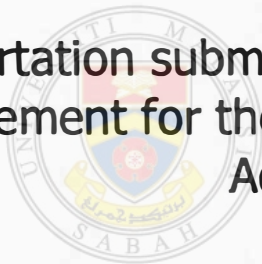


THE IMPACT OF ISO 9000 REGISTRATION ON TOTAL QUALITY MANAGEMENT (TQM) PRACTICES IN THE PUBLIC SECTOR: A COMPARATIVE STUDY

PERPUSTAKAAN
UNIVERSITI MALAYSIA SABAH

NOR FUAD BIN ABDUL HAMID

(Dissertation submitted in partial fulfilment of the
requirement for the degree of Master of Business
Administration)



UNIVERSITI MALAYSIA SABAH

**SCHOOL OF BUSINESS AND ECONOMICS
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DECLARATION

The materials in this thesis are original except for quotations, excerpts, summaries and references, which have been duly acknowledged.

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ACKNOWLEDGEMENTS

In the name of Allah, S.W.T., The Compassionate and The Merciful, to whom I owe the strength and sense of purpose to enable me to complete this study.

Firstly, I would like to express my gratitude to the Federal Government of Malaysia (Public Service Department) for granting me a full-paid study leave and scholarship to pursue my post-graduate study and accomplish my ambition.

I would also like to express my utmost gratitude and appreciation to my supervisor, Prof. Madya Dr. Amran Ahmed, Dean of School of Science and Technology for his precious guidance and valuable time that were constantly given and spent to me throughout the research process; and not forgetting my assistant supervisor, Mr. Vivin Vincent, for sharing his experiences and ideas; and Prof. Muhamad Jantan of USM, in improving the research model.

Special gratitude goes to Dean of School of Business and Economics, Prof. Madya Dr. Syed Azizi Wafa, and the Team Teaching Lecturers of Research Methodology; they are Prof. Madya Dr. Roselina Ahmad Saufi, Dr. James Alin and Dr. Fumitaka Furuoka. I also wish to record my appreciation to Mr. Dullah Mulok, Mr. Amran Harun, Prof. Madya Dr. Noorhayati Mansor, Cik Sidah Idris, Mr. Lim Thien Seng and Cik Sabariah Abd. Rahim in improving the text.

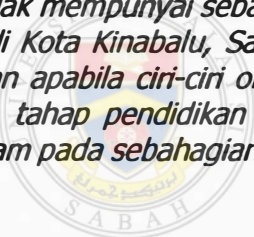
Special thanks to all respondents and departments involved who have extended their valuable time in completing and returning the questionnaires. I would also like to thank my MBA classmates for their assistance and support throughout the research. My deep appreciation goes to my parents and parents-in law, for their prayers, constant support, which will always be remembered, and also, to my brothers & sisters who have given me care, confidence and inspiration to pursuit my life.

Last but not least, I would like to express my deepest debt to my wife, Faezah Kassim, my two daughters, Farhana Adibah and Farah Aina, for their constant patience and sacrifices during my course of study. For me, they have been my source of strength and inspiration.

ABSTRAK

KESAN ISO 9000 BERDAFTAR TERHADAP AMALAN-AMALAN PENGURUSAN KUALITI MENYELURUH (PKM) DI SEKTOR AWAM: SATU KAJIAN PERBANDINGAN

Kajian ini bertujuan untuk mendapatkan persepsi pekerja tentang kesan pelaksanaan ISO 9000 berdaftar terhadap amalan-amalan PKM di sektor awam di Kota Kinabalu, Sabah. Dapatan kajian ini telah dibandingkan dengan dapatan kajian-kajian terdahulu oleh Rao et al. (1997), Poh (2000) and Quazi et al. (2002), yang kesemuanya merupakan pengujian teori yang dipelopori oleh Sallis & Hingley (1992) bagi kebarangkalian wujudnya salah satu daripada empat alternatif teori terhadap hubungan di antara ISO dan amalan-amalan PKM. Lima konsep amalan-amalan PKM di sektor awam di Malaysia telah dikenalpasti. Soal selidik dalam bentuk 5-Skala Likert telah disesuaikan daripada kajian-kajian terdahulu oleh Rao et al. (1997), Poh (2000) and Quazi et al. (2002) bagi memenuhi konteks sektor awam di Malaysia. Kajian ini telah dijalankan di enam jabatan yang berdaftar dengan ISO 9000 manakala 6 jabatan lagi tidak mempunyai sijil ISO 9000. Sebanyak 162 salinan soal selidik telah dikembalikan menjadikan kadar responden keseluruhan berjumlah 67%. Kajian menunjukkan bahawa pensijilan ISO 9000 tidak mempunyai sebarang kesan ke atas amalan-amalan PKM di sektor awam di Kota Kinabalu, Sabah. Walau bagaimanapun, terdapat kesan yang signifikan apabila ciri-ciri organisasi dan faktor-faktor demografi seperti saiz jabatan, tahap pendidikan dan pengalaman pekerja dianalisa dengan lebih mendalam pada sebahagian amalan-amalan PKM.

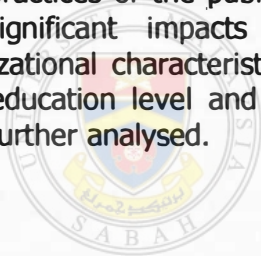


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ABSTRACT

THE IMPACT OF ISO 9000 REGISTRATION ON TOTAL QUALITY MANAGEMENT (TQM) PRACTICES IN THE PUBLIC SECTOR: A COMPARATIVE STUDY

The main objective of this study is to explore the employee perception on the impact of ISO 9000 registration on Total Quality Management (TQM) practices of the public sector in Kota Kinabalu, Sabah. The findings are compared with those reported by Rao *et al.* (1997), Poh (2000) and Quazi *et al.* (2002) on the same studies, which were a theory testing developed by Sallis & Hingley (1992) on four alternative theories of the relationship between ISO and TQM. Five constructs of TQM practices in the Malaysian public sector were identified. The questionnaire on the five-point Likert Scale was adopted from research by Rao *et al.* (1997), Poh (2000) and Quazi *et al.* (2002) and modified for the purpose of this study in order to suit the Malaysian public sector context. The fieldwork was carried out on both ISO 9000 registration departments (six departments) and non-ISO departments (six departments). A total of 162 copies were received which made up 67% response rate. The result reveals that ISO 9000 registration does not affect TQM practices of the public sector in Kota Kinabalu, Sabah. However, there are significant impacts of ISO 9000 registered departments when organizational characteristics and demographic factors such as department size, education level and employees experience on certain TQM practices were further analysed.



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LIST OF ABBREVIATIONS

DAC	Development Administration Circular
EQA	European Quality Award
INTAN	National Institute of Public Administration
ISO	International Organization for Standardization
JUSE	The Union of Japanese Scientists and Engineers
MAMPU	Malaysian Administrative Modernisation and Management Planning Unit
MBNQA	Malcolm Baldrige National Quality Award
PDCA	Plan-Do-Check-Action
PMQA	Prime Minister's Quality Award
PSD	Public Service Department
QCC	Quality Control Circle
QMS	Quality Management System
SIRIM	Standard and Industrial Research Institute of Malaysia
SPM/MCE	Malaysian Certificate of Education (Sijil Pelajaran Malaysia)
SRP/LCE	Lower Certificate of Education (Sijil Rendah Pelajaran)
STP/HSC	Higher Certificate of Education (Sijil Tinggi Persekolahan)
STPM	Malaysian Higher Certificate of Education (Sijil Tinggi Persekolahan Malaysia)
TQC	Total Quality Control
TQM	Total Quality Management

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Quality management is a competitive dimension that sets one company apart from another, yet quality often means different things to different people. It is often a highly non-quantifiable variable whose interpretation changes over time and enterprise. How does a company achieve a reputation for quality when the definition of quality varies from company to company and industry to industry? How can quality be measured or quantified? A search for these questions stimulates much interest in quality programmes (Zhu & Scheuermann 1999).

The quality movement in the West began in the United States at the turn of the 20th century. One of the first attempts of the movement was done by Frederick W. Taylor who introduced new approaches to improve the work of unskilled workers in industrial organizations. Known as "The Father of Scientific Management", he outlined two important quality principles; firstly, that the workers should have standard tools and conditions to complete the task; and secondly, failure to complete the task is a high loss and should be personally costly. In Japan, it is quite usual for the upper managers (the presidents and the general managers) to provide leadership to the quality function. The Japanese upper managers first assumed this leadership during the quality emergency of the late 1940's and early 1950's. It was the upper managers who launch those massive training programmes of annual quality improvement.

In Malaysia, there is no exception in the quality movement both in public and private sectors. The Excellent Work Culture was launched by the Prime Minister in

1989. The Prime Minister Quality Award, Quality Control Circle (QCC) Convention, Quality Day Campaign, and massive training in quality courses are the reflective of government inspiration towards quality improvement. The Japanese and Western experience could be valuable lessons for Malaysia to benefit (Mukhtar 1995).

The Government of Malaysia is striving to enhance quality service of the public sector. Therefore, the ambitious vision of the Malaysian Public Sector is to become "a world class public sector". Hence, there is a need to the current emphasis on productivity and quality management which have reached a new milestone with the introduction of circulars called Development Administration Circular (DAC) in 1991.

Total Quality Management (TQM) was introduced in ministries and government department/agencies with the issuance of DAC No. 1 of 1992 (1/1992) entitled 'Guideline on Total Quality Management in The Civil Services'. Under TQM concept, government agencies have been urged to implement seven (7) 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 (Mohd. Shaid, 1995).

As an effort to accelerate excellent services achievement, the use of elements in quality management system (QMS) based on 'Malaysian Standard-International Standard Organisation 9000' (MS-ISO 9000) series standards have been used by some of the government departments. The prime importance of this quality management system is clients' satisfaction with the services that being provided (Abd. Aziz, 1995).

Tobin (1990) defines TQM as the totally integrated effort for gaining competitive advantage by continuously improving every facet of organization culture.

TQM focuses externally on meeting customers' requirements, while internally on management commitment, employee training and education. Its main objective is to embed quality into processes, products and services. TQM stresses the involvement of everyone inside and outside of the organisation, such as customers and suppliers.

However, TQM entails much more than statistical tools. It requires top management commitment, leadership, training and teamwork. These are the key factors in a successful implementation of TQM. The literature is filled with discussions of these key factors (Hakes, 1991; Saylor, 1992)

It is necessary to understand the difference between three other important quality evolution ideas namely; the Quality Control (QC), Quality Assurance (QA) and Total Quality Management (TQM), which will be discussed below. These are the distinctions made between quality control, quality assurance and total quality.

i) Quality Control (QC)

As the oldest concept, QC involves the detection and elimination of components or final products which are not up to standard. It is an after-the-event process concerned with detecting and rejecting items. As a method of ensuring quality it may involve a considerable amount of waste, scrap and reworking. Quality control is usually carried out by quality professionals known as quality controllers or inspectors.

ii) Quality Assurance (QA)

QA is different from quality control. It is a before and during the event process. Its concern is to prevent faults occurring in the first place. Quality is designed into the process to attempt to ensure that the product is produced to a predetermined specification. QA which termed by Philip Crosby as a 'zero defect' is a mean to

produce defect and fault-free product. It will consistently meet the product specification or 'getting things right first time and every time', by emphasizing the responsibility of the workforce, rather than individuals' responsibility.

iii) Total Quality Management

TQM incorporates quality assurance that has been extended and developed it. It is about creating a quality culture which aims to delight their customers, and where the structure of their organisation allows them to do so. It is about providing the customers with what they want by designing products and servicing customers' expectations to the maximum. Only by delighting customer will they return and tell their friends about it (Sallis, 1996).

However, in order to implement a successful TQM program, human resource factor is an important determinant. Human resource is the most valuable asset in an organisation that needs to be tapped and utilized to the fullest. The employee's needs and the organisation's goal have to be managed and matched effectively to achieve the maximum benefit. Employees must also realize that they need to cultivate positive attitude towards quality concept and to enhance their skills to meet the challenges ahead.

Today, it is the organisation's workforce and diversity that provide the competitive advantage for world-class organization which include factors such as knowledge, commitment, skills and training, race, sex, age, values and cultural norms (Dessler, 2003; Greer, 1995). Service jobs will in turn require new type of "knowledge" workers, new human resource management (HRM) method to manage them, and a new focus on human capital. Human capital refers to the knowledge, education, training, skills and expertise of organisation's workers (Rachel & Dren, 1996; Richard, 1991).

This paper is aimed to explore the employee perception on the impact of ISO 9000 on TQM management practices of the public sector in Malaysia and to review how layers of management perceive quality. Middle level management staffs are considered to be the pillars of their organisation. Their perceptions about quality influence the future of the organisation. On top of that, their attitudes toward quality may affect the performance of the organisation specifically.

It is interesting to note that there are still organisations in the public sectors that have not yet implementing ISO 9000. However, this does not mean that they ignore the importance of producing quality products or services to the customer issued of DAC No. 1 of 1992 entitled 'Guideline on Total Quality Management in The Civil Services'. Thus, it is interesting to make comparison between management practices of government departments/ agencies that formally certified/ registered ISO 9000 and those are not certified/ registered ISO 9000 in their organisation, but implement and embrace TQM philosophy.

1.2 Statement of the Problem

Hill (1995) found that the perception of employees to TQM is often positive. However, the reaction of employees is likely to vary from one organisation to another depending on the style of management and the approach adopted in implementing TQM. Some employees perceive TQM as a threat to their power and position and resist the introduction of TQM. On the other hand, some feel that they have gained influence in their work and task after TQM was implemented in their organisation (Wilkinson *et al.*, 1997).

Generally, proponents of ISO 9000 view the benefits of such registration as having the ability to improve product or service quality; its efficiency and productivity; customer confidence; competitive advantage and the like. Criticism of

ISO 9000 relates to high level of paper work and documentation. Its rigid system does not support creativity or empowerment which standard aims for consistency but not continuous improvements (Barnes, 1998; Larson, 1999).

Customers' complaints such as on late delivery often arise in the Malaysian Public Sector, even though TQM and ISO 9000 are being implemented (The Star, 11 November 2003). The process of ISO documentation and implementation is very messy and costly. Thus, further study is needed in public sector to answer the research question:

"To what extent does the employees' perceptions of certified ISO 9000 department and non-certified ISO department affect on TQM practices namely, top management commitment, teamwork, empowerment, training & development and motivational strategies (reward and recognitions) and to what extent the relationship between the independent variables (status of departments) and dependent variables (TQM practices) is moderated by size of department, years of employee's experience and education level of employee in public sector"

1.3 Objectives of the Study

- i) To investigate employee's perception in the department status (independent variables: ISO and non-ISO departments) and TQM practices (dependent variables) namely, top management commitment, teamwork, empowerment, training & development and motivational strategies (reward and recognitions).
- ii) To study the relationship between the department status and TQM practices, and whether or not the relationship is moderated by the size of department, employee's experience and education level.

1.4 Significance of the Study

The results of the proposed study will help to assess the impact of ISO 9000 registration on TQM practices and the possibility of co-exist in the public sector. This will also help government policy makers and quality practitioners to determine the future path of ISO 9000 and its relevancy in enhancing the operations of a government department.

1.5 Scope of the study

The study was carried out in the federal government departments/agencies in Kota Kinabalu, Sabah. The study classifies the public sector as certified ISO 9000 and non-ISO departments in relation to the TQM practices on employee/individual perceptions. Six certified ISO 9000 departments and six non-ISO departments were selected on purposive sampling. This study uses the term public sector as to indicate federal government agencies and departments or units, and those terminologies will be used interchangeably.

1.6 Background of Research Methodology

The questionnaire based on the five-point Likert Scale was chosen for this study from non-probability sampling method (targeted/purposive) of certified ISO and non-ISO departments. A total of 240 self-administered questionnaires were sent to these departments in order to get the public sector's employees perception on the impact of ISO 9000 implementation on TQM practices, which covered executive level (top management and middle management) as well as non-executive (supporting 1 and 2) of the Malaysian public sector organizational hierarchy system. The Statistical

Package for Social Science (SPSS) software version 11.0 was used to further analyse an aggregate data which was discussed thoroughly in Chapter 3, 4 and 5.

1.7 Structure of the study

The introduction of the study, problem statement, objectives, scope and significance of this study will be explained in Chapter 1. In Chapter 2, elaborates a literature review on TQM as a management philosophy and ISO 9000 as a quality management system (QMS). The chronological events of quality management in the past and present are shown, and the Malaysian public sector's experience in implementing TQM and ISO 9000 will be explained in this chapter. The conceptual framework and the research methodology of the study will be exhibited in Chapter 3 through the development of eleven (11) hypotheses testing. The results of the data analyses will be presented in Chapter 4. The focus of this study in comparing the impact of ISO 9000 implementation and non-ISO on TQM practices, by discussing their similarities and contrasts to each others, following the implication, limitation and recommended further research of the study will be highlighted in Chapter 5.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter deals with survey of literature in the area of TQM and its determinants, which is divided into eight main sections. The first section gives various definitions of quality. The second section describes the evolution of quality management. In section three and four review studies on the relationship between TQM practices and ISO 9000, and its important quality management practices theoretically are discussed. This is followed by section five, six and seven which will describe the moderating and the critical success factors of implementing TQM. Lastly, section eight will explain the implementation of TQM and ISO 9000 in the Malaysian public sector, and the government experience.

Sallis (1996) stressed some of the misconceptions in TQM. TQM is not an imposition. It cannot be done to you or for you. For TQM to work in an institution, it must first be introduced. It is not about inspection. It is always about trying to do 'things right first time and every time', rather than occasionally checking if they have gone wrong. TQM is not about working to someone else's agenda, unless the agenda has been specified by your customers and clients. It is not something which only senior managers do and then pass their directions to down lines. The 'total' in TQM dictates that everything and everybody in the organisation are involved in the enterprise of continuous improvement. The 'management' in TQM likewise means everyone, because everyone in the institution, whatever their status, position or role, is the manager of their own responsibilities.

2.2 Definition of Quality

The concept of quality first began in the manufacturing organisations producing physical, tangible products (Tenner & De Toro, 1992). It is a by-product of the emergence of mass production system that caused an increase in scale and volume of production. Nevertheless, quality applies equally to the service businesses as it relates to the overall experience a customer has with a company besides how the product is made.

Some popular definitions given by various Gurus in quality can be best described as follows:

"Conformance to requirement-according to Crosby (1979), quality is conformance to requirements which can only be measured by the cost of nonconformance and this lead to only one standard of performance, that is zero defect performance. The zero defect terminology indicates that doing things right the first time is the basic step to achieve quality."

- i) Customer satisfaction-Ishikawa's (1985) definition of quality is "product which is most economical, most useful and always satisfactory to the consumer."
- ii) Deming (1986) defined quality as a "predictable degree of uniformity and dependability, at low cost and suited to the market and quality is whatever the customer needs or requires."
- iii) Juran (1974) defined quality as fitness for purpose or use, that is the users of the product or service should be able to count on it for what they need or want to do with it.
- iv) Feigenbaum (1991), the meaning of quality referred as "the total composite product and service characteristics of marketing, engineering,