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'Saya akui bahawa telah membaca karya ini dan pada pandangan saya karya ini adalah memadai dari segi skop dan kualiti untuk tujuan penganugerahan Ijazah Sarjana Muda Pengurusan Teknologi (Inovasi Teknologi)'

Tandatangan	:
Nama Penyelia Utama	: DR. SYAIFUL RIZAL B. ABD
	HAMID
Tarikh	:
Tandatangan	:
Nama Penyelia Bersama	: MADAM L.GANAGAMBEGAI
Tarikh	

# THE APPLICATION OF OLD AND NEW SEVEN QC TOOLS FOR ACHIEVE COST SAVING IN MALAYSIAN MANUFACTURING

#### MUHAMMAD HAFFIZAL BIN BAHROM

This Report Is Submitted As A Partial Fulfillment For Bachelor Of Technology

Management (Technology Innovation)

FACULTY OF TECHNOLOGY MANAGEMENT AND TECHNOPRENEURSHIP (FPTT),

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

**JUNE 2013** 

"Saya akui laporan ini adalah hasil kerja saya sendiri kecuali ringkasan dan petikar
yang tiap-tiap satunya saya telah jelaskan sumbernya"
Tandatangan:
Nama :
Tarikh:

#### **DEDICATION**

This Research Paper is lovingly dedicated to my respective parents who have been my constant source of inspiration. They have given me the drive and discipline to tackle any task with enthusiasm and determination. Without their love and support this project would not have been made possible.

#### Acknowledgement

First and foremost, A research would like to thanks to our supervisor of this research, Dr Mohd Syaiful Rizal Bin Abd Hamid for the valuable guidance and advice. He inspired us greatly to work in this research. His willingness to motivate us contributed tremendously to our research. researcher also would like to thank his for showing us some example that related to the topic of our research. Besides, we would like to thank the authority of University Teknikal Malaysia Melaka (UTeM) for providing us with a good environment and facilities to complete this research. Finally, an honorable mention goes to my family's Bahrom and Kuntum, close friend Hanim Bt Hamid that give me some advice and spirit to finish this project and not forget to my friends which are Norin, Zulaikha, Kharunisa and others for their understandings and supports on us in completing this research. Without helps of the particular that mentioned above, the researcher would face many difficulties while doing this research.

#### **Abstract**

In other to survive in a competitive market, the application of seven Quality Control tools theory can help the organization to achieve cost saving of production. The aim of this research is to identify and to function of every tools both of old and new method' QC tools method in manufacturing and analyzing the result of cost saving after implemented. This research will collect the data with the primary data by interviewing and make a simple meeting with representative staff of company and secondary data, the researcher using book, internet, journal and other resources that related to the quality control issues to collect the data. The methodology of this project describes the root course problem until suggestion for improvement. As a conclusion, this application useful in operation to apply the method of 7 QC Tools old and new in operation activity. Therefore, the relation of old and new of 7 QC Tools can help the organization to move forward follow the mission and vision of organization.

**Keyword:** Quality Improvement, Quality Tools.

#### **Abstrak**

Untuk bertahan dalam dunia persaingan pasaran, teori penggunaan tujuh alatan kualiti dapat menolong sesebuah organisasi untuk mencapai penjimatan kos dalam pengeluaran. Matlamat kajian ini ialah untuk mengenal pasti dan kegunaan setiap alat kualiti antara cara lama dan cara baru kawalan kualiti dalam pembuatan dan analisis jenis penjimatan kos selepas pelaksanaan. Kajian ini terhasil daripada data primary melalui temu bual dan membuat perbincangan bersama wakil staff yang tahu dan mempunyai pengalaman tentang kualiti berterusan dan data kedua dibuat dengan menggunakan buku, internet, jurnal, dan sumber-sumber lain yang berkaitan dengan kajian ini sebagai rujukan. Kaedah kajian dalam kajian ini menerangkan punca masalah sehingga cadangan atau jalan penyelesaian dalam penambahbaikan. Kesimpulannya ialah, penggunaan kaedah tujuh alat kualiti ini sangat berguna dalam operasi pembuatan sama ada kaedah lama atau baru yang dapat membantu organisasi ke arah untuk mencapai misi dan visi syarikat.

Kata Kunci: Penambahbaikan Kualiti, Alat Kualiti.

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#### LIST OF ABBREVIATIONS

7QC Seven Quality Control

**FMEA** Failure mode Effect Analysis

MPC Malaysian Productivity Corporation

**PERT** Programme Evaluation and review Technique

**PDPC** Program Decision Programme Chart

Pelan, Do, Check, Act **PDCA** 

SOP Standard of Procedure

#### LIST OF APPENDECES

- 1 Sample of Quaestionnare
- 2 Transcript Interview (En. Razak KFC and Norshazwana Akmal Konica Minolta)
- 3 Gantt Chart
- 4 Slide Presentation

#### **CHAPTER 1**

#### INTRODUCTION

#### 1.1 Introduction

This chapter contains the project background, research question, objective research, scope of research, limitation of the project, and significant of the project.

#### 1.2 Project Background

As a many developing countries in Asia, the future of the Malaysia economy depends on the success of the manufacturing in order to compete with a global market and export significant quantities of goods all over the world. Malaysia is a developing country has an advance manufacturing then Indonesia and Filipina but still less advance than Japan and South Korea. Success both of domestic and international market will, in the future increasingly be based on the quality as well as the cost operation in manufacturing. The Total Quality Management (TQM) is more significant for industry in Malaysia so that the industrial level in Malaysia is similar with Japan and South Korea. In order to support the quality in a manufacturing context in Malaysia, the application of 7QC tools must be applied to measure a continues improvement in manufacturing process parallel with the organization's mission to achieving long term competitiveness. The problem our

study case concentrates on is part of the manufacturing process problem are faced by a large industry in Malaysia. The case study wants to study the method of solving any problems in manufacturing mainly by using the old and new 7 QC Tools that include in PDCA approach in TQM System.

#### 1.3 Research Question

In this project have a several research question or statement of the problem. The research problem is a:

- i. How far the application of old and new 7 QC Tools method can help the organization in order to reduce costs output?
- ii. What type of 7QC Tools method that Malaysia manufacturing use?
- iii. Why the manufacturing must use the seven QC Tools to solving the problem?
- iv. What the most important tools both of old and new 7QC Tools in order to solve the problem in manufacturing?

#### 1.4 Objectives of the Project

The objectives of this project are:

- i. To identify the main purposes between of old and new method of 7QC in manufacturing Malaysian context.
- ii. To measure the 7QC Tools are parallel with cost reduction in manufacturing.
- iii. To see the most frequent use in resolve problems in Malaysian manufacturing between old and new method of 7 QC Tools.
- iv. To know the common method of 7QC Tools that their applied.



#### 1.5 Scope of the Project

For this project, the researcher will focus on this scope:

- i. The project is mainly aiming at the quality control which is related the productivity improvement
- ii. This project contains the data or information from an interview the respondents consisting of Senior Manager, Manager, executive and staff that involve in Quality Improvement.
- iii. This project was implemented by using the old and new method of 7QC Tools to find the root causes of problems in manufacturing.
- iv. The project is carried out with the result of cost saving achievements in manufacturing.

#### 1.6 Limitation of Project

This project more focus on the application of 7 QC Tools in manufacturing and included some of the subsidiaries of quality approach like value stream mapping to detect which one stage of manufacturing process face the number of problems and to solve it. And another word, this project not involves the leadership policy deployment and quality motivation, quality culture and learning and quality service.

#### 1.7 Significant of study

This project focuses on manufacturing sector to create a continuous improvement the quality of production in order to achieve the objective of the project. The purposes of this project are aim to effectiveness of Quality Tools that comprising of old and new 7 QC tools likes, check sheet, Pareto diagram, fish bone diagram, histogram and so on while the new method likes, affinity diagram, matrix diagram, and etc. that related to the new of 7 QC tools Second, this project will examine the relation of quality management and achieving a cost saving of production as the company wants. Then, this project also

identifies the method of the process by using the 7 QC tools in the Company of KFC Holdings Malaysia Berhad weather these methods able to make a best practice in the other companies.

#### 1.8 **Summary**

The conclusion of this chapter is introduced about the current issues that related to quality issues among the manufacturing company in Malaysia. For this project are focused on method of quality improvement in manufacturing to know about how much of the effectiveness of quality tools help to reduce the cost of operation. Then, these chapters clear about the objective of project, scope of the project and the limitation of the project that explain about the flow of the project. In chapter 1 is a beginning point to implement the project.

#### **CHAPTER 2**

#### LITERATURE REVIEW

#### 2.1 Introduction

This chapter contains the theoretical frame of reference. The chapter provides an overview of manufacturing in Malaysia. Quality management involved some of the elements likes; quality tools, Failure Mode and Effect Analysis (FMEA) more tend to reduce a cost of operation. The research may be conducted based on the framework that has been designed.

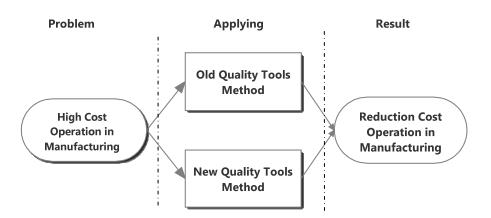


Figure 2.1: Theoretical Framework

#### 2.2 Food Manufacturing in Malaysia Context.

#### 2.2.1 Introduction

Malaysia is a country that has many resources of tropical and agriculture reflecting diverse cultures in Malaysia's society include Malay, Chinese and Indian, have been resulting in a fascinating range or processed food with an Asian twist. In the late 80's and early 90's, Malaysia has to experience of strong economic growth reflected by increasingly sophisticated of food and beverage market to be supplied with both local and imported products. The food-processing industry is predominantly Malaysia owned (Mida) that means; small and medium-scale companies are dominated by food industry. Malaysia is a third-leading producer of poultry meat in Asia-Pacific region. The quality of food is very significant in food-industry parallel with the customer's awareness nutrition value and food fortification for healthcare and creates a demand for healthy minimally processed fresh food, organic food, and natural food flavour from plants or seafood.

#### 2.2.2 Quality Improvement in Food Manufacturing

Halal Industry plays their role to measure the food that produces in Malaysia is a great in terms of quality of food, sanitation, compliance and cleanliness from forbidden things that religious requirement. Malaysia now more focuses on agriculture and many approaches that the government uses to achieve the economic growth with to contemplate joint venture with manufactures particularly from Australia and New Zealand to service in ASEAN, Middle East, Europe and United States Market. Additional than that, in order to parallel the Malaysia food industry with the other country of food-industry producer, the efficiency producing of product is so significant in food manufacturing to avoid any wasting in terms of costs, and time operations in Malaysia, Malaysia Productivity Corporation (MPC) is a one government body that monitor and lead the organization especially manufacturing sector to measure the