# COMPARATIVE STUDY BETWEEN THE ISO CERTIFIED AND NON CERTIFIED MANUFACTURING COMPANIES TOWARDS PERFORMANCE

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The thesis is submitted in partial fulfilment of the requirements for the award of Bachelor of Technology Management and Technopreneurship

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### APPROVAL

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I/ We hereby declare that I/ We have read this dissertation/ report and in my opinion, this dissertation/ report is sufficient in terms of scope and quality as a partial fulfilment the requirement for the award of Bachelor of Technology Management (Technology Innovation) with Honours

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### **DECLARATION OF ORIGINAL WORK**

# I hereby declared that this report entitled "COMPARATIVE STUDY BETWEEN THE ISO CERTIFIED AND NON CERTIFIED MANUFACTURING COMPANIES TOWARDS PERFORMANCE"

is the result of my own research except as cited in the references. The report has not been accepted for any degree and is not concurrently submitted in the candidature of any other degree.

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### DEDICATION

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I would like to dedicate the appreciation to my family members who supported me in term of spiritual and financial, beloved supervisor and panel who guided me throughout this research and course mates that assisted me through the journey of research.

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### ABSTRACT

Government have encourage Malaysian to buy for local products for the purpose of stimulate the economic level of country, but citizen are refuse to buy because of the quality problem. ISO certification are able to overcome and solve this problem. This is due to the fact that it gives more comparative advantages and improve the work efficiency of the organisation. But on the other hand, manufacturing companies without ISO certification does perform well. Therefore, this research will try to compare between the manufacturing companies with ISO certification and without towards performance. In this research, performance measurement of manufacturing companies such as quality of product, operational performance, customer satisfaction, market performance and financial performance. An in-depth review of preview research are adding in the literature review so that the information of this research can be richer. While the method used in the research are using the questionnaire to collect for the data from the respondent so that can get their result to analyse for the result. Next, the methods that are suitable for comparative study to analyse for the data are Descriptive Analysis and Mann Whitney U-test. 162 sets of questionnaire survey are collected as the primary data for this research. Results of the research found that ISO certified manufacturing companies can perform better in the aspect of quality of product, operational performance, customer satisfaction and market performance, while financial performance are not included. This findings of the research are contributed for business management and government to explain the benefits of ISO certification.

### ABSTRAK

Kerajaan sentiasa mengalakkan warganegara untuk membeli barangan buatan supaya ekonomi negara dapat ditingkatkan serta memajukan negara kita. Tetapi, kebanyakkan warganegara enggan membelikan kerana mereka percaya bahawa barangan buatan Malaysia tidak mempunyai kualiti barang yang baik. Dalam hal ini, Pensijilan ISO daapt menyelesaikan masalah ini. Ini adalah kerana pensijilan ISO dapat memberi lebih banyak kebaikan dan kecekapan kepada organisasi. Sebaliknya, syarikat pembuatan yang tidak mempunyai sijil ISO tidak dapat melaksana dengan baik. Oleh itu, kajian ini akan berbanding prestasi antara syarikat pembuatan yang pensijilan ISO dan tanpa sijil. Dalam hal ini, prestasi syarikat pembuatan adalah mengunakan beberapa pengukuran untuk menentukannya. Dalam hal ini, ukuran yang digunakan seperti kualiti produk, prestasi operasi, kepuasan pelanggan, prestasi pasaran dan prestasi kewangan. Jurnal-jurnal yang berkaitan telah dipilihkan untuk mendapatkan informasi yang penting supaya ia dapat menyokong dan memberi informasi tambahan dalam kajian ini. Soal selidik telah dipilih sebagai kaedah yang digunakan semasa mengumpulkan data daripada responden. Kaedah ini lebih senang untuk mendapatkan balasan daripada responden kerana cara temu bual memerlukan masa yang agak panjang semasa mengumpulkan data. "Descriptive Analysis" dan "Mann Whitney U-test" telah dipilih sebagai kaedah untuk mennganalisiskan data kerana kedua-dua cara adalah lebih sesuai diaplikasi dalam kajian perbandingan. 162 set soal selidik sudah dikumpulkan sebagai data primer untuk kajian ini. Hasil kajian ini mendapati bahawa syarikat pembuatan yang diperakui ISO mempunyai prestasi yang lebih baik dalam aspek kualiti produk, pretasi operasi, kepuasan pelangan dan prestasi pasaran, sementara prestasi kewangan tidak termasukkan. Keputusan kejian ini menyumbang kepada pengurusan perniagaan dan kerajaan untuk menjelaskan kebaikkan pensijilan ISO.

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## LIST OF ABBREVIATIONS

ABBREVIATION	MEANING
ISO	Interntional Organistion of Stnadadiation
DSM	Department of Standards Malaysia
ASEAN	Association of Southeast Asian Nations
SME	Small Medium Enterprise/ Small Medium Business

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### CHAPTER ONE

#### **INTRODUCTION**

### 1.0 Introduction

This chapter will discuss about the background of research regarding to the comparative study between the manufacturing companies for with ISO certification and without certified towards performance. Besides that, problem statement for the research, research questions and objectives, scope and limitation of study also will be included in this chapter.

### 1.1 Background of study

Government has long urge and encourage manufacturing companies to apply for ISO certification so that can adding competitive advantage for the company themselves. In this case, Spencer Hutchens from Interlek also explain that using ISO 9001 as a key to global market so that can compete more effectively in global market as compared to those are without certificated (Hutchers, 2011). Beside, news reported Celcom Axiata Bhd also been certified as the first telecommunication operator globally under ISO standard so that can create awesome experience that goes beyond international recognition for its customer (New Strait Times Business, 2018). This have showing that the ISO standard can help to provide better service for customer and even can effectively enhanced the productivity of the company. Therefore, implementing the ISO system in the organisation can help organisation to increase for the customer satisfaction and thus increase for the customer loyalty.

ISO certification is the provision by an independent body of written assurance (certification) that the product, service or system in question meets specific requirement. While International Organisation of Standardization (ISO) creates the documents that provide requirement, specification, guidelines or characteristic that can be used consistently to ensure that materials, products, processes and service are fit for their purpose. Therefore, manufacturing company may need this standard as to ensure that their process of manufacturing are fits to their company. But without the ISO certification does not means that their process of manufacturing will bad than those manufacturing company with ISO certified. This is because performance of the company are not able to decide only depends on the certification, while other factors such as product design, economic level and customer purchase power also will influences the performance of the organisation.

By following to the Department of Standards Malaysia (DSM), ISO certification is the certification that provide third party recognition of competence in market place through benchmarking of performance based on standard and thus improvement of the performance of the organisation can be occurred. Next, this certification can provide basis assessment of competence for regulators to eliminating redundant reviews and improve the efficiency of assessment process by accredited certification bodies which can reduce the number of assessment by various parties. In this case, integrate management system in organisation are able increase efficiency in terms of cost savings, better internal organisation and improve organisation image (Bernardo et al, 2015). Apart from that, certification process helps provide assurance to regulators that a particular company has complied to specified conformity assessment activity based on recognised and transparent criteria and procedures.

Thus, accreditation from the Department of Standards Malaysia are able to enhance the confidence in certificates and conformity statement because quality of the product can be enhance. Once the manufacturing companies getting the accreditation from DSM, general public can ensure that the organisation have achieved for the regulators' interest including for the health and safety, environment, security and other social protection and performance requirement. This is because manufacturing companies are need to follow for the standards rules and procedure during the manufacturing of the product. While industry also can ensure the valid results during development, manufacturing and deliver. This are able to help them for gaining more customer by increase the confidence of customer towards their product.

ISO system not only as an indicator to measure for the quality of product, but it also can as a guideline for company to follow the process flow in the company and the error occur during the process. While according to the research of Mangula and Karugira (2014), stated that Quality Management System (ISO 9001) cerified organisation will showing the improvement in term of quality of product and thus increase competitive advantages of the organisation. Therefore, ISO certifications can improved for performance are not granted because everyone have different opinion towards this issues and different ways to approve it.

Furthermore, Malaysia also facing the problem that citizen are not willing to purchase for product Malaysia, while obtaining of ISO certification means that consumer can have confidence with their product which are safe, reliable and good quality because all follow to the standard of operation. Therefore, company going for ISO certification maybe can give confidence for consumer when purchasing of local product. If product produced are unsafe to the user, company may face the problem of losing customer because customer will not willing to buy again. According to the Lew and Sulaiman (2013), local manufacturing industry to further improve their products and services in order to compete in the global market strategically. Thus, first element needed to consider by manufacturing companies is increasing for the quality of the product when they are wish to gain more customer in this market.

### 1.2 Problem Statement

Government are keeps encourage citizen to buy local product to show supporting to Malaysia and thus can increase the economy of the country. While recently Tun Dr. Mahathir Mohamad also urged Malaysia to buy local product so that can produce high quality product in future by comparing to the high quality Japan's vehicle because sacrifices of citizen buying own product in early stage. (New Strait Time, 2018). This showing that citizen Malaysia are not purchase for local good because of the quality issue. From this issue, manufacturing company in Malaysia can take the action by applying ISO certification as evidence for citizen related to the product quality of company. This is because manufacturing company with ISO certification means they are follow the standard of the process and procedure to fulfil the international standards. Therefore, manufacturing companies with ISO certification can give confidence for the citizen to purchase for the local product. Consumer's purchase intention on local product and import product are depend on the quality of the product (Asshidin et al, 2016).

Furthermore, manufacturing companies with ISO certification can increase their chance of competitive compared to those are without the certification. This is because purchase decision of customer are mainly affected by the product quality (Yap et al, 2011). Thus, ISO certification help manufacturing company to comply with the international standard which can give better product quality, while those are without certification may be look down by the customer when comparing for the product. Besides, manufacturing companies with ISO standard also can compared with the foreign country product because ISO standard is international standard that having the constant operation procedure that need to follow by the companies. In this case, Khind Holding Berhad proved although they are local manufacturing companies, but with the help of ISO certification, they able to establish their business at ASEAN country so that can compete internationally. Apart from that, manufacturing companies with ISO certification also can showing the commitment to customer satisfaction. In this case, Perodua have certified by Sirim to the latest version of the ISO 9001 and 14001 standard which showing the aim of improving customer satisfaction and the focuses on environmental standards. (New Strait Time, 2018). From this case, satisfied requirement of the customer can help companies to gain more customer and increase customer loyalty. This can help companies to continue improve for their company procedure so that they can fulfil the requirement of the customer. On the other hand, if those manufacturing company without ISO certified, they may not able to have consistence improvement to their company because they does not have guidelines to help them and without a focus direction to achieved.

Furthermore, company efficiency, waste reduction and cost saving of organisation also can be improved when manufacturing are gaining for ISO certification. This is because the when the process of manufacturing process are improved, then consistency of the organisation will be increase, thus hit target with better regularity and hence waste during the production will be decrease. While waste during the production are calculated as the expenses of the company, therefore cutting down for the expenses are able to increase for the profitability of organisation. Thus, ISO certification are able to improve the consistency of the operation process. The element that can be improve are including providing the product with consistent dimensions, size and output. This is because when the product are not in consistency, it will cause the increases of the organisation will drops. According to Singh et al (2015), ISO 14000 certification help in 25% of waste reduction among certified company. Therefore, it can prove that implement of ISO system are able to help reduce the waste generated and thus achieve for cost saving.

Besides that, organisation that without ISO certification may face the problem in company management process. This is because the communication between each department may be not effective enough and thus cause to the delay in transfer of information. Thus, clear communication in the management are able to help organisation achieving for the better performance and able to integrate for the employee. In this case, ISO procedure that established in the organisation can provide a clear objective and tools and even a standardize procedure for the organisation. This standard procedure are able to improve the ability of the employee because they can refer work instruction in the organisation to increase their ability and skills. Thus, supervisor can reduce their guidance towards new employee and thus can focus on other element that are more important. ISO 9000 certification has positive and significant effect on production, purchasing, human resources and marketing performance (Prates and Caraschi, 2014). Thus, it proved that implementing ISO certification can improved for the organisational management in the manufacturing companies so that can increase efficiency in communication.

On the other hand, manufacturing companies without ISO certified does not means their performance are worse. This is because other factors such as leadership also may affecting for the performance of manufacturing companies. According to the Bakator and Cockalo (2018), saying that there is no differences in business performance for those companies with ISO certified and without certification. Furthermore, the study showing the negative relationship between organisational resources and organisational performance of ISO certified organisation (Otulia et al, 2017). This showing that manufacturing companies with ISO certificated also cannot ensure their performance are better. Therefore, a comparative study between manufacturing companies with ISO certified and without towards performance will carry out. Through this research are able to understand the current situation of Malaysia in implementing for ISO standards. Moreover, this research also can understand the effectiveness of the ISO certification towards manufacturing companies.

### 1.3 Objective

The objectives of the research are as follows:

RO<sub>1</sub>: To identify current implementation of ISO certification among companies in Malaysia

RO<sub>2</sub>: To investigate manufacturing companies with or without ISO certification will effect on performance

RO3: To suggest guidelines to manufacturing companies on ISO certification.

### 1.4 Research Question

Research question is the fundamental core of a research project which focus on the study, determines the methodology and guides all stage of inquiry, analysis and reporting. The research question are as follows:

RQ<sub>1</sub>: What are the current situation of companies in Malaysia towards the implementation of ISO certification?

RQ<sub>2</sub>: What are the effects towards the performance of manufacturing company with ISO certification or without ISO certification?

RQ3: What are the suggestion for manufacturing companies on ISO certification issue?

### 1.5 Scope and Limitation of study

Respondent for this research are the manufacturing companies that with or without ISO certification so that performance between them can be compared and can test about the important of ISO certification towards the manufacturing companies. While the location of this research will mostly spread around Selangor, Kuala Lumpur, Melaka because the manufacturing companies in those location are more when comparing to other state.

While the Respondent honesty to answering for question are the limitation of the study because they may not answer the questionnaire honestly as the ways to protect their companies. The time taken for data collection also limited as there are using few month to collect it therefore, respondent collected may not large enough to showing more accurate number. The location for collecting for the answer of questionnaire also a limitation for this research because it does not fully represent the situation happening in Malaysia.

### 1.6 Summary

In conclusion, this study is aim to test about manufacturing companies with ISO certification and without certification may affecting for their companies performance. While the ISO certification also can as the evidence for manufacturing companies to prove that they are provide good quality of product to the customer and able to compete internationally with the competitor from foreign country. Therefore, ISO certification also can help to satisfy the customer requirement and thus can attract more customer to increase the performance of companies. The limitation in the research such as duration and location should be overcome so that the result of this research can be more accurate.

### **CHAPTER TWO**

### LITERATURE REVIEW

### 2.1 Introduction

This chapter will discuss about ISO certification and performance measurements of the manufacturing companies, performance evaluation and the hypothesis of the research. While the performance measurement of manufacturing companies are quality of product, operational performance, customer satisfaction, market performance and financial performance.

### 2.2 ISO Certification

What is means by ISO certification? ISO certification is the management tool used to ensure that policies are in compliance with ISO standard which means procedure have been audited by an accredited ISO certification body. International Organisation for Standardization (ISO) is an international standard-setting body composed of representative from various national standard organization. By through its member, it will bring together experts to share knowledge and develop voluntary, consensus-based, market relevant International Standards that support innovation and provide solution to global challenges. Besides, ISO also creates documents that