the direction of the country's administrative reform. During that period, among the issues surfaced and became matters of major concern include (1) the growing sentiments against direct and active participation of the public sector in economic activities, (2) the burgeoning civil service and increasing public expenditure, and (3) growing expectations from an increasingly discerning society. As a consequence, the government of Malaysia introduced and implemented several policies to address the problems. Major policies introduced during this period include the Privatization Policy and the Malaysia Incorporated Concept. Thus, the focus in the reform process was centered around the need to reduce the size of the civil service and this was accomplished by hiving off some of the civil service activities to the private sector and encouraging the private sector to participate more actively in the economy of the country.

MAMPU and INTAN have worked together in introducing changes and improvements to the Malaysian Civil Service. For example, in the sphere of behavioural and systems improvements, they introduced and administered training of several improvement programmes in the 1980's. These programmes (Table 3.1), primarily aimed at shaping new attitudes and values among civil servants, are believed by the country's leadership to be important ingredients in fostering positive work ethics among workers and in improving efficiency and productivity in the organization.

Table 3.1: Improvement Programmes Introduced to Malaysian Civil Service

Behavioural improvements	Systems improvements
1. Wearing of name tags	1. Punch Clock system
2. Code of Ethics in the Public Service	2. Manual of Office Procedure and Desk File
3. Look East Policy	3. Quality counter services
4. Clean, Efficient and Trustworthy Campaign.	4. Quality telephone service
5. Leadership by Example	5. Procedures on office correspondence and management meetings
6. Inculcation of Islamic Values in the Administration	6. Open office concept

The behavioural improvements are mainly to inculcate positive values and attitudes that will have a long term effect. The values stressed here are not new ones but rather they are official pronouncements by the government for the values and belief found and desired in eastern culture or religions. Thus, by making these pronouncements, the government is reinvigorating and try to reinforce the existing values. On the other hand, the systems improvements are designed to improve procedures and to gain greater efficiency in work places. The improvement in this area are mainly copied from successful companies which are mostly of Japanese origin.

By the late 1980's the quality movement in Malaysia gained further momentum. On the 27th of November, 1989, the Prime Minister, Dr. Mahathir Mohamed launched the nationwide Excellent Work Culture Movement encompassing both the private and the public sector. The objective of this movement is to enhance public awareness of the importance of quality product and services produced in the present competitive environment. This movement hopes ultimately to institutionalize a quality culture so that quality consciousness becomes a way of life.

3.2.1.5 Institute of Quality Control Malaysia (IQCM)

This organization was founded in 1979 as a non-profit organization. Members include corporate and non-corporate members, and the number of members including both individuals and corporate members totaling around 150. IQCM is designated as one of the members of the TQC National Advisory Committee. In contrast with NPC there is no governmental support and it does not possess its own buildings for carrying out its activities.

IQCM conducted quality related courses, organized seminars and published a quarterly newsletter. The quality related courses offered by IQCM include industrial quality control, quality audit and quality documentation. It also collaborates with the Sheffield Hallam University, UK, in conducting a twice yearly seminar in quality assurance.

3.2.1.6 Quality and Reliability Society of Penang (QRSP)

This organization was founded in 1986. It is a quality promotion organization whose activities are centred on the Penang area, and which is composed largely of electrical and electronic appliance manufacturers in the Penang area. About 60% of the individual members are involved in the electronics sector, 14% in electric appliances, 7.5% in university work, and the remainder comes from medical, financial and other sectors.

QRSP organized seminars and conducted short courses on statistical quality control and quality circles. It has also produced a quarterly newsletter.

3.2.1.7 The Centre for Instructor and Advanced Skill Training

This is a vocational training centre constructed in 1981 with Japanese aid with aim proposed by the Japanese Prime Minister Zenko Suzuki (then in office), of realizing personnel development in the ASEAN (Association of Southeast Asian Nations¹) countries. Training activities were started as of May, 1984. The Centre has dormitory facilities to accommodate 300 trainees, and in addition to trainees from Malaysia, students from the other surrounding ASEAN countries come here to receive training.

This Centre is not specifically designed for the promotion and diffusion of quality control and so lessons accorded to quality control only form one part of the overall program. In the existing curriculum, training relating to the basics of quality control is carried out over a ten-day period. The inclusion of training in quality control in the curriculum is seen as an effective way of promoting the introduction and development of quality control in Malaysian industries. About 50 Japanese specialists at a time are dispatched to the Centre to carry out either short-term or long-term instruction in a wide spectrum of sectors.

3.2.1.8 The Quality Management Institute or *Institut Pengurusan Qualiti* (IPQ)

This is a new institute established in late 1993 and it is based in the Northern University of Malaysia. The institute offers academic courses on quality management and its staff are actively engaged in research activities on various aspects of the discipline. The rigorous research activities and the academic emphasis taken by the institute are in line with its objective to become the country's main reference centre in quality management

¹ The ASEAN (Association of Southeast Asian Nations) is a regional grouping of Southeast Asian Nations, initially comprised of five nations: Malaysia, Singapore, Thailand, Indonesia and Phillipines. Brunei, another country in the region, joined the association at a later stage. Vietnam and Cambodia were also admitted recently to join the association.

for the future. Although the establishment of this institute is very recent, its library already has a large collection of quality publications and reference materials.

One of the aspects emphasized in the research at this institute concerns the general issue of human happiness. The researchers of the institute are promoting a model based on the Islamic principle of love and caring, which they called it as the *Ihsanic Model*, as an alternative perspective of approaching and solving industrial issues in organizations. To them, problems in current Malaysian organizations need the approach which is based on moral responsibility, the dignity of human beings and justice.

3.2.2 Quality Management Awards

There are few quality awards which are aimed to provide a competitive environment and to give recognition for the organization's quality achievement. The two most important quality awards are mentioned below.

3.2.2.1 The Prime Minister's Quality Award

This award was first introduced on 9 November, 1990 and it is intended to be the highest national award to recognize organizations in the private, public and social sectors for quality performance. Winning the Prime Minister's Quality Award is a prestigious accomplishment, as the award is a symbol of the highest achievement of quality, productivity and excellence. Any organization registered under the Companies Act in Malaysia is eligible to be considered for this award.

The objectives of the Prime Minister's Quality Award are four fold:

1. to promote quality awareness among various industrial sectors: public, private and social;

2. to promote the adoption of quality values in the different sectors of industry;
3. to publicize successful quality strategies; and
4. to encourage healthy competition among the sectors towards continuous improvement of quality.

The main measure for the award is based on the following criteria:

1. Understanding and adoption of quality culture in the organization which can be identified through top management involvement in developing and maintaining quality excellence.
2. Management of quality and efforts towards improving skills, productivity and use of quality data and information.
3. Human resource development and management through the organization's human resource plan, employee involvement towards quality management, training programme, research and development programme, work place and environment, employees' amenities and facilities, etc.
4. Quality assurance of support services and vendor.
5. Corporate responsibility.

Organizations wishing to compete for this award are required to provide information about them by completing a standard participating form and to respond to a set of questions relating to the quality elements of the organization. Then, on site inspection

will be conducted to the short-listed organizations. The on site inspection will enable the review committee to verify the information provided in the participating form and to clarify issues and questions raised during review of the application.

The winning organization for the Prime Minister's Quality Award receives a trophy, cash prize of RM30,000 (amount awarded in 1994) and certificate of appreciation. The winning organization is also eligible to use the "Q Symbol" (a symbol designated to recognize quality achievement of the organization in Malaysia) for publicity for a period of three years.

3.2.2.2 The Quality Management Excellence Award (QMEA)

This award is a development from the National QCC (Quality Control Circle) award instituted in 1985 organized by the National QCC Secretariat, NPC. This secretariat then was upgraded to the TQC Secretariat for the promotion of quality management practices through greater participation of employees at all levels in the organization. In the 1994 award, there are four categories for which a company can compete: (1) local companies with shareholder fund of RM2.5 million and below, (2) local companies with shareholder funds of RM2.5 million to RM20 million, (3) local companies with shareholder fund of above RM20 million, and (4) open category - local or foreign owned companies are eligible regardless of their sizes.

The evaluation criteria used in evaluating organizations competing for the QMEA award are very similar to those criteria used in the Malcolm Baldrige National Award² and the Deming Prize³ (see Table 3.2 for comparison). Part I criteria used in the Malaysian

² Malcolm Baldrige National Award is an the American national quality award, name after Malcolm Baldrige, a personality associated with quality.

³ Deming Prize is a prestigious quality award in Japan. The prize is named after Dr. E.W. Deming, an American who made his name in Japan with his revolutionary quality control concepts.

Management Excellence Award are mainly adopted from the Deming Prize while Part II criteria came from the Malcolm Baldrige National Award.

Table 3.2: Criteria Used in the Malaysian QMEA Award Compared with The Malcolm Baldrige Quality Award and The Deming Prize

QMEA Award	The Malcolm Baldrige	The Deming Prize
Part I: 1. Quality Policy (100 points) 2. Small Group Activities (100 points) 3. Training (200 points) 4. Quality Audit (100 points) 5. Other Quality Improvement Activities (100 points)	1. Leadership (95 points) 2. Information and Analysis (75 points) 3. Strategic Quality Planning (60 points) 4. Human Resource Development and Management (150 points) 5. Management of Process (140 points) 6. Quality and Operational Results (100 points) 7. Customer Focus Satisfaction (300 points)	1. Policy 2. Management of Organization 3. Education 4. Information Gathering 5. Analysis 6. Standardization 7. Control 8. Quality Assurance 9. Results 10. Future Planning
Part II: 1. Top Management Leadership and Management of Quality (300 points) 2. Use of Quality Data and Information (300 points) 3. Human Resource Management (400 points) 4. Customer Requirements and Expectations (300 points) 5. Handling Complaints (300 points) 6. Support Services and Vendors (300 points) 7. Quality and Operational Results (300 points)	Total points: 1000	Specific points on each criteria is not given - it is very much based on the subjective evaluation of the judges.
Total points: 3000		

Source: (a) The Baldrige Award Guidelines; (b) The Deming Prize Award Checklists; (c) The Malaysian QMEA Guidelines

The evaluation process for the QMEA award begins with a selection team of examiners from the NPC. Based on the information submitted by the participants, the team short listed the potential winners, visited these organizations and interviewed some of the key organizational members and then, assigned points to each of the criteria investigated. The findings and points assigned by the examiners are passed over to a panel of judges made up of quality practitioners selected from industry, professional organizations and/or institutions of higher learning who will review and evaluate all applications. Finally, this panel of judges will recommend the award winners.

One of the drawbacks in the award competition is that the number of participants for the award in each category is small. They are usually persuaded or invited by the organizer to participate. The reason cited for organizations being not so enthusiastic about the award is that they do not feel confident of winning with their current state of quality. The quality movement in the country started very recently and many organizations are still struggling to introduce quality management philosophy and techniques in them.

3.3 THE INFLUENCE OF MORAL AND RELIGIOUS VALUES IN SOCIETY

Moral and religious values played an integral role in the Malaysian society. These values are emphasized and taught as a compulsory subject in schools. Under the influence of moral and religious awareness in Malaysian society, the Ministry of Education has embarked on several educational reforms, the most significant being those undertaken under the leadership of the current Prime Minister. In 1988, the Philosophy of National Education was introduced and it reads (in translation) thus:

Education in Malaysia is a continuous effort towards further development of the potential of the individual in a comprehensive and integrated manner for the purpose of evolving human beings who are balanced and harmonious in respect of the intellect, the soul, the emotions and the body based on the belief in an obedience to God. This effort is intended to produce citizens of Malaysia who possess knowledge, skills, good

character, as well as being responsible and capable of achieving personal well-being and contribute towards the harmony and prosperity of society and the nation.⁴

The Ministry of Education has also adopted the idea of integrated education by introducing the concept of "moral values which cut across all disciplines." These values are conscience of God, self-reliance, high goals, mutual respect, love and care, justice, freedom, physical and mental health, bravery, truthfulness, cooperation, moderation, gratefulness, rational and social consciousness. These values which are probably derived from the teaching of Islam are believed to be equally applicable to the non-Muslim counterparts. They are seen as positive ingredients of sound all-round personality development of future Malaysian citizens.

In the outline of the Vision 2020, whereby the nation would reach the status of a developed country in the year 2020, part of the challenges to be addressed and tackled is about the importance of a society to be imbued with moral and spiritual values. The country's top leadership and educationists are particularly concerned with the wave of material development in which it has also brought negative elements to the society. The society is being confronted with many new issues such as increasing white collar crime, environmental degradation, serious drug abuses, the moral degradation of the youth, the plight of female workers in factories, negative influence of the electronic media, corruption and fraud in organizations. As Malaysia moves forward towards the goal of an industrialized nation by the year 2020, the place of ethics, moral and spiritual values in an industrial society, in the opinion of the country's top leadership and educationists, would certainly become more crucial. They believe that moral and religious values will equip individuals with "control" mechanism in the long term against undesired elements such as indecent behaviour, corruption and irresponsible action.

⁴ see Wan Mohd Zahid Mohd Noordin (1993) *Wawasan Pendidikan: Agenda Pengisian*, Kuala Lumpur: Nurin Enterprise, p.83.

By year 2020, Dr. Mahathir Mohamed, the Prime Minister of Malaysia said "Malaysia can be a united nation with a confident Malaysian society, infused by strong moral and ethical values, living in a society that is democratic, liberal and tolerant, caring, economically just and equitable, progressive and prosperous, and in full possession of an economy that is competitive, dynamic, robust and resilient".⁵ When he was probed further whether his vision would be misconstrued as another attempt to emulate the model of a society of current developed countries, Dr. Mahathir asserted that Malaysia would be developed "in our own mould" in which religious and cultural values would play crucial roles.

Table 3.3: Values in the Policy of Inculcation of Islamic Values in Administration

The Islamic Values in Malay language	Values translated into English
1. AMANAH	1. TRUSTWORTHINESS
2. TANGGUNGJAWAB	2. RESPONSIBILITY
3. IKHLAS	3. SINCERITY
4. DEDIKASI	4. DEDICATION
5. SEDERHANA	5. MODERATION
6. TEKUN	6. PERSEVERANCE
7. BERSIH	7. CLEANLINESS
8. BERDISIPLIN	8. DISCIPLINE
9. BERBUDI MULIA	9. GOOD CHARACTER
10. BERSYUKUR	10. THANKFULNESS

Moral values in Malaysia have been derived primarily from the Malay culture and Islamic principles. As the Malaysian society is a pluralistic one and religious freedom is guaranteed in the constitution, the moral values propagated or encouraged are those ones which are acceptable and comparable with other beliefs. Thus, for example, in the government's policy of inculcating Islamic values in administration (see Table 3.3), the values that carry acceptable and comparable meanings in other beliefs or concepts are the

⁵ Mahathir Mohamed (1991) *Malaysia: The Way Forward*, Kuala Lumpur: Malaysian Business Council, p.2.

ones being advocated. Closely observed, these values would represent a desired personality by both the Muslims and non-Muslims alike.

The great concern for the development of personalities and society consistent with the holistic ideals of Islam is shared by the new generation of Muslim intellectuals in the country. They perceive Islam as a holistic and comprehensive way of life and view Islamic values as a fundamental means of developing good and competent personalities. Thus, they believe reforms are necessary in some areas in the educational, economic and social system. In this reform process, their attitude towards knowledge and technology coming from outside is selective and not of *a priori* rejection but one is inspired by the teachings of Islam which accepts whatever is good and compatible with Islam even if it comes from non-Muslim sources and rejects whatever is false or evil and incompatible with Islam even if it comes from the Muslim themselves (Mohd Kamal Hassan, 1994). The philosophy of materialism, for example, which can breed excessiveness, profiteering and greed is rejected by Muslims and incompatible with the Islamic world view.

3.4 THE IMPLICATIONS OF MORAL VALUES IN MANAGEMENT

As described in the previous section, the proliferation of local and Islamic cultural values in the society is already causing transformation in the educational system and government policies. Also, there is already a growing feeling that these values would make an important contribution to the management practice in the country (Faisal Haji Othman, 1994; Syed Othman Alhabshi, 1994). A prominent scholar in the country, Professor Mohd Kamal Hassan, suggested for a higher degree of utilizing these values in management and as organizational tools. He states:

"As Malaysians we are familiar with [the values emanating from] such Malay words such as *rezeki* (bounty), *selamat* (salvation), *alam* (universe), *berkat* (blessed), *amal* (deeds), *ni'mat* (gift), *musyawarah* (consultation), *adil* (justice), *zalim* (injustice), *muhibbah* (harmony), *hukum* (law), *syariat* (Islamic jurisprudence), *akhirat* (hereafter), and many others. ... Perhaps it

would be more useful and effective for Malay managers to utilize in the future the familiar Malay-Islamic social-religious concepts in an innovative and imaginative way as additional management and organizational tools in predominantly Malay environment with Malay officers and workers. Some non-Malays may also be able to benefit and appreciate the innovative use of local cultural concepts" (Mohd Kamal Hassan, 1993; p.18)

Professor Mohd Kamal Hassan is not only recommending the usage of local cultural values but also, he gives a reason for favouring them. To him, the utilization of these values would "unearth their ethical, spiritual and metaphysical moorings which are more in congruence with Malay personality and behaviour." (p.18) This reason statement is just a reaffirmation about a Malay personality and behaviour which is generally guided and motivated by religious and spiritual values.

Given that the Malaysian society is very much imbued or concerned with religious and moral values (Faisal Haji Othman, 1993, 1994; Wan Halim Othman, 1993; Syed Hamid Al-Junid, 1993; Syed Othman Alhabshi, 1993), the practice of management in this country is expected to be constrained and influenced by the presence of these values. The religious and moral values can influence the conduct of management in at least two ways: Firstly, the decision process under the influence of these values would not necessarily follow the rationale of economic or materialistic consideration per se. For example, in business organizations this could mean that the decisions or choices made are not necessarily guided by the profit motive. Secondly, the management based on a moral and religious framework focus attention to human quality and its long-term development. Thus, the emphasis of development should not be on product but rather focus on the human element. The belief is such that quality of organizational products and services in the long term is affected by the level of human skills, innovativeness and moral development.

Organizations which have human elements infused with moral and religious values are thought to possess integral ingredients for long-term improvement of the process in organizations because they are probably less likely to be "infected" by negative practices

such as irresponsible actions, time wasting and fraudulent behaviours. The implication for this belief would then be to strengthen and inculcate their organizational members with this set of values. Motivational tools based on religious teachings would normally be used to reinforce belief and behaviour of organizational members. This emphasis should be evident in their training or human resource development programmes.

In relation to the above approach, there is also an implication in the way an organization should be analyzed. The present notion of successful business organizations tends to relate to factors such as profit, sales volumes, market share and the like. However, it should be expected that in the organization which cares about social and moral responsibilities, the criteria for success must be also tied up to the welfare and development of its organizational members. Apart from being materially rewarded, the organizational members should also be morally enhanced.

The criteria of a successful organization is probably not only limited to the welfare and development of the organizational members but they could be also extended to society at large. This means that organizations which regarded social and moral responsibilities as part of their important duties should also consider implications of their business operations to society. Thus, they would be expected to show considerable interest and to participate in nation building which includes issues such as that of restructuring society, eradicating poverty and ensuring a clean environment.

3.5 SUMMARY AND CONCLUSION

This chapter begins with a description of the important historical descriptions of social and economic events and policies. These descriptions are important to understand the context and the philosophical approach towards development in this country. The country's development plan was previously based on the National Economic Policy (NEP) and currently it is based on the National Development Policy (NDP). Both policies

include two important issues of national interest: (1) the restructuring of society that will eliminate the identification of race with economic activities, and (2) eradicating poverty.

The quality movement in Malaysia began in the early 1980's with the introduction of the concept of quality control circles and when the country started to embark on industrialization programme. In this country, quality awareness and campaigns are very much driven by government. Through various government bodies, the quality concept is promoted to public and government administrators. Some new government administration circulars which formed the work procedure guidelines for the administrators were developed on the quality concept.

Although for the most part quality concepts and tools are borrowed from Western and Japanese practices, their applications have been modified to suit local values. This local orientation towards quality is evidenced especially in the Malay-based organizations. In these organizations, values rooted in religious teachings are used to motivate and drive members towards greater achievement or improvement in their work.

A significant implication for adopting religious and moral values in the quality approach is that the focus of attention of the organization is no longer on the products or services but rather on the human quality. Enhancing human quality is not merely with the work skill requirements but more importantly, in this view, to equip organizational members with moral and spiritual values. The latter elements are believed to be motivational factors that will ensure long term commitment of organizational members towards quality.

In the following chapter, Chapter 4, a conceptual framework for the study is described. In this framework, a cultural view of organization is adopted. The conceptual framework developed for this study signifies the role of values including the moral and religious values in quality.

CHAPTER FOUR: CONCEPTUAL FRAMEWORK

"The danger is always when a theory has been found to be convenient and effective over a long period of time, that people begin to think that nature herself behaves precisely in the way which is indicated by the theory. This is never the case and the belief that it is so may close our minds to other possible theories and be serious impedance to progress in the development of our interpretations of the world around us."
(Bliss, 1933; p. 477)

The conceptual framework used in this research is developed and based on a review of literature, imaginative thinking and the emerging insights from fieldwork activities. Since, this research is approached from a wide organizational perspective rather than that of a narrow aspect of investigating the issue of quality, the framework is much wider than those to be found in many studies of quality.

In the first section of this chapter, Section 4.1, there is a discussion on the different angles from which organization can be perceived. Varied understanding of the nature of organization has often led to different attitudes among organizational theorists and researchers of how organizations should be studied and analyzed. These different views about the nature of organization are directly associated with one's assumptions regarding social science and the social world.

Section 4.2 highlights some of the relevant concepts of culture in organization studies. Although culture has been an important element in the study of organization, its precise meaning is still vague, and organizational theorists have different conceptions about the subject. In the context of this study, it is suggested that the culture of organization is probably best understood by its core element, the organizational values and by the manifestation of these values or organizational practices.

The following section (Section 4.3) reveals the research framework adopted for this study. The framework is based on the open system view and it incorporates both the rational and natural perspectives of organizations. Past research on quality has been mainly conducted using a piece-meal approach and environmental influence is often treated in a very limited manner. The open system adopted as a framework for this study should provide a balanced treatment of the internal and external factors that influence the quality improvement process in the organization.

Finally, Section 4.4 points to the two possible approaches that are expected to be found in organizations when quality improvement is desired. The first approach, derived from the rational perspective, treats quality mechanistically. In this view, quality is considered as a "control method" which deals with techniques and the 'hard' production process of organizations. Whereas, the second approach, derived from the natural perspective, regards quality as an "agent for cultural change." The emphasis in this view is on human potential and the 'soft' development process.

4.1 THE NATURE OF ORGANIZATION

The perspective we hold about the nature of organization is related to our views, understanding and assumptions regarding the nature of social science and the social world. As in many other fields of study, organizational study is paradigmatically anchored. A paradigm is a general perspective or way of thinking about and viewing the social world that reflects fundamental beliefs and assumptions about the nature of organizations (Lincoln, 1985). Organizational theorists are currently debating over the distinctive contributions of knowledge, and to knowledge, that arise from different conceptual paradigms (Burrell and Morgan, 1979). Along the subjective-objective dimension scheme of analysis about the nature of social science, Burrell and Morgan (1979) suggested that social science can be conveniently conceptualized in terms of four sets of assumptions: (1)

assumptions of an ontological nature, i.e., assumptions which concern the very essence of the phenomena under investigation, (2) assumptions of an epistemological nature, i.e., assumptions about the grounds of knowledge, (3) assumptions concerning human nature, and (4) assumptions of a methodological nature.

The first set of assumptions, the ontological, is concerned with the nature of 'reality' of the investigated phenomena. Along the subjective-objective dimension scheme of analysis, two strands of thought among social theorists concerning the nature of reality have been identified. First, the position of nominalists who regard 'reality' as a function of individual cognition or subjective in nature - in this view, the social world is assumed to be made up of nothing more than names, concepts and labels which are used to structure reality. Second, the position of realists who postulate that 'reality' exists independently of an individual's cognition or that it is objective in nature - in this view, the social world is assumed to be made up of hard, tangible and relatively immutable structures (Keat and Urry, 1975).

The second set of assumptions, the epistemological, is directly associated with the ontological views. These assumptions concern how one might begin to understand the social world and communicate this as knowledge to others. Along the subjective-objective dimension, the epistemological stance relates two strands of thought about the nature of knowledge. First, on one side, the nature of knowledge is identified as being hard, real and capable of being transmitted in tangible form - this is the position taken by the positivists or functionalists. Second, on the opposite side, 'knowledge' is of a softer, more subjective, spiritual or even transcendental kind, uniquely based on the experience and insight of an individual - the position of the anti-positivist. (Morgan and Burrell, 1979).

The third set of assumptions relates to the views held concerning the nature of human beings. There are two contrasting views regarding human nature. The first view regards human beings and their experiences as products of the environment; one in which humans

are conditioned or constrained by their external circumstances. On the other hand, the second view regards human beings as possessing a much more creative role and as being in control of their environment. The assumptions held concerning the nature of human beings are essential elements in social theorizing, since they define in broad terms, the kind of relationships that are possible between the human being and the environment in which they live.

The final set of assumptions is of a methodological nature. Broadly classified, there are two methodological approaches in social science. The first approach, the subjective methodological approach, suggests that one can only understand the social world by obtaining first-hand knowledge of the subject under investigation. Thus, this approach places considerable stress upon getting close to the investigated subject. It emphasizes the empathy of the subjective accounts which the investigator generates by "getting inside" situations and involving himself or herself in the everyday flow of life. In contrast, the second approach, the objective methodological approach "lays emphasis on the importance of basing research upon systematic protocol and techniques" (Morgan and Burrell, 1979; p.6) and assumes that everything can be measured. This approach epitomizes the methods used in natural science research which focus upon the process of testing hypotheses in accordance with the canons of "scientific" rigour. A more detailed discussion of these two strands of the methodological approach and the approach taken in this research takes place in the following chapter.

As a branch of social science discipline, studies on organizations are approached in various ways. These many approaches of studying organizations reflect the different underlying positions taken by organization researchers in perceiving the social world. Parallel to the objective-subjective scheme of assumptions associated with the nature of ontology, epistemology, human nature and methodology, the many views on organizations could be divided into two broad perspectives: the rational and the natural.

The rational perspective on organizations is very much associated with the objective view of the social world. Thus, the affective side of human nature is omitted from analyses and emphasis is placed on logic and rationality. The approaches within this perspective include the scientific management approach (Taylor, 1911), the administrative theory (Fayol, 1949; Mooney and Reiley, 1939) and the bureaucratic approach (Weber, 1947). From the standpoint of the rational perspective, the behaviour of organizations is viewed as actions performed by purposeful and coordinated agents (Scott, 1987). Thus, this perspective on organizations is characterized by stress being placed on goal specificity and control. Goals are translated into a set of preference or objective utility functions that represent the value of alternative sets of consequences. Here, specific goals of organizations, such as making a profit, achieving growth, increasing market share or prolonging life, are needed in order to provide clear criteria for choosing alternative activities. The goals also guide decisions about how an efficient control mechanism, i.e., the means of channeling and coordinating resources within an organization, is to be designed.

The natural perspective on organizations, on the other hand, is associated with the subjective view of the social world. As with the rational perspective, the natural perspective is an umbrella under which a number of approaches can be gathered. Among the approaches included within this perspective are the human relations school (Mayo, 1945; Cartwright, 1965; Katz and Kahn, 1952; Argyris, 1962; Blake and Mouton, 1964), the cooperative system (Barnard, 1938), the institutional approach (Selznick, 1957) and the social system (Parson, 1951, 1966). Underlying the natural perspective is that emphasis is placed on the behavioural and human elements within the organization. Put simply, this perspective asserts that there is more to organizational structure than the prescribed rules, the control procedures and the job descriptions. In this perspective, organizations are shaped and influenced among other things by values, psychological factors and cultural orientations of their members.

Earlier views, whether from a rational or natural perspective, tended to treat organization as a closed system or as a black box characterized by a preoccupation to achieve internal organizational efficiency. Thus, the closed system view attempted to derive universalistic prescriptions for the best way to structure and manage organizations. In contrast, modern views tends to emphasize that organization is an open system and that greater credence (Chell, 1987) will be achieved if recognition is given to the interactions which take place between the organization and the wider environment in which it exists. Thus, in the open system, the interdependence of the organization and its environment receive greater attention and to some extent the environment is seen to be an even more influential source of organizational order than the internal factors - the environment is perceived to be the ultimate source of materials, energy, and information, all of which are vital to the continuation of the system (Scott, 1987). Unlike the closed system, the open system views organization as a more naturally occurring phenomenon, exhibiting limited rationality and collective purpose and considers that the survival of the organization is dependent upon its ability to adapt itself to environmental conditions or contingencies. Here, the the organisation is seen as maintaining itself through the exchange of resources with its environment and there are technological, social, political and economic imperatives which must be satisfied if an optimum system is to be achieved (Burrell and Morgan, 1979).

The open system view also allows the discussion of softer organizational issues such as culture and values in a wider framework. Elements that influence and shape organizational culture and values should not be limited. Rather, those environmental and contingency factors, such as government policies, regulations, economic and social conditions, are also expected to exert influence, and probably in certain circumstances, would have a greater impact, on initiating change to the culture of an organization. In other words, when the culture of an organization is to be altered, modified or changed, one should also consider the sources of influence for this from those external environment factors or contingencies

(Child, 1981). Thus, the essence of organizations as open systems is that their boundaries must necessarily be sieves, not shells, admitting the desirable flows and controlling the inappropriate or deleterious elements.

In the following section, some of the relevant concepts of culture in organization studies are highlighted. The purpose of this is to provide the reader with a background understanding of the various meanings associated with culture.

4.2 CULTURE AND ORGANIZATIONS

There exist more than a hundred definitions of culture (Kroeber and Kluckhohn, 1952) and this reflects the complexities of its concept. Turner (1971), Geertz (1973), Eldridge and Crombie (1974), Handy (1976), Pettigrew (1979), Hofstede (1980), Allaire and Firsirotu (1984) and Schein (1984) provide remarkably good treatments of the concepts of culture and organizational culture. Thus, it is not the intention of this section to delve into lengthy deliberations of the concept but rather to introduce a basic understanding of the concept and its relevance to the study of 'organization'.

Using the classification of concepts from cultural anthropology that was developed by Keesing (1974), Allaire and Firsirotu (1984) suggest a cultural perspective for understanding organizations. In this framework, an organization has three interrelated components:

- (1) a *sociostructural* system composed of the interworkings of formal structures, strategies, policies and management processes, and of all ancillary components of an organization's reality and functioning (formal goals and objectives, authority and power structure, control mechanisms, reward and motivation, process of recruitment, selection and education, sundry management processes);

- (2) a *cultural system* that embodies the organization's expressive and affective dimensions in a system of shared and meaningful symbols manifested in myths, ideology and values and in multiple cultural artifacts (rites, rituals and customs; metaphors, glossaries, acronyms, lexicon and slogans; sagas, stories, legends and organizational lore: logos, design, architecture). This cultural system is shaped by ambient society, the history of the organization and the particular contingency factors impinging upon it; it changes and evolves under the influence of contemporary dominant factors and the dynamic interplay between cultural and structural elements.
- (3) the *individual actors* who have their own particular endowments, experience and personality and are not merely passive recipients of a prefabricated 'reality'; depending on their status and leadership role, they become contributors and moulders of meanings.

The concept of culture is basically used in two quite different ways by organizational analysts: (1) as a critical variable and (2) as a root metaphor (Smircich, 1983). In the first usage, culture is something that an organization *has*. Employed in this manner, the term 'culture' describes an attribute or quality internal to a group. In this sense culture is a possession - a fairly stable set of taken-for-granted assumptions, shared beliefs, meanings, and values that form a kind of backdrop for action. Culture so defined may be employed either as an external independent variable that may affect the organization or as an internal variable that characterizes the values or style of one or more organizations: organizations possess a culture just as they possess a distinctive technology. Whereas, employed in the second sense, as a root metaphor, culture is something an organization *is*. To view organizations as cultures is to shift from a mechanical or organic to a cognitive or

symbolic model: organizations are understood and analyzed not mainly in economic or material terms, but in terms of their expressive, ideational and symbolic aspects.

The suggestion to view organizations as cultural milieu can offer valuable insights into the ways in which they replicate their patterns of responding to events and, possibly of greater importance, the ways in which culture increases behavioural consistency. In this sense, it should be recognized that a cohesive culture is a powerful means of implicit control and can act as a substitute for formalization (Robbins, 1987). As high formalization in an organization creates predictability, orderliness, and consistency, so a cohesive culture achieves the same, without any need for written documentation. Moreover, a cohesive culture may be more potent than any formal structural controls because culture controls the mind and soul as well as the body (Robbins, 1987). Thus, cohesive culture enhances the stability of an organization and provides members with an understanding that can help them make sense of organizational events and activities.

This brief account suggests that the concept of culture is subjective and it is difficult to operationalize for organizational research. In the context of organization or company, various writers have used terms such as "organizational culture" (e.g. Pettigrew, 1979), "corporate culture" (e.g. Deal and Kennedy, 1988; Peters and Waterman, 1982), "occupational cultures" (Hofstede, 1980) and "national culture" (Hofstede, 1980). Nevertheless, it is suggested only as yet another contingency factor with varying and little understood incidence on the functioning of organizations (Crozier, 1964; Child, 1981). Thus, to some organizational theorists and practitioners culture becomes an important organizational subject because it is believed to directly affect the overall organization as well as behaviour and performance within the organization (Deming, 1986; Kilmann, Saxton and Serpa, 1985; Peters and Waterman, 1982). In the context of quality movement, cultural change is recognized increasingly as one of the primary conditions for the successful implementation of TQM (Hildebrandt, et al., 1991).

Despite the importance of the concept there is as yet no consensus about the definition of culture. However, Hofstede et al. (1990) have put forward the following characteristics or constructs of "culture". According to Hofstede, culture is: (a) holistic, (b) historically determined, (c) related to anthropological concepts, (d) socially constructed, (e) soft, and (f) difficult to change. Furthermore, they categorize organizational culture into "practice" and "values". According to Hofstede, practices, are normally more visible, even though their cultural meanings may be interpreted differently by organizational members. Values (which Hofstede considers as the core of culture) are much less visible. Hofstede further explains that practices include symbols (words, gestures, pictures, or objects that carry a particular meaning within a culture), leaders (individuals who become the model of standard behaviour) and 'rituals' (e.g. annual business review, engagement of consultants, etc.). Whereas values are normally represented in the general feelings of good and evil, normal and abnormal, rational and irrational, safe and unsafe. Such feelings are often unconscious and rarely discussible; they do not manifest themselves clearly except in alternatives of behaviour (e.g. how people deal with uncertain events or outcomes).

Hofstede et al. (1990) also suggest that values and practices may be influenced by corporate factors, task and industry factors, and nationality factors, and the degree of influence by each of these factors may vary from organization to organization. Government-owned companies, perhaps, may be influenced more by the nationality factor than the corporate and task and industry factors. Multinational companies may be influenced more by corporate, task and industry factors than by the nationality factor.

The idea of practices and values being elements of organizational culture are not new in the literature. They have been suggested by many writers before, e.g. Deal and Kennedy (1982), Peters and Waterman (1982) and Schein (1984). Hofstede's categorization of culture into 'practices' and 'values' is similar to Schein (1984) 'levels' of culture. Schein (1984) develops three levels of culture that exist in organizations: (1) artifacts and

creations, (2) values, and (3) basic assumptions. The 'artifacts and creations' in Schein's description are similar to the 'practices' describes by Hofstede. On the other hand, Schein's 'basic assumptions' and some of his 'values' are similarly encompassed in the term 'values' used by Hofstede.

Following Hofstede's categorization, values in this study are classified essentially into two: (1) belief or basic assumptions and (2) organizational practices. Belief and basic assumptions are acquired from a long process of interactions and learning. They start in one's early youth, mainly in the family and neighbourhood, and later in school. Belief and basic assumptions are difficult to change but they are modified from one's subsequent interactions. Organizational practices, on the other hand, are learned and acquired in the organization in which the individual is a member. Whereas belief and basic assumptions mainly relate to personal conviction about life and human nature (Rokeach, 1973), organizational practices relate more to occupational requirements in an organization. Organizational practices are reflected in how organizational members conduct themselves and relate to their roles in the organization.

With the exception of Hofstede's seminal work: a comparative study of national cultures, the relationship between values and practices has often been speculated on, but has not been seriously studied. Thus, the conceptual framework developed for this study tries to highlight "values" (the core of organizational culture) as central elements which influence the functioning and style of conduct in organization. In this framework, the conceptual understanding of values by Rokeach (1968, 1973) is adapted to the classification of culture developed by Schein (1984) and Hofstede (1991) for the different levels of culture.

4.3 RESEARCH FRAMEWORK

The research is approached from a wide organizational perspective rather than the more common narrow approach of investigating particular quality problems in an

organization. In developing the conceptual framework, issues and elements which appear most relevant from the literature review are assembled. Specifically, literature on quality and organization have been revised most in order to develop the conceptual framework. Figure 4.1 displays the elements of this framework.

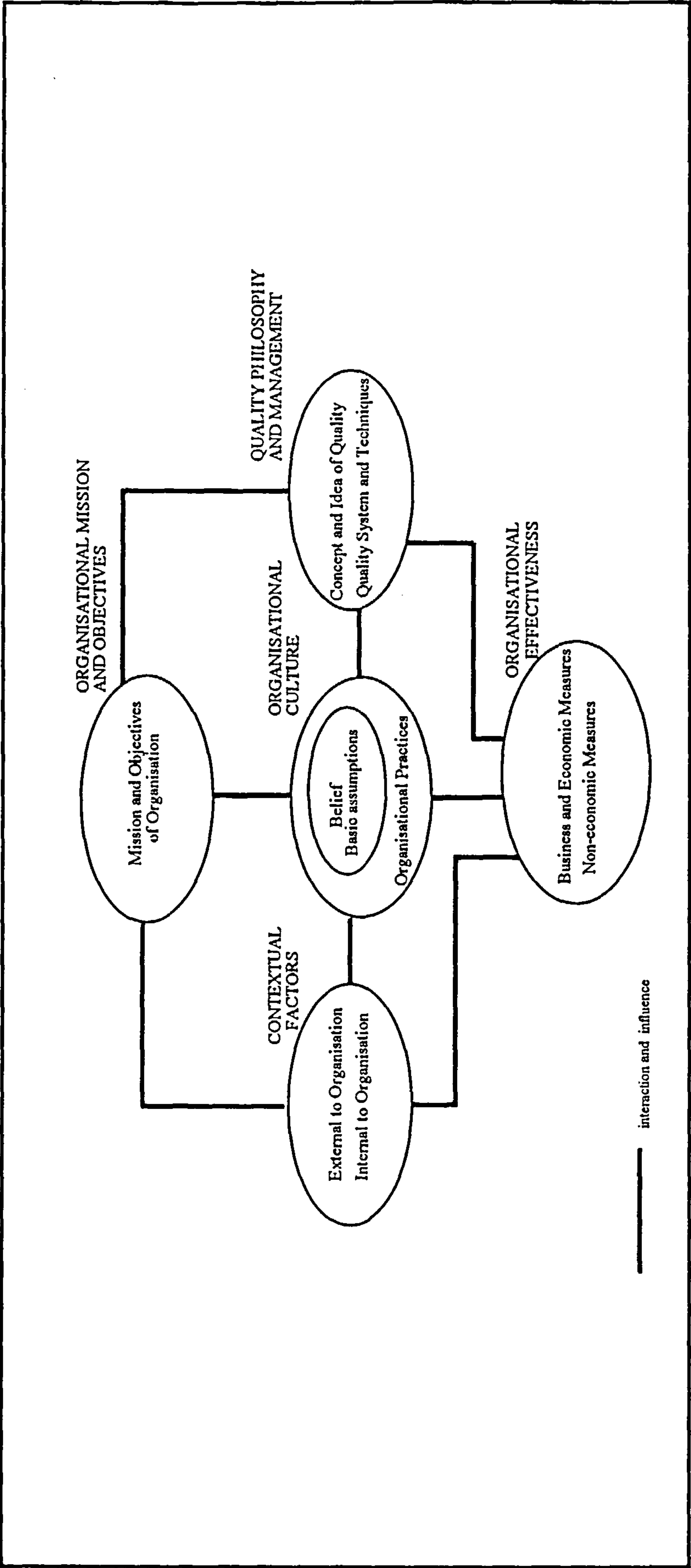
4.3.1 Framework Elements

The framework in this study recognizes the multifaceted nature of organizational phenomena and thus, it tries to incorporate both the rational (objective) and the natural (subjective). Although the researcher subscribes to the interpretative paradigm, which is to generate descriptions, insights, and explanations of events (see Chapter 5 for more discussion), theory building and theorizing would be more encompassing and comprehensive, as argued by Gioia and Pitre (1990), if a multiparadigm approach is taken.

A study of quality in organizations may be pursued from different perspectives. Representations of quality stemming from positivist, functionalist, objectivist or rationalist paradigm (quality as a variable or a form of control method) and from the interpretative, phenomenologist, subjectivist or naturalist paradigm (quality as a metaphor or a form of cultural change) exist and are available for comparison at the meta-level. All these representations produce distinctive insights, but none can stand alone as any sort of comprehensive view of organizational phenomena.

Elements of quality in organization are composed of both hard and soft elements. Organizational values and practices are naturally 'soft' and these elements are best treated and studied from the naturalist or subjectivist perspective - they are the inner layer of organizational culture (Hofstede, 1991; Schein, 1984). On the other hand, 'hard' elements of quality such as, statistical techniques, quality control procedures and economic quality indicators, are probably best studied from the objectivist or rationalist perspective.

Figure 4.1: Research Framework



The elements in the framework, which are thought to be connected to the improvement process in organizations, are broadly categorized as follows: contextual factors, organizational mission and objectives, organizational culture, quality philosophy, quality management techniques and organizational effectiveness. The categories (presented in this framework) are felt to be broad enough to encompass all the central and relevant issues of quality required by a researcher during his or her investigation process. For example, issues related to strategy and structure of organization are best classified as internal contextual factors, issues related to government policies and regulations can be classified as external contextual factors, while, those issues related to technological breakthroughs and improvement techniques for quality could be classified as quality system and techniques.

Some of the elements and important issues related to each category mentioned above are described in the following paragraphs:

4.3.1.1 Contextual Factors

These factors can be categorized into two: external and internal factors. External factors refers to those factors which are difficult to predict or which are beyond the control of the organization. The performance of an organization could be affected by these factors. Examples of external factors include political and social developments, changes in government regulations, technological breakthroughs and natural catastrophes. Quality improvement and change, especially in organizations of a developing country, are expected to be largely externally induced. Any particular changes may be adaptive or maladaptive and it may be one of these in the short run and others in the long run. Thus, one of the objectives of this research is to identify organizational changes, and to trace the internal and external origins of each change.

Internal factors are usually partly within the control of the organization. Structure and strategy are two commonly mentioned internal factors. The question of what makes some structures effective in some circumstances and ineffective in others has attracted many researchers. Burns and Stalker (1961), Gabarro(1973) and Galbraith (1973) discovered the importance of fitting structure to characteristics of the environment and Woodward (1965), Thompson (1967) and Perrow (1970) display the importance of fitting structure to characteristics of the technology in order to secure strong corporate performance. A more competitive environment and the need to use better quality tools and techniques would be expected to bring about some considerable changes to the structure of some Malaysian organizations that have adopted the new concept of quality.

On the other hand, as certain strategies are followed by an organization in order to achieve its objectives, these strategies can, as well, lead to structural change in the organization. Chandler (1962) who studied close to a hundred American firms concluded that changes in strategy preceded and led to changes in an organization's structure. Furthermore, according to Chandler inefficiency could result if an appropriate structure had not followed strategy. In the context of quality improvement, some changes in strategies could be expected to be influenced by a revised understanding of the concept and philosophy of quality that is based on the long-term commitment and goals. Thus, we should expect that organizations adopting quality as a philosophy would place emphasis on those strategies that will have a long-term impact on its future success. Such strategies would include, for example, commitment to human resource development and emphasis on long-term relationships with customers.

4.3.1.2 Organizational Mission and Objectives

The direction of an organization is normally shaped by its mission and objectives. Many organizations measure their accomplishments or performance against what has been set up in its stated mission statement and objectives. Although, the question whether or

not organizations can be said to have a mission and objectives has long been debated (Simon, 1964; Cyert and March, 1963; Silverman, 1970), it is generally accepted that the notion of organizational mission and objectives will provide a guide to understanding what happens in organizations (Lowe and Machin, 1983).

Defining the organization's mission requires top leadership to forecast technological and environmental factors that will influence the organization in the future. The leadership must also consider internal and external social forces, such as the strengths and interactions of various work groups inside and outside the organization. They should also assess characteristics of the human resources in the organization, such as skills, values, and needs of the organizational members.

With greater awareness of quality in Malaysia, organizations are expected to adopt or rewrite their mission statements to include quality as one of the primary organizational objectives. This could have been predicted because many of the top level Malaysian managers are trained and educated in the more advanced countries where they are likely to have been subjected to recent ideas including the concept of 'total' quality.

4.3.1.3 Organizational Culture

As pointed out in the previous section, some organizational theorists and practitioners treat culture as an important element in the study of organizations. The reason for treating cultural factors as so important is due to the belief that they have a direct impact on the overall functioning of organization as well as on behaviour and performance within the organization (Kilmann, Saxton and Serpa, 1985; Peters and Waterman, 1982). By studying culture, it could offer the possibility of gaining valuable insights into the ways in which people in an organization replicate their patterns of responding to events and the ways in which culture increases behavioural consistency (Robbins, 1987).

However, this study had focused on the inner layers of culture, i.e., values and practices. These aspects of culture, as opposed to symbol and rites (the outer layer of culture), are thought to have greater influence and substantive effect on the improvement process. As values permeate all organizational process and activities, we could expect that value orientations would have a significant influence on how organizational members relate and react to some of the changes instituted in the organization. This research, among other things, focuses on the quality initiatives and improvement programmes brought into the organization which desire to change work methods and the attitudes of the members in the organization. Thus, this research seeks to explain the role of values as facilitating or inhibiting quality change in the organization.

4.3.1.4 Quality Philosophy

The ideas and beliefs about quality held by an organization and its members can also be a source of influence on the way quality issues are tackled. Some organizations, for example, see quality as reaching and maintaining a certain level of specifications or outputs. This idea of "acceptable quality level" (AQL) is normally based on the assumption of economically rational behaviour whereby quality levels are chosen at or above the level which would maximize the economic returns.

The other contrasting belief on quality is that it has no limit; quality is a never ending quest for improvement. Reflection of this view on quality are the "zero-defects" (Deming, 1982) and "quality is free" (Crosby, 1979) slogans. This kind of belief regarding quality is found to be held by successful Japanese organizations (Reitsperger and Daniel, 1991) and this would add to the explanations for the differences in organizational performance.

In the Malaysian context, we could expect that the philosophy of quality is influenced by some aspects derived from local cultural values, practices and beliefs. Thus, for example,

it was speculated that such concepts like "perfection", "excellence" and "quality" are greatly influenced by the spiritual and moral considerations.

4.3.1.5 Quality Management Techniques

Management techniques and procedures used to improve quality in organizations are wide-ranging. These techniques include making routine maintenance and preventive measures, doing regular inspections, instituting participative quality groups such as quality control circles (QCC) or quality improvement teams (QIT), adopting a quality system such as ISO 9000 or automating some process in the organization. The degree of emphasis and the usage of some techniques may be different between organizations or in different departments within an organization - this could be due to certain factors such as resource availability, location, attitudinal, cultural and philosophical orientation towards quality.

Malaysian organizations may be expected to exhibit a high degree of similarity on the technical and 'hard' process approach of quality improvement when compared to their equivalent organizations in a more advanced country. This is because technical and 'hard' process elements can be easily transferred and accepted by receiving organizations. However, with respect to the 'soft' dimension of quality improvement initiatives, Malaysian organizations are expected to be more selective, modifying them to suit religious and cultural orientations.

4.3.1.6 Organizational Effectiveness

The term 'organizational effectiveness', sometimes used interchangeably as 'organizational performance', describes how "well an organization is doing, relative to some set of standards" (Scott, 1987; p.320). The criteria for organizational effectiveness, however, are multiple and depending on the interest of the study differing criteria of effectiveness would be used. Various analysts, such as Price (1968), Steers (1975), Campbell (1977), and Cameron and Whetten (1981) have assembled lengthy lists of

criteria that have been used to measure organizational effectiveness. Examples of criteria used for measuring organizational effectiveness include measures of productivity, profit, growth, turnover, stability and cohesion.

The diverse conceptions of organizations held by various analysts could be one important explanation for the use of different criteria of effectiveness. Under a rational perspective, whereby organizations are viewed as control instruments for the attainment of goals, the criteria focus on the number of outputs and the economies realized in transforming inputs into outputs - general criteria include measures of total output, productivity, efficiency, financial and business indicators. Whereas, under the natural perspective, whereby organizations are viewed as collectivities that are also engaged in other activities required to maintain themselves as a social unit, there is an additional set of support goals to the output goals emphasized by the rational perspective. These support goals are expected to dominate output goals if the two do not coincide, i.e., organizations would be governed by the overriding goal of survival. The criteria generated by this conception include measures of organizational members' satisfaction and morale (indicators of whether the organization's inducements are sufficient to evoke contributions from organizational members adequate to ensure survival), the interpersonal skills of managers, and survival itself (Scott, 1987).

Organizational analysts' diverse conceptions of organizations are not the only source of explanation for the differing criteria used to measure effectiveness. Other important bases of diversity include time perspective and level of analysis. Time considerations enter into the generation and application of effectiveness criteria in two senses. First, the criteria employed may vary depending on whether a relatively shorter or longer time frame is adopted. For example, the quest for quality is a continuous process which requires a continuous investment in order to be effective. Therefore, we would anticipate that organizations desiring quality will give greater attention to investments which do not necessarily produce immediate returns. Second, organizations are at different stages of

their life cycle, therefore some criteria of effectiveness are more relevant to a certain stage of the organizational life cycle. Thus, the meaning of growth, survival and overall effectiveness could be expected to be different at different stages of the organizational life cycle.

The level of analysis could also determine the criteria for effectiveness. Most analysts take the organization itself as the appropriate level of analysis. Yuchtman and Seashore (1967), for example, explicitly adopt this position, suggesting that a relevant view of effectiveness should be evaluated on how well the organization is doing for itself. However, the open systems view, whereby organizations and the environment are interlinked, suggest that organizations could also be evaluated in terms of how well they are adapted to survive the changes in the environment and to social expectations. In the context of quality belief, this could mean that organizations should adopt the 'quality' concept and strategies that rely on long-term commitment and continuous process of improvement in order for them to survive in a competitive environment. The effectiveness of an organization could also be judged by how much of a contribution it made to the society and nation.

4.3.2 A Holistic Approach

Many past studies on quality have taken a piece-meal approach or a narrow and specific problem-solving orientation. Implicitly, the approach in those studies assumed a closed system view on organizations. Such an approach limits wider consideration of issues and often neglects treatment of contextual factors and 'soft' elements within the organization as well as the wider environmental factors. This situation usually leads us to a poor understanding of the investigated phenomenon because it has failed to unravel the complex pattern of interactions between various elements of the organization. By adopting the open systems view and the natural perspective of organizations, this study desires to investigate the quality phenomenon in selected Malaysian organizations in a holistic

manner. This approach seeks to consider all possible factors or elements in order to understand and explain the investigated phenomenon. Thus, this approach will be more credible in explaining the quality phenomenon because it removes some deficiencies resulting from the closed systems view and a piecemeal approach.

The closed systems view and piecemeal approach to studying organizations have the following deficiencies:

1. An inward-looking concept of quality control, which ignores the importance of the relationship with the external environment;
2. An over emphasis on functions, procedures and quality systems which understate the importance of their relationship with the nature of quality improvement, which is coordination, integration and continuous adaptation to environmental changes;
3. A material and economic form of assessing quality which neglects the spiritual and transcendental elements.

Since this study seeks to gain a better understanding of quality and to discover some new theories relating to the subject, the holistic approach seems to offer a wide platform for soliciting these issues. This approach enables an analyst to examine both 'soft' and 'hard' issues of quality and their relationship with environmental factors simultaneously.

4.4 QUALITY UNDERSTANDING IN ORGANIZATIONS

The understanding of quality issues and problems in organizations can be thought of as emanating from two views of quality: (1) quality as a "control method" and (2) quality as an "agent for cultural change". The two views of quality can be contrasted in

terms of the following aspects: (a) orientation of emphasis, (b) goal, (c) strategies for improvement, (d) nature of training and education, (e) measures and effects of quality, and (f) differences in understanding.

4.4.1 Orientation of Emphasis

The first view of quality as a "control method" tends to emphasize quality improvement on techniques, technology and control procedures. While, the second view of quality as an "agent for change" emphasizes the nurturing of values and habits to improve quality. Thus, it could be speculated that the latter view would deal more with the general issue of human resource development, while the former view would be more concerned with the issue of efficiency and productivity.

4.4.2 Goal

The goal for improvement under the first view is likely to be economic or material. However, the second view would consider economic improvement only as an outcome that resulted from continuous enhancement of the organization's human resources. In the second view, the subjects of improvement are not merely organizational products but rather, the potential of organizational members. Therefore, in organizations which regard quality as an "agent for change" there should be more emphasis on all-round training and education in order for them to produce committed and motivated members.

4.4.3 Strategies for Improvement

In the first view, strategies for improvement tend to focus on improving the organizational production process. Following this view, we can expect there to be a greater desire for the organization to become certified with some kind of a quality system such as ISO 9000. Here, organizations are more concerned with issues of productivity, efficiency and the need for structural change. On the other hand, the second view entails

greater emphasis on adopting new ideas and values for improvement. Thus, we can expect that concepts of quality such as TQM would be emphasized to organizational members. In this strategy, the focus for organizational change is on the values and practices of its members.

4.4.4 The Nature of Training and Education

In the first view, we can expect the training and education of organizational members to be more job-oriented or job-related. Here, the intention is to improve the skills and methods of doing things. However, in the second view, training and education would be expected to be more person-oriented or person-centred and associated with inculcating members with positive values and practices. This view regards person-oriented or person-centred training and education to be very important in sustaining morale and long-term commitment to the organization.

4.4.5 Measures and Effects of Quality

The view of quality as "a control method" is very much associated with the objective and mechanistic understanding of organization. In this respect, measures of quality are based on objective criteria such as financial and productivity figures. Thus, measuring improvement on this basis would be simpler and comparisons can be made. We could expect to see the effects of improvement in a relatively short period of time.

Whereas, when quality is regarded as "a cultural change", a considerable time period is needed to evaluate or even to notice the effects of the improvement effort being made. It is also difficult to measure objectively the change or improvement that has occurred with respect to members' values and understanding - these are very much within the cognitive experience.

4.4.6 Differences in Understanding

Location and hierarchical position of members within the organization could be one of the explanations attributed to the differences in understanding quality as a "control method" or as an "agent for cultural change." People at the operational level involved in the production process would be more likely to adopt the view that quality is a "control method". On the other hand, we can expect that people at the managerial level understand quality more as an "agent for cultural change." These differences in understanding could also be explained by members' educational backgrounds. People trained in technical disciplines would tend to have a mechanistic view of organizations and hence, often treat quality as "a control method."

4.5 SUMMARY AND CONCLUSION

This chapter began with a discussion on the nature of organization (Section 4.1). This highlighted the existence of different conceptions of 'organization'. The differences arise from different philosophical views and conceptual paradigms. Notably, the understanding of 'organization' can be approached generally from a rational or objective approach and from a natural or subjective approach. The first approach would normally subscribe to the positivist or functionalist research paradigm while, the second approach would normally subscribe to that of the interpretative or phenomenologist.

This chapter also pointed out the relevance of the concept of culture to the study of organization and quality (Section 4.2). It is suggested that by studying culture one is better able to gain valuable insights and greater understanding of the organizational process and activities. In this study, organizational culture has been conceptualized to consist of two important layers: belief or basic assumptions and organizational practices. The two layers defined the term 'organizational values' in this study. Belief or basic assumptions are the inner layer or the core of culture, and they are less visible and more

difficult to change. While, practices, the outer layer of organizational culture, are normally visible and to a certain degree they can be more easily altered or modified.

Following this, Section 4.3 presented the conceptual framework for this study which is based on the open systems view and natural perspective of organizations. This framework is intended to provide the researcher with a broad view for understanding the quality phenomena in organizations. Thus, the approach to this study has been a holistic one whereby issues relating to the subject could be discussed from various perspectives. Here, both aspects of quality, 'hard' and 'soft', are considered in the development of theories and explanations of organizational effectiveness.

The elements in the research framework are categorized as those related to (1) contextual factors, (2) organizational mission and objectives, (3) organizational culture, (4) quality philosophy, (5) quality management techniques, and (6) organizational effectiveness. The issues and elements which appear most relevant from the literature have been revised and assembled to develop these categories of the framework. These categories served as a guide to the researcher's inquiry and investigation process. Also, it is argued that the framework developed for this study is broad enough to accommodate or absorb relevant issues of quality.

The chapter finally, in Section 4.4, described the two possible strands of understanding quality in organizations: (1) quality as a "control method" and (2) quality as "an agent for cultural change". The two views can be contrasted from the emphasis on improvement effort, goal and strategies of improvement, nature of training and education, measures and effects of quality, and the level and type of position held in organization. The two strands of understanding quality in organizations are influenced by the different perspectives held by researchers. In most instances, the understanding of quality as a 'control method' or as a variable is related to the objectivist or functionalist paradigm. While, the understanding

of quality as an 'agent for cultural change' is usually related to the subjectivist or interpretative paradigm.

The following chapter describes the methodology of this study. It highlights a link between research approach and method, i.e., the link between the ontological and methodological assumptions. In particular, it points out how the case study method chosen for this research is linked to the approach to which the researcher subscribes.

CHAPTER FIVE: RESEARCH METHODOLOGY AND DESIGN

"The Metaphysics of Quality subscribes to what is called empiricism. It claims that all legitimate human knowledge arises from the senses or by thinking about what the senses provide. Most empiricists deny the validity of any knowledge gained through imagination, authority, tradition, or purely theoretical reasoning. They regard fields such as art, morality, religion, and metaphysics as unverifiable. The Metaphysics of Quality varies from this by saying that the values of art and morality and even religious mysticism are verifiable, and that in the past they have been excluded for metaphysical reasons, not empirical reasons. They have been excluded because of the metaphysical assumption that all the universe is composed of subjects and objects and anything that can't be classified as a subject or an object isn't real. There is no empirical evidence for this assumption at all. It is just an assumption." (Pirsig, 1991; p.121).

This chapter begins with a discussion on research methodology and the approach taken by this study (Section 5.1). Following this discussion, there is a description of the strategy and design (Section 5.2) of the research. The case study method (Section 5.3) as a technique for data collection and analysis is discussed, followed by a discussion on some issues and problems of theory development (Section 5.4). Finally, the approach for analyzing data (Section 5.5) is described.

5.1 RESEARCH METHODOLOGY

There is a need to approach a discussion of methodology in a way that highlights a link between theory and method. In particular, the link is between the assumptions (about human nature and the world view) to which the researcher subscribes, leading to the type of research questions posed and the research techniques adopted. It is important to understand what assumptions regarding ontology and human nature underlie a particular research, since they provide the very grounds of social theorizing in ways that define

different epistemological and methodological positions (Morgan and Smircich, 1980; Burrell and Morgan, 1979). In social science, the term 'paradigm' is used to describe a general perspective or frame of reference for viewing the social world, consisting of a set of concepts and assumptions (Burrell and Morgan, 1979).

A particular position regarding research methodology reflects the researcher's ontological and epistemological assumptions. A large number of methodological issues in organization and management research emanates from two basically contrasting orientations, namely the natural science and the humanistic orientations. Whereas the natural science orientation has promoted the tradition of a hypothetico-deductive or positivistic paradigm, the humanistic orientation has encouraged the application of a symbolic-interpretative or phenomenological paradigm in organization and management research.

5.1.1 The Hypothetico-deductive or Positivistic Paradigm

The hypothetico-deductive or positivistic paradigm is reflected by its epistemological position - it is characterized by the view that fact and value are logically and epistemologically distinct, and hence that value-free knowledge is possible. This view is based on the formal logical impossibility of deriving normative conclusions (i.e. conclusions expressing value judgement) from only positive premises (premises expressing no value judgement). In other words, the reality to be researched is considered as existing independently of the research community that studies it, and the observations made by researchers are considered as being independent of the beliefs and values to which the researchers adhere.

The positivistic approach demands a quantitative data and methods for testing and verifying prior hypotheses. There is considerable emphasis on the generalisability of research findings, which tends to be seen in terms of statistical generalization rather than analytical generalization (or the extension of theory). Thus, this approach seeks to explain

and predict events in the social world by searching for regularities and causal relationships between constituent elements - the belief that there is an 'order' in the social world and that the elements within it affect each other in a systematic and predictable manner. Customarily, the approach taken by positivists is to represent the 'real' system and its process with a simplified model. Such a model, with fewer chosen elements, would enable the researcher to conduct his or her study in a relatively easy manner.

5.1.2 A Critique of the Positivist Approach

Although the positivist approach offers a more structured and rigorous method to investigate social phenomena, it also has many drawbacks. The major argument against this approach are the underlying ontological assumptions that see reality as being 'out there' and independent of the perceiving subjects. However, social reality cannot exist outside an individual's cognition because it is the meaning that individuals ascribe to objects and events that forms social reality. In other words, the meaning it has are produced by individuals who in the course of their practical life actively constitute and reconstitute frames of meaning on the basis of their experience and their interpretation of events. Hence to ignore an individual's thoughts, beliefs, attitudes, motives and intentions would be to dehumanize human beings and treat them as mechanical entities that fit the 'stimulus-response' model of natural sciences.

Positivist research methodology has been claimed to be objective and its research therefore, should be free from the values of the researcher. However, there are many researchers who do not subscribe to this idea and dispute the claim. They point out that the researcher's own unconscious bias may unavoidably favour certain hypotheses and thereby influence his or her data collection (Rosenthal, 1966). Such an approach means that one works within a limited frame of reference as the researcher has already determined what is important and how the data is to be collected. Thus by its very nature, there is a possibility that relevant and important data would be missed out. There is also

too much reliance and acceptance of past theories and these hinder the prospect of developing new theories which may be more accurate.

The positivist approach is also criticized for eliminating the role of history in the generation of knowledge (Susman and Evered, 1978). Individuals and organizations are not born in an instant with their present structures and functions in tact. Rather, present patterns of behaviour can many times only be understood as the product of shared definitions held by organizational members regarding what their common endeavour is about.

5.1.3 The Symbolic-interpretative or Phenomenological Paradigm

The symbolic-interpretative paradigm sees 'reality' as depending upon perceiving subjects. For phenomenologists, organizations as tangible and concrete phenomena simply do not exist; the social world is essentially processual and emerges from the interaction of human beings acting individually or in concert with one another. In other words, knowledge concerning the social world is a function of human cognition and experiences.

Whereas the hypothetico-deductive paradigm has fostered, by and large, reductionist description, nomothetic generalizations, normative focus, atomistic analysis, experimental-statistical studies, quantitative data, standardized instruments, probability sampling, theoretical objectivity and absolute interpretation of data, the symbolic-interpretative paradigm has aimed at attaining a holistic understanding, naturalistic observations, intuitive idiographic inferences, qualitative data, non-standardized instruments, pragmatic focus, semiotic analysis, relativistic interpretation of data through integrated and contextual analysis (Mukherjee, 1993). Thus, the phenomenological study places emphasis on the study of unique human phenomena (which in holistic terms include the personal, subjective, experiential and social aspects of behaviour).

The symbolic-interpretative approach to research emphasizes the dynamic, purposive, interactional and meaningful aspects of any human behaviour rather than focusing on its 'lawful' and normative character. As a result, this approach is likely to maximize external validity (adequacy to facts). The hypothetico-deductive paradigm with its quantitative emphasis, on the other hand, is likely to maximize internal validity (logical rigour). Therefore, the hypothetico-deductive paradigm frequently enables the researcher to attain rigorous logic but poor understanding of the phenomenon (Mukherjee, 1993).

5.1.4 The Approach Taken in this Research

The research approach taken is one which views the social world as an evolving process and conceived as an open system. Here, it is very difficult to find determinate causal relationships between constituent processes. This is unlike the extreme logical-positivistic approach, which views reality as an objective phenomenon that can be accurately observed and measured.

The approach taken by this research further assumes that human beings exist in an interactive relationship with their world, acting as adaptive agents. This implies that they influence and are influenced by their context or environment (Koontz, 1980). The basic epistemological stance here, therefore, is to study systems as well as to map contexts, to some extent. The extreme positivistic approach uses traditional methods such as detailed laboratory experiments, while the extreme interpretative approach uses such techniques as participation-observation and content analysis. This research advocates neither extreme approaches. It seeks to create a balance, by using in-depth interviewing (a 'qualitative' method), to be complemented with a questionnaire survey (a 'quantitative' method).

Here, it is important to note the difference between the term 'method' and 'methodology' use in the context of this research. By 'method' the researcher means simply the research technique or tool used to gather data - therefore, it can either be a 'qualitative' or

'quantitative' or both. By research 'methodology' the researcher means the philosophy of the research process. This includes the assumptions and values that serve as a rationale for research standards or criteria the researcher uses for interpreting data and reaching conclusions.

The researcher acknowledges that there are implications of a theoretical tradition for selection of the research method. 'Quantitative' methods were almost exclusively used by researchers employing the hypothetico-deductive paradigm, while those researchers subscribing to the phenomenological-interpretative paradigm used 'qualitative' methods. In the past, quality management has relied mainly on one theoretical tradition - the hypothetico-deductive paradigm, following the logical-positivistic approach. As a result, it has grown much more rapidly in the area of hypothesis-testing than in the development of new, rich explanatory theories.

As such, a 'methods bias' seems to have resulted in management research, where researchers have extensively and almost exclusively used methods of *theory verification*, even in situations where *theory discovery* was more appropriate. Reichardt and Cook (1979) advocate that quantitative methods have been developed most directly for the task of verifying or confirming theories and qualitative methods were purposively developed for the task of discovering or generating theories.

The grounded approach developed by Glaser and Strauss (1967) is able to avoid a "methods bias" in research. A combination of both qualitative and quantitative techniques can be used in this approach. Since the present research hopes to discover and develop further concepts by seeking explanations for variations in 'quality' performance of organizations, this approach is considered as the most promising.

5.2 RESEARCH STRATEGY AND DESIGN

In adopting the grounded approach developed by Glaser and Strauss (1967) the strategy used in this research comprised the following techniques:

- (1) Literature Review** - to present the theoretical framework; to lay the foundations of analysis used for discussing answers to the research questions in support of the findings.
- (2) Interviews** - to identify key issues, their scope and coverage in addressing the research questions. Quality managers' descriptions of quality and management techniques which had been put to practice (particularly on how modifications or adaptations of approaches have been made to account for a specific organization) were sought.
- (3) Questionnaire Survey** - a questionnaire survey extended to include responses from organizational members. This is to profile organizational members' values and their views about the organization, especially with regard to their perceptions and expectations of quality.

It is relevant to note that apart from the specific functions stated above, findings from each research technique play an important supplementary role. Much creativity is required to reconcile any conflicting results that may emerge between interview and questionnaire survey methods. Analogies or differences arising from such a comparison of these techniques may explain or highlight more critically, the issues involved. These help to "theorize" or acquire explanations about why the differences occur (and why they do not). This process does not entail merely finding empirical relationships that happen in the real world, but rather of learning circumstances under which the differences may affect the

process of improvement in organization. Different levels of generality, therefore may result from this process.

The objective of this research is not to search for a conclusion based on statistical generalizations. Rather, the findings from this study are to enhance our understanding on the subject, i.e., the improvement process in organizations. This understanding is developed from inferences that can be made from data and analysis that are grounded in the case investigated. Therefore, the design developed for this study is geared towards capturing sufficient information to answer the research questions. Here, the case study method of data collection and analysis was chosen as it seems to be capable of fulfilling this objective.

5.3 CASE STUDY METHOD

Yin (1984) has defined the research case study as "an empirical enquiry that (a) investigates a contemporary phenomenon within its real-life context; when (b) the boundaries between phenomenon and context are not clearly evident: and in which (c) multiple sources of evidence are used" (p. 23).

This definition suggests that the circumstances for which the case-study is the most appropriate research method are: where an on-going phenomenon is to be studied in its normal environment, and where the things of interest are not clearly bounded and distinguishable from that environment. Thus the case study would appear to be well-suited to the study of quality management within its organizational context, compared with either "laboratory-type" experiments which remove the phenomena from their context completely, or pure questionnaire survey methods which seriously limit the extent to which the context can be assessed, as all potentially relevant contextual factors need to be foreseen in advance in order to be included in the questionnaire. Yin's other point, namely the use of multiple sources of evidence, behove the researcher to take full advantage of the

opportunity offered by the case study method to seek confirmation of "factual" data and different, possibly competing, interpretations of its meanings to those involved in the situation.

Thus, case studies offer an opportunity to be interpretative, that is, trying to understand the situation in terms of its meaning to the participants involved, so that these meanings can guide the process of theory development. This implies that the researcher should not only, or necessarily, measure and compare variables contained in his original theoretical framework, but should also be prepared to discover "new" theoretical constructs and also seek to compare these between cases. Case studies may also offer the chance of "action research" in situations where sufficient trust and potential for mutual benefit exists between researcher and the participating organization. In short, the use of case studies offers the prospect of developing theories of quality management which are grounded in management practice.

From the "holistic" point of view, case studies are useful for their ability to set data in context, in order to give more meaning to, and to investigate the boundaries of the phenomena under investigation. It is argued that a discipline such as quality management has no established theory or basic epistemology to guide the researcher in the selection and interpretation of important data - therefore, a meaningful and sound approach is to attempt to develop theories on the basis of rich investigations of social phenomena, not prematurely delimiting the field of observation. The case study method also allows the researcher to understand the situation in terms of the other participants during the investigation process. Therefore, it may be able to promote a process of dialogue and interaction between the researcher and individuals and groups in the social system which will then generate progressively deeper and new kinds of understanding of social phenomena. In this sense, it may illuminate theoretical connections which were previously obscure.

There are two specific criticisms of using the case study method or technique: that case studies are not statistically valid, and that they are not generalisable beyond the immediate case study. On the first point, a researcher should note that in case studies statistical inference is not invoked at all. Instead the inferential process turns exclusively on the theoretically necessary linkages among features in the case study (Mitchell, 1983). On the second point, the case study has been mistakenly compared to 'sample' in a hypothesis-testing research - in which a 'sample' (if selected correctly) is readily generalizable to a larger universe or population. This analogy is incorrect when dealing with the case study. This is because hypothesis-testing research relies on statistical generalization, whereas a case study relies on analytical generalization (Yin, 1984). Here, the validity of the extrapolation depends not on the typicality or representativeness of the case but upon the cogency of the theoretical reasoning (Mitchell, 1983). In this respect, case studies do have a valuable role to play and should not be underestimated as an important research tool. The position accorded to the role of case studies is very well described by a comment quoted in Glickman (1985; p. 95): "We simply have to keep our eyes open and look carefully at individual cases - not in the hope of proving anything, but rather in the hope of learning something."

A case study does not have to be viewed in isolation from other cases or other types of data, and by comparing results with other work, can be used to support findings obtained by other methods. However, it must be noted that the use of a case study is not an ideal method of theory verification, since that is not its purpose. A case study aims to generate, rather than test, theory. A feature of a case study, which is in conjunction with the grounded approach, is that it can assist a researcher in generating theory by not forcing him implicitly to exclude variables from his list of concerns. Whilst case studies are appropriate for generating theory, they also have some role in theory verification, as when one case is divergent from a universal theory it is sufficient to refute it as a universal statement. Furthermore, the case method can identify some specific circumstances where

a supposedly "universal" theory does not hold, and therefore assist in the formulation of a better theory.

As well as making a convincing argument for the use of a case study method, many writers also acknowledge that such research is not without its own difficulties, such as how information is to be generated and presented, the procedures for reasoning about the data, and the rules for judging the reliability of observations, all of which are less well specified in the case approach than in other approaches. Case research requires considerable skill on the part of the researcher, in asking the right questions and interpreting the answers received. All these points make the research more difficult for an external reviewer to assess the work and its value. Nevertheless, these are practical difficulties which need to be overcome, rather than fundamental objections to the case study method per se.

To aid the researcher, a number of guidelines have been suggested to help overcome the difficulties. These include (i) making the reasons for, and the implications of, choosing a particular case clear and explicit, (ii) making clear the boundaries imposed on the phenomenon being studied, with a note that a particularly valuable result of a case study could be when one's first conception of the initial relevant boundaries is replaced by another, (iii) maintaining sufficient distance from the case situation to remain critical of "facts" created by actors or groups within situation, (iv) relating observations to some general framework, or possibly more than one framework, in order to maintain some degree of focus in the study, (v) relating to knowledge outside the case itself, (vi) allowing for multiple interpretations of case data, and (vii) making the researcher's framework and values explicit as possible in order to aid evaluation of the work (Yin, 1984). The latter point is most important; even the researcher who is most committed to a "theory-free, value-free" method has to make choices, possibly unconsciously, about what to observe, what data to collect, and to choose between competing interpretations of the data and events at some stage. The more explicit such choices are, the easier it is to evaluate the work, and the greater the chance of competing explanations being considered.

Given that the objectives of this research are to seek new insights into the philosophy and management of quality in Malaysian organizations, the case study approach enables specifically:

- (1) the collection of qualitative as well as quantitative data on quality management and other internal and external variables concerning organizations;
- (2) more interpretative material to be sought from those involved in the planning and development of quality processes concerning the various practices, and the relevance of various other factors, e.g. values and culture, to the process of quality; and,
- (3) initial and subsequent findings and ideas to be fed back to organizational participants for their comments and further interpretation.

The case study data for this research are obtained primarily from two phases of fieldwork activities. The two phases of fieldwork (Phase 1 and Phase 2) spanned over one and half years of the study. In the Phase 1 fieldwork two principal activities were carried out: (i) gathering background information on the quality movement in Malaysia, and (ii) conducting case studies (primarily through interviews with quality management personnel) from some Malaysian organizations. The Phase 2 fieldwork was carried out to obtain further evidence as well as to focus on certain issues that are related to the subject of this study. The detailed conduct in both phases of fieldwork, which include visits to organizations and interviews with organizational members, are described in the next chapter.

The fieldwork trips to Malaysia in this study have been directed to obtaining information through the following three major activities:

(i) Interviews: Both phases of fieldwork include interviews with some selected organizational members - the members chosen for the interviews were those in the managerial or supervisory position and related to the quality initiatives of the organization; thus, most interviewees were either quality management or human resource personnel. A personal discussion with them has certainly yielded information not obtainable from mere desk research. Contacts with practitioners were definitely a valuable learning experience consistent with the virtues of adopting a grounded approach, as well as being an integral part of the research experience.

The interviews in this study were conducted using a naturalistic approach - i.e., interviews were not constrained by certain issues of interest. This approach enabled the researcher to gain access to a wider outlook regarding management practices in organizations. Specifically, this approach to interviews has contributed towards the following:

- (1) identifying key issues worthy of detailed investigation forming an analytical framework for interpretation and analysis;
- (2) specifically identifying what management of quality practices exist. The main aim was to gain insights on unique aspects of the quality approach used and seek out managers' explanations for the rationale underlying these practices in the light of contextual characteristics;
- (3) generating information about the receptiveness, span of attention and frames of reference of respondents;
- (4) helping to build up necessary contacts in identifying the appropriate managers to act as a target for negotiating the administration of the survey questionnaire in the organization. It also provided insights regarding appropriate segments of

respondents, thus allowing the researcher to be more specific in determining the precise division/departments to be covered;

(5) developing personal and intimate familiarity with a particular setting in the organization.

This research aimed to reduce interviewer-interviewee biases as much as possible. One way to do this was by allowing the managers to talk openly on what they considered to be important, rather than fitting their thoughts into any rigidly fixed format.

(ii) Documents and Reports: Secondary sources in the form of documents and reports related to the organizations were also collected to aid the researcher in understanding the overall organizational context, historical development and change. These served as background materials against which comparison could be made with actual data gathered in grounded theory studies. Among the documents which can provide such information are the organization's annual reports and its quality documents/manuals.

(iii) Questionnaire Survey: The idea of conducting the questionnaire survey was mainly to complement and countercheck interviews. The second phase fieldwork included a questionnaire survey of organizational members from the chosen organizations. The survey covered aspects of values and quality practices within an organization. In the light of this research, there are two major contributions of the survey:

- (1) The variables identified can be tested for replication which might lead to increased generalizability of results (and hence, enhanced reliability) as desired.
- (2) The presence of the researcher (while conducting the interviews), the problem of observer-induced bias may prevail. But here, this does not exist.

The aspects which relate to values in the questionnaire survey developed for this study are adapted and modified from Rokeach's (1970) values survey instrument.

5.4 THEORY DEVELOPMENT - SOME ISSUES AND PROBLEMS

Quality management is still theoretically underdeveloped and the empirical exploration of how organizations adopt and regulate their quality activities is lacking. Many empirical works on quality management in the past were based on partial theoretical models, seeking relationships between some aspects and elements of quality, and occasionally some measures of organizational performance. This approach has led to a number of findings which are rather diffuse, and as such, while being interesting and useful for certain purposes, they do not begin to unravel the complexities of interaction between different parts of the whole system of organization.

The dominant research method has been to measure a limited number of variables, usually by the administration of a questionnaire, and to seek statistical confirmation of their relationship. Because of the possible interactive links between contexts, and the structures and processes of organizations, in these circumstances it is unrealistic to expect purely statistical methods of analysis to unravel a complex pattern of interaction. Therefore, the researcher must have a closer involvement and develop propositions as to likely relationships as he or she explores the organization under investigation.

In the absence of a well developed theory, the numerous attempts at theory verification would seem to be misdirected; exploratory studies which might generate a better theory are likely to prove more substantive in the long term. However, it has also been acknowledged that theory generation, particularly that which is based on real-world experience, has its own potential problems and difficulties. It can be extremely expensive on time, and requires access to the real-world setting of the phenomenon to be studied. It

may require the long-term cooperation of certain individuals, which implies a cost to the organization concerned. This means that individuals or organizations may need to be convinced in some way to participate in the study, and this raises the further problem of response bias, which has often been present in this type of research.

There is a further problem of risk, i.e., whether the researcher will achieve the objective of generating theory by induction from observations. If the data and observations on which theory is based come from a single organization, or from a small number of organizations, there are also problems of verification and generalizability of the findings. However, it is possible to minimize these obstacles as indicated in the published works of Glaser and Strauss (1967) and Strauss and Corbin (1990). They recommend several techniques, such as the use of questioning and the making of comparisons, for enhancing theoretical sensitivity and methods of analyzing data. Thus, the obstacles should not become a barrier to such research which promises to be a valuable contribution to our understanding of the subject.

5.5 APPROACH IN DATA ANALYSIS

This study may be considered to be based predominantly on an interpretative paradigm. In this respect, the aim (of this study) is to explore, describe and attempt to provide possible explanations for quality management and process in organizations. Hence, the approach taken for analyzing data should be linked logically to the purpose of the study which is to generate theory relating to the subject.

The approach called "analytic induction" seems to complement the grounded theory and case study method adopted in this study. By following such an approach the researcher would be able to abstract and generalize from the data obtained in case studies. Regarding this approach, Bulmer and Burgess (1986) note:

"Analytic induction is intended to maintain faithfulness to the empirical data while abstracting and generalizing from a relatively small number of cases. Its aim is to 'preserve plasticity' by avoiding prior categorization. No definition of a class or category of data precedes the selection of data to be studied as representative of that class. The data analysis begins before any general formulations are proposed. ... It abstracts from a given concrete case the features that are essential and generalizes them." (p.251)

Also, it is important to note here that the analysis in a grounded method is done as an ongoing process and that it served as a basis for theory building. In other words, the process of data analysis should lead the researchers towards, and provide him or her with, a reinterpretation of the phenomena under study, or offer new patterns of understanding.

Many findings and patterns of understanding resulting from an interpretative study are developed from the researcher's qualitative and creative interpretation of empirical data. However, this does not mean that the researcher should resort to 'wild' imagination in interpreting data and events. Instead, there should be substantial use of some of the 'analytic techniques' suggested by various authors.

To aid researchers in the analysis of data, Miles and Huberman (1984), for example, suggest some of the following 'analytic techniques':

- putting information into different arrays;
- making a matrix of categories and placing the evidence within such categories;
- putting information in chronological order or using some other temporal scheme.
- examining the complexity of such tabulations and their relationships by calculating second-order numbers such as means and variances;

- creating data displays - flow charts and other devices - for examining the data;
and
- tabulating the frequency of different events;

The 'analytic techniques' suggested above help structure the analysis process and provide the researcher with a clear description of various categories or schemes developing from the data.

As this research is greatly concerned with developing categories, the concept of 'prototypicality' described by Chell et al. (1991) is useful for this purpose. They note:

"most categories do not have clear cut boundaries and so the idea that it is possible to devise a set of necessary and sufficient criteria for category membership is problematic. Categories may be conceived of in terms of clear cases which typify them rather than in terms of their boundaries. Essentially this is to seek 'prototypical cases' of a category. The prototype is the best exemplar of a particular category. For example, a mahogany dining table is more prototypical of the category 'table' than is a desk" (p.35)

In the study of quality, variations in organizational quality performance occur as a result of different type of improvement efforts within the organization, such as task improvement, process improvement, product enhancement, training and organizational structural change. Thus, the concept of 'prototypicality' will be useful in this study in order to establish different categories of 'quality improvement' within an organization.

As the categories of 'quality improvement' are established, the next step of analysis is to make connections between categories by utilizing a coding paradigm involving conditions, context, action/interactional strategies and consequences (Strauss and Corbin, 1990).

This process will enable the researcher to understand the events, incidents and happenings that lead to the development of a phenomenon.

Detailed analysis and findings for this study are described in Chapter 7. In that chapter, there will be description of the type of analysis performed and the associated results that came out from the analysis. The results would then become the basis for interpreting and understanding various issues that have been addressed in this study.

5.6 SUMMARY AND CONCLUSION

The chapter began with a discussion on research methodology. Essentially, there are two broad methodological approaches adopted by social scientists. These approaches are epistemologically and ontologically rooted and are known as hypothetico-deductive (or positivistic) and symbolic-interpretative. The hypothetico-deductive approach demands quantitative data and requires testing of hypotheses. There is also considerable emphasis on the generalizability of research findings. The symbolic-interpretative approach aims to understand phenomena in a holistic manner and emphasizes the dynamic, purposive, interactional and meaningful aspects of human behaviour. Here, the criteria of validity in the findings is not seen in terms of statistical generalization but rather they are evaluated in terms of analytical generalization.

The methodological approach taken in this research is based essentially on the symbolic-interpretative paradigm. However, following such an approach does not mean that some techniques normally used in the hypothetico-deductive studies should be discarded. Thus, this study advocates and chooses techniques which are at neither 'extreme' of the aforementioned research traditions. It seeks to create a balance between the two methodological approaches. Specifically, this study uses interviews (a technique normally associated with the symbolic-interpretative studies) and a questionnaire survey (a technique normally associated with the hypothetico-deductive studies).

The grounded approach of obtaining and analyzing data is a strategy followed in this study. The main element designed into this research strategy is the case studies of some selected Malaysian organizations which were conducted from two planned fieldwork trips to the country. Interviews and selected survey of organizational members were conducted during the fieldwork's duration of six months (two trips of 3-months duration of Phase 1 and Phase 2) in Malaysia. Some related reports and documents related to the subject of this study were also collected.

This chapter also highlighted some of the problems and issues related to theory development, the concern of this study. A particular practical problem associated with qualitative research is that it requires access to the real-world setting of the phenomenon to be studied. This would require long-term cooperation from certain individuals and could be expensive on time and costs. Also, with this kind of research there is a potential risk whether in the end the researcher will achieve the objective of generating theory by induction from his or her investigations. However, the problems and the risk associated with this kind of research could be minimized using certain techniques such as questioning and the making of comparisons (Strauss and Corbin, 1990).

Finally, this chapter outlined the approach taken in the analysis of this study. The approach called "analytic induction" (Bulmer and Burgess, 1986; Yin, 1989) served to guide the researcher in analyzing and interpreting issues addressed in the study. As the study is also involved in developing categories, especially to recognize the different types of values orientations in organizations, the concept of "prototypicality" (Chell, 1991) is a useful conceptual guide to the researcher in identifying these categories.

The following two chapters essentially describe the central empirical component of the research process in this study. Chapter 6 describes the activities from the two fieldwork

trips. A total of nine organizations were visited during the two fieldwork periods in Malaysia.

Chapter 7 presents the analysis and results of the study. The analysis was conducted in two parts (or stages): (1) a broad analysis of issues that are relevant to the general subject of quality management, and (2) an analysis on the responses of questionnaire survey in five organizations.

CHAPTER SIX: RESEARCH FIELDWORK

"For while systematic data create the foundation for our theories, it is the anecdotal data that enable us to do the building. Theory building seems to require rich description, the richness that comes from anecdote. We uncover all kinds of relationships in our 'hard' data, but it is only through the use of this 'soft' data that we are able to 'explain' them, and explanation is, of course, the purpose of research. I believe that the researcher who never goes near the water, who collects quantitative data from a distance without anecdote to support them, will always have difficulty explaining interesting relationships."
(Mintzberg, 1983; p.113)

This chapter begins with a description of the purpose of fieldwork (Section 6.1). Section 6.2 and Section 6.3 give accounts of the process and activities that were involved in the Phase 1 and Phase 2 fieldwork respectively. In the Phase 1 fieldwork, the main activity was to obtain primary responses, largely through interviews, from members in a variety of organizations - here, the objective was to provide the researcher with qualitative and broad responses on the issues relating to quality. While in the Phase 2 fieldwork, the driving activity was the administration of the questionnaire survey to members of selected organizations - here, the objective was to obtain specific responses on a number of issues and aspects of quality from organizational members. Section 6.4 introduces the organizations that have participated in this study.

6.1 THE PURPOSE OF FIELDWORK

The main purpose of fieldwork is to enable a researcher to gain grounded empirical data for his or her study. In the context of this research, the fieldwork has provided the researcher with opportunities to make direct observations and to conduct case studies on several organizations. During the two fieldwork periods, several techniques were used for

data collection which include unstructured interviews, factory/site visits and questionnaire surveys. Documents and reports related to the study were also collected during these periods and these materials have been very useful in providing the background descriptions for the case organizations.

Thus, the specific purpose for the fieldwork conducted in this study was to achieve the following objectives:

- (1) To gain a deeper understanding of the phenomenon being studied and to identify elements or dimensions which will be useful in developing the conceptual framework of this research;
- (2) To obtain primary responses, through interviews and surveys from members of selected organizations in Malaysia;
- (3) To collect documents and reports relevant to the study from those institutions that were playing important roles in promoting quality awareness and engaging in quality training;
- (4) To enable some emerging elements of interest emanating from the research to be identified and suggestions for further studies.

Two fieldwork trips to Malaysia were planned and were carried out in this study. The first fieldwork trip, Phase 1, covered a three-month period from early May to the end of July 1993. The second fieldwork trip, Phase 2, also covered a three-month period and was carried out from early December 1994 to the end of February 1995.

6.2 PHASE 1 FIELDWORK

The Phase 1 fieldwork was carried out to allow the researcher to gain a close 'first hand' knowledge with regard to quality issues in Malaysian organizations. At this stage, a strategy for probing issues relating to quality was made on two aspects: (1) organizational improvement and (2) culture related issues. These two aspects were considered by the researcher to be helpful 'starting points' in deciphering quality concepts, issues and relationships in organizations.

Table 6.1: Organizations/Companies Initially Selected for the Study

Organization	Principal Products/Business
1. MCISB	Air conditioning
2. MSPH	Telecommunications
3. SMAS	Air transport
4. SLUTH	Fund management and special services
5. SUTUS	Newspaper
6. MMTR	Electronics items
7. MYHP	Canned food and beverages
8. MKMF	Safety match
9. MKLT	Leatherware
10. MKMR	Paints
11. MTXI	Electronics and computer
12. MCPAL	Household items

The preparation and plan of activities for the fieldwork was made while the researcher was in the United Kingdom. As the objective of this fieldwork was to gain a broad understanding of quality issues in Malaysian organizations, the organizations/companies selected for potential case study comprises different industries or sectors. With the aid of the FMM (Federation of Malaysian Manufacturers of Malaysia) guidebook, twelve companies engaging in a variety of business were selected (Table 6.1). A letter (as in Appendix 1) to each of the selected organizations was written and addressed to either its managing director or chief executive director. This letter contained a request for a visit to

the organization and to interview some of its members. All letters to these organizations were sent one month prior to the researcher leaving the United Kingdom.

Before the researcher left for Malaysia, one organization (MKMF) responded and declined to participate in the study. Since responses from the other organizations had not been received while the researcher was still in the United Kingdom, a follow-up strategy to these letters was immediately undertaken by the researcher as he reached Malaysia. The strategy was to call the respective organization and to trace the letter that had been sent to it. Surprisingly, some organizations could not trace these letters while others had deliberately preferred to wait for the researcher to contact them when he reached the country. Also, two of the managing directors (from MKLT and MKMR) had recently transferred to other companies.

As there were requests from some of the organizations for a written plan on how the case study would be conducted, a fresh letter (as in Appendix 2) together with a proposal for activities was faxed to each one of them. Reply address, fax and telephone numbers in the Department of Management, Faculty of Business Management, National University of Malaysia, where the researcher is a staff member, were also provided in the letter. During the two days after the letters were faxed, the researcher followed up with telephone calls to the organizations. They took some time to respond to the letters because the contacted persons had to consult with and delegate the matter to other individuals in the organization. At the end of a two week period, after a series of phone calls and negotiations with the contact persons, there were five organizations (MCISB, MSPH, SMAS, SLUTH and MMTR) willing to participate (to varying degrees). The remaining organizations seemed to give negative receptions.

The researcher visited these five organizations and was able to conduct a number of interviews with some of their members. It was not possible to record (tape) some of them because the respective interviewees were unwilling to permit it. Most of these

organizations were visited on more than three occasions and some members were interviewed more than once. The persons interviewed are shown in Table 6.2. The persons interviewed during this period were mainly related to a quality department or had a human resource function.

Table 6.2: Persons Being Interviewed

Organization	Persons Being Interviewed*
1. MCISB	1. Mr. Chong - Supplier Development Manager 2. Mr. Yong - GMgr, Quality Oper. for Asia Pacific 3. Mr. Chew - Supplier Development Engineer 4. Mr. Salleh - CAD/CAM Programmer 5. Mr. Nasir - Human Resource Manager 6. Mr. Zaidan - Human Resource Director
2. MSPH	1. Mr. Mohd Zin - Group Mgr, Quality Assurance 2. Mr. Hashim - GM, Teledata - a subsidiary of MSPH
3. SMAS	1. Mr. Ahmad Zaidi - OD Manager 2. Ms. Suzana - Human Resource Administrator 3. Mr. Maskon - Human Resource Manager 4. Ms. Salimah - Senior Methods Engineer
4. SLUTH	1. Mr. Zaini - Director, Research and Planning 2. Mr. Azri - Director, Cash Management
5. MMTR	1. Mr. Sakiman - Human Resource Manager 2. Mr. Jeng - Quality Director

* for confidentiality, the names of the persons interviewed have been changed

The researcher also managed to conduct a limited questionnaire survey of some major quality elements (Appendix 3) from organizational members in MCISB and MSPH. The purpose of this survey was to obtain more information from a segment of members regarding their organizational mission statement, ideas on quality, leaders, teamwork, training and education. This survey could also be useful in verifying or supplementing explanations to some issues discussed in the interviews. In MCISB, the researcher also tried to solicit important incidents in the organization through the cooperation of some members requested to keep a prepared 'diary' sheet (Appendix 4). The descriptions (or

response) written by the members would provide the researcher with insight into the routine practices of the organizational members.

During the fieldwork period, the researcher also visited some government agencies, such as SIRIM, NPC, MAMPU and INTAN, to obtain related materials, reports and statistics regarding the quality movement in the country. As it was described earlier in Chapter 3, these agencies play important roles in the country's planning and training of human resources and in the planning and acquisition of new technologies. The materials obtained from these agencies have been very useful especially in describing some key events and policies that were carried out by them in the course of promoting and educating members of the society and public organizations in the country.

6.3 PHASE 2 FIELDWORK

The Phase 2 fieldwork was conducted sixteen months after Phase 1. During the lapse between the two fieldwork trips, the researcher engaged mainly in two simultaneous activities: a review of newly published quality literature and the analysis of data obtained in the Phase 1 fieldwork. By engaging in the process of analysis and continuous review of the literature (as suggested by Glaser and Strauss (1967)), the theoretical sensitivity of the researcher may be enhanced. In the context of this research, this process has been useful in developing a conceptual understanding and in identifying issues related to the subject of study.

The insight gained from the preliminary analysis of key interviews and the questionnaire survey (the discussion of analysis and findings of these interviews and survey are discussed in Chapter 7) and review of literature at this stage (before the Phase 2 fieldwork trip) suggested the importance of values and practices in understanding quality improvement and the culture of an organization. Also, interestingly, in the case of Malay managers, it was discovered that they had a tendency to understand the concept of quality from a

religious point of view. At this point the researcher was prompted to focus the study on those aspects of values and practices of organizational members in the Malay-dominated organizations. Thus, the plan for the Phase 2 fieldwork was to extend case studies to large Malay-dominated organizations.

Before leaving the United Kingdom for Malaysia for the Phase 2 fieldwork, a survey instrument on values adapted from Rokeach (1970) was designed. The initial format of this section (as Appendix 5) was tested on few post-graduate Malaysian students at the University of Newcastle upon Tyne. Unfortunately, this format, which attempted to force the respondent to place these items (values) in a ranking order (a method used by Rokeach), did not work because the respondents felt more than one item (value) had equal ranking. Thus, the researcher redesigned the format, incorporating a Likert-type scale, to allow for the possibility of values or practices to be rated at the same level of importance. Additionally, the questionnaire also asked from the respondent the three most and least important values and practices required for an organization.

The researcher arrived in Malaysia for the Phase 2 fieldwork in the first week of December 1994. During this fieldwork period, much effort was concentrated in the preparation, administration and distribution of the questionnaire survey to members of organizations selected in this study. The researcher had sought feedback and comment from colleagues at the Management Department, National University of Malaysia while preparing the final version of the questionnaire. Since the questionnaire was prepared in a bilingual (English-Malay) format, comments made by colleagues were very useful, especially in the translation process.

The final version of the questionnaire (as in Appendix 6), consists of nine sections. Section 1 and 2 of the questionnaire contain items of value and characteristics (adopted from Rokeach (1967)); Section 3 asks about quality practices/techniques used in the respondent's department; Section 4 and 5 contain statements relating to the respondent's

expectation of excellent organizations and statements relating to the respondent's perceptions of his/her organization; Section 6 asks about the problems encountered in the effort to improve quality; Section 7 requests the respondent to respond to various dimensions on which the effectiveness of quality initiatives might be evaluated; Section 8 requests demographic data regarding the respondent; and Section 9 is an open-ended section that allows the respondent to make any comment regarding quality in his/her organization. Most of the items and statements relating to quality of the questionnaire were developed from the quality management literature.

The main objective of the Phase 2 fieldwork was to administer the questionnaire survey (mentioned above) to members in large Malay-dominated organizations. In order to ease the process and gain better chances for access to those organizations, the vice chancellor of the National University of Malaysia was approached by the researcher to write a letter to the respective president or chairman of these organizations. This letter (as Appendix 7) briefly describes the research and requests cooperation from the respective president of the organization to appoint a contact person to the researcher. A sample of the questionnaire was also enclosed together with the letter. Six organizations, including two (SMAS and SLUTH) from the Phase 1 fieldwork, were selected and a letter was sent to the respective president or chairman. The other four organizations (UTEN - an electricity company, UTEL - a telecommunication company, OPET - a petroleum company, OSEDC - a state development corporation) are among the largest business organizations in Malaysia.

All the six organizations contacted responded positively to the idea of the survey. However, the cooperation of some of the contact persons assigned to the researcher and the bureaucratic procedure in the organization posed some problems for the distribution and collection of the questionnaire. In most cases, the researcher was only required to hand over copies of the questionnaire to the contact person and the administration of the survey which included the identification of respondents, distribution and collection of questionnaire were all handled by the contact person - the only thing the researcher had to

do then was to collect the returned questionnaire from the contact persons. But, in some cases (such as in UTEN and UTEL) the researcher had to distribute the questionnaire to respondents and collect them himself. A total number of 400 copies of the questionnaire were distributed and 210 individuals responded to this survey (see Table 6.3). The intention of this survey is mainly to obtain quantitative data that would be used to check and support explanation and interpretation of the concepts and categories developed from analysis of qualitative data (primarily obtained through interviews). In this way, the validity of the findings and conclusions found in this study could be better assured.

Table 6.3: Response to Questionnaire Survey

Organizations	Number Distributed ^a	Number Responded
UTEL	50	13
UTEN	100	61
OSEDC	50	38
OPET	100	73
SLUTH	50	25
SMAS	50	no response ^b
Total	400	210

^a the number of copies distributed depended on the size of the organization and on the degree of willingness of the contact person to assist the researcher in the survey

^b at the time of the researcher's departure to UK, no response was obtained from the contact person in this organization and subsequently communication broke down between the researcher and the contact person

The respondents for this survey were randomly chosen from the main departments in the respective organizations, especially from those working in the departments such as customer service, quality, production or manufacturing, and human resource. During the Phase 1 fieldwork, it was found that a proliferation of 'new' ideas and knowledge of quality concepts were often being picked up by managers in the quality or human resource departments. This is because quality education and training is normally carried out first to

members of these two departments and to the 'frontliners' in the organization - thus, they become the first recipients and carriers of 'new' quality ideas.

6.4 CASE ORGANIZATIONS IN THE STUDY

This section introduces the organizations participating in this study. A total of nine organizations were involved: MCISB (air-conditioning manufacturer), MSPH (telecommunications business), SMAS (air transport), SLUTH (fund management and special services), MMTR (manufacturer of electronic items), UTEN (an electricity company), UTEL (a telecommunication company), OSEDC (a state development corporation), and OPET (a petroleum company). The descriptions given below highlight the overall business activities and quality improvement scenario of each of these organizations.

6.4.1 MCISB

MCISB is one of the largest manufacturers of air conditioners to homes, businesses and industries in Malaysia. The company produces a wide range of products from 1-horsepower condensing units to 120-ton air handling units. At present, the company exports nearly 70% of its products to countries including Singapore, Hong Kong, China, France, Korea, New Zealand, Taiwan, Australia, Europe, the USA and the Middle East. The remaining 30% of its products is for the domestic market. In the last three years, the company has enjoyed pre-tax profits averaging more than RM10 million.

MCISB was established in Malaysia in 1959 and it is a subsidiary of a large American manufacturer. Its parent company, with an annual revenue of US\$22 billion, has been committed to long-term investments in product development, fundamental research and global expansion. Apart from being a leading producer of heating, ventilating and air-conditioning (HVAC) equipment, the parent company also produces commercial and F15

and F16 fighter jet engines (Pratt and Whitney), helicopters (Sikorsky), elevators and escalators (Otis), automotive products (UTC Automotive) and NASA's environmental control and life support system (Hamilton Standard). Being a subsidiary of such a big company, MCISB enjoys many benefits from the research and technological advancements carried out in its parent company. With satellite computer-to-computer connections to its global engineering centres, the company remains in daily contact with the latest technological developments which the local engineers are able to use in developing Malaysian built products.

MCISB business process could be diagrammatically described by the flow chart in Figure 6.1. This flow chart, developed collectively by senior managers in 1992, provides an overall view of the process involved in the company. The objective of this business process flow chart, among other things, is to foster understanding among managers in the company of various relationships existing within it. It could also be used by managers to review and improve the business process or to develop better control mechanisms.

As in many conventional manufacturing companies, the quality function in MCISB was previously regarded as mainly responsible for inspection of products and ensuring that defects would not be greater than the established acceptable level. However, with the advance of the 'total quality' concept and increased influence of the Japanese TQC techniques, MCISB has felt the need to adopt and renew its quality understanding and practices. The commitment to adopt a 'new' understanding and practice of quality in MCISB is reflected in its quality policy statements which contains the rhetorical phrases: "meeting customer's satisfaction" and "continuous improvement". The policy statements also outlined the requirements for the organization to adopt an ISO quality management system and the need for its members to be given extensive training in order to achieve its "total customer's satisfaction" goal.

Figure 6.1: Business Process of MCISB

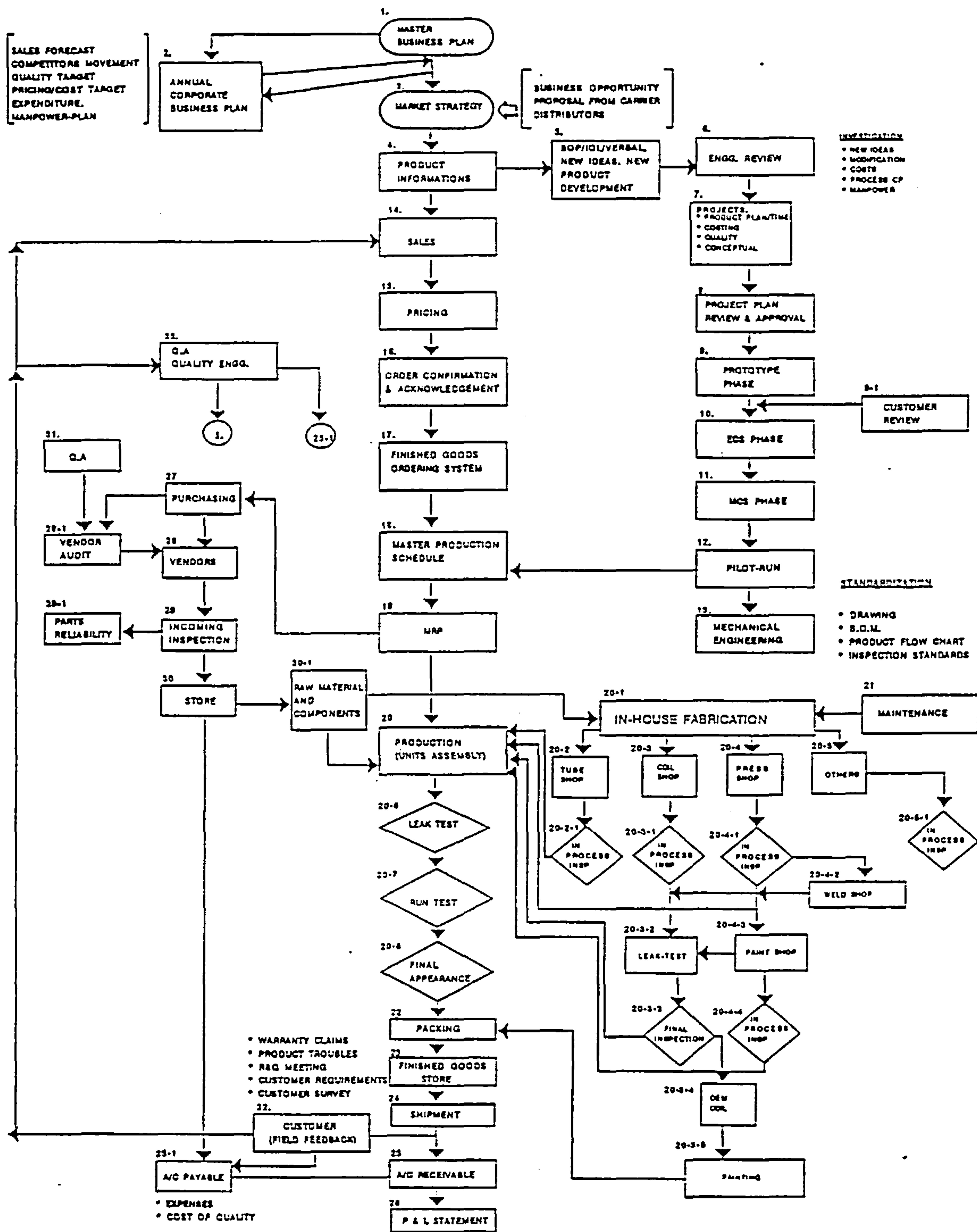
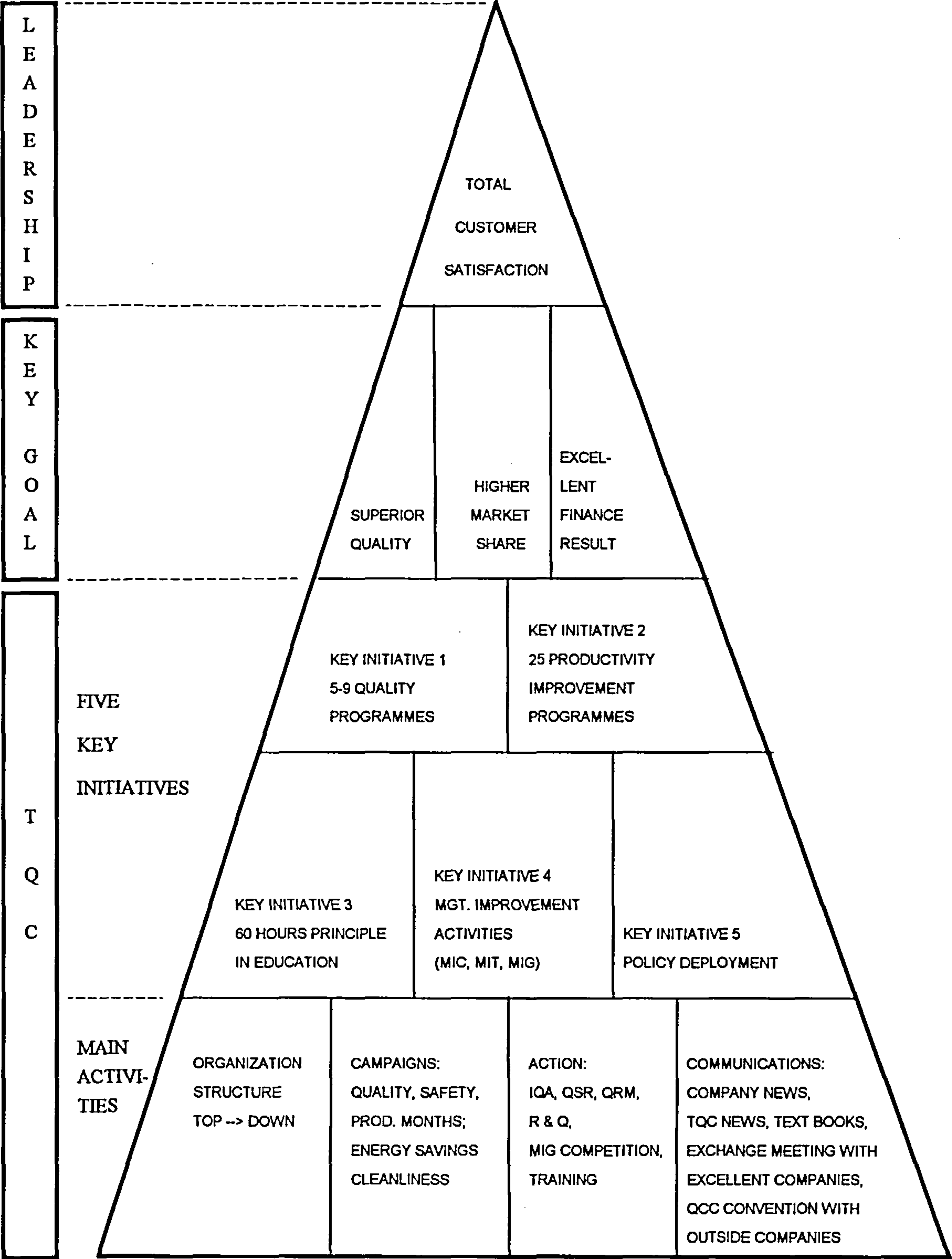


Figure 6.2: TQC Structure of MCISB



In MCISB's total quality structure (see Figure 6.2), the management is expected to lead members towards achieving "total customer's satisfaction". The structure also indicated that three criteria of quality (labeled as key goals in the figure) are to be evaluated in measuring organizational performance. These performance criteria are quality (of products), business growth (market share), and profitability (financial result).

The awareness and consciousness of the 'total' quality concept in MCISB is led by Mr. Yong, the quality manager who has previously worked for 18 years in a leading Japanese manufacturing company. Mr. Yong worked briefly at the group's regional headquarters, the Asian Pacific Operations (APO) office in Singapore before being despatched to MCISB. Since joining MCISB, Mr. Yong, a Singaporean who speaks Japanese, brought into the organization many ideas and techniques for quality control from years of experience in Japanese companies. Carefully observed, the activities and initiatives for quality in MCISB closely resemble the typical Japanese company - suggestion schemes, quality control circles, 5-s (*seiri, seiton, seiso, seiketsu, shitsuke*) housekeeping habits, quality slogans and campaigns are typical examples of activities and initiatives found in the company.

In MCISB, a monthly quality management meeting (QRM) is held to review and evaluate the impact of change as it concerns the operations and its quality system. QRM is chaired by the managing director of the company and its members consist of senior managers and departmental representatives. The meeting reports and reviews the progress of quality activities, quality performance and internal audit findings so as to ensure the continuous adequacy and effectiveness of all the elements within its quality system. The records of QRM are filed and maintained for a minimum of one fiscal year.

6.4.2 MSPH

MSPH was incorporated in 1975 to meet the growing needs of the telecommunications industry and its related business in Malaysia. The founder and executive chairman of MSPH, Tan Sri Shamsuddin, is regarded as the key person responsible for most successful development in the company. When it was founded the company had a total of 16 employees. In a period of less than two decades, the company expanded tremendously and currently the total number of employees working in the group has exceeded 4000 persons. The expansion of MSPH also brought the company to search for international links and market. Now, MSPH has overseas offices in countries such as Germany, Canada, Japan and Vietnam.

MSPH has three main areas of interest: telecommunications, metal based industries, and information technology. In the telecommunications business, MSPH owns two public listed companies: UTB and STB. The activities of UTB include installing and maintaining public pay phones and the manufacture of cables. While, the activities of STB are mainly focused in the areas of manufacturing and marketing of telecommunications equipment and designing and installing cable networks, the company is also involved in the production of feature telephones, mini PABX systems and POCSAG pagers. To date, MSPH is known for its world standard products and these have already found a niche in both the domestic and world market. Its feature telephone, the S2000HF, the first of its kind that offers voice-activated answering, is the company's pride. Also, this model phone symbolizes the company's technological and inventive capabilities.

In the metal-based industries, the activities in this category range from precision engineering to the machining of steel parts for the automotive and electronic industries. To spearhead its interests in the metal-based industry, in September 1990, MSPH through its subsidiary, the MSPH Machining Corporation, signed a technical assistance agreement with Kyoto Engineering Inc. of Japan. With an investment of RM36 million, MSPH

Machining is to be involved in high-tech manufacturing of engine and transmission components.

MSPH has been involved in the information technology industry since 1982. The subsidiary companies of MSPH sell, market and distribute a wide range of computing products and services, including systems integration, software development, networking and connectivity, expert systems design and development, executive information systems and databases. MSPH is one of few companies in the country that can provide remote sensing services which involve mapping activities and macro studies of the earth.

The business philosophy of MSPH can be extracted from its mission statement and from the views held by its founder. The mission statement of the company is as follows:

"To fulfill stakeholders expectations by building sustainable businesses, through enterprise and technology, and by focusing on customer needs in areas where it has distinct competitive advantage."

In this statement, MSPH regards expectations of the stakeholders (which the company define to include the employees, management and their families, shareholders, customers and business partners, suppliers, government (local, state, federal), and the community at large) are to be fulfilled from a sustainable business. Here, the company's concern goes beyond its members - it regards the families of its employees, customers, suppliers and the community at large as also beneficiaries of a business enterprise. The term "sustainable business" used in the mission statement reflects its desire for a holistic and balanced approach towards business.

MSPH is the type of organization that is concerned with maintaining long-term commitment and harmonious relationships with various constituents of society and it does not regard materialistic gain as the only objective of its business. This sense of commitment towards the community where business is not solely conducted for

materialistic motives can be traced back to the views of its founder, now the executive chairman, Tan Sri Shamsuddin. The following statement by Tan Sri Shamsuddin illustrates this point:

"Since the very beginning of MSPH, experience has taught me that business cannot be conducted well, if it is conducted for profit alone - financial gain is only the materialistic part of our existence. I have attempted to achieve the objectives, alongside that of making money, of enhancing the life of the community by providing products and services that make our lives better in some way, and of creating opportunities for meaningful employment. I had hoped that by doing so, MSPH could join the mainstream of nation-building, of national development which includes the cultivation of a sense of belief and belonging in the individual. ... our corporate direction has always been one that is mindful of basic human needs"

The sense of concern towards human needs as espoused by the founder of the company has permeated throughout the company. It is reflected in various places in the company. For example, in the QCC philosophy of the company, the employees of the company are regarded as having 'rights' for developing their potentials. Thus, the management of the company is expected to provide opportunities for its employees to realise their potentials by giving them training and guidance.

The total quality management approach in MSPH is based on three elementary components: the management, the system and the people (see Figure 6.3). The management is responsible for establishing policies, planning and monitoring the activities of the company. They are also expected to show visible participation and commitment to the quality activities or programmes conducted by the company, such as in the campaign for quality and by their behavioural examples. The people component of MSPH's TQM approach recognizes that there are four aspects of human development which are required before the company's culture can be transformed. These aspects of human development are awareness, involvement, commitment and accountability; they form the thrust of quality training programme conducted in MSPH.

Figure 6.3: MSPH Total Quality Management Approach

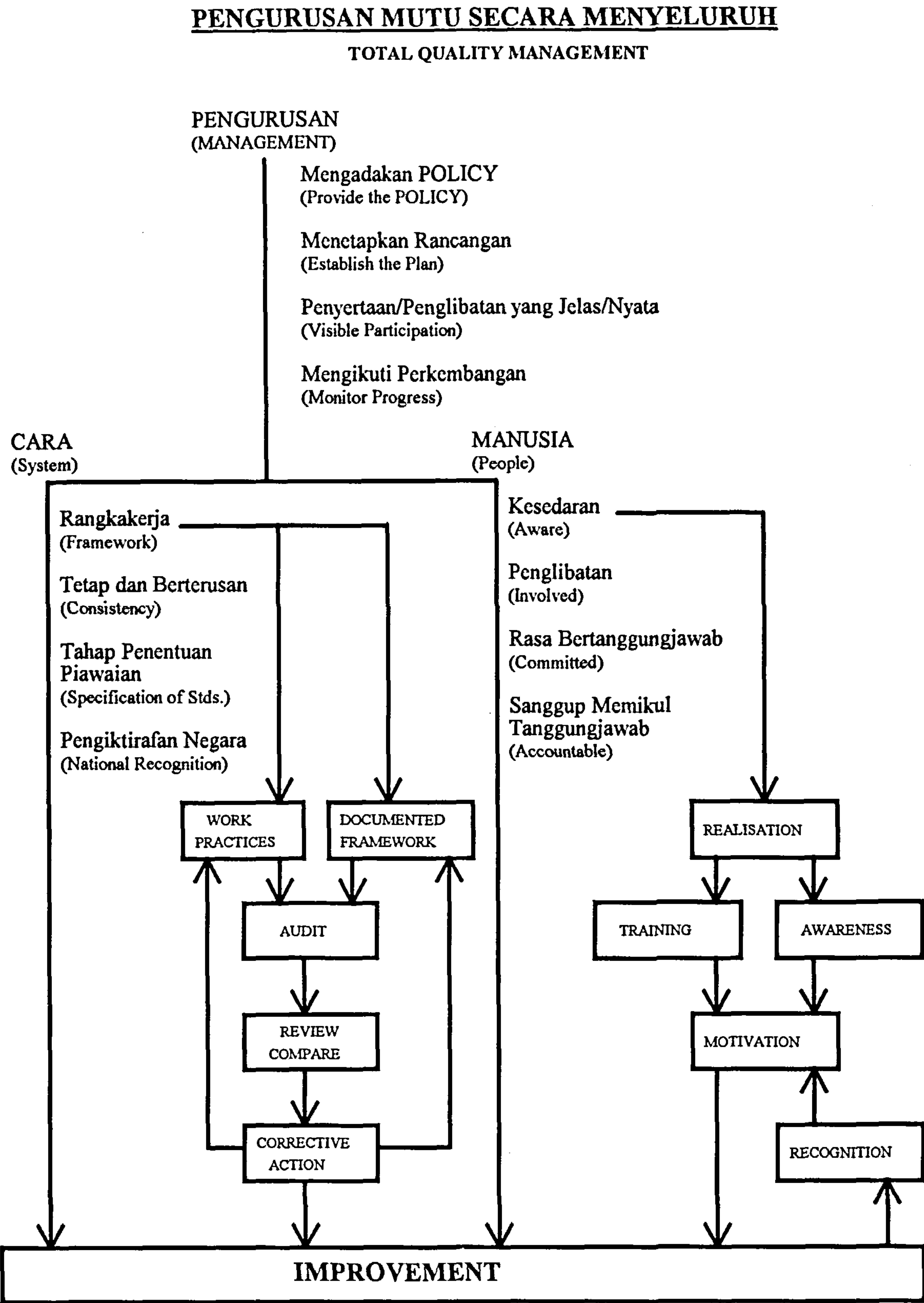


Figure 6.4: MSPH Schedule for Quality Ownership Programme

ACTIVITIES	1992					1993					1994					REMARKS				
	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JULY	AUG.	SEPT.		OCT.	NOV.	DEC.	JAN.
FORMAL ANNOUNCEMENT	▲																			BY GMD
STAGE I: AWARENESS TRAINING																				To understand the basic concepts on: Quality control, process control and SPC for self inspection
MANAGEMENT																				
SUPERVISORY																				
LINE LEADERS																				
OPERATORS																				To lead and ensure competency. Must be effective for documented system and procedures.
TECHNICAL																				
REVIEW AND MANAGEMENT REPORT																				
STAGE II: INVOLVEMENT																				Implement and monitor
DOCUMENTATIONS																				
JOB QUALIFICATION																				
REVIEW AND MANAGEMENT REPORT																				
STAGE III: COMMITMENT																				
LINE PATROL/SURVEILLANCE																				
FINAL TEST/INSPECTION																				
INCOMING INSPECTION - HANDOVER TO PURCHASING FUNCTION																				
REVIEW AND MANAGEMENT REPORT																				
STAGE IV: ACCOUNTABILITY																				
PRODUCTION QC																				
QA AUDITS																				
HANDOVER																				
NOTES: I. For Incoming Inspection, all present QA personnel shall be transferred and absorbed into the Materials Dept. by FEB 1993																				
II. Continuous training and reviews shall be undertaken throughout the period.																				

The system components of MSPH's TQM approach follows the guideline of the international quality system, the ISO 9000. The quality system provides the framework for work practices in the company and these are documented and used for future references or review as well as for auditing and corrective action purposes. The system should lead to consistent outcomes and it should also meet the production specification standards. Thus, the quality system should provide the necessary technical controls for the process and production of the company's products.

In late 1992, MSPH launched its 'quality ownership programme' based on the concept of developing the four aspects of human development mentioned above. This programme was scheduled to take more than one and half years (see Figure 6.4). The programme, initiated and led by Mr. Mohd Zin, the group quality manager of the company, would involve all levels of employees in the company. The term 'ownership' is used here to convey a message to members of the company that quality should be first 'owned' in order to be competitive and successful.

6.4.3 SMAS

SMAS is the national air transport company of Malaysia. The history of the company dates back to 1937 when it was registered as a private company. The business grew rapidly in subsequent years as air travel became a popular means of transportation. The company extended services throughout Peninsular Malaysia and to other major cities in Southeast Asia. In 1965, Borneo Airways, a small domestic airline operating in Sabah and Sarawak was amalgamated into the company. The following year, the governments of Malaysia and Singapore jointly acquired control of the company and expansion continued with services extended to India, Australia and Europe.

The partnership of the company was dissolved in 1971 when the two governments, due to differences in national aspirations, decided to restructure the company into two separate national airlines - the Malaysian national airline (SMAS) and the Singaporean national airline (SIA). While SIA took over the majority of the international destinations, SMAS inherited the domestic network. Singapore was reluctant to fly unprofitable or marginal domestic routes, but Malaysia felt that such routes should be kept open to provide a public service.

The primary objective of SMAS was to provide the people of its country with an efficient and profitable air transport system. However, this business objective was not its only concern. The company is expected to play an important role in the economic and social integration of the country. Thus, the company subsidized loss-making services in certain domestic routes which were deemed essential for social and economic development. For example, some rural settlements in Sabah and Sarawak were only accessible by SMAS rural air services. These services were operated from the year SMAS commenced operations and fell within the description of non-economic but socially desirable services. The company's other contributions toward the community included providing concessional fares for the sick, disabled, underprivileged and senior citizens.

SMAS used the term "Destination Service Excellence" or DSE (see Figure 6.5) for the total quality improvement effort in the company. In DSE, the purpose is to produce higher relative perceived quality of its products and services when compared to its competitors. This purpose was achieved by inculcation of quality values (such as "do things right the first time" and a high degree of job commitment), by employing a systematic strategy (such as using a scientific approach to work and providing employees with the necessary training and education) and by instituting certain standards and behaviours (such as teamwork and participative involvement of employees) in the company.

Figure 6.5: Destination Service Excellence of SMAS

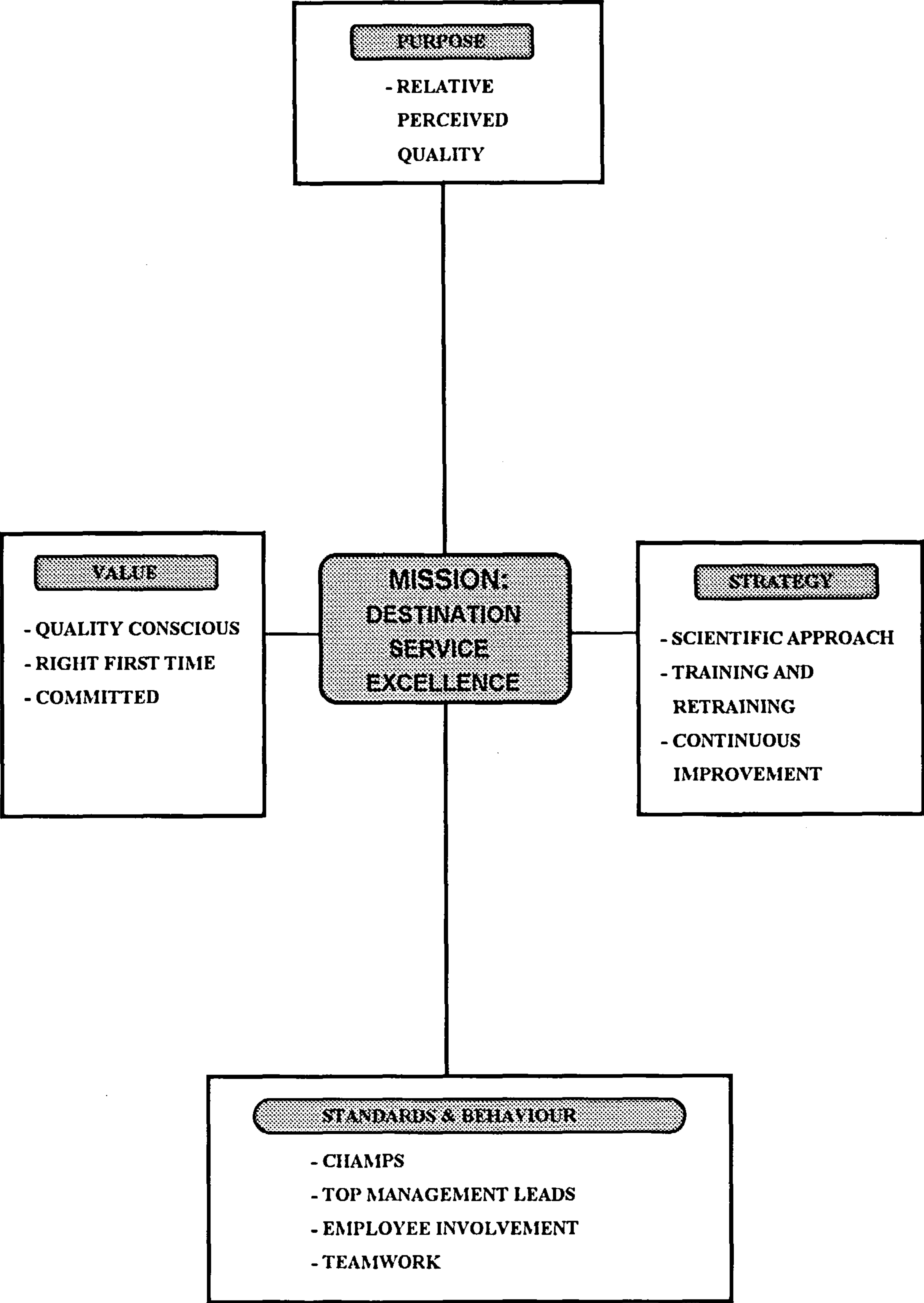


Figure 6.6: CHAMPS - Standard and Behaviour of DSE in SMAS



The standard and behaviour desired by the company for its employees has the acronym "CHAMPS" (see Figure 6.6). CHAMPS contains six elements of standard and behaviour: customer driven strategy, horizontal inter divisional events, activities in small groups, management by standards, pride and loyalty, self esteem. These elements are formulated mainly from the works and principles of quality mentioned by Deming and Juran, the sources widely used in many of the training programmes in SMAS.

In order to carry out and make DSE as an ongoing quality concern, a DSE council headed by the managing director was formed. The purpose of this council is fourfold: (1) to establish SMAS's DSE policies, (2) to formulate the company's DSE strategies, (3) to set quality improvement goals, and (4) to establish quality management audits. The council meets on a monthly basis. A typical discussion would usually include the identification of projects for improvement of critical business processes and a review of the progress of divisional and cross-functional projects.

One of the significant development since the launching of DSE has been the formation of various inter-divisional quality improvement groups (QITs) in the company. Members of a QIT group came from various divisions and this has resulted in improved communication, greater understanding and cooperation within the company. Examples of improvement projects being worked out by QIT groups include the teams for the procurement process (PROCURE QIT), the management of aircraft departure (SMART QIT), the account payable (FINEX QIT) and the management of performance (PRIDE QIT).

Another important development associated with DSE is the reorganization of the QCC Club of the company. As part of the effort to improve the status and enhance the effectiveness the QCC Club, a new association called AQIP (Association of Quality Improvement Practitioners) was formed to replace it. The association has three main objectives: (1) to develop, motivate and guide members in their quest for quality, (2) to

support quality initiatives within SMAS, and (3) to help establish and promote the company as a quality leader in Malaysia. With these objectives, the role of the association covers much broader aspects than that of its predecessor, the QCC Club, whose activities were limited in scope to cover mainly improvement within a group's task or job, whereas, AQIP is involved with and has assisted the DSE Secretariat of the company in various forms of quality development and improvement efforts throughout the company.

6.4.4 SLUTH

Incorporated in 1962, SLUTH was devised originally to cater for the welfare of its Muslim populace in relation to their pilgrimage to the Holy Land. The idea of setting up such an organization was to assist the Muslim populace of the country in fulfilling their fifth religious obligation namely, to perform the pilgrimage to Mecca without impoverishing them or further imposing any financial hardships after their pilgrimage. It was also established in order to enable Muslims to invest and participate more meaningfully in the nation's economic activity. Presently, SLUTH's investment activities include various types of economic sectors such as plantation, housing development, industrial and commercial projects.

The fundamental concept behind the creation of SLUTH was to enable Muslims to save for the pilgrimage and to be absolutely sure that the money saved and to be spent was clean and untainted with *riba*.⁶ Savings in any bank or financial institution at that time (before the formation of Bank Islam Malaysia) would involve *riba*. In his paper "A Plan to Improve the Economic Position of Future Pilgrims", submitted to the government, Royal Professor Ungku Aziz of the University of Malaya, a reputed academician and an authority on rural economy, recommended that future pilgrims can save in a bank or financial institution which is free from or untainted by *riba* but which still yielded profits.

⁶ *Riba* is a concept in Islam which is normally equated to the interest derived or charged from business transactions and borrowings. *Riba* is strictly forbidden in Islam and whoever is involved with it is likened to someone declaring a war with God.

Profits derived from investments would be returned in the form of profit sharing or dividends to depositors and thus not only *riba* avoided, but financial gain was achieved to help in meeting their pilgrimage expenses.

One of the main strengths of SLUTH is in its almost monopolistic position in the management of Malaysian pilgrims to the Holy Land. The monopoly is derived from provisions within Tabung Haji Act which precludes any other individuals or entities from operating pilgrimage services in Malaysia without consent from the Minister in charge of SLUTH. From the commercial point of view this monopolistic position assures SLUTH an inflow of pilgrim's deposits each year. Presently, with depositors of nearly two million, SLUTH has managed to increase its depositors' fund to more than RM4 billion from only RM400 million about a decade ago.

As a promise to provide quality services to pilgrims and its depositors, the client charter of the organization enlist seven commitments:

- (1) To help pilgrims to achieve *Hajj Mabruur* (a rewarded and accepted pilgrimage) with a reasonable cost.
- (2) To coordinate pilgrimage flights which are reliable, safe and dependable.
- (3) To provide clean and comfortable accommodation for pilgrims while they are in the Holy Land.
- (4) To handle the account of depositors in a professional manner and to ensure confidentiality.
- (5) To provide friendly, speedy and efficient services.

(6) To invest in the *halal* (permissible), credible and safe investment ventures in order that comparable returns on investment may be achieved and also to guarantee a continuous growth.

(7) To provide accurate, clear and up-to-date information.

The range of services provided for the pilgrims by SLUTH are very extensive and comprehensive indeed. The type of services include registration and production of pilgrimage visa and passports, health check up and immunization, counseling and guidance, setting up hospitals and providing mobile medical facilities in the Holy Land. In order to improve these services, SLUTH relies mainly on two sources of feedback information: comments and complaints from pilgrims and post mortem meetings after each pilgrimage expedition. Over the years, these sources have provided SLUTH with cumulative experience and encounters that had been useful in planning and handling of future expeditions.

In order to inculcate a quality culture in SLUTH, the organization embarked on a QCC programme. As of September 1994, there were 48 QCC groups which involved 336 members of the organization. The majority of these QCC groups are located at the district branch offices and mainly involve the lower management and frontline employees in the organization. However, the effect of QCC in promoting a quality culture in the organization is still doubtful. This is judged from the very small number of suggestions received yearly and a low level of enthusiasm shown by some members towards the activities of the groups.

6.4.5 MMTR

MMTR is a subsidiary company of a giant American electronic equipment manufacturer. Its parent company and corporate offices are located in Chicago, Illinois.

In 1972, the company began its operations in Malaysia and MMTR was established. The first manufacturing facility was set up near Kuala Lumpur to manufacture semiconductors and was located in the Sungai Way Free Trade Zone. The company was chartered as an export manufacturer, a classification that remains until today.

MMTR's parent company was primarily attracted by several factors in its consideration to invest and locate one of its operations in Malaysia. The main factors are listed as follows:

- (1) The type of manufacturing that was done in the early years' production was highly labour intensive. Malaysia, like several other Asian neighbours had an abundance of potential workers who were considered to be trainable and who possessed a strong work ethic.
- (2) Malaysia inherited the British style of educational system and emphasizes the use of English as a second language. It was therefore possible to hire technicians, supervisors and managers into the company and expect them to be able to communicate with their peers in the USA and to follow product specifications or requirements which were written in English.
- (3) The government of Malaysia had developed a set of investment incentives to attract manufacturers to the country such as pioneer status and tax incentives. Pioneer status is a tax-relief privilege given to the company for its first few years of operations in the country.
- (4) The existence of an acceptable infrastructure to cope with the production and transportation of manufactured products.

MMTR's vision of excellence and quality was very much derived from its parent company. Like its parent company, the fundamental objective of MMTR is to achieve total customer satisfaction and the means to achieve this objective were to come from three elements:

(1) Key Beliefs - "how we will always act": The two key beliefs originate from its founder, Paul Galvin, and continue as the heart and soul of the company:

- constant respect for people; and
- uncompromising integrity.

These beliefs are timeless and have remained essentially unchanged since the company was founded in 1928. It is said that Galvin was able to obtain loyalty from his employees because of his honest and respectful behaviour. He placed a great deal of emphasis upon the employees' dignity as human beings and he was willing to accept input from all levels of the organization. These beliefs are transmitted and communicated to all levels of the organization and each employee is expected to commit to understanding and practising their contents. These two key beliefs, formulated in the early years of the company, form the basic foundation of employee conduct in dealing with each other, with customers and with vendors.

(2) Key Goals - "what we must accomplish": As a global enterprise and striving for quality and excellence, the company defined its goals in three areas:

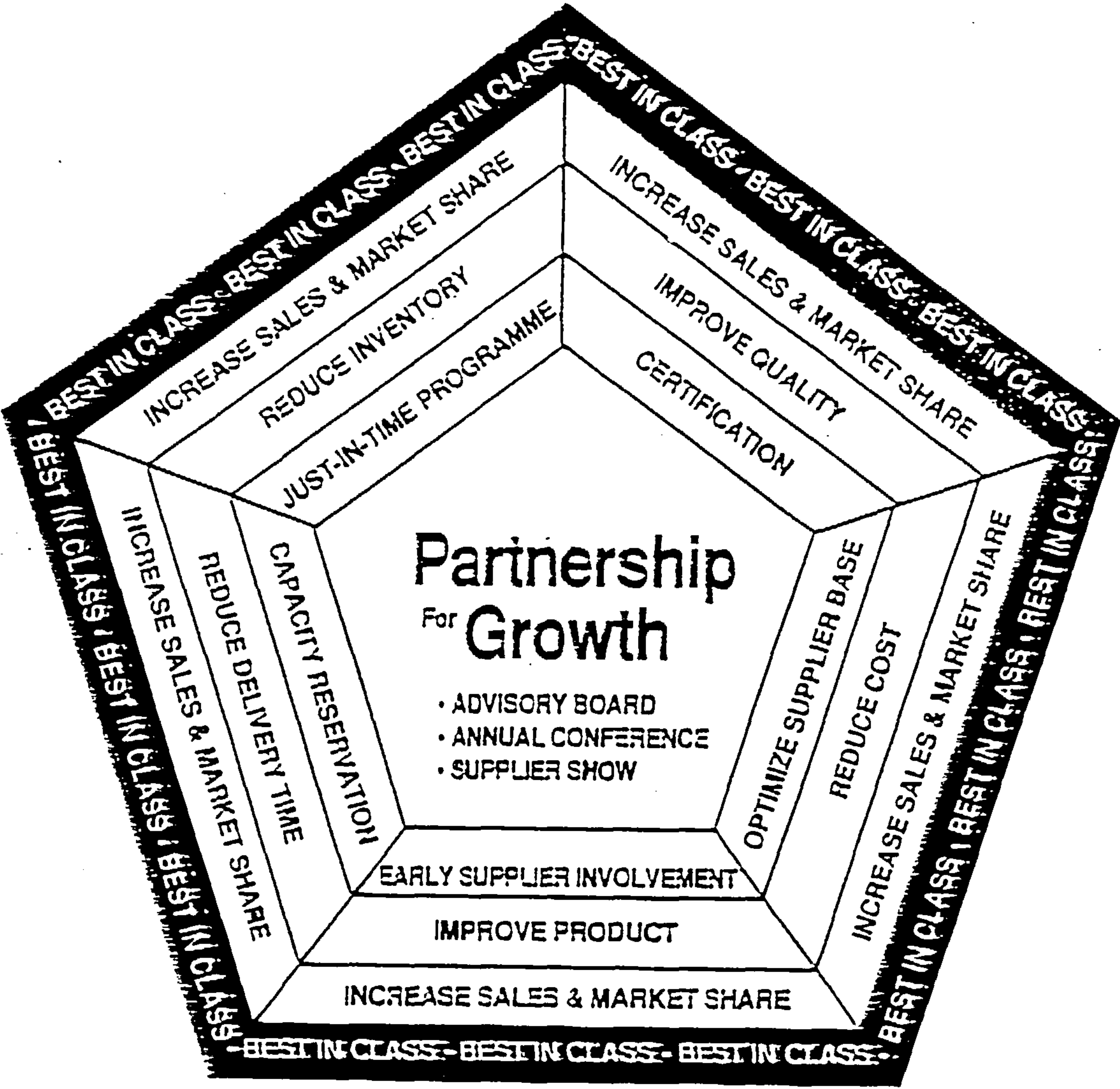
- to increase global market share;
- to be "Best in Class" - in terms of people, technology, marketing, product, manufacturing and service; and
- to achieve superior financial results: higher profits and turnover, and lower cost figures.

(3) Key Initiatives - "how we will do it": The translation from goals to implementation resulted in the creation of five key initiatives:

(i) Six Sigma Quality Philosophy: Sigma (σ) is a measure of variation in a product or process. It is a symbol for a statistical parameter known as standard deviation. Three sigma is the heart of all statistical process control work done by Deming and many others since 1930's. In a typical process, generally, the process width is defined as from [the average (mean) - 3 sigma] to [the average (mean) + 3 sigma] (see Figure 6.7). If the specification width was the same, the process used to be considered in control. In the early 1970s, the company decided that designs had to be better than three sigma and it aimed at a plus or minus four sigma process. If a process never varied plus or minus four sigma, it would guarantee nearly perfect products. However, in the real world, processes do vary in manufacturing as well as in non-manufacturing - machines and people are not perfect. Thus, the result then of a four sigma process that was thought to be perfect is really 6210 defects per million parts or units produced. Realizing this situation, the company embarked on the six sigma quality initiative. The six sigma quality process would produced 2 defects per million parts. And even if the process average shifted by 1.5 sigma to one side, the defect rate would only be 3.4 defects per million parts.

(ii) Product and Manufacturing Leadership: The company recognizes the importance of product development and manufacturing functions working together while a product is still at the design phase. Computerized and quantitative techniques were used extensively to determine the manufacturability of every new product launched. This cooperation between the product development and manufacturing people is seen as a crucial element by the company in enhancing the quality of products.

Figure 6.8: MMTR's Partnership for Growth with Suppliers



(iii) *Reduction of Total Cycle Time:* Cycle time can be defined as the elapsed time from the start of a process to its completion. This single parameter measures the health of any process because it integrates quality, cost, delivery, and overall effectiveness. Thus, the measures have become important in setting up an improvement target to meet the customers' requirement as well as in product manufacturing.

(iv) *Profit Improvement:* A customer-driven approach was adopted by MMTR in order to ensure that profits will be improved over the long term. This approach would commit the company's resources to providing customers with what they need. A customer-driven attitude among employees has become the driving force behind the company's improvement efforts, and is reflected in every part of the organization. The customer-driven approach regards a defect as the failure to meet any customer satisfaction and the customer is always the next person in the process.

(v) *Participative Management:* Built upon the belief that "people are the best assets", MMTR implemented a participative system of management. This system of management is based on the philosophy that every employee, irrespective of level or function, is a valuable resource in terms of his/her ideas and understanding of the job. This system extends beyond the realm of the company - it is applied similarly to the suppliers of the company, for example, in its partnership growth strategy (see Figure 6.8).

In Malaysia, MMTR has become one of the exemplary organizations in quality management. Many organizations seeking improvement in quality refer to it for ideas and techniques. In some instances, these organizations try to get MMTR's engineers or managers to work with them and develop their quality management programmes. This

process of learning by organizations from MMTR's experience has resulted in a similar quality management approach or philosophy being adopted by these organizations, especially in local companies without ties or subsidiary connections overseas. Many slogans or approaches in these organizations resemble the idea and objective of "customers' satisfaction" and that they often give their statement of intent as becoming "the best in the class" or to become an "excellent organization".

6.4.6 UTEL

The company is the leading provider of telecommunication and related services in Malaysia and between Malaysian and international locations. Presently, the company is the only provider of domestic and international fixed wire telecommunications services in Malaysia. The company's fixed wire services have contributed more than 80% of the company's annual revenues since 1987.

UTEL history started as a government department and it was responsible for providing all telecommunications services throughout Malaysia. However, in accordance with the Malaysian government's privatization policy, the company was incorporated on 12th October, 1984 as a fully government-owned public limited company. On 29th October, 1990 the company made an initial public offering (IPO) of ordinary shares, and on 7th November, 1990 UTEL's shares were listed on the Kuala Lumpur Stock Exchange (KLSE). Following the IPO, the company was the largest privatized company in Malaysia. In the IPO the company issued 470.5 million new ordinary shares of RM1.00 each, representing 23.9% of the enlarged issued and paid-up capital of the company, at an issue price of RM5.00 per share, to domestic investors. The objectives of the IPO were to implement the government's policy on privatization and to provide an opportunity for the Malaysian public and eligible directors and employees of the company to participate as equity investors in the company. Following the IPO, the Minister of Finance (Incorporated) owned 76.1% of the enlarged ordinary share capital of the company and

the Special Share. The Special Share enables the government to ensure that major decisions affecting UTEL's operations are in line with national interests.

In conjunction with overall economic growth in Malaysia, the telecommunication services sector has exhibited strong growth. The telecommunications services sector, as measured by revenues, has grown at an estimated compound annual rate of 19.8% over the last five years, to approximately RM4.6 billion by the end of 1993, from approximately RM2.2 billion at the end of 1989. Fixed wire basic telecommunications services and mobile telecommunications services formed an estimated 82% of the Malaysian telecommunication services sector in terms of revenues generated in 1993 (see Table 6.4). Fixed wire services, which comprise the largest segment of the telecommunications services sector, generated approximately 68% of the market's revenues in 1993. UTEL monopolizes all of the fixed wire telephony and telex services in Malaysia.

Table 6.4: Telecommunication Services Sector

Market Segment	Revenues in RM million					1989-1993 Compound Annual Growth Rate
	1989	1990	1991	1992	1993	
Telephone Services:						
Fixed Wire	1,862.6	2,158.8	2,500.7	2,744.1	3,163.3	14.2%
Mobile and Cellular	81.4	152.8	266.3	406.7	659.8	68.7%
Public Pay phones	145.2	188.1	318.6	387.8	459.9	33.4%
Telex	51.7	59.6	50.2	44.6	38.2	(7.3)%
Leased Services	50.4	85.8	107.2	133.1	164.4	34.4%
Data Communications and Other Services	10.9	34.7	35.6	46.3	46.5	43.7%
Miscellaneous	49.0	62.1	60.5	104.3	104.5	20.9%
Total	2,251.2	2,741.9	3,339.1	3,866.9	4,636.6	19.8%
Telephone Exchange Lines (million) (at year end)	1.39	1.59	1.82	2.09	2.41	14.7%
Direct telephone exchange lines (DELs) per 100 population (at year end)	8.0	8.9	9.9	11.6	13.1	13.1%

Source: RHB Research Institute Sdn. Bhd.

As an important corporate organization, UTEL is strongly committed to nation building and to striking an appropriate balance between business and social objectives. For example, UTEL has decided to play a bigger role in answering the government's call for the private sector to step up efforts in collaborating with universities in enhancing education and training facilities. In 1993, UTEL contributed RM2 million to the International Islamic University Scholarship Fund. In addition, the company also contributed RM1.9 million to a number of sporting, educational, social, welfare, culture and arts activities for the benefit of the community.

Due to the strategic importance of telecommunications, the industry is regulated and controlled by the government. In 1994, the government announced its National Telecommunications Policy (NTP) which outlined the framework and overall policy direction for the telecommunication sector in Malaysia through the year 2020, to ensure that the telecommunications industry will support national development in line with the aspiration to become a developed nation by the year 2020. The objectives of the NTP include:

- To ensure modern and high quality widespread telephone services in urban and rural areas at reasonable cost.
- To ensure sufficient telecommunications infrastructure to support the nation's rapid industrialization efforts.
- To encourage the development of value-added services and new technologies, and to ensure human resource development in line with the needs of the telecommunications sector.
- To create an informed society.

- To promote national unity and integration.
- To ensure that Malaysian telecommunications equipment manufacturers continue to expand and develop, and that Malaysian telecommunications service providers utilize local products.
- To make Malaysia a regional and international telecommunications hub through improved relations with other countries.
- To encourage penetration by Malaysian telecommunications operators into foreign markets.
- To ensure more efficient management of the radio-communications resources spectrum.
- To encourage active participation by the indigenous Bumiputra population of Malaysia in the telecommunications industry.

In response to Vision 2020, UTEL has formulated a strategy for the telecommunications business plan known as Telecommunications Vision 2005. Under this plan the company, as the dominant telecommunication services provider, aims to transform Malaysia's telecommunications services to the level of developed countries by the year 2005. The major components of the company's business plan to achieve Telecommunications Vision 2005 are: (i) to maximize market penetration before the advent of competition; (ii) to expand and improve its network; (iii) to build competitive strengths in service quality; and (iv) to increase efficiency and productivity with greater commitment and focus toward providing premium customer service.

The first two components of the business plan are essentially to expand the UTEL's customer base. The latter two components are aimed at improving the quality of the current operations. In order to achieve this improvement goal the company, working in conjunction with a leading American manufacturer of telecommunications products, implemented "Total Customer Satisfaction" (TCS) and "Total Quality Management" (TQM) concepts which have been adopted company-wide. UTEL intends to improve service quality by providing faster customer service and fault restoration and a greater range of services, and by improving its billing system. In the later regard, the company has introduced a Customer Automated Service System (CASS), which streamlines the processing of customer service requests, invoicing and account information. CASS should ensure that customers receive timely and accurate bills with sufficient call details.

With respect to improving efficiency and productivity, the company has implemented hardware and software systems to improve its efficiency and productivity. The company believes that increasing the sophistication of the company's information technology will mean that it only requires small increases in staff to implement the programmes in its business plan. Furthermore, the company intends to maintain a relatively flat organization structure with no increases in hierarchical levels.

6.4.7 UTEN

UTEN is an electricity company serving more than 3.75 million customers throughout Peninsular Malaysia. The company maintains a monopoly in generation, transmission and distribution of electricity supply in the country. Like UTEL, UTEN started as a government enterprise. In the early 1990's, in line with the government's privatization policy, the company was privatized and listed on the Kuala Lumpur Stock Exchange (KLSE). The company regards itself as the leading corporation and represents one of the more successful privatization efforts of the government. Accounting for 18 percent of the Kuala Lumpur Composite Index and 10 percent of the total market

capitalization, the company was, as at 31 August 1994, the largest counter on the KLSE with a market capitalization of approximately RM43.5 billion.

Although UTEN's core activities are the generation, transmission and distribution of electricity supply, the company is also involved in the manufacture of transformers, the supply of professional consultancy services, research and development, higher education, property management, and architectural, civil, electrical and engineering works. As at 31 August 1994, UTEN's turnover was in excess of RM5.63 billion and its pre-tax profit was RM1.98 billion.

UTEN corporate's mission is stated as follows:

"To provide an essential part of the national economic infrastructure by:

(1) continuously meeting customers' requirements for energy safely, reliably and economically; and (2) encouraging the growth of efficient enterprises to service the needs of the energy supply; whilst meeting the needs of all shareholders."

The mission statement of the company was formulated not long ago and it serves to guide the members with a broader view of quality. The statement contains the usual phrase of "meeting customers' requirements", a business philosophy which accords the importance of the relationship between the company and its customers in the course of doing business. The company's attitude towards greater consciousness of customers' needs and requirements probably came about as a result of the new understanding of quality that began to arouse the major organizations in the country in the late 1980's.

The need for increased attention to the customer and the quality of service has also transformed UTEN from a hierarchical to a flat management structure, and from a bureaucratic to a more process-based style. Top-down communications were improved to

foster greater cohesiveness among the members. Additionally, the company reemphasizes the vital importance of continuous education and training in supporting and implementing the quality improvement effort of the company. In line with UTEN's aspiration to make its human resources its most important asset, the company focused on organizational development (OD) to spearhead and coordinate all the efforts towards team building and to upgrade organizational performance. In 1993, the company spent RM3.26 million on in-house training and RM1.34 million on external training. In the same year, UTEN also invested RM6.38 million in overseas education and training for 5,418 employees.

In the last few years, Malaysia has experienced a phenomenal economic growth of more than 8.5% annually. This situation has provided UTEN with an unexpected increase in customers particularly, industrial and commercial customers. As a case of over subscription of energy became obvious, a Crisis Management Team was formed in January 1993, headed by the Executive Chairman, to resolve the problems arising from the shortage of supply. The team's duty was to examine all avenues for a fast solution to the energy shortage problem. These included the implementation of the Fast Track Plant-Up Programmes which saw, for the first time in UTEN history, the air freighting of 90 tons of concentrated power plant equipment and the completion of the project within a record time of five months. The team also negotiated with the Governments of Singapore and Thailand for the purchase of electricity to meet the peak period demands. The negotiation with the Government of Singapore succeeded in securing an agreement to supply 100 megawatts of electricity to meet the daily peak demands for a period of six months from August 1993. The deal with the Thailand counterpart, Electricity Generating Authority of Thailand (EGAT), was that UTEN, under normal circumstances, will import from EGAT in the daytime and export to EGAT during the night - a complementary approach, satisfying the energy needs of both countries.

The strong performance of the Malaysian economy augurs excellent prospects for the expansion of electricity demand. Electricity sales were projected to increase by an average

of more than 10% per annum and are expected to double by the end of the decade. This rapid surge in demand has prompted many incentives for the company to investigate cost-effective options for supplying energy, and has resulted in more efficient and improved utilization of capital-intensive generating plants. Also, the company has adopted the least-cost fuel diversification policy for future generating plants with the emphasis on utilization of available natural gas. This policy embraces the four-fuel strategy of the company which seeks to decrease dependence of supply on a particular source of fuel. In this strategy, fuel oil dependence will be reduced through greater utilization of natural gas, coal and water resources for electricity generation.

When the company changed from a government enterprise to a public-listed company and from a social obligation to a strategic commercial obligation, there was a need for structural reorganization to adapt to the new business environment. Thus, a Special Board Committee was appointed by the company's Board of Directors to review and recommend a new organizational structure for UTEN. In the restructuring, a new post, namely, that of Chief Operating Officer was created, to assist the Executive Chairman in the day-to-day administration of the company and to make decisions where necessary when the Executive Chairman was away on official duties. Also, with the new structure, three specific divisions were created, namely, Operations, Finance, and Corporate Planning and Services. The core departments (generation, distribution and transmission) were reorganized under the new Operations Division.

With the change, there was also a need to train the company employees towards achieving higher quality and greater productivity. Thus, the company planned for its employees, in stages, to undergo training in quality aspects, called Thoroughbred Quality. The objective of this training was to equip every employee with an excellent working knowledge of the process of continuous quality improvement.

The quality drive for the inculcation of a quality culture in UTEN took a new phase and greater involvement from the company's management with the formation of a corporate quality council in 1993. This council comprises the Executive Chairman, the Senior General Manager and all General Managers. The TQM Action Plan was then approved by the council to carry out the first phase of implementation of TQM, i.e., to educate and create awareness of quality concepts in the top, senior and middle managers as well as to train the facilitators required for continuing the quality improvement effort.

Evidence of the company's intent to transform itself to a more customer friendly and quality organization could be seen in a few initiatives that were carried out by its Customer Service Department. Among them, the training of staff in techniques of handling customer complaints, the introduction of various electricity consumption schemes and the installation of a new customer billing system. The new customer billing system, known as the Customer Information Billing System (CIBS) involved the installation of 31 processors and the computerization of 113 districts. Under this system, the speed of issuing bills to customers was increased resulting in more prompt collection of payments and thus reducing the average collection period to below 30 days.

6.4.8 OSEDC

OSEDC is one of the state economic development corporations (SEDC) in Malaysia. The corporation was established in 1968 and started its operations in August 1970. OSEDC is regarded as a very successful state corporation in the country. From the first year of its operations the corporation has never recorded a loss and at present, the corporation's assets stand at more than RM1.5 billion. The corporation ventured into wide-ranging business activities which includes property development, agriculture, medical and specialist centres, transportation, logging, tourism and manufacturing.

In OSEDC, the highest committee known as TERAJU developed the corporation's 5-year Strategic Plan. The members of this committee comprise the top management in the corporation as well as chief executives from its subsidiary companies. There are four main functions of TERAJU:

- (1) To provide direction for OSEDC and its subsidiaries so that they would not deviate from the objectives that had been set, as well as to have control over the affairs of these companies.
- (2) To be responsible for allocating resources of the corporation to all of its divisions which is based on the potentials or prospects of development shown by them.
- (3) To be responsible for performance evaluation of the divisions within the corporation as well as its subsidiary companies.
- (4) To make decisions and to enforce these decisions according to the policies and procedures of the corporation.

In developing the 5-year Strategic Plan, TERAJU held several meetings and consulted with every chief executive of the divisions and subsidiary companies. When this process was completed, a book for the 5-year Strategic Plan was produced which provides direction to the chief executives towards achieving the objectives set by the corporation.

As many other major government organizations in the country, one of the most important roles of the corporation is to redevelop the Malay economic base and thus help to correct the imbalance of racial participation in economic activities in the country - an objective which is espoused in the government's New Economic Policy. Thus, in this respect the

corporation plays a significant part in developing and supporting Malay businesses and entrepreneurs.

With regard to the values and management practices desired by the corporation, they are essentially built and based on Malay and Islamic culture. To be successful and to achieve quality, the corporation subscribes to the following set of beliefs:

(1) The basic values of the corporation should be to strengthen the main values of the Malays as an Islamic community. In this respect, the values which are perpetuated include the following:

- efforts and approaches should not contradict religious injunctions and they should be beneficial to the community,
- to avoid all forms of exploitation and injustice,
- to deter all forms of corrupt practices and waste,
- to remedy all forms of unproductive and lazy behaviour,
- to foster a healthy environment that encourages high moral standards and positive attitudes among the employees in the corporation and its subsidiaries,
- the basis for decision making, especially in formulating policies for the corporation, should go through the process of consultation with its members. The role of each individual and the various groupings in the corporation is acknowledged as long as they are not hindrances towards achieving the corporation's objectives.

(2) As an economic development institution which is based on profit and operates in a competitive environment, the corporation and its subsidiaries would accept the universal management practices which do not contradict its basic values, especially those practices which have been proven useful and workable. The

management and business practices which are considered to be of importance include the following:

- competition and motivation for profit should be the thrust for the corporation's business activities. The competitive economic system of Malaysia is acknowledged as being the most effective method of economic redistribution for its people and that the corporation's success should be measured in terms of customers' acceptance towards it in the competitive market environment,
- the competition which the corporation encourages is not the excessive type existing under a free *laissez faire* system, but should be beneficial to the development of a harmonious community,
- the members in the corporation should acknowledge the reality that profit must become the main measure for performance and in turn, it is the lifeblood for growth and sustenance of the corporation.

(3) As a public enterprise, the corporation should use the privilege of its status as a semi-governmental entity. The system and practices developed for the corporation should allow it to operate as an efficient, effective and dynamic business organization. The system and practices considered to be important to the corporation include the following:

- to maintain the autonomous nature of the corporation's management in such a manner that they would not be strictly bound by the rules and regulations of government institutions. The purpose being to allow flexibility and the ability to react to changing circumstances efficiently,
- to avoid the influence of bad politics,
- to eradicate feudalistic and autocratic styles of management,
- to choose unbureaucratic forms of organizational structure that enable greater efficiency and effectiveness.

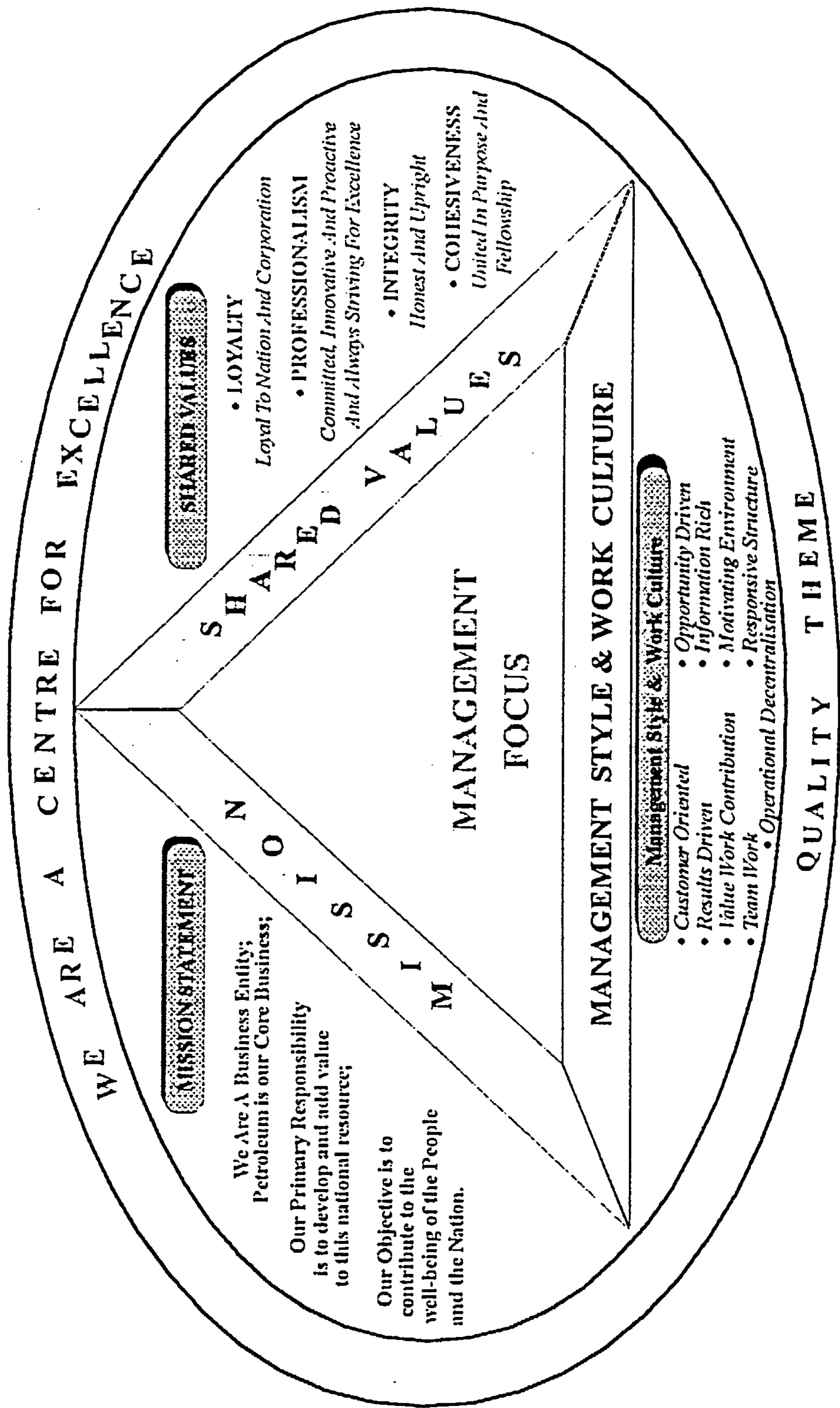
In order to attain the quality objective of customer satisfaction and to ease the management of customers, the corporation classified customers into six different categories: (1) lessees for its housing estate and shop lots, (2) buyers for its houses and shops, (3) investors who bought its industrial land, (4) members of the public who used its medical and hospital service, bus service and other services, (5) buyers for its agricultural and mining products, and (6) the state religious department officers whom the corporation dealt with for the building of religious schools in the state. In dealing with these customers the corporation expect its employees to be cheerful and respectful. Service mottos such as, "Service With Care", "Service With a Smile", "Zero Defect" and "You Are Our Priority" are used extensively in the corporation to ensure that its employees are always in the state of quality consciousness.

6.4.9 OPET

OPET, a government corporation, was established in the 1970's to take charge of petroleum matters, and to exercise, on behalf of the country, its sovereign right over its hydrocarbon resources. Since its inception, OPET had grown to become a diversified company, involved in oil exploration and production, in international and domestic marketing, refining, processing and distribution of gas, gas liquefaction, manufacture and trading of ammonia and urea, and manufacture and trading of petro-chemical products.

The petroleum industry is characterized by high capital investment, high risks, and complex technology. Because of these features, OPET decided to operate under a scheme known as the "Production Sharing Scheme" (PSC). Under this arrangement, OPET entered into an agreement with foreign oil companies ("contractors"), who were given a license to explore and produce petroleum. All expenditures relating to exploration, development and production are borne by the "contractors", but they could be recovered, on the basis of an agreed formula, from future production. Thus, uncertainties and risks were handled by OPET in this way.

Figure 6.9: OPET's Quality Approach



OPET is of strategic importance to the government and contributed a significant percentage to the country's Gross National Products. Undoubtedly, it is among the largest and richest of local corporations. Relying on the rich reserves of petroleum, the corporation is unlikely to go bankrupt. Additionally, OPET is protected by a special charter making it a company solely owned by the government and directly responsible to the Prime Minister. The Prime Minister could exercise his power in the appointment of the Board and the top management of the company. The charter also gave OPET an exclusive right to all petroleum resources of the country, to process petroleum, to manufacture petro-chemical products, and market these items. Furthermore, all petroleum tax revenues were allowed to be accumulated in OPET. Sometimes, the company was asked by the government to salvage or subsidize ailing government companies.

The total quality management (TQM) concept was first introduced to OPET by an overseas consultant in 1989, although quality activities in the organization, such as QCC, began a few years earlier. In 1991, after a series of quality awareness seminars, a special section handling quality matters and training was established. Since then, the section started to organize quality awareness and training programmes to the employees in the organization.

Recognizing the importance of quality, OPET formulated its own quality policy. This policy asserts the following commitment:

- OPET's Quality Policy is to continuously provide products and services that meet and exceed the changing requirements of the internal and external customers.
- To realise this, OPET has adopted the Quality approach while promoting continuous improvement as a corporate way-of-life. It is the responsibility of every individual in the organization to apply Quality to all work processes.

- OPET is totally committed towards improving its business operating culture and all aspects of its activities so as to achieve the status of a leading integrated multinational petroleum corporation and as a Centre For Excellence in line with Malaysia's aspirations under Vision 2020.

In order to realise the commitment as stated in the quality policy, OPET's top management have been working to inculcate its organizational members with a certain set of shared values and to encourage the total quality management style and work culture (see Figure 6.9). The set of shared values, which were developed with the aid of McKinsey Consultants, comprises values of loyalty, professionalism, integrity and cohesiveness - the common values that would be used to bind all diverse members in OPET. With regard to the management style and work culture, it is obvious that OPET is influenced by the total quality philosophy in its approach. The characteristics of management style and work culture fostered in OPET include the followings: customer orientation, results driven, value work contribution, team work, operational decentralization, opportunity driven, information rich and responsive structure. In disseminating the total quality management style and work culture to the members, the concepts and materials used in this training programme are mainly borrowed from the quality gurus and the Japanese. Examples of these include the concept of PDCA cycle and the 5-s. Furthermore, in fostering a quality culture and communication in the organization, more cross-functional groups known as Quality Improvement Project (QIP) teams were established to work on a number of projects. The QIP teams comprise members at the executive and managerial levels and they were given assigned projects with specific objectives and deadlines to be accomplished.

In its effort to become the Centre of Excellence, OPET also embarked on the certification process of ISO 9000 standard. The objective for this standard is to emphasize conformity

practices specified in the organization's quality system as well as to obtain general recognition in quality standard.

6.5 SUMMARY AND CONCLUSION

The first three sections of this chapter provide descriptions of the fieldwork conducted in this research. The fieldwork comprises two trips to Malaysia, the country of the organizations in this study. The first trip (Phase 1 fieldwork) was conducted over a year after the researcher started the study, and the second trip (Phase 2 fieldwork) was conducted 16 months later. Both trips lasted approximately three months.

In Phase 1, the researcher conducted case studies on a variety of organizations. The purpose in this phase was to allow the researcher to gain a close 'first hand' knowledge with regard to quality issues in the organizations based in Malaysia. The main source for information at this stage came from interviews with senior managers, usually the quality manager of the organization, and from observation during visits to these organizations. Other sources of information included a mini survey of major quality elements in two organizations (MCISB and MSPH), official documents and reports.

In Phase 2, the study is more focused on local-based organizations and the government's recently privatised companies. Here, an elaborate questionnaire (see Appendix 6) was used and administered in six organizations. The central element in this survey is about values and practices of quality. A total of 400 copies were randomly distributed to members of the six organizations and 210 members from five organizations responded to the survey. This represents a response rate of 52.5%.

Section 6.4 of this chapter provides an overview of the case organizations in this research. Nine organizations were involved and the important characteristics of these organizations are summarized in Table 6.5:

Table 6.5: Organizations Involved in the Study

Organization	Local/Overseas Subsidiary	Primary Business	Main Source of Quality Improvement Ideas
MCISB	Overseas Subsidiary (American)	Air conditioning manufacturer	Parent company
MSPH	Local (the founder held majority interest)	Telecommunications	Learning from other organizations based in the country
SMAS	Local (recently privatized)	Airline business	Overseas consultants
SLUTH	Local (government controlled)	Special services and fund management	Learning from other organizations based in the country
MMTR	Overseas Subsidiary (American)	Electronics items	Parent company
UTEL	Local (recently privatized)	Telecommunications	Overseas consultants
UTEN	Local (recently privatized)	Electricity provider	Overseas consultants
OSDC	Local (state owned)	Land and Property Development	Learning from other organizations and self-developed
OPET	Local (wholly owned by government)	Petroleum Production and Products	Overseas consultants

The organizations chosen in Phase 2 are mostly large organizations and they are of strategic importance to the nation. These types of organizations carry with them social obligations, particularly to eradicate the social imbalances between various racial groups in the country. Here, one should realise that the quality improvement effort carried out in these organizations would be bound within the wider national objectives. Therefore, one should bear in mind that when issues of efficiency, productivity and quality are discussed, they are dealt with in the context of a broader framework and involve the "super-objective" of the nation.

The next chapter, Chapter 7, will present the analysis and findings of the study. The analysis is divided into (1) stage 1 analysis - the qualitative analysis whereby the main source of information came from interviews and observations, and (2) stage 2 analysis - the quantitative analysis whereby its main source of data came from the questionnaire survey administered in the Phase 2 fieldwork.

"Without the hard little bits of marble which are called 'facts' or 'data' one cannot compose a mosaic; what matters, however, are not so much the individual bits, but the successive patterns into which you arrange them, then break them up and rearrange them." (Koestler, 1964; p235).

The approach for analyzing the data obtained for this research has two stages: (1) a holistic and a more qualitative-oriented analysis, and (2) a focused and a more quantitative-oriented analysis. The first stage analysis was primarily based on the interview data, observations and limited (mini) survey data gathered from the fieldwork trips. The purpose of this analysis is to provide subjective interpretations of emerging issues and also, to relate to the adequacy of the conceptual research framework developed for this study. Thus, this analysis (discussed in Section 7.1) covers a broad variety of issues that are relevant to the subject of this study - it provides a wide spectrum of findings and insights. However, the second stage analysis was based on the responses given in the questionnaire survey (Appendix 6) and it is specifically focused on the issues of values and practices of quality in government-influenced organizations (GIOs). In the second stage analysis (discussed in Section 7.2), descriptive statistics were mainly incorporated in reporting the findings of the survey.

In this study, GIOs are defined as those organizations over which the government has a high degree of influence in their organizational affairs, particularly, through top management appointments and through specially designed acts or regulations. On the other hand, the non-GIOs are those private companies or subsidiaries which are not under the direct influence of the government. For this study, six organizations are categorized as

GIOs (OPET, SMAS, UTEN, UTEL, SLUTH and OSEDC) and three organizations as non-GIOs (MCISB, MMTR and MSPH).

The first stage analysis involves all nine organizations, introduced in Chapter 6. The second stage analysis focuses only on the responses obtained from the questionnaire survey in five GIOs (OPET, UTEN, UTEL, SLUTH and OSEDC). There were no responses received from one organization, SMAS. During the last two years in SMAS, there has been intense restructuring activity taken place involving the transfer of many staff to different divisions. Presumably, this situation raised problems for the contact person in administering the questionnaire. In fact, the transfer process actually resulted in the loss of communication between the researcher and the contact person.

It should be noted here that the reporting of the analyses is not structured according to organization, but, rather the researcher had chosen a thematic mode of reporting the issues and the findings. This method was felt to be a better or more meaningful way of presenting the results. Thus, focus is placed on the emerging themes derived from the analyses and not on the specific organizations or interviewees. Also, where comparative analyses have been made between the organizations or interviewees, they have been presented within these identified themes.

7.1 RESULTS AND FINDINGS FROM FIRST STAGE ANALYSIS

The data used in the first stage analysis was primarily obtained from interviews, documents, mini opinion surveys of quality elements and observations gathered during the two fieldwork trips in Malaysia. These data were content analyzed and qualitatively evaluated. This analysis has produced insights and findings which are very useful in understanding the relevant and broad issues of quality as well as in evaluating the adequacy of the conceptual framework (discussed in Chapter 4). The findings and results of the analyses are reported under the following themes or issues:

7.1.1 General Scenario

When this study in quality management was initially proposed in late 1991, the general concern for and public awareness of quality issues in Malaysia were scant. At that stage, the quality movement had not made a big impression and not many organizations in the country clearly understood the necessity for quality.

However, when the researcher went back for the Phase 1 fieldwork trip in mid 1993, there was a lot of enthusiasm for quality. This could be seen in various forms, for example, (1) an increase in the number of quality management modules and programmes being advertised by more training companies, (2) a noticeable number of quality posters and campaigns in both public and private organizations, (3) companies were keen to institute TQM or to get certified with ISO 9000, (4) staff of many organizations were being retrained to understand the total quality concept and TQM, and (5) the upgrading of the quality function and management structure in many public and private organizations. At this stage, quality awareness seemed to be widespread and more organizations had instituted or implemented various forms of quality management system.

When the researcher returned for the second time for the Phase 2 fieldwork trip, the state of quality enthusiasm seem to have stabilized. In fact, some of the companies were already reviewing their approaches towards quality. In the earlier stage, when the quality movement started gaining audiences, the enthusiasm and obsession for quality were more on the implementation of its 'hard' side, such as, instituting TQC tools into the work environment. However, in the later stage, the concern for quality tended towards cultivation of values, which were perceived to bring positive and long term effects on the organization. It is a growing belief that organizational members need to possess certain kind of values and practices in order for the organization to sustain and to guarantee its continuous improvement process.

7.1.2 Organizational Mission and Objectives

The mission statement of all organizations involved in the study often includes words such as, 'excellence', 'quality' and 'customers satisfaction'. With the exception of MMTR, the mission statement in the organizations involved in this study have been formulated in the last three or four years. This is not surprising, because around that time some new management concepts, such as TQM began to gain influence in the country. Thus, when the mission statement had been formulated they were borrowed chiefly from those of the leading companies. Also in some organizations, such as OPET and SMAS, overseas consultants were employed to formulate their mission statements.

The role of a mission statement in the organization was generally as being perceived to bring positive effects or influence on the organization. A mini opinion survey regarding this issue was conducted on two companies, MCISB (15 respondents) and MSPH (30 respondents), during the Phase 1 fieldwork trip. The results of this survey are presented in Table 7.1a and show an overwhelming agreement of the positive effects they had on the organization.

Positive values, which already existed in the organizations or desired values, which the organization wanted its members to possess, constitute important linkage with the organizational mission and goal. For example, in MMTR, the values 'respect for people' and 'integrity' were said to have been in existence in the organization since it was founded. These values were transmitted throughout the whole organization and they were said to be among those elements that contributed towards achieving the company's mission and its goal for total customer satisfaction. Similarly, in OPET, values such as 'professionalism', 'loyalty', 'integrity' and 'cohesiveness' were desired by the organization. OPET leadership felt that these values would shape its members to a work culture that is capable of pursuing the organization's quality theme, "to become a centre for excellence" and of

achieving its mission, "to develop and add value to its oil resources, and to contribute to the well-being of the people and nation".

Table 7.1a: Results of Mini Survey (Influence of Mission Statement)

Statements Related to Influence of Mission Statement	Percentage Agreeing with the Statement			Percentage Disagreeing and Undecided with the Statement		
	MCISB _a	MSPH _b	TOTAL _c	MCISB _a	MSPH _b	TOTAL _c
The organization's mission statement has greatly influence organizational members' conducts.	53.3%	93.3%	82.2%	46.7%	6.7%	7.8%
Mission statement provides basis for individual's ways of thinking (about quality).	86.7%	96.7%	93.3%	13.3%	3.3%	6.7%
Mission statement provides basis for individual's ways of doing things.	80.0%	76.7%	77.8%	20.0%	23.3%	22.2%
Mission statement establishes organizational priorities.	86.7%	36.7%	53.3%	13.3%	63.3%	46.7%
Mission statement changed individual's perception on quality.	86.7%	63.3%	71.1%	13.3%	36.7%	28.9%

- MCISB_a: percentage agreeing or disagreeing with the statement is calculated based on the number of responses received from MCISB organization.
- MSPH_b: percentage agreeing or disagreeing with the statement is calculated based on the number of responses received from MSPH organization.
- TOTAL_c: percentage agreeing or disagreeing with the statement is calculated based on the total number of responses received from MCISB and MSPH organizations.

Mission statements of the organization are normally tied up with certain specific goals and objectives. The findings of this study suggest that the goals and objectives of the GIOs are much broader in scope and tend to encompass social objectives. The objectives of GIOs reflect their supposed role, such as promoting national integration and providing rural care or development. The GIOs were also heavily influenced by the government's vision and purpose. A senior manager in OPET frankly related the government's influence in GIOs in the following statement:

"... we have everybody concentrating on a common purpose, in terms of either trade or our foreign relation or in terms of our future, vision - like vision 2020. Everybody applied to that. So, we have a more Malaysia Incorporated concept, that is, more visible here in Malaysia. ... Of course, more important of all these, we have a leader who is bridging the gap if it exists at all between the public sector and the private sector. It's very important that whoever is the Prime Minister, links that up, and our Prime Minister is doing that very effectively; that's why when you go to Tenaga, you go to Petronas, you go to Pernas, you go everywhere, there will be

that element of similar concern as in the public sector for projects. If we go to the Russian country, of course, we also want to look for oil but, it is driven by the government. If the PM goes there, we are ready to go and take on the project, if it is viable of course. ... The direction is government driven, I would say. Yes, it is. And I would argue it is good for the country, because you see, why would you want to be like the US - so unfocused. Why would you want to be like some of the European countries that keep arguing about democracy and nothing else. We put it aside and we get on with our work and our country is doing better than most countries because we are more focused. I mean, like Michael Potter's focus strategy, you know. That kind of approach that we are taking here. ... So, if we find this, a concern for the government's objectives in the corporation, I would argue, yes, it is deliberate, I would say. A concern for the government's objectives, which have more national consideration."

Thus, it appears that the objectives and goals (whether declared or implicit) of the GIOs and non-GIOs differ to a certain degree. The GIOs tend to have broader objectives than those of non-GIOs. In the case of OPET, SMAS, UTEN and UTEL, these organizations are said to have the 'strategic concern of the nation' in mind. They also play a role in assisting the government to attain its political and economic objectives. On the other hand, the non-GIOs goals or objectives seemed to be narrower and directed towards their business areas. Also, they were less government-led when considering a project or investment; although they may receive incentive and moral support from the government.

7.1.3 Concept of Quality

'Quality' is an evolving concept and can be understood differently between individuals. This study indicates that at different points in time, depending on one's exposure, training and experience, an individual's concept of quality will evolve. Although the introduction of the 'total quality' concept and TQM in Malaysian organizations was quite intense in the early 1990's, some members still do not fully grasp its meaning. For example, the same mini survey conducted in MCISB (15 responses) and MSPH (30 responses) produced a mixed indication (see Table 7.1b) on the extent of members understanding of the 'total quality' concept. As evident from the results in the table, at least two of them are clearly not in accordance with the 'total quality' concept. First, the

concept of managing quality through acceptable quality limit (AQL) reflects a static as opposed to a 'dynamic' concept of total quality. Second, the responsibility for quality does not rest on a specialized department or staff but rather, as advocated by the total quality approach, it involves the participation and commitment of all members in the organization. In these two respects, the results shows that the 'old' view of quality was still prevalent.

Table 7.1b: Results of Mini Survey (Concept of Quality)

Statements Related to 'Total Quality' Concept (TQ=total quality concept)	Percentage Agreeing with the Statement			Percentage Disagreeing and Undecided with the Statement		
	MCISB _a	MSPH _b	TOTAL _c	MCISB _a	MSPH _b	TOTAL _c
The organization/company should focus on yield rather than defects. (TQ: more focus on defects)	46.7%	46.7%	46.7%	53.3%	53.3%	53.3%
It is better to deliver reduced quality products to customers to avoid losing and order. (TQ: emphasize on superior products)	13.3%	26.7%	22.2%	86.7%	73.3%	77.8%
AQLs (acceptable quality level) are superior way to manage quality. (TQ: regards no limit to quality improvement)	53.3%	63.3%	60.0%	46.7%	36.7%	40.0%
Quality is the responsibility of a specialized staff. (TQ: quality is the responsibility of all organizational members)	20.0%	23.3%	22.2%	80.0%	76.7%	77.8%
Cost has to increase in order to reduce rejects/defects. (TQ: controls of defects will reduce overall and long-term costs)	13.3%	50.0%	37.8%	86.7%	50.0%	62.2%

MCISB_a: percentage agreeing or disagreeing with the statement is calculated based on the number of responses received from MCISB organization.
MSPH_b: percentage agreeing or disagreeing with the statement is calculated based on the number of responses received from MSPH organization.
TOTAL_c: percentage agreeing or disagreeing with the statement is calculated based on the total number of responses received from MCISB and MSPH organizations.

Members' understanding of the concept of quality were also influenced by their function and hierarchical level within the organization. The top level managers were concerned with the overall performance of the organization; to them, 'quality' is greatly related to strategic concerns and superior financial results. On the other hand, functional managers were more concerned with the process and operations within their departments; to them, 'quality' relates to a set of operational standards and targets. Thus, the top level managers

tend to be more strategically-oriented while, the lower and functional managers tend to be task-oriented in their approach to improving the organization.

Also, the concept of quality, as suggested by some managers in this study, should not only relate to hard and tangible elements. The concept of quality also embodies transcendental and 'soft' dimensions, which are not easily measured and instituted, such as intuition and sincerity of efforts. Relating this idea of quality, the quality manager in MSPH stated:

"... many things were done very much on intuition, not structured. We wouldn't expect when we do certain things we should get immediate results. We believe in efforts. This is my own observation and evaluation - that results are consequences of efforts, which means we need to concentrate first on effort. If our efforts are intense enough, the results will be automatic. ... my definition of quality is 'everybody who work must do a good job', that should be our nature. Quality is the extra things that you do - that extras on top of the job expected from you ... that some people who put sincerity or responsibility as the basis [of doing his or her job]"

Thus, the transcendental and 'soft' dimensions were also considered as important elements in the organization's approach to improving quality.

7.1.4 Contextual Factors

As mentioned earlier in Chapter 4, the contextual factors can be categorized into two: (1) external factors, which are beyond the control of the organization, and (2) internal factors, which are, to a certain extent, within the control of the organization. The quality improvement process within these organizations can be related to the external factors, such as regulations, competition and market, and to the internal factors, such as strategy, structure, ownership, technology and leadership.

Regulations: Some of the GIOs are highly regulated by certain acts and requirements. In the case of SLUTH, because of its nature as a deposit-taking and Islamic institution, the organization is required to subscribe to the guidelines contained in a specially designed act, the Tabung Haji Act. This act was instituted to protect the depositors and to ensure that

the business conduct of the organization conformed to Islamic principles. In this sense, it would not be proper to compare certain measures of performance of this organization with the other type of organizations. As one of the directors in SLUTH said,

"... for this organization, we find difficulties in short-term investments because there are not many Islamic banks or finance companies where we can put in our money. In this situation we are in a disadvantaged position."

Although there are restrictions in some areas of business, there are also privileges given to most GIOs, usually in the form of operating licenses or permits. In OPET, UTEN and UTEL, business operations which relate to the national interest were usually given to them by the government; and the financial returns from these operations have been a very substantial part of the overall financial gain.

Thus, regulations can protect, as well as put an organization at a disadvantage. Similar organizations may engage primarily in the same business area (such as MSPH and UTEL in telecommunications) but they would have different opportunities. Therefore, to compare quality performance as reflected from an overall financial performance would be misleading. Since there are different restrictions and opportunities provided for the organizations by the external factors, one should take notice of their influence when comparing the performance of one organization with the other.

Competition: Generally, competition, in business operations of non-strategic interest to the nation, is free. In this situation, organizations have the basis for comparing their performance and quality with respect to the competitors in the same business operations.

In evaluating the effectiveness and the quality of operations or activities in the organization, it was found that benchmarking was a popular method used by the organizations. Evidently, benchmarking seem to be more popular in the non-GIOs, presumably because there were competitors in the same business or producing similar

products and services as the organization. However, the threat from competitors was felt less by the GIOs.

Competition could also provoke self evaluation, which would then drive a particular organization to embark on an improvement programme. In MMTR, for example, the competition from Japanese companies has provoked it to initiate a quality programme in 1986 called "Rise to the Challenge". This programme created awareness of the importance of quality by comparing the company's performance with leading Japanese competitors. As a result of this awareness, the company had instituted a series of quality improvement initiatives and this has enabled it to achieve a standard which is comparable to the Japanese.

Market: The products of local companies in this study were mainly intended for the domestic market. However, two of the non-GIOs, MCISB and MMTR, were multinational companies and sold more than 40% of their products for the export market. In this aspect, the multinationals have market network advantage as compared to the local companies. The local companies would need greater courage and would have to bear substantial costs in trying to expand into the international market. The venture of local companies into the international market seemed to be directed to the growing economies in the Central Asia, Indo-China, and China. The ventures into these countries were presumably to claim their share of the expanding market.

The quality of products produced by the multinational companies were not only compared to the competitors but also with the products of other facilities in its group operating throughout the world. In many instances, multiple facilities or companies in the group produced products for the same regional market. In this situation, the quality or expected standards of a certain market has to be met. Thus, all the facilities or companies involved in producing products for such a market must conform to the standards of each other as well as to the quality or expected standards of the market.

Strategy: In GIOs the initial step towards improving motivation and initiating the commercial attitude of members seemed to follow the route of privatization. The rationale for privatization is freedom from government regulations and schemes and thus, more flexibility and less bureaucracy. Privatized organizations were also expected to formulate their own strategy that would enable them to be more efficient and productive.

Historically, the GIOs started as government departments and therefore, they carried with them the interest of the government and the nation. Their function and strategy was, among other things, the achievement of certain social and political objectives. Thus, the strategy followed by these organizations might be somewhat obscure when judged from a commercial view. For example, SMAS continued to provide and subsidize unprofitable domestic routes because through this means it hoped that the political and social objective of national integration could be speeded up. In the case of UTEN, the organization remains responsible for distributing and supplying electricity to remote and uneconomical places because this is a social duty assumed by the organization.

Ownership: Generally, the government still has a considerable stake of shares in the GIOs. Although some of them have been privatized (such as SMAS, UTEN and UTEL) and are listed in the Kuala Lumpur Stock Exchange (KLSE), the government is still a majority shareholder in each of them. Others, such as OPET is still wholly government-owned and SLUTH and OSEDC are indirectly owned through other government agencies.

Government ownership implies a number of things. First, the organization has multiple objectives - not only commercial, but also political and social. The implication for this is that at some time decision criteria were based more on the political and social agenda and not on commercial viability. This could induce a belief among the managers and staff that the activities of the organization should be judged more from a social and political point of

view, taking into account the 'national interest'. In fact, this view is commonly shared among the senior managers and staff of the GIOs.

Second, being owned by the government, these organizations appear to enjoy continuous government support (funding and preferential operating licenses), and therefore they have a long-term advantage to help survival. They need not face or worry about threats of takeovers or bankruptcy, which non-GIOs are facing all the time. This situation would place little pressure on these organizations to adapt to the demands of the environments (customers, market and competition), and to struggle for their commercial viability and quality improvement. Although, some of the shares of these companies (SMAS, UTEN and UTEL) sell publicly, the view that the government will protect them and the government will never allow them to close down seems to have some negative repercussions on the effective management of these companies. In this respect, government ownership appears to encourage a 'relaxed' attitude among organizational members and to a certain degree it has an impact on the orientation and inculcation of the 'commercial' and 'quality' spirit.

Structure: The privatization of GIOs has also enabled these organizations to be more flexible. This means that, now, they can implement structural changes much easier than before. As a result, these organizations tend to be less bureaucratic and they are more aware of the necessity to adapt to environmental pressure, such as competition and market.

In this study, it was found that one of the factors that could be related to observed changes in organizational structure is the impact of a 'new' understanding of quality. This 'new' understanding of quality, which accords greater strategic importance of the quality function, has necessitated the formation of a quality department within organizations. The new restructured organization reflects the corporate importance of quality as compared with other functions, such as marketing and production. The incidence of the formation of

a quality department within the organizations was found in both the GIOs and the non-GIOs.

Quality Technologies: The manner in which the organizations in this study acquired quality technologies and concepts tended to differ between them. The large GIOs (OPET, SMAS, UTEN and UTEL) are found to have the privilege of getting training services from reputed overseas consultants. The consultants were normally employed by them to conduct the initial quality awareness training which involved the top management of these organizations, and also helped them to formulate their organizational mission statements. On the other hand, the smaller GIOs (such as SLUTH and OSEDC) acquired the quality technologies and concept through various channels, such as, through quality training programmes conducted by local consultants, and through exemplary quality practices set by the large GIOs and top quality organizations in the country.

For the non-GIOs which are subsidiaries of overseas companies (such as MMTR and MCISB), their source of quality technologies and concept mainly came from their parent companies. They also sometimes employed new members with good quality credentials from other known companies to help devising their quality systems and practices - this usually occurred in order to improve their production process. Whereas, for the local non-GIOs, such as MSPH, the quality technologies and concepts were acquired through similar channels to the small GIOs. Additionally, in the case of MSPH, the organization also developed its own quality technologies and ideas.

Leadership: In the past, civil servants from the government were appointed to the top posts in the GIOs. After four or five years heading the organizations, they were then posted or transferred to other government departments. Usually, the change of leadership in the GIOs would only alter some of the internal structure and communication within them. The general direction, mission and objectives were rarely changed with new leadership appointments.

However, with privatization, the government wanted the GIOs to operate more in the manner of a private company and to become more commercially driven. In order to achieve this aspiration, in the recent reshuffling, the government has appointed personalities from successful private companies to head the management of these organizations.

In both the GIOs and the non-GIOs, the influence of the top leadership was instrumental in shaping the values and practices of the organizational members. The implementation of successful quality initiatives and the inculcation of values in the organization relied much on the involvement of the top leadership. Specifically, top leadership can assert values in two ways: (1) through their exemplary behaviour (what they say, where they spend time, what questions they ask, and so forth), and (2) through the formal systems they create (incentives, communication mechanisms, performance evaluation, and so forth). Hence, the top leadership's exemplary behaviour and the system they create play an important role in reinforcing positive or desired values in other organizational members.

7.1.5 Organizational Effectiveness

As it was mentioned in Chapter 4, the criteria used to measure organizational effectiveness are problematic - however, they are associated much with the purpose of the organization. In the non-GIOs, the business purpose seemed to be a dominant feature in these organizations. They naturally regarded financial and economic indicators as appropriate measures to assess their performance. Quality improvement initiatives were intended ultimately to bring about superior financial performance and to capture a larger market. Thus, they were sensitive to competition and consumer expectations. Therefore, when measuring their achievement, financial indicators were regarded as the primary measures of their performance or effectiveness. However, in MSPH (the local non-GIO), apart from business concern there was also concern for the development of the Bumiputera's business and technical expertise. Thus, among the contributing factors for

the growth of the company were social motives, as related by one of the MSPH senior managers:

" ... the [drive towards] the growth of a company may be due to many other reasons, ... induced by our feeling of social responsibility, the dedication and sincerity of our leadership, ... and [a sense of obligation] to provide a [greater number of] places to the Bumiputera to seek opportunities and jobs."

In the GIOs there were both business and social purposes. However, for the most part, the GIOs were already assured of profits in many areas of their business activities, because they monopolized licenses to carry out those types of business. From these profitable activities, they were able to cover losses from unprofitable activities of other business ventures. Since, the profitable business activities were normally allocated to them, they do not have to worry about their long term survival. However, with the privatization of some of the GIOs, these organizations were expected to deliver greater efficiency and productivity in conducting their business activities. Now, these organizations have become more concerned with the operational measures when evaluating their effectiveness or performance. They are also expected to behave more like any other business organizations that are sensitive to competition and customer demands. In this respect, privatization has effectively initiated a process of cultural transformation, from bureaucratic, government-styled to a more flexible, customer-oriented and quality-conscious organization.

Significantly also, with new understanding of the concept of quality and the advent of TQM philosophy, both the non-GIOs and the GIOs realized the importance of maintaining cordial and effective relationships with the parties outside the organizations and the environment. Apart from the relationship with suppliers and customers, the organizations were increasingly interested in strengthening their public image through various types of contributions, such as donating to social and welfare causes, sponsoring of sport events and maintaining a clean and unpolluted environment. In this sense, social obligations and commitment have been perceived to be increasingly important in organizational affairs and

they are to be observed and maintained. The top leadership in these organization also felt that by neglecting to maintain harmonious and effective relationships with the society, the public image of their organizations, in the long-term, could be adversely affected - this could in turn develop into a growing dissatisfaction with the organization itself, and a negative reception for its products or services; consequently affecting its business profits and performance.

7.1.6 Organizational Values

Organizational values, which was defined in Chapter 4 as comprising elements of belief and practices were found to be a central concern in both types of organizations, the GIOs and the non-GIOs. The leadership in these organizations believed that a certain set values should be preserved (if they were already there) or cultivated (if they were not yet possessed by the members). With the advent of the total quality concept, a new belief, which treats quality as a continuous endeavour, was disseminated through training programmes and campaign slogans. Also, practices associated with quality, such as the use of charts and 5-s housekeeping techniques, were instituted in these organizations.

Generally, the types of values perceived to be important by the organization can be categorized into two: (1) values which relate to morals and goals of individual life, such as, freedom, wisdom, equality, etc., and (2) values which relate more to accomplishing a job, i.e., possessing these values could get the job done or improve the way it was done, such as discipline, hard-work, imagination, creativity, etc. In this study, both types of values were considered by the interviewees to be relevant to the enhancement of quality and organizational performance.

Rokeach (1970) labels the first type of values as terminal values and the second type as instrumental values. Terminal values were less amenable than the instrumental values and they were related to individual's belief and to his or her conception of this world. The

same set of instrumental values could be possessed by individuals subscribing to a different set of terminal values. For example, it is possible for individuals subscribing to different belief systems or religion to possess instrumental values such as hard-work, courage and creativity.

Some of the managers who were being interviewed in this study considered that the concept of 'quality' also referred to the continuous process of ensuring the members' behaviour conformed to a set of desirable values, such as those mentioned above. These values were regarded to be important in influencing members' behavioural practices and they are common to a variety of different belief systems.

7.1.7 Emerging Issues from Interviews

A total number of 31 interviews have been carried out during the two phases of fieldwork trip: (i) 16 interviews in Phase 1, and (ii) 15 interviews in Phase 2 (see Table 7.2a). It must be noted here that in Phase 2 the GIOs had being the focused organizations for investigation. Four more GIOs (UTEN, UTEL, OPET and OSEDC) have been added to the list of case organizations of this study. In the earlier fieldwork trip (Phase 1) none of the members in these organizations have been interviewed.

The agenda behind these interviews was to allow the emergent of possible issues or concerns that might be of relevance to the improvement process of organizations. Thus, the outcome from the interviews were expected to offer insights into major issues of quality management, priorities and emphasis of quality. Although the unstructured approach to interview has been adopted in this study, issues related to culture, values and their relationships to quality were, however, being probed into regularly in most interviews. Almost all scheduled interviews (i.e., those interviews that were pre-arranged and which normally lasted for more than one hour), the researcher has managed to obtain consent of the interviewees to have them (the interviews) tape recorded.

Table 7.2a: Interviews Carried Out in the Study

Organization	Interviewees* during Phase 1	Interviewees* during Phase 2
<i>Non-GIOs:</i>		
MCISB	A01: Mr. Chong (Supl. Dev. Mgr.)+ A02: Mr. Yong (G. Mgr., Qual. Op.)+ A03: Mr. Chew (Supplier Dev. Eng.) A04: Mr. Salleh (Comp. Specialist) A05: Mr. Nasir (H.Resource Mgr.) A06: Mr. Zaidan (H.Resource Dir.)	B01: Mr. Salleh (Computer Specialist) B02: Mr. Abdul Hamid (Board Dir.)
MSPH	A07: Mr. Mohd Zin (Grp. Mgr., QA)+ A08: Mr. Hashim (G. Mgr., Tdata sub.)	B03: Mr. Mohd Zin (Grp. Mgr., QA)
MMTR	A09: Mr. Sakiman (H. Resource Mgr.)+ A10: Mr. Jeng (Quality Director)+	-
<i>GIOs:</i>		
UTEL	-	B04: Mr. Ghazi (Senior Fin. Mgr.)
UTEN	-	B05: Mr. Mansor (Cust. Service Dir.)+ B06: Mr. Rahmat (Cust. Service Mgr.) B07: Mr. Jamal (Cust. Service Mgr.) B08: Mr. Zahar (Training Director)+
OPET	-	B09: Ms. Thevi (Senior HR Mgr.)+
OSEDC	-	B10: Mr. Anuar (Admin. Officer)
SMAS	A11: Mr. Ahmad Zaidi (OD Mgr.)+ A12: Ms. Suzana (HR Administrator)+ A13: Mr. Maskon (HR Manager) A14: Ms. Salimah (Sen. Methods Eng.)	B11: Mr. Abdul Halim (HR Director) B12: Mr. Ahmad Zaidi (OD Mgr.) B13: Ms. Suzana (HR Administrator)
SLUTH	A15: Mr. Zaini (Research & Plan. Dir.) A16: Mr. Azri (Cash Mgmt. Dir.)	B14: Mr. Zaini (Research & Plan. Dir.) B15: Mr. Salim (Personnel Admin.)+

* for confidentiality, the names of the interviewees have been changed; + tape recorded interview

A wide range of issues that were thought to be relevant to the improvement process of organizations were raised by the interviewees. The nature of these issues include: the political, economic, social and environmental factors; quality systems and techniques; values and culture; and quality concept and implementation problems. In accordance with the framework developed for this study (please refer to Chapter 4), these issues or concerns can be classified into the following categories: (a) contextual factors, (b) organizational mission and objectives, (c) organizational culture and values, (d) quality philosophy and concept, (e) quality management systems and techniques, and (f) organizational effectiveness. Here, these categories were effectively to classify the quality

management and improvement issues emerging from the interviews. Table 7.2b and 7.2c presents the summary of the interview results of Phase 1 and Phase 2, respectively.

Table 7.2b: Summary of Interview Results (Phase 1 Interviews)

Interviews → ↓ Issues of Quality	A01	A02	A03	A04	A05	A06	A07	A08	A09	A10	A11	A12	A13	A14	A15	A16
Quality Philosophy and Concept																
- AQL concept	X		X					X	X		X		X	X		
- continuous concept		X					X		X	X	X	X			X	
- long-term orientation							X		X	X	X					
- short-term concern	X															
- holistic view		X			X	X	X		X		X	X				
- functional concern			X	X				X	X	X	X		X	X	X	X
- product-based definition		X	X				X	X	X	X				X		
- transcendental definition							X		X		X	X	X			
- 'fitness for use' definition		X			X	X	X		X	X	X		X			
- 'conformance to requirement' definition	X	X	X	X			X	X	X	X				X		
- 'quality' = 'consistency' concept		X	X	X	X	X	X		X	X	X		X	X		X
Quality Management Systems & Techniques																
- emphasizing on ISO standards	X	X	X			X		X								
- insisting on the used of TQC tools and techniques		X					X		X	X						
- importance of quality circles and improvement teams		X				X	X		X	X	X	X	X		X	X
- reorganization of management structure and recognition of quality importance		X			X				X	X	X					
- high usage of control charts and statistical tools		X						X	X	X			X	X		
- emphasizes regular maintenance and housekeeping procedures		X	X	X			X	X	X	X	X	X		X		
- rewards for quality performance							X		X	X						
- high degree of feedback and suggestion									X	X						
Contextual Factors																
- driven by competition and market requirement	X	X			X	X	X		X	X	X	X	X			
- concerned for efficiency and productivity	X	X	X				X	X	X	X	X		X	X	X	X
- structural hindrance to quality		X		X	X	X										
- attitudinal hindrance to quality	X	X					X		X	X					X	X
- highly influenced by national aspirations				X	X	X	X				X					
- strategic emphasis of quality function									X	X	X					
- technological limitations														X		
- high degree of government support for organization's business activities							X		X						X	
- incompetency and lack of skills of organization's human resources		X		X	X	X									X	

Table 7.2b: Summary of Interview Results (Phase 1 Interviews)-cont.

Interviews → ↓ Issues of Quality	A01	A02	A03	A04	A05	A06	A07	A08	A09	A10	A11	A12	A13	A14	A15	A16
Organizational Mission and Objectives																
- objectives highly influenced by government's vision											X	X	X			
- mission highly influenced by organization's founder							X	X	X	X						
- objectives highly influenced by national interest or aspirations (racial harmony and social stability)						X	X				X		X		X	X
- to achieve superior financial performance and business growth	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X
- to increase efficiency and productivity	X	X	X		X	X	X	X	X	X	X	X	X	X		
- to increase involvement and participation		X			X	X	X		X	X	X	X		X		
- to change or transform organization so as to be more customer-oriented		X				X	X		X	X	X	X	X			
- to achieve racial balance in economic activities				X	X	X	X				X	X				
Organizational Culture and Values																
- nurturing of moral values							X		X	X					X	X
- emphasizing the importance of human relationship		X		X	X	X	X		X	X	X					
- changing of attitude and concept towards quality	X	X	X	X	X	X		X	X	X	X	X	X	X		
- the importance of religious values in shaping quality culture							X				X				X	X
- emphasizing human development and potential		X				X	X		X	X	X	X		X		
- long-term commitment through internalization of values							X		X	X	X		X	X	X	X
- achieving regularity and 'natural' control of behaviour through inculcation of values		X				X			X	X	X					
- fostering of shared values and culture in organization		X			X	X	X		X	X	X	X	X			
Organizational Effectiveness																
- increased involvement and participation from members		X	X		X	X	X	X	X	X	X	X	X	X	X	X
- increased business performance (profit, sales, market share, etc)	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X
- human development (spiritual, physical, moral)				X			X				X				X	X
- steady quality progress		X			X	X	X		X	X		X	X			
- learned members		X					X		X	X						
- increased competency of members		X		X			X		X	X	X	X	X	X		
- having competitive edge over other competitors		X		X		X	X	X	X	X	X					
- greater awareness of social responsibility					X	X	X		X	X						
- achievement of national objectives or aspirations				X	X	X	X				X		X			

Table 7.2c: Summary of Interview Results (Phase 2 Interviews)

Interviews → ↓ Issues of Quality	B01	B02	B03	B04	B05	B06	B07	B08	B09	B10	B11	B12	B13	B14	B15
Quality Philosophy and Concept															
- AQL concept	X	X				X	X					X			
- continuous concept			X		X				X	X	X	X	X		X
- long-term orientation			X		X	X	X	X				X		X	
- short-term concern								X						X	X
- holistic view			X		X			X	X	X	X	X	X	X	X
- functional concern				X		X						X			
- product-based definition		X											X		
- transcendental definition										X	X	X	X		
- 'fitness for use' definition			X				X		X			X			
- 'conformance to requirement' definition	X	X	X			X	X	X	X						
- 'quality' = 'consistency' concept		X	X		X	X	X			X	X	X		X	
Quality Management Systems & Techniques															
- emphasizing on ISO standards	X	X	X	X					X						
- insisting on the used of TQC tools and techniques			X						X	X		X			
- importance of quality circles and improvement teams			X		X		X	X	X		X	X	X		
- reorganization of management structure and recognition of quality importance			X	X	X		X	X	X	X	X	X		X	X
- high usage of control charts and statistical tools	X													X	X
- emphasizes regular maintenance and housekeeping procedures			X		X		X	X			X	X		X	X
- rewards for quality performance	X	X			X	X	X	X					X		
- high degree of feedback and suggestion		X	X	X	X	X	X	X		X		X			
Contextual Factors															
- driven by competition and market requirement		X	X		X		X	X			X	X	X		
- concerned for efficiency and productivity	X	X	X	X	X		X	X	X		X	X	X		
- structural hindrance to quality														X	X
- attitudinal hindrance to quality		X	X		X	X		X		X	X	X			
- highly influenced by national aspirations		X	X	X	X			X	X		X	X		X	X
- strategic emphasis of quality function							X	X			X				
- technological limitations															
- high degree of government support for organization's business activities		X	X		X		X	X	X		X	X		X	X
- incompetency and lack of skills of organization's human resources		X	X	X			X	X		X					

Table 7.2c: Summary of Interview Results (Phase 2 Interviews)-cont.

Interviews →	B01	B02	B03	B04	B05	B06	B07	B08	B09	B10	B11	B12	B13	B14	B15
↓ Issues of Quality															
Organizational Mission and Objectives															
- objectives highly influenced by government's vision				X	X	X		X	X	X	X	X		X	X
- mission highly influenced by organization's founder		X	X												
- objectives highly influenced by national interest or aspirations (racial harmony and social stability)		X	X					X	X		X			X	X
- to achieve superior financial performance and business growth	X		X		X	X	X	X		X	X	X	X	X	X
- to increase efficiency and productivity			X				X	X		X	X	X	X		
- to increase involvement and participation			X								X				
- to change or transform organization so as to be more customer-oriented	X		X	X	X	X	X	X	X		X	X	X		
- to achieve racial balance in economic activities		X	X					X	X	X	X			X	X
Organizational Culture and Values															
- nurturing of moral values		X	X					X		X	X	X			
- emphasizing the importance of human relationship			X		X			X		X	X	X	X	X	X
- changing of attitude and concept towards quality	X					X	X	X		X			X		
- the importance of religious values in shaping quality culture	X		X					X		X	X			X	X
- emphasizing human development and potential		X						X	X		X	X		X	X
- long-term commitment through internalization of values		X	X		X		X				X				
- achieving regularity and 'natural' control of behaviour through inculcation of values				X		X			X			X			
- fostering of shared values and culture in organization		X	X		X		X	X	X		X	X	X	X	X
Organizational Effectiveness															
- increased involvement and participation from members			X		X			X	X			X	X		
- increased business performance (profit, sales, market share, etc)	X	X	X	X	X		X	X	X	X	X		X	X	X
- human development (spiritual, physical, moral)	X		X		X					X	X			X	X
- steady quality progress		X		X		X	X	X	X		X	X	X	X	X
- learned members			X					X	X		X	X			
- increased competency of members		X		X		X	X				X		X		
- having competitive edge over other competitors		X	X	X		X	X	X	X		X		X	X	X
- greater awareness of social responsibility	X	X	X		X			X			X	X		X	X
- achievement of national objectives or aspirations		X	X		X			X	X		X	X			

The interview results of this study resembled many common elements of quality understanding, issues and emphasis of quality as described in the literature or in other studies elsewhere. Quality concept and understanding found in the teachings of quality

gurus such as 'fitness for use' and 'conformance to requirements' were in many occasions mentioned by the interviewees in this study. Many of those interviewed were also aware of the basic quality improvement generic, such as, TQC techniques (SPC, charts etc.) and quality system (ISO 9000). Thus, most members of the organizations in Malaysia were found to have good working knowledge about the trend and development of quality management.

However, there were some peculiar elements of quality that emerged from these interviews which can enhance our understanding of the improvements process in organizations. These elements, which include the followings: government (national) aspirations and interest, social responsibility, moral and religious values seemed to have a significant impact on the strategic orientation and emphasis of organizational improvement effort. The local-based and Malay-dominated organizations seemed to have a greater feeling of responsibility towards achieving the government (national) aspirations and interest (such as, to be actively involved in the process of correcting the imbalance of racial participation in economic activities).

Also, the findings from these interviews indicate an enthusiasm and belief among some Malay managers to link religious and moral values with improvement in members' attitude and long-term commitment towards quality. To them, shaping of quality culture begins with the nurturing of 'positive' values such as hard-working, honesty, responsibility, integrity, independence and creativity. Although the process of nurturing these values may take some considerable time, the long-term benefit that they bring to the organizational improvement process would be very significant. This is because members of organizations who are highly charged with 'positive' values should be expected to cause lesser attitudinal and motivational problems towards change and improvement programmes.

Finally, the results of the interviews also highlighted the notion of organizational effectiveness as referring to multiple concerns. These include concern for: business

performance (profit, turnover and growth), human development (spiritual, physical and moral), competency of members (skills and knowledge) and achievement of national objectives or aspirations. Different organization or members could possibly have a different concerns in determining organizational effectiveness or performance. For example, the GIOs in the study tend to give greater emphasis or put a higher priority towards the achievement of national objectives or aspirations. In these organizations, the progress made towards the achievement of these objectives would be seen as important criteria of evaluating their effectiveness.

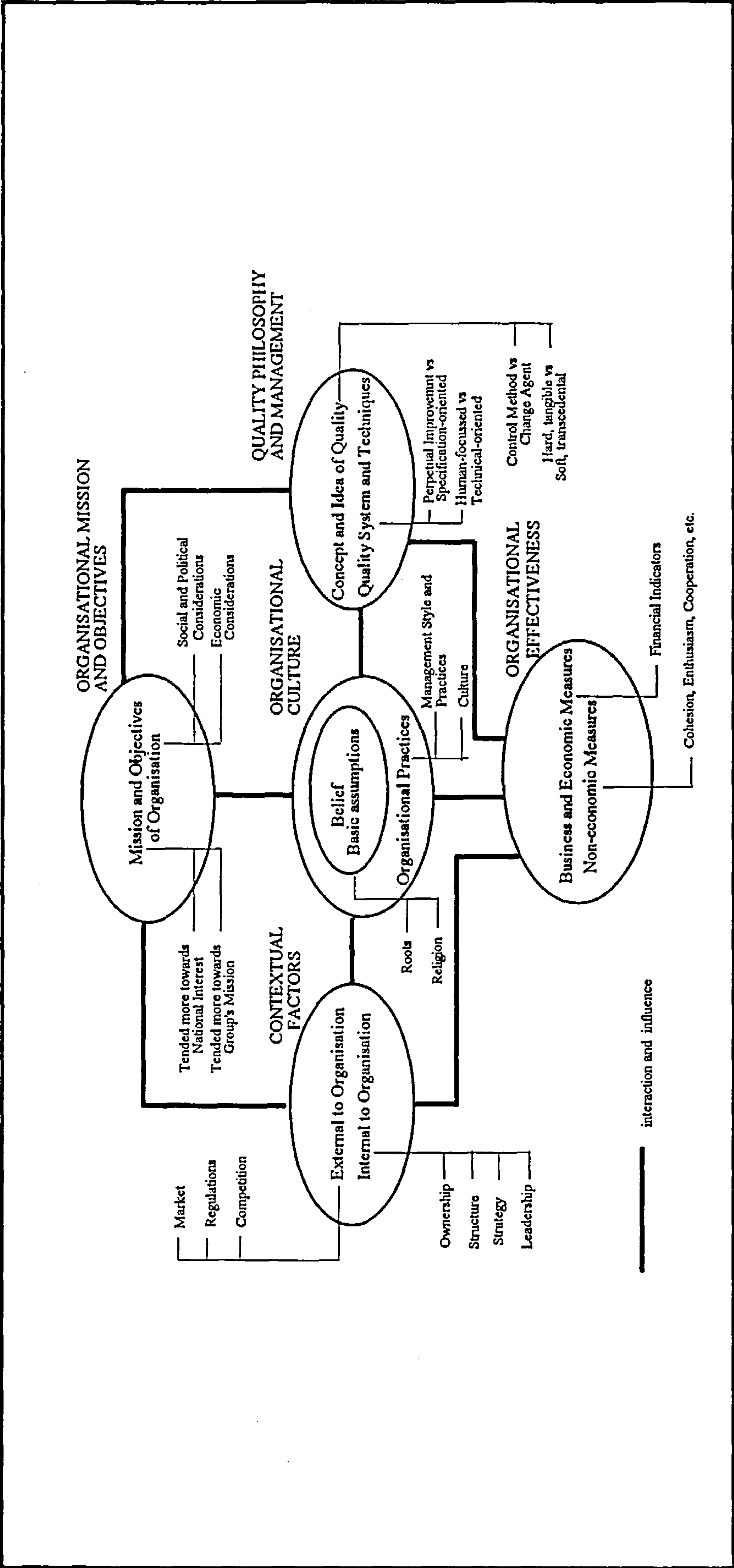
7.1.8 Adequacy of the Framework

The categories contained in the conceptual framework have proved to be a convenient way to expose issues relating to organizational effectiveness and quality management. They were grouped into the four categories suggested in the framework: (1) organizational mission and objectives, (2) context, (3) quality management philosophy and techniques, and (4) organizational values. The issues or elements that are related to quality, discussed in the previous sections, seem to fit into one of these categories.

Since the framework was claimed to be broad and all-encompassing, it was expected that the various issues or elements of quality that were exposed or found (see Figure 7.1) could fit into the framework's categories. In this respect, the framework can be considered to be useful and adequate 'tool' for relating and understanding issues of quality in this study.

The framework developed by the researcher also recognized the complex interactions between various elements affecting quality and organizational effectiveness. To represent these complex interactions between the elements, lines linking the categories were used in the schematic diagram of the framework. The lines are not intended to describe causal relationships, rather they represent continuous interactional processes and influence between elements of the various categories in the framework.

Figure 7.1: Quality Issues Related to the Framework's Categories



Perhaps, the complex interactions of quality elements in the framework can be better described through an analogy or a metaphor, a method to understand and to analyze organizational issues espoused by Morgan (1986). Thus, enlightened by the findings from this study, a "journey or expedition" metaphor is suggested here to aid in description of how various elements of quality in the framework interact and influence each other. The analogies to various elements related to quality management in the organization with that to a 'journey or expedition' are presented in Table 7.3.

Table 7.3: Organization as a "Journey" Metaphor for Analyzing Issues of Quality

Issues or Elements of Quality in Organizations	Analogies of the Associated Issues with a Journey or Expedition.
Mission of Organization - excellence, quality organization	Mission of Journey/Expedition - achievement-oriented, meaningful journey
Strategies	Routes and journey plans
Efficiency	Speed
Technology, quality tools	Vehicles, tools
Environment	Landscape, terrain
Regulations	Road signs (speed limit, stop sign, etc.)
Concept of organizational effectiveness	Concept of meaningful journey
Top leadership	Leader of the expedition
Organizational values	Group's values
Ownership	Sponsorship
Competitors	Other similar groups

To illustrate the complex interactions between the various elements mentioned in the table above, let us consider the concept of organizational effectiveness. This concept is as difficult to determine as that of the concept of a 'meaningful' journey. When a team or individual set out to undertake a 'meaningful' journey, it is usually considered in relation to a certain purpose or mission, to some of the benefits derived from it, and to the effects it might cause to the environment, etc., - various considerations or criteria would be used in the decision process to undertake such a journey. The considerations or criteria, in turn, depend much on the values adhered to and one's conception about the usefulness of the expedition and values or views about the world and human nature. However, over time,

values interact with surrounding elements (environment) and experience of a journey and thus, values are often changed or modified. This change in values will then produce a different understanding, revised priorities and a new emphasis in the handling of the issues or problems of a 'meaningful' journey. The interactions between environment, values and experience in order to achieve a 'meaningful' journey could be viewed in a similar manner when one tries to understand the process and context of quality and effectiveness in organizations. Thus, the concept of a 'meaningful journey' can be used as an analogy to elaborate the elusive understanding of 'organizational effectiveness' and its complex interactions with other organizational elements.

An expedition may be sponsored in various ways: public, government or private sponsorship. Sponsors can influence the conduct of the expedition, in terms of objectives, resources and expectations. This analogy of sponsorship would be similar to that of ownership of a business organization, i.e., it can take various forms: public-listed, government-owned or privately-owned companies. In a government-owned company, one would expect the organization to enjoy some privileges, such as, preferential treatment in obtaining licenses to conduct certain business activities.

Having set the expedition's mission or purpose, the speed or the movement in the journey depends on various factors, such as, the competency of the leader (management style and practices) and the group (cooperation, cohesiveness, culture), the type of tools and vehicle used, and the choice of routes and plans. The speed is also influenced by the road signs, which acted as controls for all expedition activities. In an organization, the concern for efficiency can be understood as the 'speed' analogy in a journey. Efficiency is a function of various internal factors (leadership, members' attitudes and skills, quality system, etc.) and external factors (regulations, restrictions, government incentives, etc.).

Due to the complex interactions of influence, between internal and external factors, between values and mission and objectives, between concepts of effectiveness and values,

etc., it was difficult and indeed improper to compare the performance of one organization with the other. The organizations do not operate in the same context, have the same resources, produce the same products, have the same purpose or mission, or possess the same values and concepts with regard to quality, excellence and performance.

The 'expedition' metaphor used here to describe various elements that influence organizational effectiveness and quality seemed to fit the notion of the organization as "an open system" . Here, there are complex interactional influences among and between the internal and external organizational elements.

7.2 SECOND STAGE ANALYSIS AND RESULTS

This section reports the analysis of data and results obtained from the questionnaire survey (Appendix 6). The purpose of this survey was to focus on some issues relating to practices of quality and members' values in the GIOs organizations. As it was reported earlier in Chapter 6, the responses for this survey came from 210 members in five of the six GIOs discussed in the previous section, namely, UTEL, UTEN, OPET, OSEDC and SLUTH. Table 7.4 presents the characteristics of the sample respondents.

GIOs are basically Malay-dominated organizations. Members of SLUTH were all Malays and in OSEDC the percentage of non-Bumiputeras was less than 15%. In the other three organizations, UTEL, UTEN and OPET the percentage of non-Malays ranged between 20-30%. As it was discussed in Chapter 3, the country has a history of unproportional participation in business and professional activities. The GIOs are part of the instrument or scheme that will allowed greater involvement of the Bumiputera or the Malays into the these activities. In some respects the GIOs provide training grounds for Bumiputeras to gain expertise and skills. Some of the members have left these organizations to venture into their own business or take up employment in the majority of organizations that are still under represented by the Bumiputeras.

Table 7.4: Characteristics of the Sample Respondents

gender	UTEL n = 13	UTEN n = 59	OPET n = 73	OSEDC n = 37	SLUTH n = 25	Total N = 207
male (%)	46.15	71.19	50.68	51.35	76.00	59.42
female (%)	53.85	28.81	49.32	48.65	24.00	40.58

age	UTEL n = 13	UTEN n = 59	OPET n = 73	OSEDC n = 38	SLUTH n = 25	Total N = 208
≤ 40 yrs (%)	76.92	59.32	82.19	97.37	76.00	77.40
41 - 55 yrs (%)	23.08	40.68	17.81	2.63	24.00	22.60

ethnic	UTEL n = 13	UTEN n = 58	OPET n = 69	OSEDC n = 38	SLUTH n = 25	Total N = 203
Malay (%)	84.62	86.21	92.75	94.74	100.00	91.63
Others (%)	7.69	13.79	7.25	5.26	-	8.37

qualification	UTEL n = 13	UTEN n = 59	OPET n = 73	OSEDC n = 38	SLUTH n = 25	Total N = 208
non-grads (%)	-	3.39	5.48	65.79	52.00	21.15
univ. grads (%)	100.00	96.61	94.52	34.21	48.00	78.85

Since the respondents were selected among the managers (5.67% in top management, 47.59% in middle management and 46% in lower management), the majority of them are university graduates. UTEL, UTEN and OPET are big organizations and as such the managerial positions in them were typically filled by graduates - these organizations would normally send their staff to further their studies and obtain a degree before being promoted to the managerial position. However, in OSEDC and SLUTH, some managers were non-graduates who had usually worked for a long time in the organization to be promoted to such positions.

The majority of the respondents have also spent considerable time with their respective organizations (Table 7.5), i.e. more than 80% of the respondents have been with their respective organization for more than 3 years. Almost 50% of them have been working with their respective organizations for more than 10 years and less than 20% of them are 'newcomers', i.e. they have worked with the organizations no more than 3 years.

Table 7.5: Respondents' Time with Their Respective Organization

time with the organization (to)	UTEL n = 13	UTEN n = 59	OPET n = 73	OSDC n = 38	SLUTH n = 25	Total N = 208
to ≤ 3 yrs	15.38	5.08	27.40	36.85	4.00	19.23
3 yrs < to ≤ 5 yrs	30.77	-	17.81	26.32	16.00	14.90
5 yrs < to ≤ 10 yrs	38.46	20.34	13.70	21.05	8.00	17.79
to > 10 yrs	15.38	74.58	41.10	10.53	72.00	48.08

In analyzing the data obtained in the questionnaire survey, some statistical techniques have been used. The parametric t-test, which compares the difference between two means has been used extensively in the analysis. However, when a difference is recorded as "significant" in this chapter or elsewhere in this thesis, it merely means that the issue at hand is probably worthy for discussion, and no sampling or predictive properties are implied. Thus, the importance of the statistics reported here or elsewhere are to provide the indication of a pattern and understanding that could support the argument or explanation of certain issues.

The following sections reports the results and findings from the data of questionnaire survey. Section 7.2.1 reports and discusses the orientation of values found in the respective organizations. Section 7.2.2 reports and discusses the quality practices of these organizations. In Section 7.2.3, factors related to organizational excellence and quality were extracted and for each factor a relative score was calculated. Section 7.2.4 discusses the relevance of values and practices to quality improvements.

7.2.1 Values Orientation in GIOs

The survey of values in this study used Rokeach's (1970) list of values. The researcher found that the set of values proposed by others, such as that in Liedtka's (1989) and Islamic values (listed by the Malaysian Prime Minister's Department for Inculcation of Islamic Values Programmes) were very similar to Rokeach's list of values. Therefore, Rokeach's list of values can be regarded as a stable set. Hence, the researcher decided to

use this established set which contained 18 terminal values and 18 instrumental values. This set of values could be usefully adopted for this study to help understand the orientation of values of the GIOs.

The value instrument used in this study is slightly modified from that of Rokeach's technique. Whereas, Rokeach forced the ranking of these values, this study adopted a 5-point scale (1 = least important, 5 = most important) for each value. This approach acknowledged that more than one value could, at times, be regarded as of equal importance to an individual. A pilot test performed on the Malaysian postgraduates student confirmed this possibility.

7.2.1.1 Orientation of Terminal Values

Terminal values are those which relate to one's belief and understanding of this life and its world. Hence, these values are connected to an individual's ontological and epistemological assumptions, i.e., his or her conception of reality and his or her understanding of human nature. In Schein's conception's of organizational culture, Rokeach's terminal values can be considered as the "basic assumptions" which are held by an individual.

This study, among other things, seeks to investigate and to understand the terminal values or the "basic assumptions" of the GIOs. Here, the calculated mean score of each value (i.e., the average score of members' response of each value) served as the basis of comparing and understanding the orientation of values in each of the GIOs. The result of factor analysis (Appendix 8) of the 18 terminal values produced four factors which can be interpreted as (1) values related to peace and security, (2) values related to human relationships, (3) values related to freedom of expression, and (4) values related to life achievement. A discussion of each of these values appears below, organized under the above four headings.

(a) **Values Related to Peace and Security:** The mean scores of each value related to peace and security of the respective organizations are presented in Table 7.6. Analysis for the variance in means pointed to four values that were significant: family security, happiness, national security and salvation.

**Table 7.6: Differences in Terminal Values Between Organizations
(Values Related to Peace and Security)**

Terminal Values	Mean (UTEL)	Mean (UTEN)	Mean (OPET)	Mean (OSEDG)	Mean (SLUTH)	p-Value
A world at peace (free of war and conflict)	4.6154	4.5574	4.5070	4.6842	4.7600	0.494
Family security (taking care of loved ones)	4.9231	4.7377	4.7500	4.9474	4.8800	0.025*
Happiness (contentedness)	4.5385	4.6230	4.7361	4.8684	4.8400	0.037*
Inner harmony (freedom from inner conflict)	4.7692	4.6230	4.6806	4.6842	4.7200	0.872
National security (protection from attack)	4.6923	4.4833	4.4085	4.7632	4.7200	0.033*
Salvation (saved eternal life)	4.9231	4.7049	4.6250	4.8947	4.8800	0.051**

* significant at $p \leq 0.05$ ** significant at $p \leq 0.10$

A further analysis (t-test for the difference between two means), with regard to the four values, produced the following results:

(i) family security: UTEL (4.9231) mean score was significantly different (at $p \leq 0.10$) to UTEN (4.7377) and OPET (4.7500), and OSEDG (4.9474) mean score was significantly different (at $p \leq 0.05$) to UTEN and OPET. UTEL and OSEDG appeared to accord greater importance for the value of family security as compared to UTEN and OPET. SLUTH (4.8800) mean score was not significantly different to all of them because its mean score is in the middle between UTEL/OSEDG and OPET/UTEN.

(ii) happiness: UTEL (4.5385) mean score was significantly different (at $p \leq 0.05$) to OSEDG (4.8684) and SLUTH (4.8400), and UTEN (4.6230) mean score was significantly different (at $p \leq 0.05$) to OSEDG and SLUTH. UTEL and UTEN appeared

to accord lesser importance for the value of happiness as compared to OSEDC and SLUTH. OPET (4.7361) mean score was not significantly different to all of them because its mean score is in the middle between UTEL/UTEN and SLUTH/SEDC.

(iii) national security: UTEN (4.4833) and OPET (4.4085) mean scores were significantly lower than those in UTEL (4.6923), SLUTH (4.7200) and OSEDC (4.7632). In this respect, UTEN and OPET seemed to accord lesser importance to value of national security as compared to (that in) UTEL, SLUTH and OSEDC.

(iv) salvation: OPET (4.6250) mean score was significantly lower (at $p \leq 0.05$) than those in UTEL (4.9231), OSEDC (4.7049) and SLUTH (4.8800). Salvation is a value that relates to religious conviction. SLUTH is an Islamic institution and OSEDC is a predominantly Malay organization. Whereas, OPET is an organization which has a significant presence of non-Bumiputera and it interacted more with outside elements (through training or consultation). In OPET, religious virtues were not explicitly expressed or used in training. A possible explanation for the difference between SLUTH/SEDC and OPET would probably be that in the former organizations religion would play a greater role in attaching the importance to the value of salvation. UTEN (4.7049), which has the second lowest mean score for this value, was also known to have a significant presence of non-Bumiputeras and also interacted with outside consultants. Thus, in OPET and UTEN prescriptions for management were likely to have more foreign flavor when compared with SLUTH and OSEDC.

The results above indicate that OPET and UTEN are very similar with respect to values of family security and national security, while SLUTH and OSEDC have similar feelings towards the value of happiness. While OPET, the organization can be distinguished from the other GIOs because it attached a lesser importance to the salvation value.

(b) Values Related to Human Relationships: The mean scores for each of the values related to human relationship are presented in Table 7.7. Analysis for the variance in means pointed to four values that were significant: mature love, self-respect, social recognition and true friendship. The value of wisdom seemed to be not significantly different among the organizations.

**Table 7.7: Differences in Terminal Values Between Organizations
(Values Related to Human Relationships)**

Terminal Values	Mean (UTEL)	Mean (UTEN)	Mean (OPET)	Mean (OSED)	Mean (SLUTH)	p-Value
Mature love (intimate relationships)	4.3077	4.3500	4.4444	4.7105	4.5600	0.044*
Self respect (self-esteem)	4.9231	4.5738	4.5972	4.8649	4.8400	0.004*
Social recognition (respect, admiration)	3.6923	3.3279	3.6944	4.1316	3.8400	0.000*
True friendship (close companionship)	4.5385	4.1803	4.2917	4.6316	4.6400	0.001*
Wisdom (a mature understanding of life)	4.6923	4.4426	4.3750	4.5526	4.5600	0.375

* significant at $p \leq 0.05$ ** significant at $p \leq 0.10$

A further analysis (t-test for the difference between two means), with regard to the four values, produced the following results:

(i) mature love: OSED (4.7105) mean score was found to be significantly different (at $p \leq 0.05$) when compared to UTEL (4.3077), UTEN (4.3500) and OPET (4.4444). OSED seemed to accord greater importance to intimate relationships or love. SLUTH's (4.5600) mean score is also larger than the three organizations (UTEL, UTEN and OPET) and it is not significantly different to (that of) OSED. Thus, SLUTH and OSED can be considered as organizations which accord greater importance to mature love value than UTEL, UTEN and OPET.

(ii) self respect: UTEL (4.9231), OSED (4.8649) and SLUTH (4.8400) mean scores were found to be significantly different (at $p \leq 0.05$) to UTEN (4.5738) and OPET

(4.5972). Thus, the former organizations (UTEL, OSEDC and SLUTH) seemed to assign greater importance to the value of self-respect than the latter organizations (OPET and UTEN).

(iii) social recognition: For this value, UTEN (3.3279) is in contrast to OSEDC (4.1316). Hence, amongst the five organizations UTEN seemed to place less importance on the value of social recognition while, OSEDC gave it the highest degree of importance. The other three organizations were in the middle positions: UTEL (3.6923), OPET (3.6944) and SLUTH (3.8400).

(iv) true friendship: For this value, UTEN (4.1803) contrasts with OSEDC (4.6316) and SLUTH (4.6400). Thus, UTEN can be said to place less importance on the true friendship value while, OSEDC and SLUTH give it a higher degree of importance. The other two organizations were in the middle positions: UTEL (4.5385) and OPET (4.2917).

With respect to values related to human relationship, UTEN and OPET seemed to be on the lower end of valuing their importance. Whereas, OSEDC and SLUTH's mean scores for the majority of these values were significantly greater than those of UTEN and OPET. Thus, it is reasonable to say that OSEDC and SLUTH attached greater importance to aspects of human relationship. The possible explanation to this could be that OSEDC and SLUTH are still greatly influenced by traditional Malay and Islamic culture that places attention to the maintenance of harmonious relationship between people. The history of Malays has been of tolerance, sharing and accommodation to various communities of people living beside them.

(c) Values Related to Freedom of Expression: The mean values for each GIO is presented in Table 7.8. Analysis for the variance in means pointed to two values that were significant: freedom and pleasure. The mean scores of the three other values (an exciting

life, a world of beauty and equality) do not seem to indicate that there is any difference between them, i.e., all the GIOs regard these values to the same degree of importance.

**Table 7.8: Differences in Terminal Values Between Organizations
(Values Related to Freedom of Expression)**

Terminal Values	Mean (UTEL)	Mean (UTEN)	Mean (OPET)	Mean (OSED)	Mean (SLUTH)	p-Value
An exciting life (a stimulating, active life)	4.0000	3.7167	3.8611	3.4737	3.8800	0.186
A world of beauty (beauty of nature and arts)	3.9231	3.7667	3.8056	4.0263	4.0800	0.370
Equality (brotherhood, equal opportunity for all)	4.1538	4.0500	4.0278	4.2632	4.2400	0.574
Freedom (free choice)	4.2308	4.0000	4.1268	4.4737	4.5600	0.005*
Pleasure (an enjoyable, leisurely life)	4.0000	3.5667	3.9722	4.3158	4.0800	0.001*

* significant at $p \leq 0.05$ ** significant at $p \leq 0.10$

A further analysis (t-test for the difference between two means), with regard to the two values, produced the following results:

- (i) freedom: UTEN (4.0000) and OPET (4.1268) mean scores were found to be significantly different to that of SLUTH (4.5600) and OSED (4.4737). Freedom is of greater importance in UTEN and SLUTH organizations.
- (ii) pleasure: UTEN (3.5667) mean scores was found to be significantly lower than all other GIOs mean scores: UTEL (4.0000), OPET (3.9722), OSED (4.3158) and SLUTH (4.0800). In this respect, UTEN placed least value on pleasure than the other GIOs.

Again, in this set of values, UTEN and OPET seemed to be in common at the lower end and SLUTH and OSED at the higher end of the scale. Both SLUTH and OSED organizations regard highly the values related to freedom of expression.

(d) Values Related to Life Achievement: The means of values for each GIO is presented in Table 7.9. Analysis for the variance in means pointed to the value of attaining a

comfortable life as significant. For the other values, a sense of accomplishment, there seemed to be no significant difference between the mean scores.

**Table 7.9: Differences in Terminal Values Between Organizations
(Values Related to Life Achievement)**

Terminal Values	Mean (UTEL)	Mean (UTEN)	Mean (OPET)	Mean (OSEDG)	Mean (SLUTH)	p-Value
A comfortable life (a prosperous life)	4.6923	4.2131	4.5278	4.6757	4.6400	0.001*
A sense of accomplishment (lasting contribution)	4.6923	4.4333	4.5000	4.3056	4.5600	0.255

* significant at $p \leq 0.05$ ** significant at $p \leq 0.10$

A further analysis (t-test for the difference between two means), with regard to the value of a comfortable life, pointed out that in UTEN this value is of lesser importance when compared to the other four organizations. The mean score of UTEN (4.2131) is significantly lower than the other GIOs.

7.2.1.2 Orientation of Instrumental Values

The instrumental values are more visible than terminal values. They can be seen in the expressions or practices of individuals. Hence, these values tend to be more directly linked to the task or job function when compared to the terminal values.

The result of factor analysis (Appendix 9) of the 18 instrumental values produced three factors which can be interpreted as (1) values related to emotional and physical expressions, (2) values related to manipulative and creative skills, and (3) values related to ethics or virtues. A discussion on each of these values appears below and is organized under these three headings.

(a) Values Related to Emotional and Physical Expressions: The mean scores for each value related to this aspect are presented in Table 7.10. Analysis for the variance in means pointed to five values that were significant: cheerful, clean, helpful, obedient and polite.

For the other two values, forgiving and loving, there seemed to be no significant difference between the mean scores.

**Table 7.10: Differences In Instrumental Values Between Organizations
(Values Related to Emotional and Physical Expressions)**

Instrumental Values	Mean (UTEL)	Mean (UTEN)	Mean (OPET)	Mean (OSED)	Mean (SLUTH)	p-Value
Cheerful (lighthearted, joyful)	4.0769	4.0000	3.9420	4.3514	4.2800	0.041*
Clean (neat, tidy)	4.2308	3.9333	3.8889	4.5000	4.5200	0.000*
Forgiving (willing to pardon others)	4.0000	4.0167	4.0563	4.1316	4.2800	0.652
Helpful (working for the welfare of others)	4.0769	4.0833	4.1111	4.3684	4.4800	0.056**
Loving (affection, tender)	3.9231	3.7833	3.7429	4.1351	4.0870	0.158
Obedient (dutiful, respectful)	3.6923	3.9000	3.9167	4.6579	4.4167	0.000*
Polite (courteous, well-mannered)	3.9231	4.0667	4.1389	4.6316	4.5417	0.000*

* significant at $p \leq 0.05$ ** significant at $p \leq 0.10$

A further analysis (t-test for the difference between two means), with regard to the five values revealed the following results:

(i) cheerful: OSED (4.3514) and SLUTH (4.2800) mean scores appeared to be significantly higher (at $p \leq 0.05$) than OPET (3.9420) and UTEN (4.0000). Thus, members in OSED and SLUTH regard the value of cheerful as of greater importance than the members in OPET and UTEN.

(ii) clean: With respect to this value, OSED (4.5000) and SLUTH (4.5200) mean scores also appeared to be significantly higher (at $p \leq 0.05$) than the scores for OPET (3.8889) and UTEN (3.9333). Hence, SLUTH and OSED seemed to place greater importance on this value than UTEN and OPET.

(iii) helpful: SLUTH (4.4800) and OSEDC (4.3684) mean scores were also generally higher (at $p \leq 0.10$) than UTEL (4.0769), UTEN (4.0833) and OPET (4.1111) with respect to this value. Again, this indicates that members in SLUTH and OSEDC rated this value relatively more highly than those in UTEL, UTEN and OPET.

(iv) obedient: Similarly, with respect to this value, OSEDC (4.6579) and SLUTH (4.4167) mean scores were significantly higher (at $p \leq 0.05$) than for UTEL (3.6923), UTEN (3.9000) and OPET (3.9167). Thus, the value of obedience was regarded to be more important by members in SLUTH and OSEDC when compared to those in UTEL, UTEN and OPET.

(v) polite: For this value, the same pattern was observed, i.e., SLUTH (4.5417) and OSEDC (4.6316) recorded higher mean scores (at $p \leq 0.05$) than UTEL (3.9231), UTEN (4.0667) and OPET (4.1389).

With respect to values related to emotional and physical expressions, it appears that SLUTH and OSEDC had a great deal in common - the members in these organizations placed a higher degree of importance on these categories of values than those in UTEL, UTEN and OPET. These values seemed to indicate a similar pattern as that of the values related to 'human relationship' mentioned earlier. Again, this could be a reflection of a greater influence of the Malay culture and Islamic traditions in OSEDC and SLUTH, since these organizations were almost exclusively comprised of Malay members.

(b) Values Related to Manipulative and Creative Skills: The mean scores for each value related to this aspect are presented in Table 7.11. Analysis for the variance in means pointed to two values that were significant: broadminded and imaginative. The mean scores of four other values in this category (capable, independent, intellectual and logical) were found to be not significantly different between these organizations.

**Table 7.11: Differences In Instrumental Values Between Organizations
(Values Related to Manipulative and Creative Skills)**

Instrumental Values	Mean (UTEL)	Mean (UTEN)	Mean (OPET)	Mean (OSEDG)	Mean (SLUTH)	p-Value
Broadminded (open-minded)	4.3846	4.3167	4.4028	4.6842	4.5200	0.081**
Capable (competent, effective)	4.3846	4.5333	4.5694	4.5278	4.7917	0.186
Imaginative (creative)	4.2308	3.9167	4.1143	4.2105	4.4800	0.012*
Independent (intimate relationships)	4.1667	4.2333	4.2778	4.2368	4.4400	0.779
Intellectual (intelligent, reflective)	4.4615	4.2667	4.3194	4.2432	4.5000	0.525
Logical (consistent, rational)	4.2308	4.0667	4.3056	4.0526	4.3333	0.229

* significant at $p \leq 0.05$

** significant at $p \leq 0.10$

A further analysis (t-test for the difference between two means), with regard to the two values revealed the following results:

(i) broadminded: The OSEDG (4.6842) mean score is higher (at $p \leq 0.05$) than OPET (4.4028) and UTEN (4.3167). What can be interpreted from this result is that OSEDG members tend to attach greater importance to this value than members in UTEN and OPET.

(ii) imaginative: For this value, the mean score for UTEN (3.9167) appeared to be significantly lower than the mean score for SLUTH (4.4800). Thus, members in UTEN regard this value to be of lesser importance than those in SLUTH. The other organizations (UTEL, OPET and OSEDG) mean scores are in between these two values.

The differences in mean scores between the organizations in this category of values (related to creative and manipulative skills) were mostly insignificant. Only two of the values (broadminded and imaginative) registered some differences between the mean

scores. Thus, with respect to this category of values, we can say that the members of these organizations more or less agreed on the level of their importance.

(c) Values Related to Ethics or Virtues: The mean scores for each value related to this aspect are presented in Table 7.12. Analysis for the variance in means revealed that for all the values (ambitious, courageous, honest, responsible and self-controlled) related to ethics or virtues, at least one organization's mean score which is significantly different from the other.

**Table 7.12: Differences In Instrumental Values Between Organizations
(Values Related to Ethics or Virtues)**

Instrumental Values	Mean (UTEL)	Mean (UTEN)	Mean (OPET)	Mean (OSEDG)	Mean (SLUTH)	p-Value
Ambitious (hardworking, aspiring)	4.3846	4.3559	4.1944	4.7632	4.6400	0.001*
Courageous (standing up for your beliefs)	4.2308	4.2000	4.1690	4.5789	4.2500	0.063**
Honest (sincere)	4.6154	4.6167	4.5694	4.7568	4.9200	0.087**
Responsible (dependable, reliable)	4.8462	4.6667	4.5694	4.8158	4.8400	0.100**
Self-controlled (restraint, self-disciplined)	4.2308	4.3500	4.2917	4.6216	4.6400	0.044*

* significant at $p \leq 0.05$ ** significant at $p \leq 0.10$

A further analysis (t-test for the difference between two means), with regard to the five values revealed the following results:

(i) ambitious: SLUTH (4.6400) and OSEDG (4.7732) mean scores were found to be significantly higher (at $p \leq 0.05$) than UTEN (4.3846) and OPET (4.1944). Thus, members in SLUTH and OSEDG regarded this value to be of greater importance than those in UTEN and OPET.

(ii) courageous: OSEDC (4.5789) mean score seemed to be significantly higher than the rest of the organizations. Hence, members in OSEDC regarded this value to be of greater importance than that in the other four organizations.

(iii) honest: SLUTH (4.9200) mean score was the highest when compared to the other four organizations. SLUTH is a religiously-inclined organization and their members could be presumed to link the importance of this value as among the essential virtues. Thus, the importance of this value is not only relevant in the context of job/task requirement or accomplishment but it is also a characteristic of a religious person.

(iv) responsible: OSEDC (4.8158), SLUTH (4.8400) and UTEL (4.8462) mean scores seemed to be higher than OPET (4.5667). Thus, the members of the former three organizations rated this value to a higher degree of importance than those in OPET.

(v) self-controlled: OSEDC (4.6216) and SLUTH (4.6400) mean scores appeared to be higher (at $p \leq 0.05$) than UTEL (4.2308), UTEN (4.3500) and OPET (4.2917). Thus, members in OSEDC and SLUTH tend to regard this value to be of greater importance than those in UTEL, UTEN and OPET.

With respect to this category of values, SLUTH and OSEDC again seemed to have much in common, i.e., they registered higher mean scores than the other three organizations. Ethics or virtues are much related to religion. Hence, the relevance and significance of the values related to ethics or virtues could be linked to the strictures of religion. In SLUTH and OSEDC, religious codes and ethics were found to be deliberately encouraged or used to motivate their members.

7.2.2 Quality Practices in GIOs

The extent of quality practices in the five GIOs and problems associated with implementing a quality initiative were extracted from responses in Section 3 and Section 6 respectively. The results for the extent of usage of certain quality practices is reported in Section 7.2.2.1. The following section, Section 7.2.2.2 reports the extent of problems encountered in implementing quality initiatives in these organizations.

7.2.2.1 The Extent of Usage of Certain Quality Practices

The quality practices listed in Section 3 of the questionnaire were derived from the literature and from the insights gained in the Phase 1 fieldwork. The list of eighteen practices were considered to cover sufficiently the major and common elements of quality practices in organizations.

(a) Preventive Maintenance: Preventive maintenance is one of the important aspects of achieving and sustaining quality. The extent of the practices associated with this can be seen from the organization's housekeeping practices, scheduled or planned maintenance or the Japanese maintenance and organizing system of 5's. The results of the survey indicate that there was a fairly widespread use of these practices (Table 7.13a, Table 7.13b and Table 7.13c). Almost 80% (i.e., 78.50%) of the total respondents indicate that routine housekeeping was either regularly or occasionally practised. Scheduled preventive maintenance recorded a slightly lower degree of usage, i.e., around 68% of the total respondents indicated that it was either regularly or occasionally used.

Table 7.13a: Routine Housekeeping

The extent of usage/ practice	UTEL n = 13	UTEN n = 56	OPET n = 71	OSEDC n = 36	SLUTH n = 25	Total N = 200
% not used	-	3.57	2.82	-	-	2.00
% rarely used	23.08	16.07	23.94	25.00	4.17	19.50
% occasionally used	38.46	51.79	40.85	38.89	54.17	45.00
% regularly used	38.46	28.57	32.39	36.11	41.67	33.50

Table 7.13b: Scheduled Preventive Maintenance

The extent of usage/ practice	UTEL n = 13	UTEN n = 56	OPET n = 68	OSEDC n = 37	SLUTH n = 23	Total N = 197
% not used	-	17.86	22.06	-	4.35	13.20
% rarely used	30.77	12.50	22.06	21.62	13.04	18.78
% occasionally used	53.85	39.29	35.29	48.65	39.13	40.61
% regularly used	15.38	30.36	20.59	29.73	43.48	27.41

Table 7.13c: The 5's (Seiri, Seiton, Seiso, Seiketsu, Shitsuke)

The extent of usage/ practice	UTEL n = 10	UTEN n = 53	OPET n = 63	OSEDC n = 38	SLUTH n = 22	Total N = 186
% not used	40.00	15.09	52.38	2.63	54.55	30.11
% rarely used	40.00	26.42	20.63	13.16	27.27	22.58
% occasionally used	20.00	45.28	19.05	34.21	13.64	29.03
% regularly used	-	13.21	7.94	50.00	4.55	17.20

However, almost one third (30.11%) of the total respondents indicate that the Japanese system of 5's was not used. Only the members in OSEDC seemed to be aware of and appreciated the used of this system - the members in the other four organizations indicate less than 15% of its regular usage. The possible explanation for this could be that this system of organizing and maintaining is new and it has not yet been introduced fully to the members of the organization. It will probably take some time for the organizations to introduce the new quality prescriptions and techniques to the members.

(b) Quality Audits: Quality audits were also found to be fairly commonly used (Table 7.14). Around 60% of the total respondents in the survey indicate that audits were either regularly or occasionally practiced.

Table 7.14: Quality Audits

The extent of usage/ practice	UTEL n = 13	UTEN n = 56	OPET n = 67	OSEDC n = 38	SLUTH n = 24	Total N = 198
% not used	15.38	14.29	8.96	5.26	12.50	10.61
% rarely used	30.77	25.00	32.84	15.79	37.50	27.78
% occasionally used	38.46	44.64	38.81	47.37	37.50	41.92
% regularly used	15.38	16.07	19.40	31.58	12.50	19.70

(c) **Training:** Successful implementation of a quality initiative usually requires the training of members. The survey indicated that formal training programmes were highly practised, i.e., more than 80% of the total respondents (Table 7.15a) reported its regular or occasional usage (in the organizations). However, for the quality orientation training programme, the survey indicated a slightly lower usage, i.e., around 65% of the respondents reported that it has been either regularly or occasionally used.

Table 7.15a: Formal Training Programme

The extent of usage/ practice	UTEL n = 13	UTEN n = 58	OPET n = 71	OSEDC n = 37	SLUTH n = 24	Total N = 203
% not used	7.69	3.45	5.63	-	4.17	3.94
% rarely used	-	10.34	21.13	8.11	20.83	14.29
% occasionally used	61.54	48.28	22.54	16.22	29.17	32.02
% regularly used	30.77	37.93	50.70	75.68	45.83	49.75

Table 7.15b: Quality Orientation Training Programme

The extent of usage/ practice	UTEL n = 13	UTEN n = 58	OPET n = 70	OSEDC n = 38	SLUTH n = 23	Total N = 202
% not used	23.08	6.90	14.29	-	13.04	9.90
% rarely used	15.38	20.69	35.71	18.42	26.09	25.74
% occasionally used	53.85	43.10	31.43	34.21	43.48	38.12
% regularly used	7.69	29.31	18.57	47.37	17.39	26.24

(d) **Process and Workflow Studies:** Process and workflow studies were indicated by the survey as being quite widely practised, i.e., 71% of the respondents reported that they are either regularly or occasionally used (Table 7.16). Process and workflow studies have been around for sometime and it is most likely that they have been used in these organizations long before the emergence of the total quality concept.

Table 7.16: Process and Workflow Studies

The extent of usage/ practice	UTEL n = 11	UTEN n = 58	OPET n = 68	OSEDC n = 38	SLUTH n = 25	Total N = 200
% not used	-	3.45	4.41	5.26	-	3.50
% rarely used	27.27	36.21	25.00	15.79	16.00	25.50
% occasionally used	45.45	50.00	47.06	44.74	44.00	47.00
% regularly used	27.27	10.34	23.53	34.21	40.00	24.00

(e) Supplier Evaluations: The concept of total quality management embraces the relationship of the organization with its suppliers. Slightly more than 50% of the respondents in the survey indicated that supplier quality evaluations were either regularly or occasionally used. More than 65% of respondents in SLUTH and OSEDC reported that their organizations practised supplier quality evaluations.

Table 7.17: Supplier Quality Evaluations

The extent of usage/ practice	UTEL n = 11	UTEN n = 57	OPET n = 64	OSEDC n = 38	SLUTH n = 22	Total N = 192
% not used	45.45	14.03	29.69	2.63	9.09	18.23
% rarely used	36.36	26.32	31.25	31.58	18.18	28.65
% occasionally used	18.18	29.82	25.00	36.84	40.91	30.21
% regularly used	-	29.82	14.06	28.95	31.82	22.92

(f) Quality Campaign: A continuous quality campaign has been one element used when implementing a quality initiative. The campaign is held to sustain interest and create awareness of quality. Often organizations use posters and slogans in their quality campaigns. In this survey, more than 60% of the respondents reported that quality posters and slogans have been either regularly or occasionally used in the organization. In OSEDC, quality posters and slogans seemed to be extensively used, i.e., more than 75% have reported that they have been either regularly or occasionally used.

Table 7.18: Quality Posters and Slogans

The extent of usage/ practice	UTEL n = 13	UTEN n = 59	OPET n = 71	OSEDC n = 38	SLUTH n = 24	Total N = 205
% not used	7.69	6.78	11.27	7.89	12.50	9.27
% rarely used	46.15	32.20	29.58	15.79	29.17	28.78
% occasionally used	30.77	44.07	40.85	28.95	33.33	38.05
% regularly used	15.38	16.95	18.31	47.37	25.00	23.90

(g) Charts and Statistics: With the advent of the quality movement, the organizations which adopt the TQM philosophy and method usually use control charts and statistical techniques in evaluating and comparing past quality performance. However, in the

surveyed GIOs, it was found that the extent of using charts (Table 7.19a) and statistical techniques (Table 7.19b) was quite low. Around 60% of the respondents indicated that charts have been either rarely used or were not used at all. In the case of statistical techniques, almost 50% of the respondents indicated that they have been either rarely used or were not used at all.

Table 7.19a: Control Charts (The Seven Tools)

The extent of usage/ practice	UTEL n = 12	UTEN n = 55	OPET n = 69	OSEDC n = 38	SLUTH n = 23	Total N = 197
% not used	41.67	18.18	40.58	15.79	26.09	27.92
% rarely used	41.67	32.73	28.99	23.68	39.13	30.96
% occasionally used	8.33	43.64	20.29	42.11	26.09	30.96
% regularly used	8.33	5.45	10.14	18.42	8.70	10.15

Table 7.19b: Statistical Techniques and Analysis

The extent of usage/ practice	UTEL n = 12	UTEN n = 56	OPET n = 69	OSEDC n = 38	SLUTH n = 23	Total N = 198
% not used	41.67	25.00	27.54	5.26	13.04	20.71
% rarely used	41.67	17.86	30.43	26.32	43.48	28.28
% occasionally used	-	44.64	27.54	42.11	34.78	34.34
% regularly used	16.67	12.50	14.49	26.32	8.70	15.66

(h) Quality Circles: Quality circles were introduced in Malaysia quite some time ago - the enthusiasm for quality circles was at its peak in the mid-80s. They coincided with the Look East Policy of the government. Most organizations, especially in the GIOs, formed quality circles in order to encourage participation of lower level workers in problems solving. Quality circles in organizations are also used in particular projects which will be chosen for entry into the competitions of the national Quality Circles Convention (QCC).

With the advent of the total quality movement, however, the old forms of quality circles (normally the team members comprised the employees of at the lower rank only and came from the same division/department) were less favoured. The new forms of circles such as quality improvement teams (QIT), which comprise a cross section of members of the organization were thought to be more effective and provide a wider perspective to

problem solving. QITs usually handled projects that were related to the common interest of all functions within the organization and they obtained involvement from the top and middle management.

Table 7.20: Quality Circles or Similar Programmes

The extent of usage/ practice	UTEL n = 13	UTEN n = 58	OPET n = 69	OSEDC n = 37	SLUTH n = 25	Total N = 202
% not used	23.08	10.34	28.99	5.41	8.00	15.84
% rarely used	30.77	17.24	26.09	21.62	16.00	21.78
% occasionally used	38.46	46.55	28.99	40.54	44.00	38.61
% regularly used	7.69	25.86	15.94	32.43	32.00	23.27

The results of the survey regarding the extent of practice of quality circles or similar programmes (Table 7.20) showed that more than a third of the respondents indicated the organization had not used or rarely used them. The extent of use of quality circles in UTEN and OSEDC seemed to be more than the other three organizations. In OSEDC and UTEN, around 72% of the respondents indicated that quality circles have been either occasionally or regularly used.

(i) Feedback: Suggestion schemes, which normally incorporated the used of suggestion boxes, were among the first things introduced when implementing TQM. The purpose of this scheme is to foster a caring attitude and participation among the employees in providing feedback and suggestion for improvements. However, the results of the survey (Table 7.21) indicated that some organizations, such as UTEL and UTEN were still not using the suggestion scheme widely. More than 60% of the respondents in these organizations indicated that the suggestion scheme was either not used or rarely used.

Table 7.21: Suggestion Scheme

The extent of usage/ practice	UTEL n = 12	UTEN n = 57	OPET n = 72	OSEDC n = 38	SLUTH n = 24	Total N = 203
% not used	33.33	31.58	5.56	7.89	4.17	14.78
% rarely used	33.33	33.33	19.44	7.89	16.67	21.67
% occasionally used	33.33	29.82	26.39	28.95	25.00	28.08
% regularly used	-	5.26	48.61	55.26	54.17	35.47

(j) Inspections: Inspections are a part of quality control mechanisms that have long been in practice, especially in the production environment. There are three types of inspections: (1) input inspections, which deal with incoming materials and source, (2) work-in-process inspections, which deal with the production process of products, and (3) finished products inspections, which deal with the quality of output.

The results of this survey (Table 7.22a, 7.22b and 7.22c) indicate that the extent of inspections being practiced in OSEDC was quite rigorous when compared to the other four organizations, i.e., around 80% of OSEDC respondents indicated that inspections were either occasionally or regularly used.

Table 7.22a: Input Inspections

The extent of usage/ practice	UTEL n = 12	UTEN n = 56	OPET n = 68	OSEDC n = 37	SLUTH n = 23	Total N = 196
% not used	8.33	23.21	39.70	10.81	-	22.96
% rarely used	33.33	30.36	30.88	8.11	39.13	27.55
% occasionally used	25.00	30.36	17.65	64.86	39.13	33.16
% regularly used	33.33	16.07	11.76	16.22	21.74	16.33

Table 7.22b: Work-in-process Inspections

The extent of usage/ practice	UTEL n = 13	UTEN n = 57	OPET n = 68	OSEDC n = 38	SLUTH n = 24	Total N = 200
% not used	15.38	19.30	27.94	5.26	4.17	17.50
% rarely used	15.38	21.05	23.53	13.16	16.67	19.50
% occasionally used	38.46	38.60	26.47	47.37	50.00	37.50
% regularly used	30.77	21.05	22.06	34.21	29.17	25.50

Table 7.22c: Finished Products Inspections

The extent of usage/ practice	UTEL n = 13	UTEN n = 54	OPET n = 68	OSEDC n = 37	SLUTH n = 24	Total N = 196
% not used	15.38	20.37	29.41	16.22	12.50	21.43
% rarely used	15.38	16.67	13.24	5.41	16.67	13.27
% occasionally used	23.08	27.78	20.59	43.24	45.83	30.10
% regularly used	46.15	35.19	36.76	35.14	25.00	35.20

(k) Quality Recognition: In conjunction with the increased awareness of quality contributions to the organization, quality activities and achievements were reinforced and recognized formally. The recognition of quality was done by designating some working days as 'quality days' and also by presenting awards for quality achievements of individuals and groups in the organization. In the survey, OSEDC, SLUTH and UTEN all practised quality days and the presentation of quality awards to a high degree (Table 7.23a and 7.23b). Respectively, around 75%, 85% and 75% of the respondents in OSEDC, SLUTH and UTEN indicated that quality days have been either regularly or occasionally practiced. While, around 85%, 80% and 70% of the respondents in OSEDC, SLUTH and UTEN respectively, indicated that the presentation of quality awards have been either regularly or occasionally used.

Table 7.23a: Quality Days

The extent of usage/ practice	UTEL n = 13	UTEN n = 58	OPET n = 70	OSEDC n = 38	SLUTH n = 25	Total N = 204
% not used	61.54	15.52	41.43	7.89	8.00	25.00
% rarely used	23.08	8.62	17.14	18.42	8.00	14.22
% occasionally used	15.38	37.93	25.71	26.32	32.00	29.41
% regularly used	-	37.93	15.71	47.37	52.00	31.37

Table 7.23b: Quality Awards

The extent of usage/ practice	UTEL n = 13	UTEN n = 58	OPET n = 71	OSEDC n = 38	SLUTH n = 25	Total N = 205
% not used	30.77	20.69	32.40	7.89	8.00	21.47
% rarely used	30.77	12.07	21.13	7.89	12.00	15.61
% occasionally used	23.08	36.21	22.54	28.95	36.00	29.27
% regularly used	15.38	31.03	23.94	55.26	44.00	33.66

The extent of usage/practice of each of the quality techniques or tools discussed above are summarized in Table 7.24. Here, the percentage of respondents indicating that a particular technique has been either 'occasionally used' or 'regularly used' was totalled. This total percentage can be used to estimate roughly the degree of usage/practice of a certain technique or tool - a high percentage score on a particular technique would mean that the

organization was adopting it to a high degree and a low score would mean that a particular technique was in less frequent use in the organization, i.e., it has been either not used at all or rarely used.

Table 7.24: Extent of Usage/Practices of Quality Techniques in Organizations (Percentage of Occasionally and Regularly Used)

Organizational Practices	UTEL	UTEN	OPET	OSEDC	SLUTH
routine housekeeping	76.92	80.36	73.24	75.00	95.84
scheduled preventive maintenance	69.23	69.65	55.88	78.38	68.02
quality audits	53.84	60.71	58.21	78.95	50.00
employee quality orientation programme	60.54	72.41	50.00	81.58	60.87
process and workflow studies	72.72	60.34	70.59	78.95	84.00
supplier quality evaluations	18.18	59.64	39.06	65.79	72.73
formal worker training programme	92.31	86.21	73.24	91.90	75.00
quality posters and slogans	46.15	61.02	59.16	76.22	58.33
the 5's (seiri, seiton, seiso, seiketsu, shitsuke)	20.00	58.49	26.99	84.21	18.19
control charts (the seven tools: pareto chart, scatter diagram, etc.)	16.67	49.09	30.43	60.53	34.79
statistical techniques and analysis (sampling, multivariate analysis, etc.)	16.67	57.14	42.03	68.43	43.48
quality circles (QCC) or similar programmes	46.15	72.41	44.93	72.97	76.00
suggestion scheme (suggestion box)	33.33	35.08	75.00	84.21	79.17
input inspections	58.33	46.43	29.41	81.08	60.87
work-in-process inspections	69.23	59.65	48.53	81.58	79.17
finished products inspections	69.23	62.97	57.35	78.38	70.83
Quality Day	15.38	75.96	41.42	73.69	84.00
quality awards	38.46	67.24	46.48	84.21	80.00

From Table 7.24, it can be seen that OSEDC has the overall higher percentage in all the techniques being surveyed in this study. This organization was one of the winners of the Prime Minister's Quality Award. Thus, the evaluation of quality practice, as represented by higher overall percentage scores in each of the techniques, has confirmed OSEDC status as a quality organization.

7.2.2.2 Problems Encountered in Implementing Quality Initiatives

This study examined some problems associated with implementing quality initiatives in the respective GIOs. The range of problems surveyed includes those that are related to (1) commitment of top management, (2) attitude of employees, (3) commitment of employees, (4) participation from employees, (5) skills of employees, (6) cost of improvements, and (7) suppliers.

(a) Commitment of Top Management: In SLUTH and UTEL, more than 50% of the organization's respective respondents indicated that the management were lacking in commitment and support for the implementation of quality initiatives (Table 7.25). On the other hand, OSEDC seemed to enjoy the support and commitment of its top management, - less than 20% of its respondents felt that there was much of a problem with top management commitment and support.

Table 7.25: Lack of Top Management Commitment and Support

The extent of the problem encountered	UTEL n = 13	UTEN n = 59	OPET n = 71	OSDC n = 36	SLUTH n = 25	Total N = 204
% none	7.69	11.86	12.68	16.67	4.00	11.76
% some	38.46	59.32	59.15	63.89	44.00	56.86
% much	46.15	22.03	23.94	19.44	36.00	25.49
% very much	7.69	6.78	4.23	-	16.00	5.88

(b) Attitude of Employees Towards Change: UTEL seemed to suggest that its employees' attitude towards change were causing many serious problems in the implementation of quality initiatives in the organization. More than 90% of its respondents (Table 7.26) indicated that the employees' attitude towards change seemed to be a barrier towards quality initiatives.

In contrast, only 20% of the respondents in OSEDC indicated that there was much of a problem with its members' attitude towards change.

Table 7.26: Negative Attitude Towards Change among Members

The extent of the problem encountered	UTEL n = 13	UTEN n = 59	OPET n = 72	OSEDC n = 35	SLUTH n = 24	Total N = 203
% none	-	5.08	2.78	14.29	8.33	5.91
% some	7.69	61.02	65.28	65.71	58.33	59.61
% much	76.92	23.73	25.00	17.14	29.17	27.09
% very much	15.38	10.17	6.94	2.86	4.17	7.39

(c) Commitment of Employees: The extent of this problem is very similar to the attitude problem of employees. More than 75% of the respondents (Table 7.27) in UTEL indicated that there were a lot of problems with employees' commitment. Whereas in OSEDC, only around 17% of its respondents felt that the members of the organization were lacking in commitment towards implementing quality initiatives.

Table 7.27: Lack of Employees' Commitment

The extent of the problem encountered	UTEL n = 13	UTEN n = 59	OPET n = 72	OSEDC n = 36	SLUTH n = 25	Total N = 205
% none	-	3.39	1.39	13.89	16.00	5.85
% some	23.08	59.32	61.11	69.44	52.00	58.54
% much	61.54	35.59	30.56	16.67	32.00	31.71
% very much	15.38	1.69	6.94	-	-	3.90

(d) Participation from Employees: The extent of participation from employees in quality activities seemed to be related to employees' commitment and attitude towards change. The pattern of responses (Table 7.28) indicated that lack of employees' participation follows similarly to the responses concerning the issues of commitment and attitude discussed earlier.

UTEL and OSEDC indicated, respectively, high and low percentage scores regarding the extent of problems associated with a lack of employee participation in implementing quality initiatives in their respective organizations. More than 75% of the respondents in

UTEL and only around 20% in OSEDC indicated there was much of a problem with the participation of its respective members.

Table 7.28: Lack of Employee Participation

The extent of the problem encountered	UTEL n = 13	UTEN n = 59	OPET n = 72	OSEDC n = 36	SLUTH n = 25	Total N = 205
% none	7.69	6.78	2.78	13.89	12.00	7.32
% some	15.38	52.54	59.72	63.89	68.00	56.59
% much	69.23	38.98	30.56	19.44	20.00	32.20
% very much	7.69	1.69	6.94	2.78	-	3.90

(e) **Skills of Employees:** The pattern of responses from the five organizations seemed to be very similar. Around 60% of the respondents (Table 7.29) of each organization felt that there were some problems due to a lack of employee skills in implementing quality initiatives. Around 25% felt that there were many problems with employee skills. This pattern probably indicates the general trend facing the GIOs regarding the issue. Thus, organizations are expected to provide further training to some employees when implementing quality initiatives.

Table 7.29: Lack of Employees Skills

The extent of the problem encountered	UTEL n = 13	UTEN n = 59	OPET n = 72	OSEDC n = 35	SLUTH n = 25	Total N = 204
% none	-	10.17	6.94	8.57	8.00	7.84
% some	53.85	62.71	65.28	62.86	56.00	62.25
% much	30.77	25.42	25.00	28.57	28.00	26.47
% very much	15.38	1.69	2.78	-	8.00	3.43

(f) **Cost of Improvements:** OPET and OSEDC seemed to suggest that they encountered few problems associated with high costs of quality improvements. Less than 20% of their respective respondents (Table 7.30) indicated that their organizations were having much problem with the high cost of quality improvements. However, OPET may not be fairly compared with OSEDC because it is a rich organization and helped to salvage the losses in one of the main banks in the country. OPET's main source of income relies on the nation's treasure, petroleum.

Table 7.30: High Cost of Quality Improvements

The extent of the problem encountered	UTEL n = 13	UTEN n = 59	OPET n = 70	OSEDC n = 35	SLUTH n = 25	Total N = 202
% none	23.08	5.08	11.43	8.57	20.00	10.89
% some	15.38	52.54	77.14	74.29	56.00	62.87
% much	38.46	40.68	10.00	17.14	16.00	22.77
% very much	23.08	1.69	1.43	-	8.00	3.47

(g) Suppliers: UTEL and UTEN appeared to have more problems with their suppliers when compared to the other three organizations. More than 35% of the respondents (Table 7.31) in UTEL and UTEN felt that their organizations encountered many problems with suppliers. On the other hand, OSEDC and SLUTH seemed to have few problems with their suppliers. Only around 10% of the respondents of OSEDC and SLUTH indicated that their organizations encountered many problems with suppliers.

Table 7.31: Suppliers Are Unreliable

The extent of the problem encountered	UTEL n = 12	UTEN n = 58	OPET n = 67	OSEDC n = 35	SLUTH n = 25	Total N = 197
% none	8.33	3.45	16.82	22.86	24.00	14.21
% some	50.00	60.34	71.64	68.57	68.00	65.99
% much	41.67	25.86	11.94	8.57	8.00	16.75
% very much	-	10.34	-	-	-	3.05

From the results presented above, OSEDC seemed to encounter least problems when compared with the other four organizations. In all seven aspects mentioned above, there was a lower percentage of respondents in OSEDC that indicated their organization was encountering many problems with them.

The findings of this analysis correspond to the previous conclusion that regarded OSEDC as the more quality organization of the group. Thus, OSEDC which practised quality techniques to a greater extent than the other organizations was also found to encounter fewer problems in implementing quality initiatives.

7.2.3 Factors Related to Quality and Excellence

This study also tried to identify factors that could be associated with the quality and excellence of the organizations. The result of a factor analysis (Appendix 10) of the responses to item statements in Section 4 of the survey questionnaire produced eight factors which were interpreted as follows: (1) treatment towards employees, (2) employees competency, (3) creativity and adaptability, (4) customer-orientation, (5) technological capability, (6) organizational image, (7) 'quality' practices, and (8) guiding philosophy.

With respect to the identified factors of quality and excellence above, the relative measure of 'performance' of each GIO could be derived from data responses to statements in Section 4 and Section 5 of the questionnaire. Statements in Section 4 indicate the perceived 'expectations' level of quality elements for excellence in organizations (E) while, statements in Section 5 indicate the corresponding 'actual' level of quality elements (A) in the respondents respective organization. A mean for the difference between the 'expected' and the 'actual' ($E - A$) of all the responses in the organization is calculated and it is assumed to be an indicative and relative measure of quality 'performance' of the organization. Here, for simplicity, the mean ($E - A$) of each of the quality elements is termed as the average gap. The calculated average gaps for the quality elements of each factor are presented in Appendix 11.

Using the average gap to compare the relative quality 'performance' of the organization, with respect to each of the identified quality factors above, the results can be visualized from the following graphic presentations (Figures 7.2a, 7.2b, 7.2c, 7.2d, 7.2e, 7.2f, 7.2g, and 7.2h). In these graphs, a high average gap score would indicate that the organization was performing poorly in the respective measure of quality factor, i.e., the respondents felt that the difference between what was perceived as quality and the 'actual' were large. A low average gap score would mean the opposite, i.e., the organization was performing

we... in the respective measure of quality factor. From the graphic illustrations, it is obvious that OSEDC average gap scores are the lowest in all of the factors. On the other hand, UTEL seemed to show higher average gap scores in most of these factors than others. Generally, with the exception of UTEL, the respondents of the remaining GIOs in this study felt that their respective organizations have a good image - this is reflected in low average gap scores of the respective organization for this factor.

With the exception of OSEDC, the other GIOs average gap scores were relatively high for many factors, especially those related to treatment towards employees, employees' competency, adaptability and creativity, and customer-oriented issues. In SLUTH, the average gap scores seemed to be high for factors related to treatment towards employees, adaptability and creativity, and guiding philosophy issues. On the other hand, with the exception of UTEN, all the other GIOs seemed to record low average gap scores for the factor related to technological capability - this could be an indication that technology related issues were not major obstacles towards improvements in the GIOs.

Figure 7.2a: Treatment Towards Employees

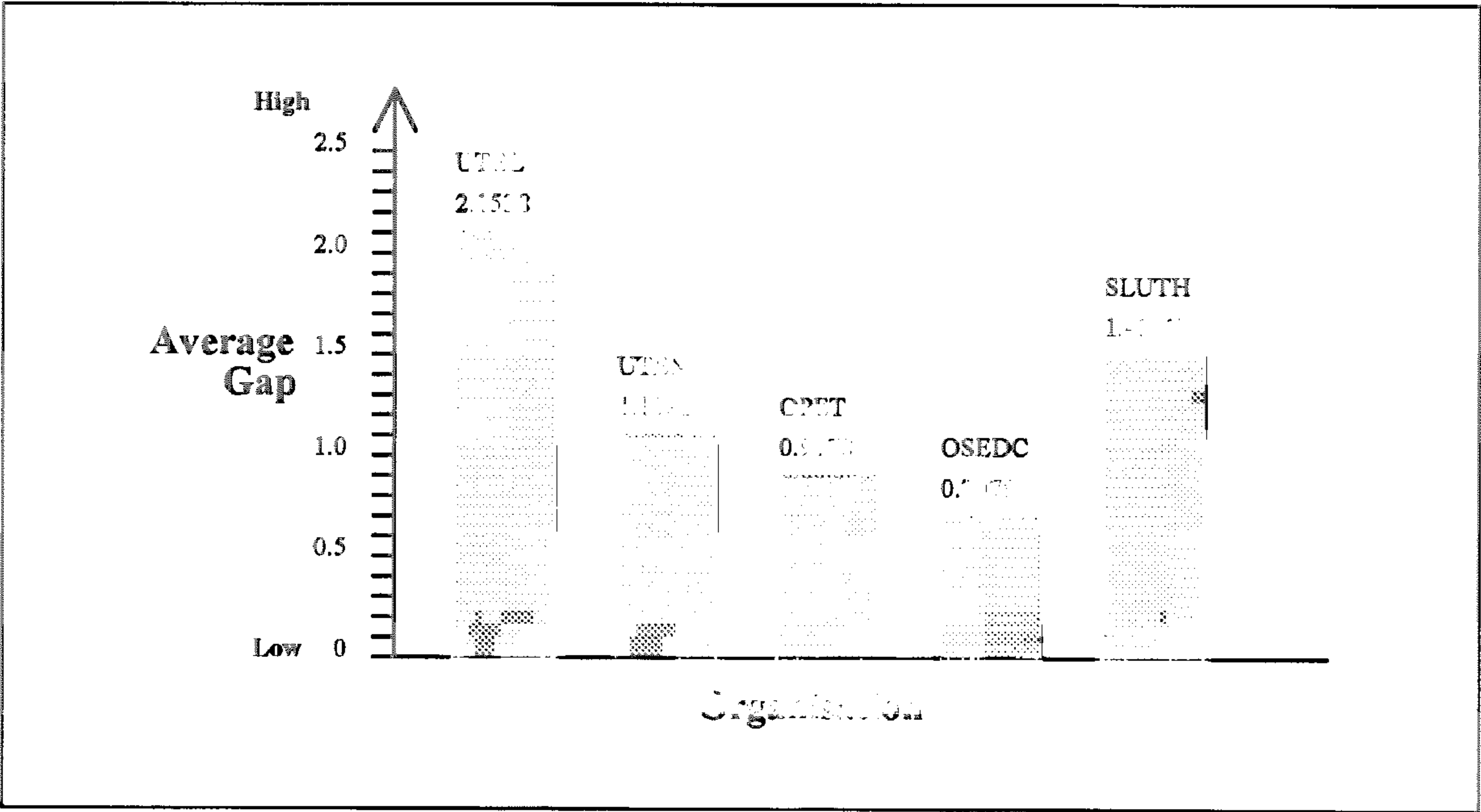


Figure 7.2b: Employees' Competency

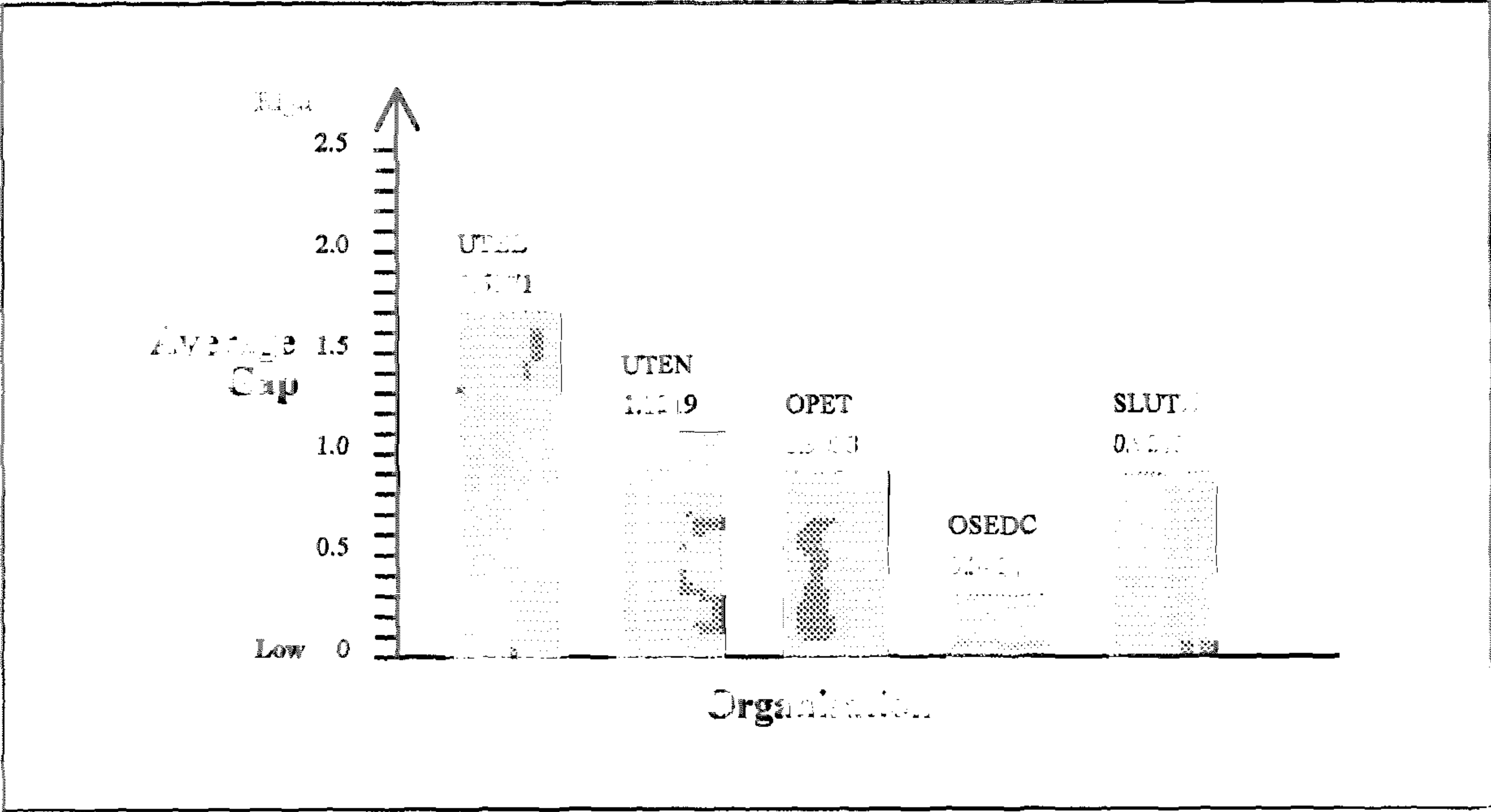


Figure 7.2c: Creativity and Adaptability

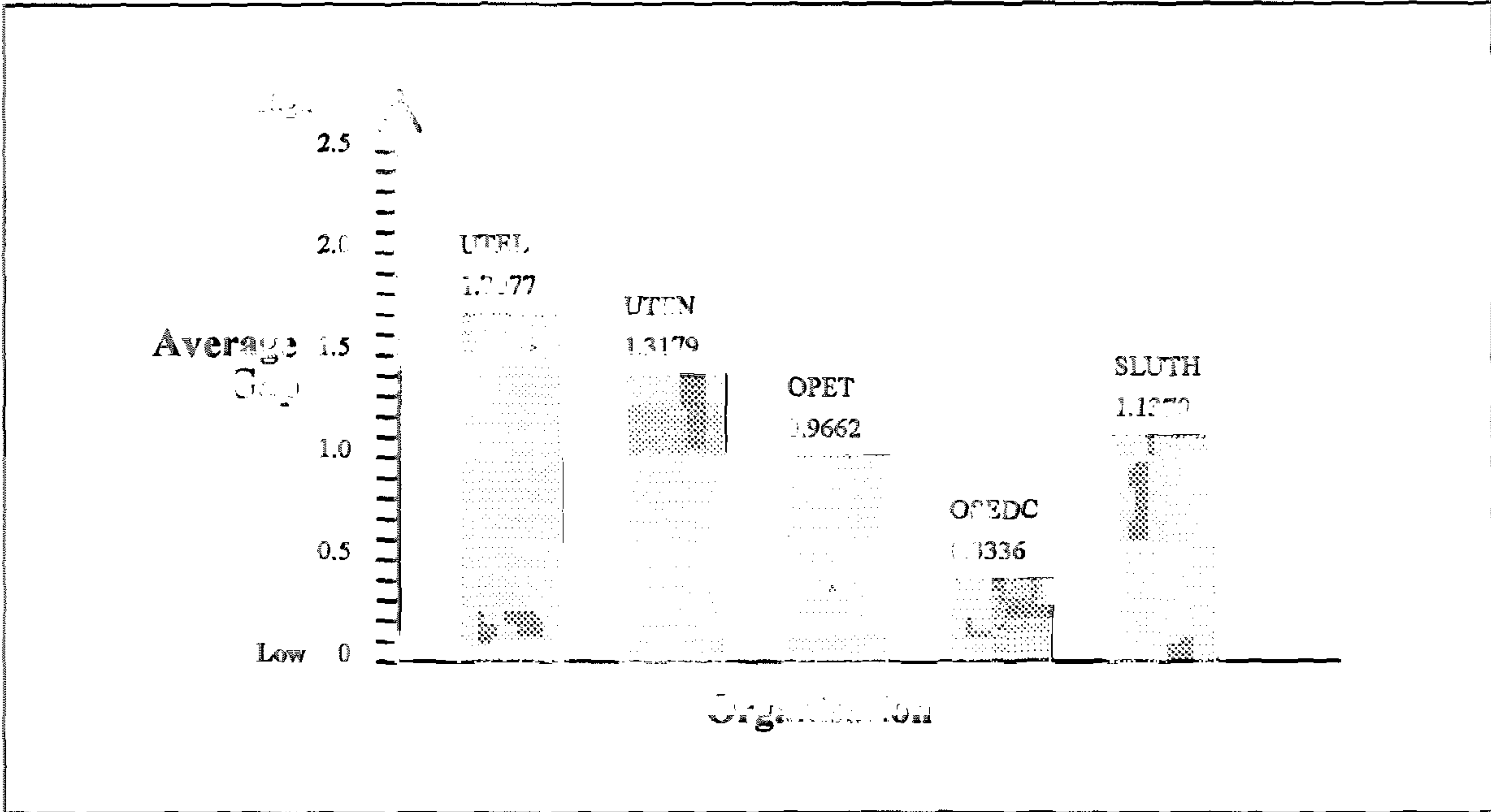


Figure 7.2a: Customer Orientation

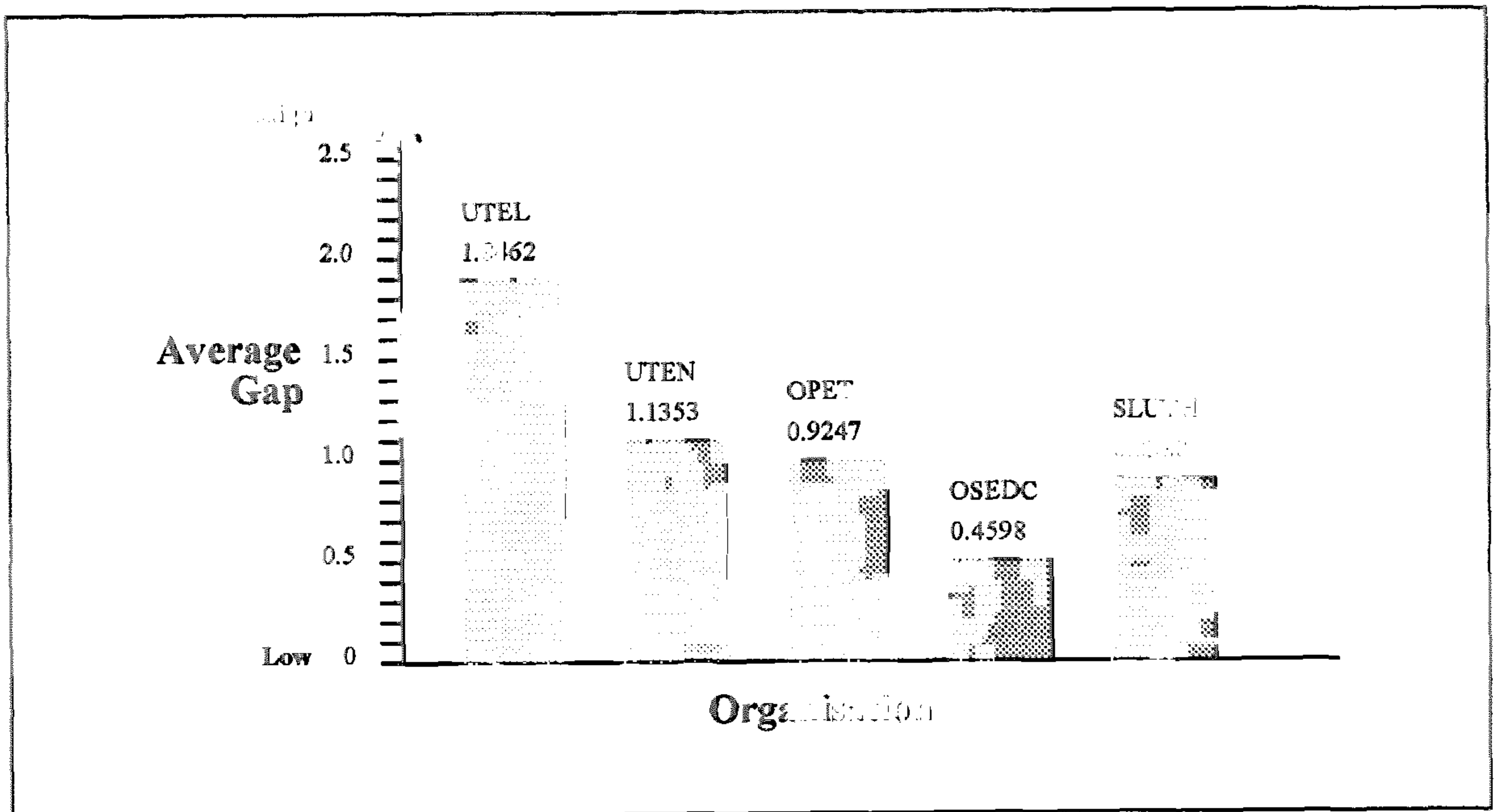


Figure 7.2e: Technological Capability

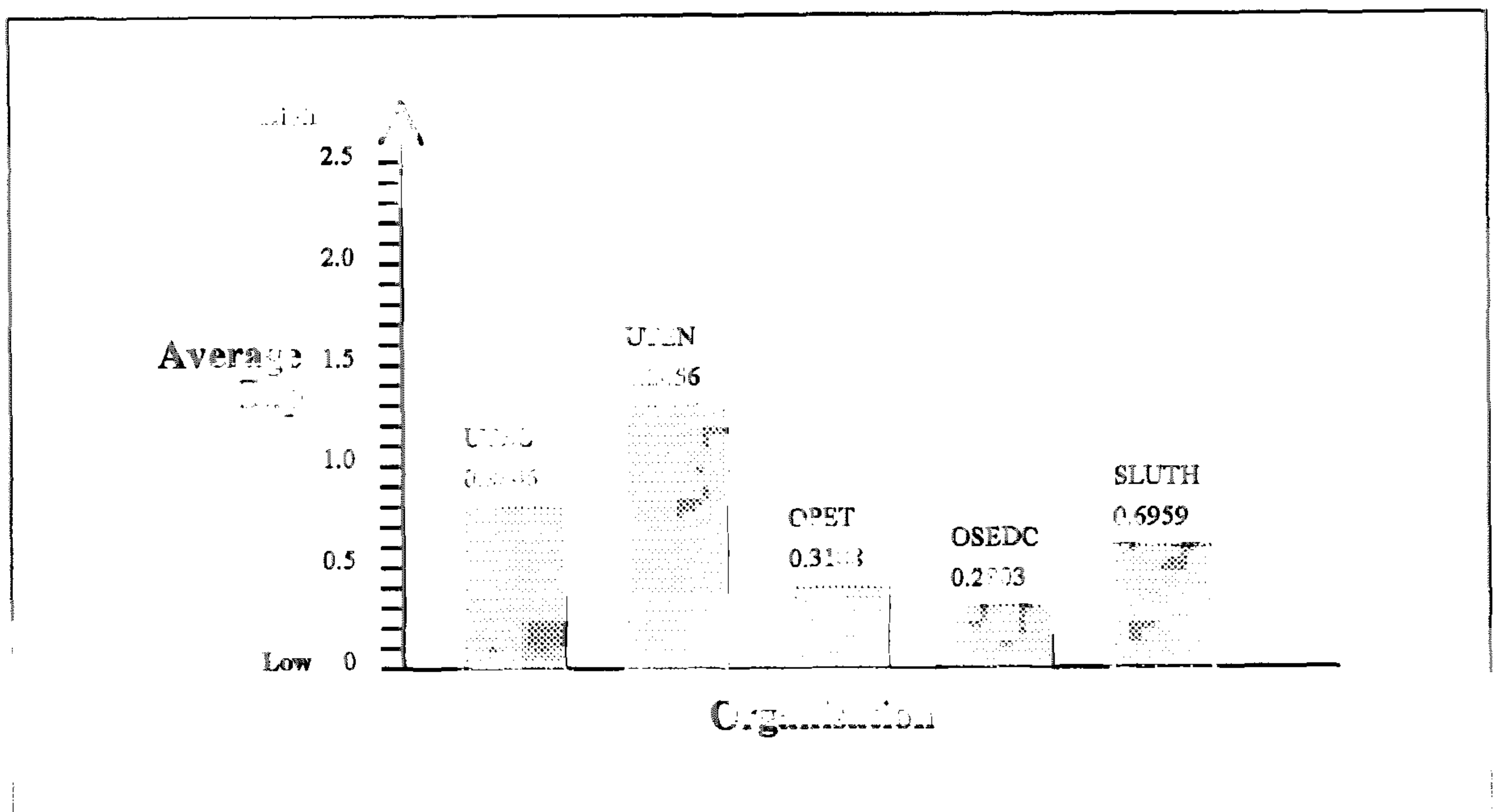


Figure 7.2f: Organizational Image

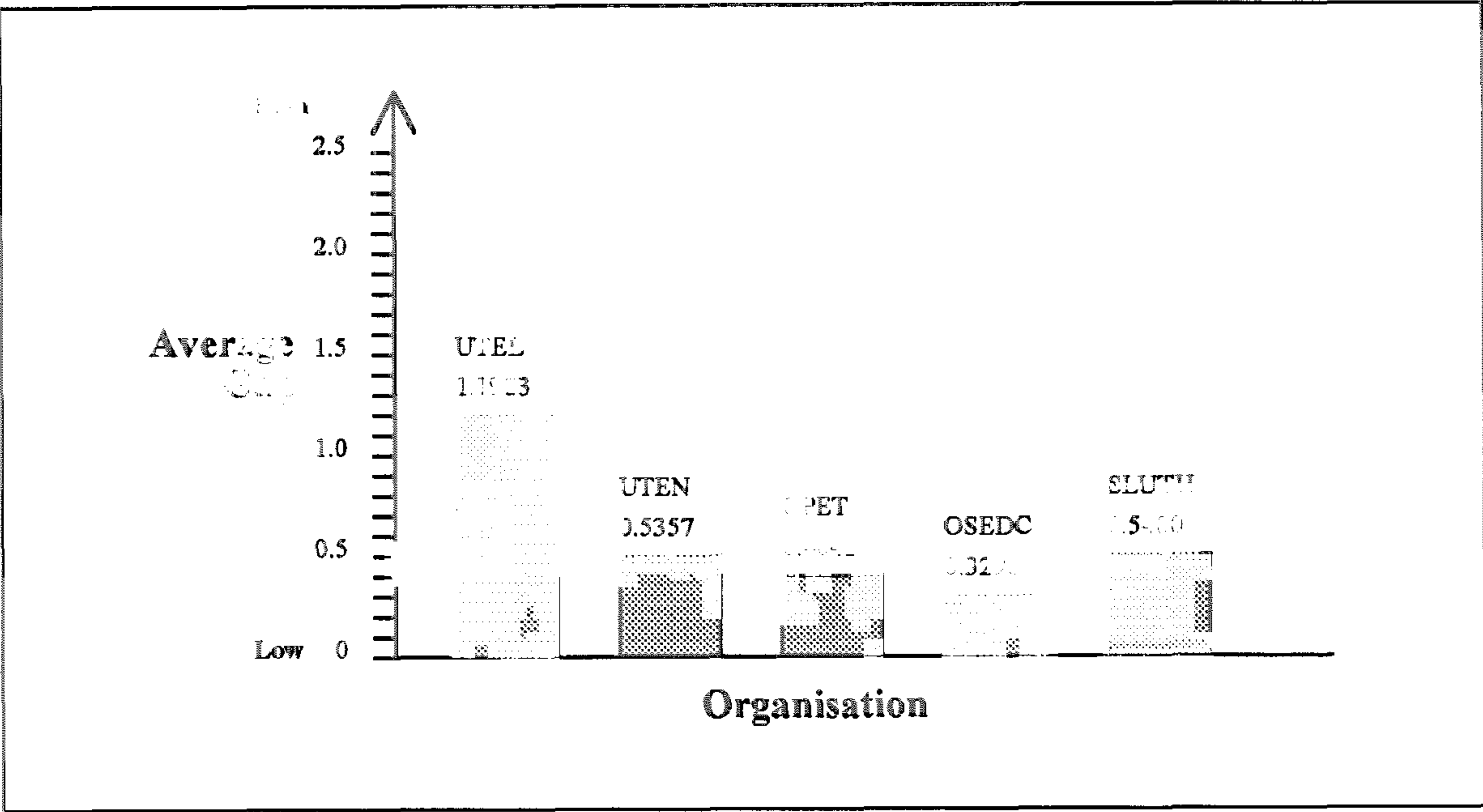


Figure 7.2g: 'Quality' Practices

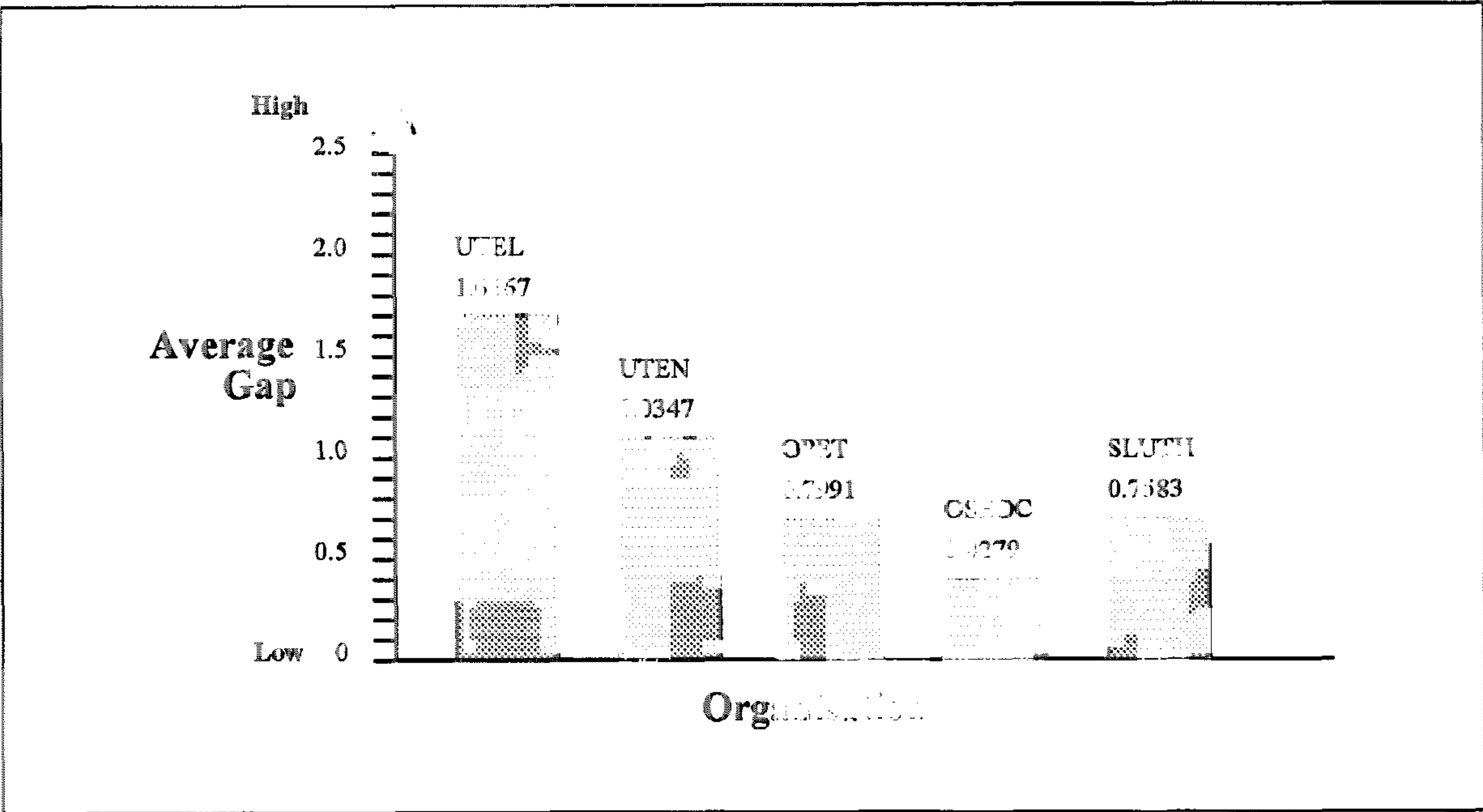
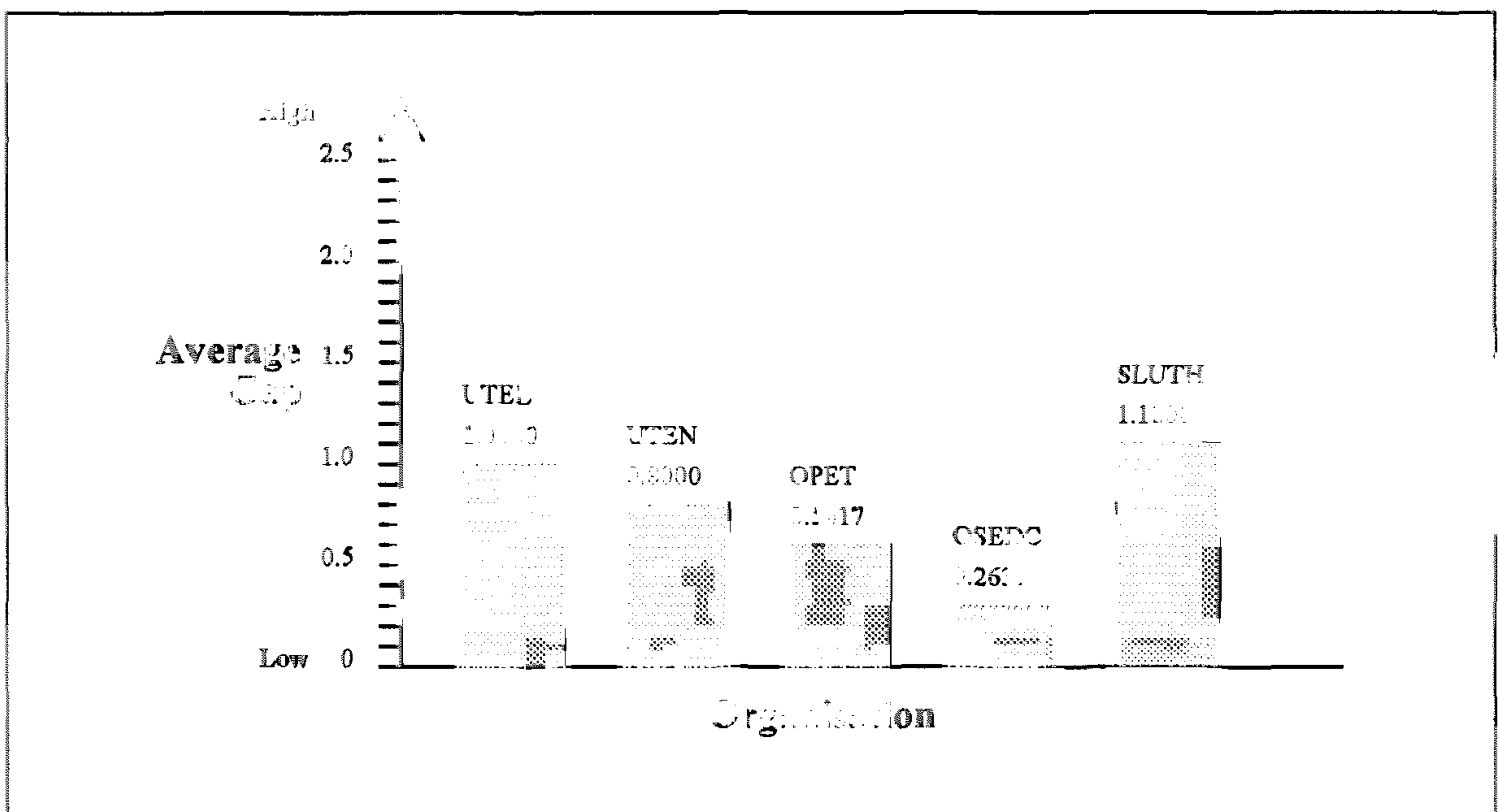


Figure 7.2h: Guiding Philosophy



7.2.4 The Relevance of Values to Quality Improvement Initiatives

In the preceding sections, results of the questionnaire survey relating to orientation of values, the extent of usage of some quality techniques, quality problems and the relative measure of quality 'performance' in each of the GIOs were presented. In this section, these results will be used to illustrate how values may be relevant to the quality improvement initiatives in organizations.

By using gap average scores, i.e., the difference between the expected and actual quality characteristics ($E - A$) of the organizations, this study identified OSEDC as a quality organization with respect to eight 'performance' factors of quality: treatment towards employees, (2) employees' competency, (3) creativity and adaptability, (4) customer-oriented, (5) technological capability, (6) organizational image, (7) excellence practices, and (8) guiding philosophy. OSEDC was found to have the lowest gap average scores in all of these factors. The results of the survey also pointed out that OSEDC has encountered least problems with respect to the implementation of quality initiatives. A

large majority of respondents in OSEDC indicated that they have few problems with top management commitment, employee attitude and participation, employee commitment and skills, cost of improvements and relationship with suppliers.

The achievement of relatively high quality 'performance' and a lesser degree of problems experienced in OSEDC corresponded to the organization's higher degree of usage/practices of quality techniques. The results of the survey indicated that OSEDC used or practiced methods and techniques of quality more widely than the other organizations. Methods and techniques, such as, the Japanese 5's system, suggestion scheme and control charts, which are the basics of TQC, were used/practised to a higher degree in OSEDC.

Also, the findings of this study seem to suggest that the achievement of quality 'performance' by OSEDC can also be linked to the value orientation of the organization. By ranking the mean scores (from the largest to the smallest) in each value, the order of organizations with respect to each of these values was obtained as shown in Table 7.32a and Table 7.32b. In these tables, OSEDC mean scores were noticeably higher in those that are related to peace and security, relationships between humanity, and emotional and physical expression. Closely observed, these values are those that concern relationships between people. In this respect, OSEDC can be thought of as an organization which places high emphasis upon harmonious relationships between people at all levels. These values were similar to those emphasized in MMTR (an American subsidiary studied in Phase 1 fieldwork and which has also won the Prime Minister's Quality Award). In MMTR, the organization nurtured a belief of 'constant respect towards people'. Thus, this finding is not just coincidental but seems to suggest that such values may be the underlying and sustaining forces that influence quality performance in an organization.

Table 7.32a: Order of Organizations With Respect to Mean Scores
(Terminal Values)

1. Values Related to Peace and Security	Highest Score				Lowest Score
A world at peace (free of war and conflict)	SLUTH	OSEDC	UTEL	UTEN	OPET
Family security (taking care of loved ones)	OSEDC	UTEL	SLUTH	OPET	UTEN
Happiness (contentedness)	OSEDC	SLUTH	OPET	UTEN	UTEL
Inner harmony (freedom from inner conflict)	UTEL	SLUTH	OSEDC	OPET	UTEN
National security (protection from attack)	OSEDC	SLUTH	UTEL	UTEN	OPET
Salvation (saved eternal life)	UTEL	OSEDC	SLUTH	UTEN	OPET
Category's Overall Rating	OSEDC	SLUTH	UTEL	UTEN	OPET
2. Values Related Human Relationships	Highest Score				Lowest Score
Mature love (intimate relationships)	OSEDC	SLUTH	OPET	UTEN	UTEL
Self respect (self-esteem)	UTEL	OSEDC	SLUTH	OPET	UTEN
Social recognition (respect, admiration)	OSEDC	SLUTH	OPET	UTEL	UTEN
True friendship (close companionship)	SLUTH	OSEDC	UTEL	OPET	UTEN
Wisdom (a mature understanding of life)	UTEL	SLUTH	OSEDC	UTEN	OPET
Category's Overall Rating	OSEDC	SLUTH	UTEL	OPET	UTEN
3. Values Related to Freedom of Expression	Highest Score				Lowest Score
An exciting life (a stimulating, active life)	UTEL	SLUTH	OPET	UTEN	OSEDC
A world of beauty (beauty of nature and arts)	SLUTH	OSEDC	UTEL	OPET	UTEN
Equality (brotherhood, equal opportunity for all)	OSEDC	SLUTH	UTEL	UTEN	OPET
Freedom (free choice)	SLUTH	OSEDC	UTEL	OPET	UTEN
Pleasure (an enjoyable, leisurely life)	OSEDC	SLUTH	UTEL	OPET	UTEN
Category's Overall Rating	SLUTH	OSEDC	UTEL	OPET	UTEN
4. Values Related to Achievement in Life	Highest Score				Lowest Score
A comfortable life (a prosperous life)	UTEL	OSEDC	SLUTH	OPET	UTEN
A sense of accomplishment (lasting contribution)	UTEL	SLUTH	OPET	UTEN	OSEDC
Category's Overall Rating	UTEL	SLUTH	OPET	OSEDC	UTEN

Table 7.32b: Order of Organizations With Respect to Mean Scores
(Instrumental Values)

1. Values Related to Emotional and Physical Expressions	Highest Score				Lowest Score
Cheerful (lighthearted, joyful)	OSEDC	SLUTH	UTEL	UTEN	OPET
Clean (neat, tidy)	SLUTH	OSEDC	UTEL	UTEN	OPET
Forgiving (willing to pardon others)	SLUTH	OSEDC	OPET	UTEN	UTEL
Helpful (working for the welfare of others)	SLUTH	OSEDC	OPET	UTEN	UTEL
Loving (affection, tender)	OSEDC	SLUTH	UTEL	UTEN	OPET
Obedient (dutiful, respectful)	OSEDC	SLUTH	OPET	UTEN	UTEL
Polite (courteous, well-mannered)	OSEDC	SLUTH	OPET	UTEN	UTEL
Category's Overall Rating	OSEDC	SLUTH	OPET	UTEN	UTEL
2. Values Related to Manipulative and Creative Skills	Highest Score				Lowest Score
Broadminded (open-minded)	OSEDC	SLUTH	OPET	UTEL	UTEN
Capable (competent, effective)	SLUTH	OPET	UTEN	OSEDC	UTEL
Imaginative (creative)	SLUTH	UTEL	OSEDC	OPET	UTEN
Independent (intimate relationships)	SLUTH	OPET	OSEDC	UTEN	UTEL
Intellectual (intelligent, reflective)	SLUTH	UTEL	OPET	UTEN	OSEDC
Logical (consistent, rational)	SLUTH	OPET	UTEL	UTEN	OSEDC
Category's Overall Rating	SLUTH	OPET	OSEDC	UTEL	UTEN
3. Values Related to Ethics or Virtues	Highest Score				Lowest Score
Ambitious (hardworking, aspiring)	OSEDC	SLUTH	UTEL	UTEN	OPET
Courageous (standing up for your beliefs)	OSEDC	SLUTH	UTEL	UTEN	OPET
Honest (sincere)	SLUTH	OSEDC	UTEN	UTEL	OPET
Responsible (dependable, reliable)	UTEL	SLUTH	OSEDC	UTEN	OPET
Self-controlled (restraint, self-disciplined)	SLUTH	OSEDC	UTEN	OPET	UTEL
Category's Overall Rating	SLUTH	OSEDC	UTEL	UTEN	OPET

Since, quality initiatives in organizations are concerned with cultural transformation and change, the shaping of a desirable mode and standard of conduct, and a long term improvement process, the organization striving for quality is expected to nurture a set of values that will build relationships of trust and confidence between and among the people both internally and externally. Quality initiatives and activities are built on the relationship with people: (1) relationship with people 'outside' the organization, i.e., customers, suppliers and public, (2) relationship of people within the organization, i.e., top management, employees, and unions, and (3) other people who have an interest in the organization's affairs, such as, political and environmental groups. In the long-term, to be successful, an organization would need to maintain a balanced and harmonious relationship between and among these people so that the process of steering change and improvement will not be disrupted. Change and improvement with less conflict and disruption is also less costly and not as time consuming.

Rokeach (1968) considers a value to be a type of belief, centrally located within one's total belief system, about how one ought or ought not to behave (instrumental value), or about some end-state of existence worth or not worth attaining (terminal value). Here, value is seen to be a disposition of a person similar to an attitude, but more basic than an attitude, often underlying it. In this sense, values are powerful agents in the shaping of organizational culture and they can function in at least three ways: (1) values as standards that guide conduct in a variety of ways, such as, to favour one particular political or religious ideology over the other, to persuade and influence the others, or to guide presentations of self to others, (2) values as general plans for conflict resolution and decision making, i.e., they provide a basis for a set of principles and rules to help one choose between alternatives, resolve conflicts, and make decisions, and (3) values as motivational elements that guide human behaviour in the long-term; terminal values are motivating because they represent the super goals beyond the immediate, biologically urgent goals, while instrumental values motivate the idealized modes of behaviour that are

perceived to be instrumental to the attainment of desired end-goals. Also, Rokeach (1973) indicates that it would be possible to classify values in different ways. In his classification, terminal values were classified into either self-centred (intrapersonal) or society-centred (interpersonal) values and instrumental values were classified into either moral or competence values. Such end-states like salvation, peace of mind and inner harmony for instance, are intrapersonal while world peace, brotherhood and true friendship are interpersonal. On the other hand, such modes of behaviour like honesty, forgiveness and cleanliness are related to morality while intelligence, imagination and logic are related to competency. The findings in OSEDC indicated that the value orientation of the organization tends to emphasize the interpersonal and the moral sets. In these sets of values, the mean scores of OSEDC seemed to be generally higher than the other organizations.

The relationship of interpersonal values to quality is easily established or understood. These values would be very useful during interactions with customers, suppliers and other members. However, the finding from OSEDC also indicated that the organization was also 'morally' inclined. For OSEDC, the overall mean scores for such values were the highest when compared with the other organizations. This resembles similarity to another set of values nurtured in MMTR, i.e., values related to the organisations belief of 'uncompromising integrity'. This belief normally rests on some set of values connected to morality, such as politeness, obedience, honesty and love. Thus, this finding indicates the importance of 'morally' inclined values in perhaps, motivating and guiding members' modes of behaviour towards quality and performance.

7.3 SUMMARY AND CONCLUSION

This chapter has reported the analysis and results of this study. The analysis was conducted in two stages. The first stage mainly used the data from interviews and qualitative observations. This analysis provide a holistic view of the issues in respect of

quality in organizations. The second stage focused on the survey data responses of the five GIOs: UTEL, UTEN, OPET, OSEDC and SLUTH.

In the first stage analysis, broad issues associated with quality were exposed. The issues of quality in organizations were influenced not only by internal improvement efforts but also, and possibly to a significant degree, influenced by external and environmental factors, such as regulations, competition and market. At the end of this analysis, a 'journey' or 'expedition' metaphor was suggested to help conceptualize and understand issues of quality in organization. Various analogies in a journey can be related to elements or concepts of quality in the organization, such as, the concept of speed in a journey as an analogy for efficiency, and the concept of destination as an analogy for goal.

In the second stage analysis, the data from the questionnaire survey in the five GIOs were analyzed. Here, some statistical tools, such as parametric t-test and factor analysis were used to determine the pattern of responses and classification of issues or themes. Terminal values could be classified into four sets of related values: (1) values related to peace and security, (2) values related to the relationship between human beings, (3) values related to freedom of expression, and (4) values related to achievement in life. On the other hand, instrumental values could be classified into three set of related values: (1) values related to emotional and physical expression, (2) values related to manipulative and creative skills, and (3) values related to ethics or virtues. The analysis found that OSEDC has a relatively high mean scores in most values (which means that the members of the organization regard the respective values to be of relatively higher importance than members of the other organizations). Also, OSEDC was found to face fewer quality problems and it has the lowest gap average scores (a lower gap average indicates better performance) in eight factors of organizational quality or excellence: treatment towards employees, competency of employees, creativity and adaptability, customer orientation, technological capability, organizational image, 'quality' practices and guiding philosophy.

When compared to another quality organization investigated in the Phase 1 fieldwork, the MMTR, OSEDC was found to possess a set of similar values. OSEDC was found to have a strong inclination towards embodiment of interpersonal and moral type of values. In MMTR, two set of values, 'constant respect for people' and 'uncompromising integrity' were nurtured in its members. The similarity of values in OSEDC with those in MMTR was suggested as possibly being the underlying forces that contribute towards better quality performance in the two organizations.

The following chapter, Chapter 8, highlights and discusses some issues regarding this study. Finally, the chapter concludes with suggestions for future research.

"Organization is always shaped by underlying images and ideas; we organize as we imaginize; and it is always possible to imaginize in many different ways." (Morgan, 1986; p.343)

In this chapter, the implications of the findings are discussed towards understanding the quality issues of organizations. First, Section 8.1 reviews the overall findings and discusses their implications for theory. Following this, Section 8.2 addresses the methodological implications and the limitations of the study. Then, the managerial and policy implications are dealt with in Section 8.3. Finally, Section 8.4 makes suggestions for further and corroborative research work to deal with some of the issues in this area of study.

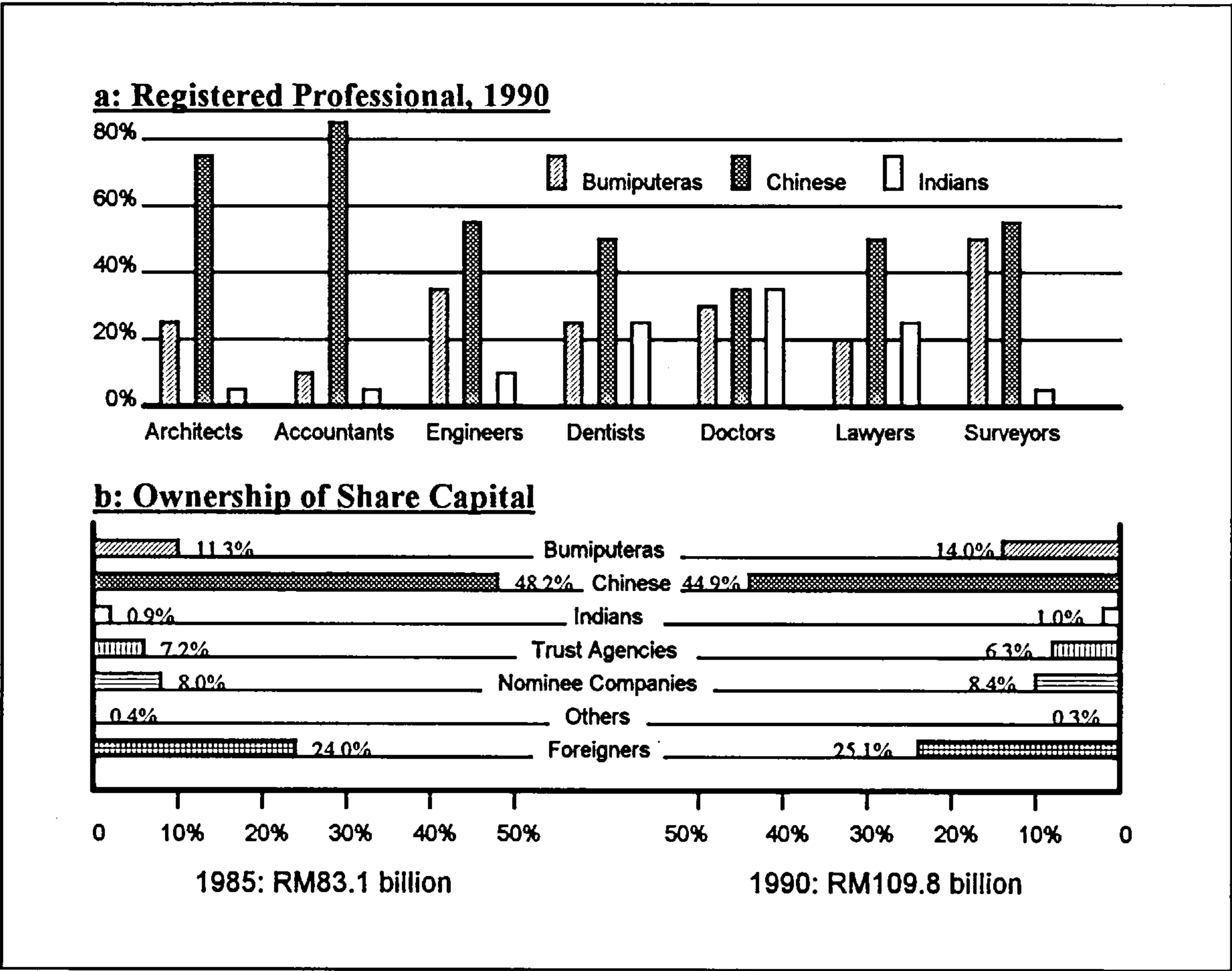
8.1 REVIEW OF FINDINGS AND THE IMPLICATIONS FOR THEORY

The descriptive accounts in this research have potential for providing the quality researchers or 'community', particularly those from Malaysia, with a deeper sense of understanding of quality-related issues and contexts that are relevant to the organizations in the country. Some findings of this study were found to be contributive to theory development in quality management.

As one of the findings of this study indicated, management issues in the Malaysian context are intricately related to the national aspirations and political interest of the country. One such issue concerns the reduction of the imbalance of racial participation in economic activities. Although the number of Bumiputeras who were involved in professional and business activities has been steadily increasing since the country's independence in 1957,

the figures after 20 years of implementing the National Economic Policy (see Figure 8.1) suggest that the imbalance of racial economic participation with respect to the ratio of population is still large.

Figure 8.1: Professionals and Ownership of Share Capital by Race



Source: Sixth Malaysian Plan

The imbalance of racial economic participation is regarded as being unhealthy to the future economic and social environment and, if not corrected, it could affect the stability of the country. Thus, following the racial riot in May 1969, the government introduced a 20-year policy known as the National Economic Policy (NEP) aiming at reducing the social and economic imbalance of the ethnic communities in the country. The NEP, which ended in 1990, has had profound effects on the organizations in the country, especially to the

GIOs (government influenced organizations), in terms of the appointment of top management officials, the award of business contracts and recruitment practices. Although the NEP has been seen as apparently favouring the Bumiputeras, such undertakings seemed necessary in order to move towards the achievement of a more equitable society, which attempted to eliminate racial identification with certain economic activities or professions. The opportunities given to the Bumiputeras in the NEP were certainly not permanent aspirations of the political and social leaders - they were steps towards providing Bumiputeras with necessary grounding in business and economic activities. The plans and vision which succeeded the NEP, the OPP and Vision 2020, proved that they aspired for progress and improvement, and that they are based on equal opportunities, competition and respect for other people.

In this study, it was found that the aims of Bumiputera-dominated organizations (such as in MSPH) and the GIOs were always conscious of the need to improve the condition of its people's expertise, management and competitive skills in business and economic activities. Thus, the Bumiputera managers, especially the Malays, tend to sympathize strongly with the government's effort to increase the ethnic involvement in business and economic activities. For example, whenever the Bumiputeras interest took a majority control in a company, subsequent new recruitment into the company, especially at the managerial level, were aimed at meeting a percentage that reflected the racial population ratio of the country. Others regard such organizations as the very few places of opportunities for the employment and development of its people skills. The ability of an organization to raise the involvement of Bumiputera in it, is somehow regarded as one of the 'quality' processes which were thought, in the long term, to promote greater cooperation, trust and stability of relationships among the ethnic communities. In this respect, to achieve and to preserve harmonious relationships among people of different communities would be a paramount objective and an overriding value for organizations like the GIOs. This concern for social stability and relationships, in some way, has had an influence on the choice and priorities of some business ventures and decisions.

In order to understand the complex relationship of quality issues in the organization, the study has proposed a 'journey' metaphor. Similar to that of a 'journey', quality in organizations is a process of continuous interactions of experience, adventure and risk. In making choices and decisions, similar to that on a 'journey', organizations were influenced by past history, values and the environment. These influence the organization in determining its priorities regarding current actions or plans towards continuous improvement. A number of other analogies (as discussed in Chapter 7) can be drawn from a 'journey' metaphor to help us in understanding various quality-related issues in organizations, such as the goal of quality, efficiency, regulation and competition.

The other important finding in this study was drawn from the analysis of questionnaire data in five GIOs. The focus of the analysis was to understand the relationship between the values orientation of the organizations, practices of quality and quality 'performance' (as measured by gap averages of perceived quality factors). The result showed there was a high degree of relationship between the extent of usage/practice and quality 'performance' in the organization. This relationship was expected and confirmed the usefulness of quality techniques to improvement efforts in organizations. Also, the result indicates the possibility that certain values may have an influence on the 'performance' or achievement of the organization. The result for OSEDC, a GIO which had won the Prime Minister's Quality Award, indicates that the members of the organization placed a high degree of importance on human relationships and 'moral' values. This finding corresponded almost exactly to the values being nurtured in MMTR, an American electronic subsidiary which had also won the Prime Minister's Quality Award. In MMTR, the values of "constant respect for people" and "uncompromising integrity" were preached and inculcated in the members. The similarities in the values orientation, which stressed the importance of human relationships and 'moral' (or ethical) values in these two organizations (OSEDC and MMTR) were unlikely to be coincidental because in the quality philosophy these values form the basic requirements for sustainability of

improvement in the long term. Furthermore, these values would be relevant to the improvement process because they could improve the quality aspects associated with the human factor, such as treatment of its customers and suppliers, members' motivation and commitment.

The implications of the above findings to theory development in quality management can be simplified in the following points:

- (1) Social and economic objectives of a nation can be very influential in determining the course of priorities or choices of emphasis in the improvement process of organizations. The objectives and priorities of one nation compared to another are likely to vary, i.e., they are usually specific to the particular country. Improvement to organizations is not solely measured by the achievement of superior financial performance alone, but possibly more importantly by the organization's contribution to social order and stability in the country.
- (2) Values which relate to the importance of human relationships and ethical behaviour played an integral part towards the long-term improvement process and sustainability of quality. Also, the findings of the study indicate that these values are useful to members in organizations of various types (the GIOs or those coming from the manufacturing sector). The implication is that these values are relevant both in organizations which are strictly motivated by financial performance and in those which are motivated by some other (social) objectives.

8.2 METHODOLOGICAL IMPLICATIONS AND LIMITATIONS

From a methodological standpoint, the method of case studies used in this study has made it possible for the researcher to gather both types of data: qualitative and

quantitative data from the questionnaire survey. The analyses of both types of data have contributed to a greater understanding of quality management issues in organizations. However, as a piece of research conducted under several constraints, there are some weaknesses that can be identified by this study.

As it has been pointed out in Chapter 5, there were several methodological limitations of this type of study, mostly related to the use of the case-study research strategy where a limited number of cases were selected. Notably, this study has the following limitations:

- (1) The number of companies used in this study was small. However, it should be noted that, especially the GIOs chosen in this study, represent the largest or the major players in their kind of business. Thus, the results and findings from this study should be very relevant and significant for understanding quality in the context of Malaysian organizations.
- (2) With hindsight, the data collection strategy employed in this study might have been enhanced through participant observation. However, due to time limitations and logistical problems, the findings were based mainly on what had been reported by informants/respondents, printed or published secondary data, limited observations and focused questionnaire survey within the five GIOs. Thus, this may introduce an unknown degree of bias and misrepresentations.
- (3) Although at certain points in the analysis, additional data from Malaysia would have been useful, it was very difficult for the researcher to obtain from his academic base in England. Certainly, these additional data would have provided more information and enhanced the details in the discussion. However, the presence of these data were unlikely to alter the general conclusions of this study, except that they would only provide a greater

precision to some figures, percentages and related issues discussed in the thesis.

On the whole, it is believed that these limitations serve as warnings against allocating numerical and statistical confidence to the findings, rather than denying the significance of them in providing sufficient strength of evidence to the conclusions. In this respect, the empirical aspect of this research can be treated as an exploratory work which has served to do several things. It has:

- (1) highlighted issues connected to the conceptual understanding of quality in organizations. Specifically, a 'journey' metaphor was suggested as a possible analytical abstraction towards understanding the relevant issues of quality in organizations;
- (2) related the important role of values in the long term improvement process, particularly at improving the human-related aspects. Also, the categorization of terminal and instrumental values that emerged from this study could be useful in developing an instrument of future research; and
- (3) highlighted conceptual issues to be faced in future research on quality, e.g., the concept of quality, performance and effectiveness of organizations. As was discussed in this research, these issues are problematic and they depend heavily on the context and one's interpretation of events or experiences.

8.3 MANAGERIAL AND POLICY IMPLICATIONS

A potential contribution of this research is to provide managers, particularly those from Malaysia, with descriptions of issues that are relevant to the improvement process in organizations. The descriptions would be useful towards gaining a deeper understanding of the adoption and implementation process of the quality ideas, tools and technologies in

the country. Particularly, the results of the study would help managers to approach quality in a holistic manner and to recognize the importance of values in the improvement process.

This study stressed the human elements and non-financial aspects of quality. The implication for asserting these aspects in the organization's quality improvement initiatives will be on its relationship with all its constituents, the customers, suppliers, employees, investors, government and society. The organization will have to 'optimize' its relationships with these constituents in a 'balanced' way, i.e., the competing interests of these constituents would be recognized and mediated through a fair exchange of value. Conceptually, this would mean that an organization should not solely base the 'performance' criteria on financial indicators when making a decision or undertaking a plan of action. Rather, the organization should look at the overall consequences and effects of such a decision or action with respect to its long-term stability and survival. Hence, it should emphasize a total perspective of quality, which takes into account the overall relational effects, instead of tunnel vision decision making.

The finding of this study also suggest the relevance of moral values in the quality improvement process. This conclusion reflects the reality that great organizations are character builders. Members who exemplify strong character in these organizations have principled behaviour and base their decisions on ethics and moral values. This principled behaviour allows them to raise their self-esteem by using their competence and integrity to make significant contributions to the organization and to other people's lives. Highly principled members would use ethical and moral standards as guidance to judge the rightness of policies, practices and procedures used to carry out the mission of their organization. These members, with their strong inner conscience, would exhibit the courage to challenge or champion the kind of change and improvement to the organization.

The emphasis on moral values as fundamental elements towards personal and organizational improvement is likely to provide a strong impact for future managerial practice. Clearly, moral development raises integrity and trust in the social process and relationship. This means that by placing emphasis on moral relationships the organization will gain strength and become more trustworthy to its constituents. For the 'quality' improvement process, which is based on long-term and interdependent relationships with constituents, the emphasis on moral values would be an added advantage to help the organization withstand the stresses and strains of competition.

8.4 FUTURE RESEARCH

The concern for 'quality' has become very obvious both to the Malaysian public and organizations in the last three or four years. However, empirical research in this area, in general, is still lacking, especially studies that take a holistic view of the subject. It is hoped that this study would encourage or, at least plant some seeds for future research efforts in this increasingly important area. As this study was more of an exploratory-type, more research on this subject, especially in Malaysia, are necessary. Some of the issues that require investigation or further research are:

- (1) The generalisability of the findings, which were based on limited case analyses, still require more studies to support them. This study has focused on some elements of quality in organizations, primarily on the orientation of values and practices of the government-influenced organizations. These organizations were largely influenced by the government's vision or direction. More focused studies covering other type of organizations operating in Malaysia, such as multinationals and their subsidiaries, would certainly enrich the understanding of the subject. Thus, it will be interesting to compare the ideas, values and practices of quality in these organizations with the GIOs.

- (2) The majority of business organizations existing in Malaysia are categorized as being of small or medium scale. Thus, it will also be useful to investigate what aspects of quality do they emphasize, and how they introduce quality ideas and practices, particularly, with respect to the learning of quality and the process of change in these organizations.
- (3) The study could also be extended to cover cases of similar organizations in other countries, especially in the Southeast Asia nations. While, some similar traits exist between these nations, there are also visible historical and value differences that are relevant in their context.

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APPENDIX 1

A Typical Letter Written to an Organization (While Researcher in the UK)

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Mohd Ezani Mat Hassan
Management Division,
School of Business Management,
University of Newcastle,
Newcastle upon Tyne NE1 7RU,
ENGLAND.
31 Mac 1993

[name and address of organization]

Untuk makluman pihak tuan, saya adalah penuntut ijazah kedoktoran (Ph.D candidate) di School of Business Management, University of Newcastle. Penyelidikan yang saya jalani adalah berhubung dengan pengurusan kualiti di syarikat-syarikat perkilangan.

Saya akan menjalankan kerja lapangan (fieldwork) selama 3 bulan di Malaysia mulai awal Mei 1993. Kerja lapangan ini termasuklah lawatan ke syarikat-syarikat perkilangan dan bertemu-bual pihak pengurusan dan pekerja-pekerja. Untuk sebahagian daripada masa kerja lapangan ini, saya amat berbesar hati sekiranya diberikan peluang melawat ke syarikat tuan dan bertemu-bual dengan pihak pengurusan serta pekerja-pekerjanya. Saya berharap dapat merundingkan pengaturan terperinci berkenaan tarikh lawatan ini setelah saya tiba di Malaysian nanti.

Saya berharap dapat mendengar berita positif daripada pihak tuan seterusnya.

Sekian. Wassalam.

Yang benar,

(tel.: 091-222 7430,
Fax.: 091- 222 8131)

APPENDIX 2

A Typical Followed up Letter to an Organization (While Researcher in Malaysia)

TELEX: UNIKES MA 31496 FAX: 03-6256484

ILMU KEHIMPIN

Mohd Ezani Mat Hassan
Jabatan Pengurusan,
Fakulti Pengurusan Perniagaan,
43600 UKM BANGI.
15 Jun 1993

[name and address of the organization]

Untuk maklumat pihak tuan, saya adalah pensyarah di Jabatan Pengurusan, Fakulti Pengurusan Perniagaan, Universiti Kebangsaan Malaysia. Pada masa ini saya adalah penuntut dan penyelidik ijazah kedoktoran (Ph.D candidate) di School of Business Management, University of Newcastle. Penyelidikan yang saya jalani adalah berhubung dengan pengurusan kualiti di Malaysia bertajuk "A study of the management and philosophy of quality in Malaysian organizations; issues of culture and the impact upon organizational performance".

Sekarang saya sedang menjalani kerja lapangan (fieldwork) selama tiga bulan di Malaysia dan berharap dapat menjalankan kajian kes di beberapa organisasi sebagai memenuhi sebahagian kerja penyelidikan tersebut. Cara untuk mendapatkan maklumat dan aktiviti berkaitan dengan kajian kes di organisasi/syarikat terbabit adalah melalui dua lawatan utama ke organisasi/syarikat (sila lihat lampiran). Data dan maklumat yang diberikan oleh organisasi akan digunakan hanyalah untuk tujuan penyelidikan dan jika organisasi/syarikat terbabit merasa perlu disembunyi atau disamarkan (*disguise*) identiti organisasi dan pelapornya, pihak penyelidik akan melakukannya untuk memelihara kepentingan organisasi/syarikat berkenaan.

Saya berharap pihak tuan dapat membantu dan bekerjasama dengan saya dalam menjalankan kajian penvelidikan ini.

Yang benar,

Inclut-

(Tel: 03-8250844 - tinggalkan pesanan,
Fax: 03-8256484)

KAJIAN KES DI ORGANISASI/SYARIKAT

Hari	Aktiviti
Lawatan Pertama	<div><div>1. Penerangan oleh wakil organisasi/syarikat meliputi perkara-perkara berikut:</div><div><div><div>• latar belakang dan sejarah ringkas organisasi/syarikat; falsafah (pengurusan dan pemiagaan) yang diamalkan; keluaran (produk) dan perkhidmatan organisasi/syarikat,</div><div>• latar belakang dan perkembangan pengurusan kualiti dalam organisasi/syarikat; falsafah dan budaya kualiti yang diterapkan; program-program latihan dan pembangunan kualiti/produktiviti; kos-kos yang dikaitkan dengan kualiti; amalan, prosedur dan teknik yang digunakan oleh organisasi/syarikat untuk peningkatan kualiti; masalah-masalah atau halangan-halangan ke arah pencapaian kecemerlangan kualiti dari sudut-sudut kemanusiaan, budaya, teknologi, undang-undang dan enviromen, peraturan kerajaan dan sebagainya,</div><div>• cara dan teknik organisasi mengukur dan mengesan prestasi - pada peringkat individu, bahagian dan keseluruhan; indikator-indikator (<i>indicators</i>) prestasi yang digunakan,</div><div>• lawatan dan tinjauan ringkas ke bahagian-bahagian operasi dalam organisasi.</div></div></div><div><div>2. Mengumpul dan mendapatkan maklumat-maklumat berkaitan kegiatan kualiti organisasi meliputi perkara-perkara berikut:</div><div><div>• kos tahunan kualiti dan kos latihan untuk kualiti; jenis, tahap dan keberkesanan program latihan; data tahunan rungutan (<i>complaints</i>) pengguna/pelanggan; data tahunan skrap (<i>scrap</i>) dan <i>defects</i> - untuk organisasi perkilangan; kos pembaikan/pembikinan,</div><div>• menyebarkan soalselidik (yang disediakan oleh penyelidik) dan memberikan penerangan bagaimana mengisinya; respons kepada soalselidik akan dikutip pada lawatan kedua ke organisasi atau hari lain.</div></div></div></div>
Lawatan Kedua (seminggu atau lebih selepas lawatan pertama)	<div><div>1. Bertemubual dengan pengurus kualiti atau pengurus yang bertanggungjawab terhadap pembangunan dan kualiti dalam organisasi.</div><div>2. Bertemubual dengan sekumpulan pekerja-pekerja organisasi/syarikat.</div><div>3. Mendapatkan maklumat-maklumat lanjutan hasil daripada respons yang diperolehi daripada lawatan pertama dan temubual-temubual yang dijalankan.</div></div>

CASE STUDY IN AN ORGANIZATION OR A COMPANY

Day	Activities
First Visit	<ol style="list-style-type: none">1. A briefing session on the organization/company to be given by its representative which include the following items:<ul style="list-style-type: none">• a brief history and background of the organization/company; its business and management philosophy; its products and services,• historical development of quality management in the organization/company; organization's quality philosophy and culture; organization's quality programmes and training (kind and level of participants); quality-related costs; techniques, procedures and practices used by the organization in order to improve quality; constraints and problems associated with quality (human, cultural, technological, environmental, governmental, etc.),• methods and techniques used to measure performance - at individual, group or divisional and organizational level; performance indicators that are used in the organization/company,• a brief visit to operations/production division.2. To gather relevant documents concerning organization's or company's quality activities which include the following items:<ul style="list-style-type: none">• yearly quality costs; education and training costs for quality; types and levels of training programmes; yearly data on customers' complaints; data on scrap and defects; data on maintenance and preventive measures,• distributes questionnaires (prepared by the researcher) and explains to prospective respondents on how to complete them; responses to these questionnaires will be collected during the second visit to the organization or on another day.
Sesond Vissit (after a week or more from the first visit)	<ol style="list-style-type: none">1. To meet and to talk to the quality manager or someone responsible for quality in the organization/company.2. To meet and to talk to a group of workers in the organization/company.3. To gather further information based on the first visit and feedbacks from meeting/talking to quality manager and workers.

APPENDIX 3

Survey Questionnaire of Major Quality Elements in MCISB and MSPH

SURVEY QUESTIONNAIRE

RESPONSE
(Please tick or circle)

A. MISSION STATEMENT

The organization's mission statement has greatly influence organizational members' conduct.	SA	A	UN	D	SD
Mission statement provides basis for individual's ways of thinking.	SA	A	UN	D	SD
Mission statement provides basis for individual's ways of doing things.	SA	A	UN	D	SD
Mission statement establishes organizational priorities.	SA	A	UN	D	SD
Mission statement changes individual's perceptions on quality.	SA	A	UN	D	SD

B. IDEAS ON QUALITY

The organization/company should focus yields rather than defects.	SA	A	UN	D	SD
It is better to deliver reduced quality products/components to customers to avoid losing an order.	SA	A	UN	D	SD
AQLs (acceptable quality level) are a superior way to manage quality.	SA	A	UN	D	SD
Quality is the responsibility of a specialized staff.	SA	A	UN	D	SD
Cost has to increase in order to reduce rejects.	SA	A	UN	D	SD

C. LEADERS

A good leader is concerned with and responsive to the personal needs and values of others.	SA	A	UN	D	SD
Technical competence is necessary to lead others on better production process.	SA	A	UN	D	SD
A good leader for quality is one who always solicit ideas from organizational members.	SA	A	UN	D	SD
Leaders of the organization creates a powerful influence on organizational members' attitudes and ways of doing things.	SA	A	UN	D	SD

D. TEAMWORK

Decisions are better made through group consultation.	SA	A	UN	D	SD
Teamwork activities produce better results.	SA	A	UN	D	SD
Trust among members is key to successful teamworking.	SA	A	UN	D	SD
Informal communication channels between members provide reliable information.	SA	A	UN	D	SD

E. TRAINING AND EDUCATION

Training and education could shape attitudes towards one's works.	SA	A	UN	D	SD
Learning to do things right come from training and education.	SA	A	UN	D	SD
Training and education increases costs.	SA	A	UN	D	SD
Improvement results from training and education is gradual.	SA	A	UN	D	SD
In order to be cost-effective training and education should only be task or job-oriented.	SA	A	UN	D	SD

APPENDIX 4

**A Sample of 'Diary Sheet'
Used in MCISB**

Monday	Tuesday
Wednesday	Thursday
Friday	Saturday
Sunday <i>(Although this may not be a working day, sometimes home or outside activities are also related to the organization that you are working with. Please record these too.)</i>	Note <i>Probably there are many things occur in the work environment. But, please ponder or look around of any event, activity, project or things which you think is related to quality aspects in your organization. To guide recording and reporting in this diary, the following items are recommended for observations:</i> <i>1. Space: the physical place or space</i> <i>2. Actor: the people involved</i> <i>3. Activity: a set of related acts people do</i> <i>4. Object: the physical things that are present</i> <i>5. Act: single actions that people do</i> <i>6. Event: a set of related activities that people carry out</i> <i>7. Time: the sequencing that takes place over time</i> <i>8. Goal: the things people are trying to accomplish</i> <i>9. Feeling: the emotions felt and expressed.</i> <i>If more space is required for recording, please feel free to write it on separate sheet of paper. Also, attach any relevant documents which support the reporting.</i>

APPENDIX 5

**Initial Format of Survey of Values Instruments
(Used in the Pilot Test)**

Instructions

(A) Below are values listed in alphabetical order. Your task is to arrange them in order of their importance to YOU, as guiding principles in YOUR life.

Study the list carefully and identify the one value which is the most important for you. Having done this, write the number 1 beside this value in the box of work area column.

Then pick out the value which is second most important for you. Write the number 2 beside this value in the box of work area column. Repeat the same process for each of the remaining values. The value which is least important should be written as number 18.

Work slowly and think carefully. If you change your mind, feel free to change your answers by cancelling/deleting the previously written number with a new one. The end result should truly show how you really feel. If you are finally satisfied with the order, rewrite the number from the box of work area column into the respective box of final column.

	TERMINAL VALUES	MALAY TRANSLATION FOR LISTED VALUES	WORK AREA	FINAL COLUMN
1	A COMFORTABLE LIFE (a prosperous life)			
2	AN EXCITING LIFE (a stimulating, active life)			
3	A SENSE OF ACCOMPLISHMENT (lasting contribution)			
4	A WORLD AT PEACE (free of war and conflict)			
5	A WORLD OF BEAUTY (beauty of nature and arts)			
6	EQUALITY (brotherhood, equal opportunity for all)			
7	FAMILY SECURITY (taking care of loved ones)			
8	FREEDOM (independence, free choice)			
9	HAPPINESS (contentedness)			
10	INNER HARMONY (freedom from inner conflict)			
11	MATURE LOVE (sexual and spiritual intimacy)			
12	NATIONAL SECURITY (protection from attack)			
13	PLEASURE (an enjoyable, leisurely life)			
14	SALVATION (saved, eternal life)			
15	SELF-RESPECT (self-esteem)			
16	SOCIAL RECOGNITION (respect, admiration)			
17	TRUE FRIENDSHIP (close companionship)			
18	WISDOM (a mature understanding of life)			

	INSTRUMENTAL VALUES	MALAY TRANSLATION FOR LISTED VALUES	WORK AREA	FINAL COLUMN
1	AMBITIOUS (hard-working, aspiring)			
2	BROADMINDED (open-minded)			
3	CAPABLE (competent, effective)			
4	CHEERFUL (lighthearted, joyful)			
5	CLEAN (neat, tidy)			
6	COURAGEOUS (standing up for your beliefs)			
7	FORGIVING (willing to pardon others)			
8	HELPFUL (working for the welfare of others)			
9	HONEST (sincere, truthful)			
10	IMAGINATIVE (daring, creative)			
11	INDEPENDENT (self-reliant, self-sufficient)			
12	INTELLECTUAL (intelligent, reflective)			
13	LOGICAL (consistent, rational)			
14	LOVING (affectionate, tender)			
15	OBEDIENT (dutiful, respectful)			
16	POLITE (courteous, well-mannered)			
17	RESPONSIBLE (dependable, reliable)			
18	SELF-CONTROLLED (restrained, self-disciplined)			

APPENDIX 6

Survey Questionnaire Used in the Phase 2 Fieldwork

RESEARCH QUESTIONNAIRE

(Soalselidik Penyelidikan)

General Instruction

The purpose of this survey is to investigate values and quality practices in organisations. The questionnaire used in this survey consists of nine sections and it deals mainly with values and quality practices in organisations. For each item of the questionnaire, it is firstly worded in the English language. Then, it is translated to a similar concept/meaning in the Malay language (in italics).

Please read the instruction for each section before giving your response. There is no right or wrong answer to the question/statement in this questionnaire. Your response will be kept strictly confidential and it will be used only for the purpose of this research.

Thank you for your cooperation.

Arahan Umum

Soalselidik ini adalah bertujuan untuk menyelidik nilai dan amalan kualiti di dalam organisasi. Soalselidik ini mengandungi sembilan bahagian dan ianya banyak berkait dengan nilai dan amalan kualiti di dalam organisasi. Untuk setiap item di dalam soalselidik ini, ianya ditulis di dalam Bahasa Inggeris. Kemudian ianya diterjemahkan ke Bahasa Melayu (dalam tulisan condong) yang memberikan konsep/maksud yang sama.

Tolong baca terlebih dahulu arahan pada setiap bahagian sebelum memberikan jawapan anda. Tidak ada jawapan yang salah atau betul kepada setiap soalan/kenyataan di dalam soalselidik ini. Jawapan yang anda berikan akan dirahsiakan sewajarnya dan ianya akan digunakan hanyalah untuk tujuan penyelidikan ini.

Terimakasih di atas kerjasama anda.

Mohd Ezani Mat Hassan
Management Division,
School of Business Management,
University of Newcastle upon Tyne,
Newcastle upon Tyne NE1 7RU,
ENGLAND.

SECTION 1 (Bahagian 1)

Instruction: Below is a list of values. For each value please indicate its importance to you as a guiding principle in your life ("1" = least important, "5" = most important).

Arahan: Di bawah adalah senarai nilai-nilai. Bagi setiap nilai, tolong nyatakan kepentingannya kepada anda sebagai asas panduan hidup anda ("1" = sangat tidak penting, "5" = sangat penting).

least important
sangat tidak penting

1

2

3

4

5

most important
sangat penting

No.	Value (Nilai)					
1	A comfortable life (a prosperous life) <i>Kehidupan selesa (kemakmuran kehidupan)</i>	1	2	3	4	5
2	An exciting life (a stimulating, active life) <i>Kehidupan yang ghairah (Kehidupan yang memberangsangkan, giat)</i>	1	2	3	4	5
3	A sense of accomplishment (lasting contribution) <i>Satu pencapaian (sumbangan yang berkekalan)</i>	1	2	3	4	5
4	A world at peace (free of war and conflict) <i>Dunia yang aman (bebas daripada peperangan dan konflik)</i>	1	2	3	4	5
5	A world of beauty (beauty of nature and arts) <i>Dunia yang cantik (kecantikan alam dan seni)</i>	1	2	3	4	5
6	Equality (brotherhood, equal opportunity for all) <i>Persamaan (persaudaraan, peluang yang sama untuk semua)</i>	1	2	3	4	5
7	Family security (taking care of loved ones) <i>Keselematan keluarga (mengambil kisah kepada orang yang dikasihi)</i>	1	2	3	4	5
8	Freedom (free choice) <i>Kebebasan (bebas membuat pilihan)</i>	1	2	3	4	5
9	Happiness (contentedness) <i>Kebahagiaan (Berpuas-hati, bersyukur)</i>	1	2	3	4	5
10	Inner harmony (freedom from inner conflict) <i>Keharmonian dalaman (bebas daripada konflik dalaman)</i>	1	2	3	4	5
11	Mature love (intimate relationships) <i>Kesempurnaan/kematangan kasih-sayang (perhubungan yang akrab)</i>	1	2	3	4	5
12	National security (protection from attack) <i>Keselamatan negara (perlindungan daripada serangan)</i>	1	2	3	4	5
13	Pleasure (an enjoyable, leisurely life) <i>Keseronokan (kehidupan yang menyenangkan, lapang)</i>	1	2	3	4	5
14	Salvation (saved eternal life) <i>Keselamatan (selamat di akhirat)</i>	1	2	3	4	5
15	Self-respect (self-esteem) <i>Kehormatan diri (penghargaan diri)</i>	1	2	3	4	5
16	Social recognition (respect, admiration) <i>Pengiktirafan sosial (penghormatan, dikagumi)</i>	1	2	3	4	5
17	True friendship (close companionship) <i>Persaudaraan sebenar (persahabatan yang rapat)</i>	1	2	3	4	5
18	Wisdom (a mature understanding of life) <i>Hikmah (kefahaman yang matang terhadap kehidupan)</i>	1	2	3	4	5
Other values which you think should be included in the list (please write them in the spaces provided below and for each value, indicate the degree of its importance). Nilai-nilai lain yang anda rasa patut dimasukkan ke dalam senarai di atas (tolong nyatakan pada ruang yang disediakan di bawah dan untuk setiap nilai, tentukan darjah kepentingannya).						
19		1	2	3	4	5
20		1	2	3	4	5

In the above list, which of these values would you regard as the three most important ones: (1) No. _____ (2) No. _____ (3) No. _____

Di dalam senarai di atas, yang manakah anda anggap tiga nilai terpenting:

In the above list, which of these values would you regard as the three least important ones: (1) No. _____ (2) No. _____ (3) No. _____

Di dalam senarai di atas, yang manakah anda anggap tiga nilai yang sangat tidak penting:

SECTION 2 (Bahagian 2)

Instruction: Below is a list personal characteristics. For each characteristic please indicate its importance to you in the working life ("1" = least important, "5" = most important).

Arahan: Di bawah adalah senarai ciri-ciri peribadi. Bagi setiap ciri, tolong nyatakan kepentingannya kepada anda di dalam suasana pekerjaan ("1" = sangat tidak penting, "5" = sangat penting).

No.

Personal characteristic (Ciri peribadi)

least important
sangat tidak penting

1

2

3

4

5

most important
sangat penting

1

Ambitious (hard working, aspiring)
Bercita-cita tinggi (kuat bekerja, berkemahuan)

1

2

3

4

5

2

Broadminded (open-minded)
Berfikiran luas (fikiran terbuka)

1

2

3

4

5

3

Capable (competent, effective)
Berkeupayaan (cekap, berkesan)

1

2

3

4

5

4

Cheerful (lighthearted, joyful)
Riang (girang, gembira)

1

2

3

4

5

5

Clean (neat, tidy)
Bersih (teratur, kemas)

1

2

3

4

5

6

Courageous (standing up for your beliefs)
Berani (sanggup mempertahankan kepercayaan yang dipegang)

1

2

3

4

5

7

Forgiving (willing to pardon others)
Pemaaf (sanggup memaafkan kesalahan orang)

1

2

3

4

5

8

Helpful (working for the welfare of others)
Suka menolong (bekerja memelihara kebajikan orang lain)

1

2

3

4

5

9

Honest (sincere, truthful)
Jujur (ikhlas, benar)

1

2

3

4

5

10

Imaginative (creative)
Imaginatif (kreatif)

1

2

3

4

5

11

Independent (self-reliant, self-sufficient)
Tidak bergantung kepada orang lain (mempercayai diri sendiri)

1

2

3

4

5

12

Intellectual (intelligent, reflective)
Intellectual (bijak, suka merenungi)

1

2

3

4

5

13

Logical (consistent, rational)
Logikal (konsisten, rasional)

1

2

3

4

5

14

Loving (affection, tender)
Penyayang (mencintai, lembut)

1

2

3

4

5

15

Obedient (dutiful, respectful)
Patuh (menjalankan kewajipan, menghormati orang)

1

2

3

4

5

16

Polite (courteous, well-mannered)
Berpekerti baik (halus budi bahasa, baik perangai)

1

2

3

4

5

17

Responsible (dependable, reliable)
Bertanggung-jawab (boleh diharapkan, boleh dipercayai)

1

2

3

4

5

18

Self-controlled (restrained, self-disciplined)
Dapat mengawal diri (dapat menahan diri, mempunyai disiplin diri)

1

2

3

4

5

Other characteristics which you think should be included in the list (please write them in the spaces provided below and for each characteristic, indicate the degree of its importance).
Ciri-ciri lain yang anda rasa patut dimasukkan ke dalam senarai di atas (tolong nyatakan pada ruang yang disediakan di bawah dan untuk setiap ciri, tentukan darjah kepentingannya).

19

1

2

3

4

5

20

1

2

3

4

5

In the above list, which of these characteristics would you regard as the three most important ones: (1) No. _____ (2) No. _____ (3) No. _____
Di dalam senarai di atas, yang manakah anda anggap tiga ciri terpenting:

In the above list, which of these characteristics would you regard as the three least important ones: (1) No. _____ (2) No. _____ (3) No. _____
Di dalam senarai di atas, yang manakah anda anggap tiga ciri yang sangat tidak penting:

SECTION 3 (Bahagian 3)

Instruction: This section requests you to indicate various quality techniques and practices which your division employs, and the extent to which these practices are employed. Please tick the most appropriate response.

Arahan: Ruangan ini meminta anda menentukan pelbagai teknik dan amalan kualiti yang dipakai oleh bahagian anda, dan nyatakan setakat mana ianya digunakan/dipakai. Tolong tandakan yang sesuai pada kotak yang disediakan.

No.	Quality Practice/Technique (Amalan/Teknik Kualiti)	not used (tidak digunakan)	rarely used (jarang digunakan)	occasionally used (kadang-kadang digunakan)	regularly used (selalu digunakan)
1	Routine housekeeping <i>Penjagaan rutin/tetap</i>				
2	Scheduled preventive maintenance <i>Penjagaan pembaikan yang berjadual</i>				
3	Quality audits <i>Odit kualiti</i>				
4	Employee quality orientation programme <i>Program orientasi kualiti untuk pekerja</i>				
5	Process and workflow studies <i>Kajian proses dan aliran kerja</i>				
6	Supplier quality evaluations <i>Penilaian kualiti pembekal</i>				
7	Formal worker training programme <i>Program latihan formal untuk pekerja</i>				
8	Quality posters and slogans <i>Poster-poster dan slogan-slogan kualiti</i>				
9	The 5's (seiri, seiton, seiso, seiketsu, shitsuke) <i>Amalan 5's (seiri, seiton, seiso, seiketsu, shitsuke)</i>				
10	Control charts (the seven tools: pareto chart, scatter diagram, etc.) <i>Carta-carta kawalan (tujuh alat: carta pareto, rajah 'scatter', dsb.)</i>				
11	Statistical techniques and analysis (sampling, multivariate analysis, etc.) <i>Teknik dan analisis statistik (persampelan, analisis multivariat, dsb.)</i>				
12	Quality circles (QCC) or similar programmes <i>Kumpulan mutu kualiti (KMK) atau yang seumpamanya.</i>				
13	Suggestion scheme (suggestion box) <i>Skim cadangan (kotak cadangan)</i>				
14	Input inspections <i>Pemeriksaan input</i>				
15	Work-in-process inspections <i>Pemeriksaan kerja-dalam-proses</i>				
16	Finished products inspections <i>Pemeriksaan keluaran siap</i>				
17	Quality Day <i>Hari Kualiti</i>				
18	Quality awards <i>Anugerah kualiti</i>				
19					
20					

Please state (in the spaces provided below) other quality practices employed in your division which is not mentioned in the above list. Also, indicate the extent to which it is employed.
Tolong nyatakan (pada ruang yang disediakan di bawah) amalan-amalan kualiti lain yang dipakai oleh bahagian anda tetapi tidak disenarikan di atas. Tentukan juga setakat mana ianya digunakan/dipakai.

SECTION 4 (Bahagian 4)

Instruction: The following set of statements relates to practices which are expected from excellent organisations. In this section please indicate your degree of agreement or disagreement with the following statements ("1" = strongly disagree, "5" = strongly agree).

Arahan: Kenyataan-kenyataan di bawah adalah berhubung dengan apa yang dijangkakan/diharapkan daripada organisasi-organisasi yang cemerlang. Di dalam bahagian ini, tolong nyatakan sejauh mana anda bersetuju atau tidak dengan kenyataan-kenyataan berikut ("1" = sangat tidak bersetuju, "5" = sangat bersetuju).

strongly disagree
sangat tidak bersetuju

strongly agree
sangat bersetuju

1	Excellent organisations will always have clear quality philosophy. <i>Organisasi-organisasi cemerlang sentiasa mempunyai falsafah kualiti yang jelas.</i>	1	2	3	4	5
2	Excellent organisations will always be responsive to their employees' needs. <i>Organisasi-organisasi cemerlang sentiasa bertindak-balas kepada keperluan pekerja-pekerja mereka.</i>	1	2	3	4	5
3	Excellent organisations will always treat their employees' with respect. <i>Organisasi-organisasi cemerlang sentiasa melayan pekerja-pekerja mereka dengan hormat.</i>	1	2	3	4	5
4	Excellent organisations will always solicit their members' opinions and feedbacks. <i>Organisasi-organisasi cemerlang sentiasa mengambil pandangan dan maklum-balas ahli-ahli.</i>	1	2	3	4	5
5	Employees of excellent organisations will be consistently courteous. <i>Pekerja-pekerja organisasi cemerlang sentiasa halus budi bahasanya.</i>	1	2	3	4	5
6	The employees of excellent organisations will always look neat. <i>Pekerja-pekerja organisasi cemerlang sentiasa kelihatan kemas.</i>	1	2	3	4	5
7	The employees of excellent organisations will understand the specific needs of their customers. <i>Pekerja-pekerja organisasi cemerlang akan memahami kehendak-kehendak khusus pelanggan-pelanggan.</i>	1	2	3	4	5
8	Excellent organisations will have the most efficient and technologically advanced equipment and physical facilities available for providing quality products. <i>Organisasi-organisasi cemerlang akan mempunyai peralatan yang paling efisien dan terkini serta terdapatnya kemudahan fizikal untuk penyediaan keluaran-keluaran bermutu.</i>	1	2	3	4	5
9	The employees of excellent organisations will always be willing to help customers. <i>Pekerja-pekerja organisasi cemerlang sentiasa sanggup memberi pertolongan kepada pelanggan-pelanggan.</i>	1	2	3	4	5
10	Excellent organisations will keep equipment and facilities well maintained and attractive. <i>Organisasi-organisasi cemerlang akan sentiasa menjaga dengan baik dan menarik bagi segala peralatan dan kemudahannya.</i>	1	2	3	4	5
11	Excellent organisations will have error-free records. <i>Organisasi-organisasi cemerlang akan mempunyai rekod yang bebas daripada kesilapan atau kesalahan.</i>	1	2	3	4	5
12	Excellent organisations will do things right the first time. <i>Organisasi-organisasi cemerlang akan sentiasa melakukan kerja dengan betulnya pada kali pertama.</i>	1	2	3	4	5
13	Excellent organisations will keep their promises to the customers. <i>Organisasi-organisasi cemerlang akan memenuhi janji kepada pelanggan-pelanggan.</i>	1	2	3	4	5
14	The behaviour of employees of excellent organisations will instill confidence in the customers. <i>Kelakuan pekerja-pekerja organisasi-organisasi cemerlang akan menanamkan rasa keyakinan kepada pelanggan-pelanggan.</i>	1	2	3	4	5
15	The employees of excellent organisations will always undergo continuous training and education. <i>Pekerja-pekerja organisasi cemerlang akan sentiasa menjalani latihan dan pendidikan yang berterusan.</i>	1	2	3	4	5
16	The employees of excellent organisations will always value cooperation and teamwork. <i>Pekerja-pekerja organisasi cemerlang akan sentiasa menghargai kerjasama dan kerja berpasukan.</i>	1	2	3	4	5
17	Leadership of excellent organisations will always promote creativity among their workers. <i>Kepimpinan organisasi-organisasi cemerlang akan sentiasa menggalakkan daya kreatif di kalangan pekerja-pekerja.</i>	1	2	3	4	5
18	Excellent organisations will always quick to response and adapt to new changes. <i>Organisasi-organisasi cemerlang sentiasa cepat bertindak-balas dan menyesuaikan kepada perubahan-perubahan baru.</i>	1	2	3	4	5
19	Excellent organisations will always put customers satisfaction first. <i>Organisasi-organisasi cemerlang sentiasa mengutamakan dahulu kepuasan pelanggan-pelanggan.</i>	1	2	3	4	5
20	Excellent organisations will always have good relations with their suppliers. <i>Organisasi-organisasi cemerlang sentiasa mempunyai hubungan baik dengan pembekal-pembekal mereka.</i>	1	2	3	4	5

SECTION 5 (Bahagian 5)

Instruction: The following set of statements relates to your feelings about your organisation. In this section please indicate your degree of agreement or disagreement with the following statements ("1" = strongly disagree, "5" = strongly agree).

Arahan: Kenyataan-kenyataan di bawah adalah berhubung dengan perasaan anda terhadap organisasi anda. Di dalam bahagian ini, tolong nyatakan sejauh mana anda bersetuju atau tidak dengan kenyataan-kenyataan berikut ("1" = sangat tidak bersetuju, "5" = sangat bersetuju).

strongly disagree
sangat tidak bersetuju

strongly agree
sangat bersetuju

1	My organisation has a clear quality philosophy. <i>Organisasi saya mempunyai falsafah kualiti yang jelas.</i>	1	2	3	4	5
2	My organisation is responsive to its employees' needs. <i>Organisasi saya membuat tindakan kepada keperluan pekerja-pekerjanya.</i>	1	2	3	4	5
3	My organisation treats its employees' with respect. <i>Organisasi saya melayan pekerja-pekerjanya dengan hormat.</i>	1	2	3	4	5
4	My organisation solicits its members' opinions and feedbacks. <i>Organisasi saya mengambil pandangan dan maklum-balas ahli-ahlinya.</i>	1	2	3	4	5
5	The employees of my organisation are consistently courteous. <i>Pekerja-pekerja organisasi saya halus budi bahasanya.</i>	1	2	3	4	5
6	The employees of my organisation always look neat. <i>Pekerja-pekerja organisasi saya sentiasa kelihatan kemas.</i>	1	2	3	4	5
7	The employees of my organisation understand the specific needs of their customers. <i>Pekerja-pekerja organisasi saya memahami kehendak-kehendak khusus pelanggan-pelanggan.</i>	1	2	3	4	5
8	My organisation has the most efficient and technologically advanced equipment and physical facilities available for providing quality products. <i>Organisasi saya mempunyai peralatan yang paling efisien dan terkini serta terdapatnya kemudahan fizikal untuk penyediaan keluaran-keluaran bermutu.</i>	1	2	3	4	5
9	The employees of my organisation are always be willing to help customers. <i>Pekerja-pekerja organisasi saya sentiasa sanggup memberi pertolongan kepada pelanggan-pelanggan.</i>	1	2	3	4	5
10	My organisation keeps its equipment and facilities well maintained and attractive. <i>Organisasi saya menjaga dengan baik dan menarik bagi segala peralatan dan kemudahannya.</i>	1	2	3	4	5
11	My organisation has error-free records. <i>Organisasi saya mempunyai rekod yang bebas daripada kesilapan/kesalahan.</i>	1	2	3	4	5
12	My organisation does things right the first time. <i>Organisasi saya melakukan kerja dengan betulnya pada kali pertama.</i>	1	2	3	4	5
13	My organisation keeps its promises to the customers. <i>Organisasi saya memenuhi janji-janjinya kepada pelanggan-pelanggan.</i>	1	2	3	4	5
14	The behaviour of employees in my organisation instill confidence in the customers. <i>Kelakuan pekerja-pekerja di dalam organisasi saya menanamkan rasa keyakinan kepada pelanggan-pelanggan.</i>	1	2	3	4	5
15	The employees of my organisation always undergo continuous training and education. <i>Pekerja-pekerja organisasi saya sentiasa menjalani latihan dan pendidikan yang berterusan.</i>	1	2	3	4	5
16	The employees of my organisation value cooperation and teamwork. <i>Pekerja-pekerja organisasi saya menghargai kerjasama dan kerja berpasukan.</i>	1	2	3	4	5
17	The leadership of my organisation promotes creativity among their workers. <i>Kepimpinan di dalam organisasi saya menggalakkan daya kreatif di kalangan pekerja-pekerja.</i>	1	2	3	4	5
18	My organisation is quick to response and adapt to new changes. <i>Organisasi saya cepat bertindak-balas dan menyesuaikan kepada perubahan-perubahan baru.</i>	1	2	3	4	5
19	My organisation put customers satisfaction first. <i>Organisasi saya mengutamakan dahulu kepuasan pelanggan-pelanggan.</i>	1	2	3	4	5
20	My organisation has good relations with its suppliers. <i>Organisasi saya mempunyai hubungan baik dengan pembekal-pembekalnya..</i>	1	2	3	4	5

SECTION 6 (Bahagian 6)

Instruction: The following questions relate to efforts to improve quality. To what extent have you encountered the following problems when attempting to improve quality in your organisation? Please tick the appropriate response.
Arahan: Berikut adalah persoalan-persoalan berhubung dengan usaha untuk meningkatkan kualiti. Sejauh manakah tahap masalah-masalah berikut di dalam percubaan anda untuk meningkatkan kualiti di dalam organisas. Tolong tandakan jawaban anda pada kotak yang sesuai.

Problem (Masalah)	none (tiada)	some (sedikit)	much (banyak)	very much (sangat banyak)
1 Lack of top management commitment and support <i>Kurangnya komitmen dan sokongan pimpinan atas</i>				
2 Negative attitude towards change among members <i>Sikap negative terhadap perubahan di kalangan ahli</i>				
3 Lack of employees commitment <i>Kurangnya komitmen pekerja-pekerja</i>				
4 Lack of employees participation <i>Kurangnya penglibatan pekerja-pekerja</i>				
5 Lack of employee skills <i>Kurangnya kemahiran pekerja-pekerja</i>				
6 High cost of quality improvements <i>Tingginya kos meningkatkan kualiti</i>				
7 Suppliers are not reliable <i>Pembekal-pembekal tidak dapat diharapkan</i>				
Other problems not listed above (please write in the space provided below and indicate the extent fo the problem in the appropriate box). <i>Masalah-masalah lain yang tidak disenaraikan di atas (tolong tuliskan di dalam ruang yang disediakan dan nyatakan setakat mana ia menjadi masalah di dalam kotak berkenaan).</i>				
8				
9				
10				

SECTION 7 (Bahagian 7)

Instruction: The following items represent various dimensions on which the effectiveness of quality initiatives might be evaluated. Please rate each of these items using the scale provided ("1" = very low, "5" very high).		Arahan: Berikut adalah pelbagai dimensi yang mana keberkesanan usaha-usaha kualiti boleh dinilai. Untuk setiap dimensi di bawah, gunakan skala yang disediakan untuk memberikan penilaian anda ("1" = sangat rendah, "5" = sangat tinggi).				
		very low sangat rendah				very high sangat tinggi
1	Productivity <i>(Produktiviti)</i>	1	2	3	4	5
2	Profitability <i>(Keuntungan)</i>	1	2	3	4	5
3	Degree of creative and innovative solution <i>(Tahap penyelesaian kreatif dan inovatif)</i>	1	2	3	4	5
4	Degree of self restrained and discipline <i>(Tahap pengawalan dan disiplin diri)</i>	1	2	3	4	5
5	Degree of participation among workers <i>(Tahap keterlibatan di kalangan pekerja)</i>	1	2	3	4	5
6	Degree of cooperation among workers <i>(Tahap kerjasama di kalangan pekerja)</i>	1	2	3	4	5
7	Degree of enthusiasm among workers <i>(Tahap semangat/minat di kalangan pekerja)</i>	1	2	3	4	5
8	Cost reductions <i>(Pengurangan kos)</i>	1	2	3	4	5
9	Desirable behavioural change among employees <i>(Perubahan kelakuan yang diinginkan di kalangan pekerja)</i>	1	2	3	4	5

SECTION 8 (Bahagian 8)

Instruction: Please circle or fill in the answer that best describe you, the respondent to this questionnaire.

Arahan: Tolong bulatkan atau penuhkan jawaban yang terbaik berkenaan diri anda, responden kepada soal-selidik ini.

<p>1 My gender:</p> <p>(A) male (B) female</p>	<p>Jantina saya:</p> <p>(A) lelaki (B) perempuan</p>
<p>2 My age:</p> <p>(A) 24 years old or younger (B) 25 to 40 years old (C) 41 to 55 years old (D) 56 years old or older</p>	<p>Umur saya:</p> <p>(A) 24 tahun atau kurang (B) 25 hingga 40 tahun (C) 41 hingga 55 tahun (D) 56 tahun atau lebih</p>
<p>3 My nationality: _____</p>	<p>Saya adalah warganegara: _____</p>
<p>4 I considered myself as a:</p> <p>(A) Malay (B) Chinese (C) Indian (D) European (E) American (F) Japanese (G) Others (please specify): _____</p>	<p>Saya boleh dianggap berbangsa</p> <p>(A) Melayu (B) Cina (C) India (D) Eropah (E) Amerika (F) Jepun (G) Bangsa lain (tolong nyatakan): _____</p>
<p>5 My highest qualification:</p> <p>(A) SRP/LCE certificates or lower (B) SPM/MCE certificates or equivalents (C) College diplomas (D) Univ./college degrees or professional qualifications (E) Others (please specify): _____</p>	<p>Kelulusan tertinggi saya:</p> <p>(A) sijil SRP/LCE atau lebih rendah (B) sijil SPM/MCE atau setaraf dengannya (C) Diploma kolej (D) Ijazah univ/kolej atau kelayakan professional (E) Kelulusan lain (tolong nyatakan): _____</p>
<p>6 I have been working with the present organisation for a period of</p> <p>(A) less than a year (B) more than a year but less than 3 years (C) more than 3 years but less than 5 years (D) more than 5 years but less than 10 years (E) more than 10 years</p>	<p>Saya telah bekerja dengan organisasi sekarang meliputi jangkamasa</p> <p>(A) kurang daripada setahun (B) lebih setahun tetapi kurang daripada 3 tahun (C) lebih 3 tahun tetapi kurang daripada 5 tahun (D) lebih 5 tahun tetapi kurang daripada 10 tahun (E) lebih 10 tahun</p>
<p>7 I have work experience (including with the present organisation) for a period of</p> <p>(A) less than 3 years (B) more than 3 years but less than 5 years (C) more than 5 years but less than 10 years (D) more than 10 years</p>	<p>Saya mempunyai pengalaman kerja (termasuk bersama dengan organisasi sekarang) meliputi jangkamasa</p> <p>(A) kurang daripada 3 tahun (B) lebih 3 tahun tetapi kurang daripada 5 tahun (C) lebih 5 tahun tetapi kurang daripada 10 tahun (D) lebih 10 tahun</p>
<p>8 I have worked (including with the present organisation) in</p> <p>(A) 1 organisation (B) 2 organisations (C) 3 organisations (D) 4 organisations (E) 5 or more organisations</p>	<p>Saya telah bekerja (termasuk organisasi ini) di dalam</p> <p>(A) 1 organisasi (B) 2 organisasi (C) 3 organisasi (D) 4 organisasi (E) 5 atau lebih organisasi</p>
<p>9 My hierarchial position in the organisation is best described as in the category of</p> <p>(A) Top management (B) Middle management (C) Lower management (D) General workers (E) Others (please specify): _____</p>	<p>Kedudukan hirarki saya di dalam organisasi ini adalah paling tepat dikatakan di dalam kategori</p> <p>(A) Pengurusan atasan (B) Pengurusan pertengahan (C) Pengurusan bawahan (D) Pekerja umum (E) Kedudukan lain (tolong nyatakan): _____</p>

SECTION 9 (Bahagian 9)

Instruction: If you wish to make further comments regarding quality in your organisation, please write into the space provided below:
Arahan: Jika anda ingin mengemukakan komen lanjutan berhubung dengan kualiti di dalam organisasi anda, sila tuliskannya pada ruang yang disediakan dibawah:

APPENDIX 7

A Typical Letter from the Vice Chancellor of UKM to the Chairman or President of Selected Organization



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APPENDIX 8

Results of a Factor Analysis for Terminal Values

Principal Component Factor Analysis of the Correlation Matrix

Unrotated Factor Loadings and Communalities

195 cases used 15 cases contain missing values

Variable	Factor1	Factor2	Factor3	Factor4	Commnlty
s1-1	-0.483	-0.200	-0.445	0.355	0.598
s1-2	-0.400	-0.616	-0.026	-0.384	0.689
s1-3	-0.278	0.026	0.423	-0.626	0.648
s1-4	-0.585	0.129	-0.333	-0.258	0.536
s1-5	-0.568	-0.364	-0.193	-0.111	0.505
s1-6	-0.635	-0.158	0.084	-0.084	0.442
s1-7	-0.617	0.186	-0.146	0.152	0.460
s1-8	-0.567	-0.339	0.052	-0.119	0.453
s1-9	-0.596	0.225	-0.146	0.009	0.427
s1-10	-0.514	0.374	-0.042	-0.247	0.467
s1-11	-0.719	0.066	0.123	0.128	0.553
s1-12	-0.740	0.293	-0.113	-0.082	0.653
s1-13	-0.559	-0.489	-0.153	0.188	0.610
s1-14	-0.438	0.463	-0.387	-0.125	0.572
s1-15	-0.656	0.181	0.239	0.030	0.521
s1-16	-0.534	-0.170	0.134	0.185	0.366
s1-17	-0.637	0.115	0.453	0.284	0.706
s1-18	-0.534	0.041	0.490	0.257	0.593
Variance	5.8373	1.5551	1.3022	1.1060	9.8007
% Var	0.324	0.086	0.072	0.061	0.544

Rotated Factor Loadings and Communalities
Varimax Rotation

Variable	Factor1	Factor2	Factor3	Factor4	Commnlty
s1-1	0.291	-0.138	0.403	-0.576	0.598
s1-2	-0.011	0.016	0.801	0.217	0.689
s1-3	0.147	-0.161	0.209	0.746	0.648
s1-4	0.652	-0.027	0.331	0.023	0.536
s1-5	0.247	-0.125	0.650	-0.075	0.505
s1-6	0.274	-0.379	0.466	0.083	0.442
s1-7	0.513	-0.361	0.165	-0.198	0.460
s1-8	0.149	-0.283	0.588	0.074	0.453
s1-9	0.560	-0.288	0.159	-0.077	0.427
s1-10	0.616	-0.205	0.045	0.210	0.467
s1-11	0.384	-0.575	0.272	-0.043	0.553
s1-12	0.695	-0.360	0.199	0.021	0.653
s1-13	0.072	-0.268	0.661	-0.310	0.610
s1-14	0.752	0.001	-0.034	-0.073	0.572
s1-15	0.385	-0.580	0.152	0.118	0.521
s1-16	0.113	-0.473	0.345	-0.107	0.366
s1-17	0.169	-0.817	0.091	0.026	0.706
s1-18	0.052	-0.760	0.095	0.061	0.593
Variance	3.0389	2.8775	2.7065	1.1778	9.8007
% Var	0.169	0.160	0.150	0.065	0.544

Sorted Rotated Factor Loadings and Communalities

Variable	Factor1	Factor2	Factor3	Factor4	Commnlty
s1-14	0.752	0.000	0.000	0.000	0.572
s1-12	0.695	0.000	0.000	0.000	0.653
s1-4	0.652	0.000	0.000	0.000	0.536
s1-10	0.616	0.000	0.000	0.000	0.467
s1-9	0.560	0.000	0.000	0.000	0.427
s1-7	0.513	0.000	0.000	0.000	0.460
s1-17	0.000	-0.817	0.000	0.000	0.706
s1-18	0.000	-0.760	0.000	0.000	0.593
s1-15	0.000	-0.580	0.000	0.000	0.521
s1-11	0.000	-0.575	0.000	0.000	0.553
s1-16	0.000	-0.473	0.000	0.000	0.366
s1-2	0.000	0.000	0.801	0.000	0.689
s1-13	0.000	0.000	0.661	0.000	0.610
s1-5	0.000	0.000	0.650	0.000	0.505
s1-8	0.000	0.000	0.588	0.000	0.453
s1-6	0.000	0.000	0.466	0.000	0.442
s1-3	0.000	0.000	0.000	0.746	0.648
s1-1	0.000	0.000	0.403	-0.576	0.598
Variance	3.0389	2.8775	2.7065	1.1778	9.8007
% Var	0.169	0.160	0.150	0.065	0.544

Factor Score Coefficients

Variable	Factor1	Factor2	Factor3	Factor4
s1-1	0.051	0.042	0.125	-0.473
s1-2	-0.094	0.171	0.442	0.223
s1-3	0.032	0.015	0.097	0.646
s1-4	0.289	0.205	0.092	0.052
s1-5	0.016	0.109	0.288	-0.032
s1-6	-0.005	-0.062	0.145	0.084
s1-7	0.152	-0.065	-0.054	-0.164
s1-8	-0.061	-0.013	0.244	0.083
s1-9	0.198	-0.007	-0.043	-0.056
s1-10	0.268	0.045	-0.081	0.190
s1-11	0.026	-0.192	-0.015	-0.039
s1-12	0.248	-0.004	-0.048	0.031
s1-13	-0.117	-0.025	0.277	-0.244
s1-14	0.389	0.170	-0.114	-0.044
s1-15	0.044	-0.211	-0.072	0.093
s1-16	-0.100	-0.187	0.074	-0.093
s1-17	-0.118	-0.417	-0.129	-0.005
s1-18	-0.165	-0.409	-0.099	0.025

APPENDIX 9

**Results of a Factor Analysis for
Instrumental Values**

Principal Component Factor Analysis of the Correlation Matrix

Unrotated Factor Loadings and Communalities

185 cases used 25 cases contain missing values

Variable	Factor1	Factor2	Factor3	Commnlty
S2-1	-0.665	0.070	0.299	0.537
S2-2	-0.704	-0.245	0.089	0.564
S2-3	-0.661	-0.445	-0.037	0.637
S2-4	-0.666	0.344	-0.352	0.686
S2-5	-0.720	0.294	-0.032	0.607
S2-6	-0.709	-0.037	0.192	0.541
S2-7	-0.669	0.308	-0.203	0.584
S2-8	-0.675	0.230	-0.124	0.524
S2-9	-0.622	0.025	0.523	0.660
S2-10	-0.596	-0.418	-0.181	0.562
S2-11	-0.576	-0.264	-0.384	0.549
S2-12	-0.672	-0.404	-0.315	0.714
S2-13	-0.666	-0.339	-0.042	0.560
S2-14	-0.703	0.330	-0.182	0.636
S2-15	-0.731	0.315	0.037	0.635
S2-16	-0.792	0.233	0.037	0.682
S2-17	-0.686	-0.181	0.441	0.698
S2-18	-0.789	0.006	0.148	0.645

Variance	8.4620	1.4348	1.1241	11.0209
% Var	0.470	0.080	0.062	0.612

Rotated Factor Loadings and Communalities
Varimax Rotation

Variable	Factor1	Factor2	Factor3	Commnlty
S2-1	0.360	0.182	-0.611	0.537
S2-2	0.250	0.521	-0.480	0.564
S2-3	0.133	0.697	-0.364	0.637
S2-4	0.787	0.254	-0.052	0.686
S2-5	0.670	0.185	-0.351	0.607
S2-6	0.355	0.329	-0.554	0.541
S2-7	0.709	0.220	-0.180	0.584
S2-8	0.631	0.246	-0.255	0.524
S2-9	0.220	0.099	-0.776	0.660
S2-10	0.163	0.702	-0.206	0.562
S2-11	0.329	0.664	-0.017	0.549
S2-12	0.271	0.789	-0.136	0.714
S2-13	0.209	0.624	-0.356	0.560
S2-14	0.738	0.212	-0.215	0.636
S2-15	0.665	0.147	-0.414	0.635
S2-16	0.648	0.240	-0.453	0.682
S2-17	0.151	0.318	-0.757	0.698
S2-18	0.452	0.359	-0.559	0.645

Variance	4.2393	3.4171	3.3645	11.0209
% Var	0.236	0.190	0.187	0.612

Sorted Rotated Factor Loadings and Communalities

Variable	Factor1	Factor2	Factor3	Commnlty
S2-4	0.787	0.000	0.000	0.686
S2-14	0.738	0.000	0.000	0.636
S2-7	0.709	0.000	0.000	0.584
S2-5	0.670	0.000	0.000	0.607
S2-15	0.665	0.000	-0.414	0.635
S2-16	0.648	0.000	-0.453	0.682
S2-8	0.631	0.000	0.000	0.524
S2-12	0.000	0.789	0.000	0.714
S2-10	0.000	0.702	0.000	0.562
S2-3	0.000	0.697	0.000	0.637
S2-11	0.000	0.664	0.000	0.549
S2-13	0.000	0.624	0.000	0.560
S2-2	0.000	0.521	-0.480	0.564
S2-9	0.000	0.000	-0.776	0.660
S2-17	0.000	0.000	-0.757	0.698
S2-1	0.000	0.000	-0.611	0.537
S2-18	0.452	0.000	-0.559	0.645
S2-6	0.000	0.000	-0.554	0.541

Variance	4.2393	3.4171	3.3645	11.0209
% Var	0.236	0.190	0.187	0.612

Factor Score Coefficients

Variable	Factor1	Factor2	Factor3
S2-1	-0.015	-0.104	-0.261
S2-2	-0.092	0.137	-0.123
S2-3	-0.148	0.283	-0.036
S2-4	0.328	-0.002	0.233
S2-5	0.204	-0.093	-0.009
S2-6	-0.027	-0.007	-0.190
S2-7	0.262	-0.039	0.121
S2-8	0.200	-0.029	0.058
S2-9	-0.113	-0.167	-0.426
S2-10	-0.093	0.318	0.076
S2-11	0.045	0.314	0.234
S2-12	-0.037	0.366	0.170
S2-13	-0.096	0.231	-0.028
S2-14	0.268	-0.056	0.104
S2-15	0.192	-0.128	-0.061
S2-16	0.157	-0.082	-0.068
S2-17	-0.179	-0.027	-0.379
S2-18	0.014	-0.008	-0.161

APPENDIX 10

**Results of a Factor Analysis for
Elements of 'Quality' or 'Excellence'**

Extracted Factors for Elements of 'Quality' or 'Excellence'

Items	Code	F1	F2	F3	F4	F5	F6	F7	F8
Have a clear quality philosophy	s4-1								0.892
Responsive to employee's needs	s4-2	0.798							
Treats employees with respect	s4-3	0.765							
Solicit members opinions and feedback	s4-4	0.707							
Employees are always courteous	s4-5	0.471					-0.511		
Employees are always neat	s4-6						-0.797		
Employees understand customers' needs	s4-7		0.514		0.424		-0.420		
Possess advanced facilities	s4-8					-0.768			
Always willing to help customers	s4-9				0.654	-0.458			
Facilities are well maintained	s4-10					-0.763			
Defects and error-free records	s4-11						-0.460	0.659	
Do things right the first time	s4-12							0.852	
Always keep promises to customers	s4-13				0.709			0.408	
Behaviour of employees instill confidence	s4-14		0.624						
Continuous training & education for members	s1-15		0.749						
Cooperation & teamwork among members	s4-16		0.599	-0.519					
Promotes creativity among members	s4-17			-0.561					
Responsive and adaptive to changes	s4-18			-0.630					
Put customers' satisfaction first	s4-19			-0.599	0.639				
Good relations with suppliers	s4-20			-0.775					
Variance		2.5635	2.4623	2.3529	1.9610	1.8957	1.7209	1.7087	1.0803
% Var		12.8	12.3	11.8	9.8	9.5	8.6	8.5	5.4

Note: (1) Only coefficient correlations of more than 0.4 are shown in the table. Total %var for the eight factors is 78.7%.

F1 = Treatment towards employees
F2 = Employees competency
F3 = Creativity and adaptability
F4 = Customer oriented

F5 = Technological capability
F6 = Organisational image
F7 = 'Quality' practices
F8 = A guiding philosophy

APPENDIX 11

The Average Gaps for Quality Elements

Factor 1: Treatment towards employees

Elements/ Characteristics	Gaps (E - A)	Av.Gap (UTEL)	Av.Gap (UTEN)	Av.Gap (OPET)	Av.Gap (OSEDG)	Av.Gap (SLUTH)
Responsive to employees' needs	(s4-2) - (s5-2)	2.2308	1.1429	1.3699	0.7632	1.3750
Treat employees with respect	(s4-3) - (s5-3)	2.0769	1.0179	1.2192	0.6579	1.4000
Solicit members' opinions and feedback	(s4-4) - (s5-4)	2.1538	1.1636	0.1644	0.7027	1.5200
Index (Gap Average)	-	2.1538	1.1081	0.9178	0.7079	1.4317

Factor 2: Employees competency

Elements/ Characteristics	Gaps (E - A)	Av.Gap (UTEL)	Av.Gap (UTEN)	Av.Gap (OPET)	Av.Gap (OSEDG)	Av.Gap (SLUTH)
Employees understand customers' needs	(s4-7) - (s5-7)	1.8462	1.3091	1.0000	0.5263	0.9200
Behaviour of employees instill confidence	(s4-14) - (s5-14)	2.0000	1.2679	0.9861	0.4737	0.6000
Continuous training and education for members	(s4-15) - (s5-15)	1.1667	0.8214	0.7778	0.1842	1.0400
Cooperation and teamwork among members	(s4-16) - (s5-16)	1.6154	1.0893	0.8493	0.1842	1.1250
Index (Gap Average)	-	1.6751	1.1219	0.9033	0.3421	0.9213

Factor 3: Creativity and adaptability

Elements/ Characteristics	Gaps (E - A)	Av.Gap (UTEL)	Av.Gap (UTEN)	Av.Gap (OPET)	Av.Gap (OSEDG)	Av.Gap (SLUTH)
Cooperation and teamwork among members	(s4-16) - (s5-16)	1.6154	1.0893	0.8493	0.1842	1.1250
Promotes creativity among members	(s4-17) - (s5-17)	1.7692	1.4286	1.1507	0.3684	1.4000
Responsive and adaptive to changes	(s4-18) - (s5-18)	2.0769	1.8929	1.3288	0.4737	1.6000
Put customers' satisfaction first	(s4-19) - (s5-19)	1.7692	1.1250	0.8493	0.3784	1.0000
Good relations with suppliers	(s4-20) - (s5-20)	1.3077	1.0536	0.6528	0.2632	0.5600
Index (Gap Average)	-	1.7077	1.3179	0.9662	0.3336	1.1370

Factor 4: Customer oriented

Elements/ Characteristics	Gaps (E - A)	Av.Gap (UTEL)	Av.Gap (UTEN)	Av.Gap (OPET)	Av.Gap (OSEDG)	Av.Gap (SLUTH)
Employees understand customers' needs	(s4-7) - (s5-7)	1.8462	1.3091	1.0000	0.5263	0.9200
Always willing to help customers	(s4-9) - (s5-9)	1.8462	0.8571	0.9315	0.4211	0.5600
Always keep promises to customers	(s4-13) - (s5-13)	1.9231	1.2500	0.9178	0.5135	0.8750
Put customers' satisfaction first	(s4-19) - (s5-19)	1.7692	1.1250	0.8493	0.3784	1.0000
Index (Gap Average)	-	1.8462	1.1353	0.9247	0.4598	0.8388

Factor 5: Technological capability

Elements/ Characteristics	Gaps (E - A)	Av.Gap (UTEL)	Av.Gap (UTEN)	Av.Gap (OPET)	Av.Gap (OSEDG)	Av.Gap (SLUTH)
Possess advanced facilities	(s4-8) - (s5-8)	0.3846	1.5091	0.0959	0.2973	0.6000
Facilities are well maintained	(s4-10) - (s5-10)	1.3846	0.9821	0.5417	0.2632	0.7917
Index (Gap Average)	-	0.8846	1.2456	0.3188	0.2803	0.6959

Factor 6: Organisational image

Elements/ Characteristics	Gaps (E - A)	Av.Gap (UTEL)	Av.Gap (UTEN)	Av.Gap (OPET)	Av.Gap (OSEDG)	Av.Gap (SLUTH)
Employees are always courteous	(s4-5) - (s5-5)	1.3846	0.6607	0.6712	0.4474	0.6800
Employees are always neat	(s4-6) - (s5-6)	1.0000	0.4107	0.1370	0.2105	0.4000
Index (Gap Average)	-	1.1923	0.5357	0.4041	0.3290	0.5400

Factor 7: 'Quality' practices

Elements/ Characteristics	Gaps (E - A)	Av.Gap (UTEL)	Av.Gap (UTEN)	Av.Gap (OPET)	Av.Gap (OSEDG)	Av.Gap (SLUTH)
Defects and error-free records	(s4-11) - (s5-11)	1.8462	1.0364	0.5890	0.5000	0.5200
Do things right the first time	(s4-12) - (s5-12)	2.2308	0.8182	0.8904	0.2703	0.8800
Always keep promises to customers	(s4-13) - (s5-13)	1.9231	1.2500	0.9178	0.5135	0.8750
Index (Gap Average)	-	1.6667	1.0347	0.7991	0.4279	0.7583

Factor 8: A Guiding philosophy

Elements/ Characteristics	Gaps (E - A)	Av.Gap (UTEL)	Av.Gap (UTEN)	Av.Gap (OPET)	Av.Gap (OSEDG)	Av.Gap (SLUTH)
Have a clear quality philosophy	(s4-1) - (s5-1)	1.0000	0.8000	0.5417	0.2632	1.1200
Index (Gap Average)	-					