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A study of the impact of ISO 9000 Quality System on company business and quality performance

A data analysis of performance results of 7 manufacturing departments in Matsushita Electric Co. (M) Berhad.

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Ravindran Mahalingam

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Name of Candidate: Ravindran Mahalingam

Title of Project paper:

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A data analysis of performance results of 7 manufacturing departments in Matsushita Electric Co. (M) Berhad.

The undersigned certifies that the above candidate has fulfilled the conditions of the project paper prepared in partial fulfillment of the requirement for the Master of Business Administration (MBA).

Supervisor,

Dr. Naceur Jabnoun

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Dedicated to my mother for her love and to my lovely wife Shamini.

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ABSTRACT

The International Standards Organization Quality System certification, also known as the ISO 9000 series certification is the world's most popularly accepted Quality System certification today. A Company that acquires ISO 9001/2-certification has a better acceptance in the market for greater quality and excellence in its products and services. There has been perception in the market that companies with ISO 9002 certification not only have better product/service quality but also improve in other areas of business, such as sales and profit. The objective of the project paper is to study the performance of Matsushita Electric Co. (M) Bhd (MELCOM), a leading electrical appliances manufacturer, and correlate its performance to ISO 9000 Quality System certification. A total of seven departments were studied in the project, four of which are ISO 9002 certified. The performance measures analyzed were sales, profit, market share, market quality and process quality from 1992 to 1998. Comparison analysis on the data prior and after certification was carried out. The results of the analysis show that there is generally an improvement in the performance measures after certification. Certified departments have improved business and quality results overall as compared to noncertified ones. The report provides the management with clear evidence that implementation of ISO 9000 Quality System yields positive results in the long run and it is vital for the remaining departments in MELCOM to implement ISO 9002 system.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

The main objective of the project paper is to study the performance of Matsushita Electric Co. (M) Berhad (MELCOM), a leading electrical appliances manufacturer in Malaysia and correlate its performance results to ISO 9000 Quality System certification.

More consumers today make quality equal or more important than price in their purchasing decisions. This clearly shows that in the era of "free competition" and globalization, quality is one of the most significant trends in modern market place.

In line with global competition, quality excellence has also gone global. If a company wants to be a global player it has to ensure that all quality requirements of the domestic and international customers can be fulfilled.

Realizing that quality is paramount, companies have built their business strategy around quality, where, in order to have both market share and profitability, quality has become the most powerful corporate leverage point for simultaneously achieving total customer satisfaction, human resource leadership and lower costs.

The set up of a clear Quality system in an organization is the most important task to achieve Quality excellence. Many companies have embarked on various Quality improvement activities in order to improve overall quality management.

The ISO 9000 series certification scheme was developed by the European Community in order to enforce a standardized Quality Management System for companies doing business in European Community.

In the South East Asian countries particularly, the ISO 9000 Quality System certification has been widely implemented compared to other parts of the world outside Europe.

Most companies surveyed are implementing ISO 9000 for the International acceptance of their products, especially export to European Union. Currently Malaysia is contributing about 6.4 % of the total Electrical Appliances business world wide, amounting to RM 2,820 million. Out of this, 8.9 % is exported to the European Union¹.

There has a lot of research done on the benefits of ISO 9000 in improving customer satisfaction. However not much evidence is available that shows implementation of international quality standards creates positive results not only in the areas of quality but also in sales and profit.

This project was undertaken to come up with evidence to confirm such a claim in MELCOM. In order to provide stronger support to the case in point, departments that have not been certified under the same umbrella organization will also be analyzed for the purpose of comparison. The study will also include other Total Quality Management (TQM) programs to grasp the extent of the effects of such programs in the performance measures.

The results of this study can provide the Top Management of MELCOM with clear evidence on the effectiveness ISO 9000 system implementation in both area of quality and business profit.

In section 1.2, a brief company background shall be provided for better understanding of the history and organization. In section 1.3, the organization culture and the management style is explained in order to understand the basic work system and especially it's emphasis to quality. In the final section, the strategic intention for ISO 9002 implementation is discussed.

1.2 COMPANY BACKGROUND

The company where the project was carried out is:-

Matsushita Electric Co. (M) Bhd

No 1, Jalan Sesiku

Section 15, 40000

Shah Alam, Selangor D.E.

MELCOM in short was established on 3rd September 1965². It is a subsidiary company of Matsushita Electric Industrial Co. Limited Japan (MEI). Located in Shah Alam, the first range of products that the company produced were dry cell batteries, black and white television, electric fans and refrigerator.

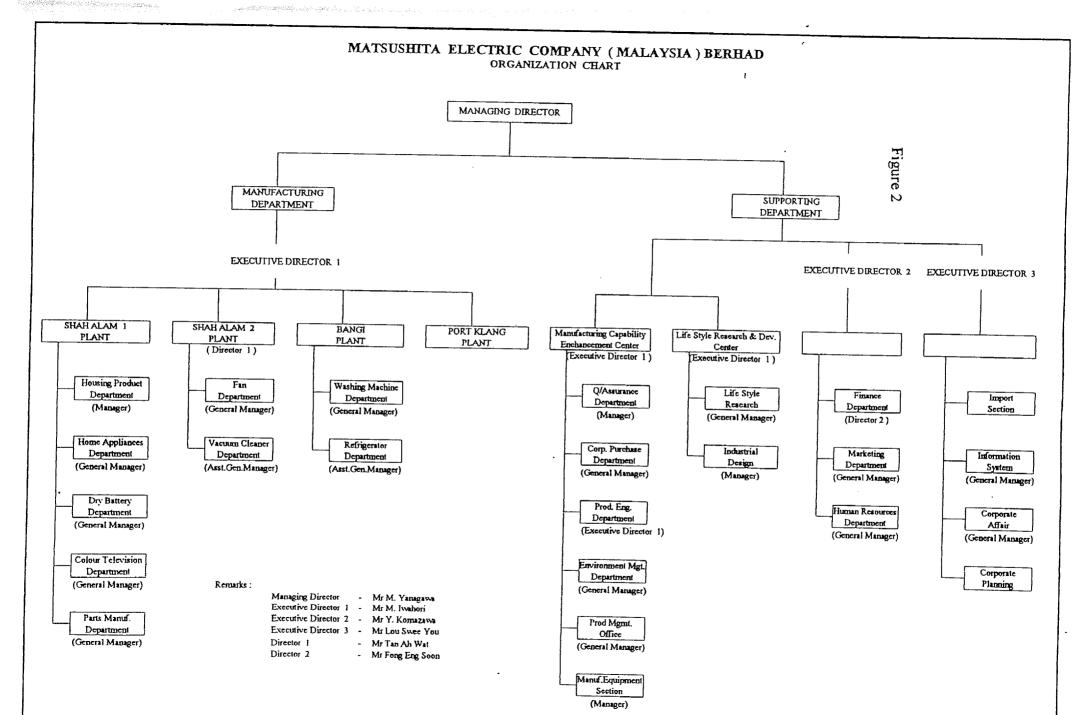
The company was public listed in November 1966 with a paid up capital of RM 32.5 million. Currently the company has four plants manufacturing 20 different types of products as displayed in Figure 1.

Figure 1 **MELCOM** product chart S.A. 1 S.A. 2 Bangi P.K. Plant plant plant plant • Color TV • Electric Fan Fridge Parts manufacturing Ceiling Fan Washer Dry Battery Rice Cooker Ventilating Fan Wall Fan Rice Warmer Vacuum Cleaner Jar Rice Cooker Electronic Rice Cooker Porridge Cooker • Dry Iron Steam Iron Blender Home Shower Gas Cooker Slow Cooker

Sixty percent of the output is for the Domestic Market while the remaining is for the export market, mainly to Japan and the Middle East. Total sales increased to more than RM800 million in 1996 compared to less than RM150 million in the early seventies. Profit in 1996 reached a peak of RM80 million before taking a dip due to regional economical crisis³.

Currently there are nine manufacturing factories manufacturing various types of electrical appliances for household use. Each manufacturing plant is run autonomously, headed by a General Manager. Each department has it's own manufacturing, quality control, purchasing and store sections. Each manufacturing department is a profit center and as such has its own profit and loss management.

Some staff functions however are located centrally to minimize cost and reduce redundancy, namely, accounting, human resource management, marketing and quality assurance department (Refer Figure 2 for organization chart).



1.3 COMPANY ORGANIZATIONAL CULTURE AND

MANAGEMENT STYLE

The organizational culture of MELCOM is one that is similar to all other Matsushita company worldwide. The management style or concept is emphasized in the Basic Business Philosophy that is recited every morning by all employees.

It consist of three elements, namely the "Basic Management Objective", "The Company Creed" and "The Seven Principle".

The "Basic Management Objective" expresses the basic attitude that employees must have in their daily work life to realize the company's goal. The seven principles set the standard for the employees' proper mental attitude for their daily work. Implementation of these three elements contributed to the company success today.

Matsushita Business Philosophy⁴

Basic Management Objective

Recognizing our responsibilities as industrialist, we will devote ourselves to the progress and development of society and the well being of people through our business activities, thereby enhancing the quality of life through out the world.

Company Creed

Progress and development can be realized only through the combined effort and corporation of each employee of our company. United in spirit we pledge to perform our corporate duties with dedication, diligence and integrity.

Seven Principles

- Contribution to Society
- Fairness and honesty
- Corporation and team spirit
- Untiring effort for improvement
- Courtesy and humility
- Adaptability
- Gratitude

The management of MELCOM is autonomous with a Managing Director. Most decision for business is carried out independently. However in major business decisions, collective wisdom from the Head Quarters is obtained.

The organizational structure is that of cross-functional organization.

1.4 STRATEGIC IMPLICATION FOR ISO 9002

IMPLIMENTATION

Since the set up of MELCOM, there has been continuous emphasis of quality by the Top Management. The whole organization culture was founded on quality. This was the main policy advocated by the late founder, K. Matsushita.

There had been continuous effort in introducing Quality related activities through out the seventies and eighties. In the early eighties Quality Circle concept was introduced, where shop floor workers formed teams to solve daily work problems. This activity was highly successful where MELCOM won many awards both at the National level and International level.

In 1987 MELCOM embarked on its first product certification exercise to obtain Japan Industrial Standard certification (JIS) for its electric iron products export to Japan. A year later the effort bore results, where MELCOM was the first Matsushita company outside Japan to obtain such a mark.

In the early nineties, the Malaysian economy had just recovered. A lesson learnt during the economic downturn was, the Malaysian market was far to small to sustain a big company like MELCOM. In addition the government through the ASEAN initiative, was about to discuss the formation of ASEAN free trade area (AFTA). Under this plan, the import duties among member countries will be abolished by the year 2003.

MELCOM needed the support of Matsushita Electric Industrial, Japan (MEI), to maintain its operation in Malaysia. This is important, because MEI has similar companies also known as mini Matsushitas in every ASEAN country that manufactures almost the same products.

In the early sixties and seventies, these companies flourished for specific purpose of supplying for their own local market. However, with the implementation of AFTA, non-competitive companies will be closed down.

The strategy was thus to improve on the overall Quality management system in terms of Market and Process Quality in order to continue to be attractive.

Apart from that, MELCOM was also keen to acquire more export business. This was to increase economies of scale to offset the growing manufacturing and labor cost. ISO 9002 Quality System was seen as the most suitable system that will enhance both overall quality systems to that of a world class level and also to provide a better image to the company and it's product range.

In deciding the choice of Quality System, decision was made to implement the ISO 9002 system that did not include the designing aspect. This was because all design aspect responsibility was shared equally between MELCOM designers and parent division. Thus it was decided, quality excellence in manufacturing system shall be obtained first before embarking on ISO 9001. ISO 9001 will only be considered when MELCOM was fully independent to carry design activities.

The management of MELCOM was aggressive to implement the Quality System even though Product Division in Japan had not implemented ISO 9002! This became a barrier for MELCOM initially, however eventually it was overcome through firm negotiation.

Out of the nine manufacturing plants, SIRIM QAS has certified 4 plants under the MS ISO 9002 scheme. They are Vacuum Cleaner (1995), Color Television (1996), Home Shower (1996), Rice Cooker (1998), Refer to Figure 3 on the development of MS ISO 9002 in MELCOM.

As mentioned earlier, the implementation of ISO 9002 quality system was never seen as to improve on the overall profitability of the company directly, rather it was primarily for the improvement of product quality specifically ensuring product leadership in the market and continuous survival of the company.

This thesis consists of five main chapters. Chapter one provides the introduction and background of the project and the company. Chapter two is a review of the available literature on ISO 9000, while in the third chapter the problem is defined and the objective, scope, methodology are presented. In the next chapter the analysis of the case is carried out. Finally the last chapter summaries the whole projects and provides the conclusion and recommendation.

In the next chapter, a review of the relevant literature is carried on this subject.

Figure 3

MELCOM ISO 9002 certified departments

