

QUALITY IMPROVEMENT AS AN APPROACH TOWARDS OPERATIONAL
PERFORMANCE IN DENSO MALAYSIA SDN BHD



UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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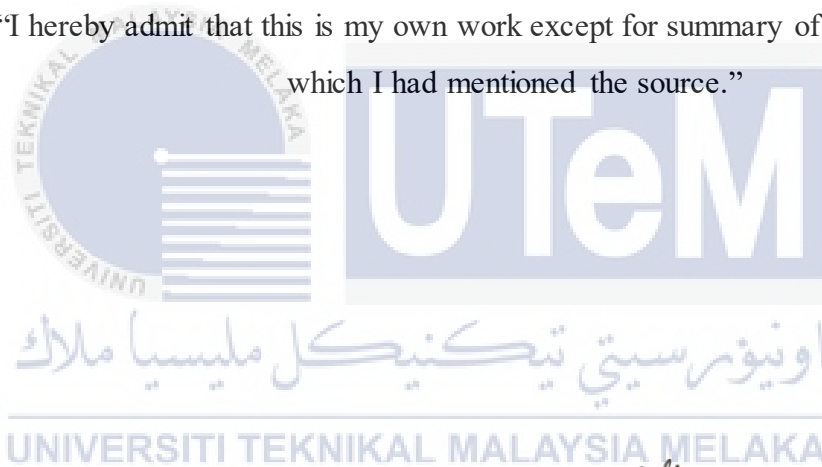
SHUAIBAH AINIAH BINTI MOHD FARIDZUL BASRI



JANUARY 2023

DECLARATION OF ORIGINAL WORKS

“I hereby admit that this is my own work except for summary of except of
which I had mentioned the source.”



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BASRI

Date : 18 JANUARY 2023

DEDICATION

For my sweet and loving,

amazing father and mother whose sacrificial care for me

Mohd Faridzul Basri bin Zamhari & Habibah binti Abdul Majid

my supportive siblings,

Norfahanah Faqira and Hana Humaira

and to my best friends and housemates,

Fatin Nur Hidayah, Nur Farhanis Illyana and Farzana Izzati

Thank you very much.

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ACKNOWLEDGEMENT

To begin, I would want to express my thankfulness to the God who has provided me with the power and ability to successfully accomplish this project for my senior year in high school. First and foremost, I would want to recognize and express my gratitude to my supervisor, Dr. Kamarudin bin Abu Bakar, for his assistance in making this work possible. I appreciate your time and consideration. His direction and suggestions were quite helpful to me for the entirety of the assignment that I was creating. I would also like to extend my gratitude to my committee for all of the suggestions they provided to enhance my thesis, as well as for providing me with the expertise and important information I required during this process.

I would also like to extend a heartfelt gratitude to my family, and in particular to my parents, for their unwavering support and for serving as a source of inspiration for me during this trip. Your prayers for me have been the only thing that have kept me going up to this point.

In conclusion, I would want to express my gratitude to the close friends who have consistently rooted for me, cheered me on, and prayed for me, saying that you have been by my side throughout the process of finishing this capstone project for the senior year.

ABSTRACT

Organizations must base their business structure, goods, and services on customer needs in order to be successful. However, these requirements change throughout time, prompting the implementation of improvement initiatives by organizations in order to guarantee customer satisfaction. To avoid such an unfavourable result, intelligent organizations implemented quality improvement strategies across all functional areas. Quality improvement processes ensure that the organization enhances its efficiency and serves the rising needs of its customers. This study's primary objective is to examine quality improvement as an approach for analysing the performance of systems and processes and identifying functional and operational areas that need improvement. The gathering and interpretation of data are important to the success of any endeavor. There have been 107 responses to the survey surveys delivered using Google form. SPSS version 27 was used to analyse the gathered data. The association between quality analysis, quality decision making, and quality management has been proven to be considerable. All factors except for quality analysis have shown good responses. Consequently, this demonstrates that quality improvement plays a significant influence in enhancing an organization's success. Future research may focus further on different techniques that may be employed as approaches to the subject under investigation.

ABSTRAK

Organisasi mesti mendasarkan struktur perniagaan, barangan dan perkhidmatan mereka pada keperluan pelanggan untuk berjaya. Walau bagaimanapun, keperluan ini berubah sepanjang masa, mendorong pelaksanaan inisiatif penambahbaikan oleh organisasi untuk menjamin kepuasan pelanggan. Untuk mengelakkan keputusan yang tidak baik, organisasi pintar melaksanakan strategi peningkatan kualiti merentas semua bidang fungsi. Proses peningkatan kualiti memastikan organisasi meningkatkan kecekapannya dan memenuhi keperluan pelanggan yang semakin meningkat. Objektif utama kajian ini adalah untuk mengkaji peningkatan kualiti sebagai pendekatan untuk menganalisis prestasi sistem dan proses dan mengenal pasti bidang fungsian dan operasi yang memerlukan penambahbaikan. Pengumpulan dan tafsiran data adalah penting untuk menjayakan sebarang usaha. Terdapat 107 respons kepada tinjauan tinjauan yang dihantar menggunakan borang Google. SPSS versi 27 digunakan untuk menganalisis data yang dikumpul. Perkaitan antara analisis kualiti, pembuatan keputusan yang berkualiti, dan pengurusan kualiti telah terbukti cukup besar. Semua faktor kecuali analisis kualiti telah menunjukkan tindak balas yang baik. Akibatnya, ini menunjukkan bahawa peningkatan kualiti memainkan pengaruh yang signifikan dalam meningkatkan kejayaan organisasi. Penyelidikan masa depan mungkin menumpukan lebih lanjut pada teknik berbeza yang mungkin digunakan sebagai pendekatan kepada subjek yang disiasat.

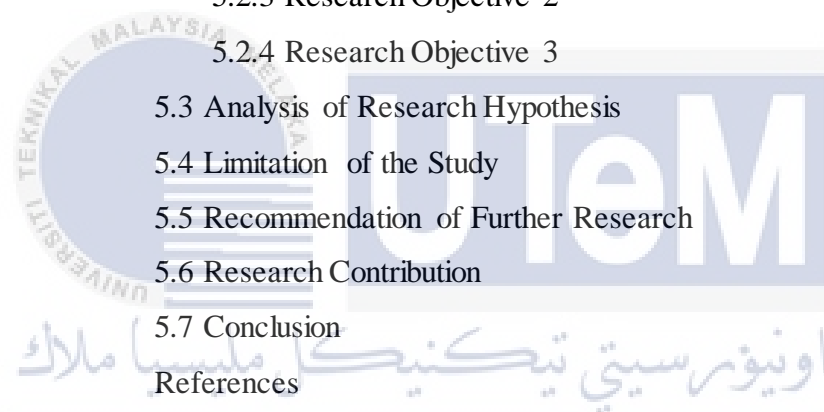
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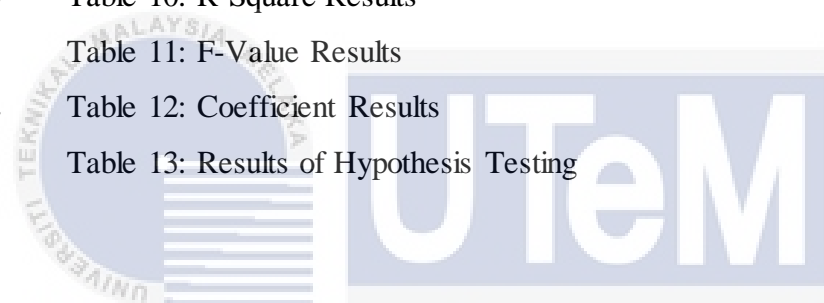
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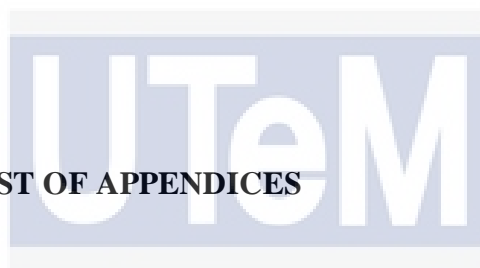
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LIST OF SYMBOLS

ABBREVIATIONS	MEANING
SPSS	Statistical Package for Social Science
T	T-Value
R	Correlation coefficient value
R square	Coefficient of determinant
F	F-Value
P	Significant value
B	Beta-Value



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CHAPTER 1



The material regarding the research topic of quality improvement as an approach for operational performance in Denso Malaysia Sdn Bhd is included in this chapter. In addition to this, the researcher will explain what a quality improvement and operational performance are. The researcher also believe that this study has the potential to assist expose more about quality improvement, which are practices that ought to be implemented in all companies that conduct operations. In addition to that, this chapter examines the history of the study, the issue statement, research questions, research objectives, the significance of the investigation, and the scope of the study.

1.2 Research Background

Previous studies have underlined the significant importance of product quality and operational performance in an organization and ultimately in determining market success. The deployment of quality improvement has been found to assist in addressing quality-related, lead-time-related and cost-related issues (Li & Doolen, 2014). Other than that, it also considered as effective for stronger problem-solving and task improvement. Knowledge production in quality improvement is comparable to the knowledge creation process in CoP in terms of member engagement, cooperation, a sense of belonging to the group, knowledge exchange, personal interpretation of problem-solving, information exploitation, and information exploration, among other things. Performance at the individual and organisational levels has been explored in previous research on the quality improvement (Seo *et al.*, 2016).

According to previous studies conducted in the healthcare sector, doctors and trainee who take part in quality improvement activities have the opportunity to work together to enhance patient care and acquire valuable new competencies. Quality improvement that is both sustainable and patient-centered requires teamwork and a methodical approach. Participating in quality improvement activities provides physicians with the opportunity to learn and use vital professional skills, such as the ability to handle complexity and develop expertise in human aspects. For more seasoned medical professionals, this is a chance to improve their leadership for improvement abilities while also addressing persistent issues with care delivery processes and systems (Nicolay *et al.*, 2012).

There is a lot of pressure on businesses to undertake quality improvement programs so that they can attain business excellence, high performance, or world-class status. Managers are now pushed by the quality improvement mindset to seek out and implement existing best practices in order to maintain a competitive edge. Muli (2014) mentioned that because of the severe competitive pressures that globalization has brought to bear on Kenya's corporate sector, the country's economy is now

experiencing serious difficulties. With the liberalization of trade, commercial state corporations are facing increased pressure to develop strategies for successfully competing in the market against new competitors and rivals. Therefore, commercial state enterprises must prioritize profit over all other considerations.

Researcher may probably get to the conclusion that if there is one quality improvement action that is worth doing, it is doing a systematic inquiry. An investigation is a searching inquiry that seeks knowledge or the truth, and that is exactly what this is. A study into the quality improvement of something should be systematic in the sense that it should adhere to a pre-defined procedure or strategy. A study into the systematic aspects of quality improvement is intended to either produce knowledge that is relevant to the organization or process that is the focus of the quality improvement activity or contribute to the development of such knowledge. Scientists, experts, and practitioners have looked into how this could be avoided in the future and come up with suggestions based on what they have learned. Also, most people agree that many quality practices started in Japan, where cultural norms are very different from those in other countries. Because of this, these practices may not work as well in other countries where cultural norms are different (Tomic *et al.*, 2017).



1.2.1 Quality Improvement

The term "quality improvement" refers to the concerted and ongoing efforts of every employee in a firm to enhance all aspects of the business most notably the operation process and the procedures involved in it. In the context of the production process, it refers to a methodical strategy that aims to get rid of or significantly cut down on rework, waste, and losses. The term "quality improvement," abbreviated as "QI," refers to several strategies that can be implemented to enhance the functioning of the production process. It is necessary to eliminate or alter the steps of the process that are not operating at their full potential in order to achieve this goal (Batmaz *et al.*, 2011). When talking about something related to operation, for instance, this term

almost always refers to the actual production process. On the other hand, management can direct quality improvement efforts toward any aspect of a company or organization. The improvement of quality can be accomplished through a variety of distinct approaches. They include improvements based on people, improvements based on processes, and improvements based on products.

In quality improvement, a structured approach is taken to evaluate the performance of systems and processes after which it is determined which functional and operational areas require improvement. The gathering and examination of data on a consistent basis are essential to the success of any endeavour. A process that allows the stakeholders of an organization to monitor and assess the efforts and results being pursued is one that is described in a quality improvement plan as being ongoing or continuous (Wu *et al.*, 2018).

Plans for quality improvement are routinely evaluated in terms of their results, the satisfaction of its employees and stakeholders, the ease with which they may be changed, and their costs. The development of quality improvement plans should also assist businesses in comprehending how to cater to the requirements of various stakeholders including employees, customers, and regulators, amongst others, locating a method for prioritizing the improvement requirements of these stakeholders, understanding the threshold of variation that will permit required change, and being aware of how employees can succeed in a program even if there is insufficient support from leadership. Methods for quality improvement offer frameworks within which change can be pursued. Tools for quality improvement offer strategies and documentation for data collection, analysis, and communication, as well as for drawing conclusions and reporting findings (Kumar, 2019).

1.2.2 Operational Performance

The easiest way to explain operational performance is as the synergy that exists between the various company units and their capacity to deliver a bigger output while working together. To put it another way, this is the level at which all of the business departments work in order to achieve certain business objectives. Therefore, the purpose of operational performance management, also known as OPM is to coordinate the activities of these departments so that all of the employees may collaborate as a team to protect the interests of the firm and steer the ship in the direction of its primary business objectives. Therefore, operational performance is a broad phrase that can also be used to characterize all of the actions that you engage in to ensure that each department is productive both on its own and in conjunction with the productivity of other departments. Baird *et al.*, (2011) mentioned that the level of operational performance was evaluated based on the level of performance in inventory management as well as the level of performance in quality.

Throughout history and through today, businesses have been on the lookout for goods, services, and opportunities that will allow them to maintain a competitive advantage over their rivals. Better operational performance can be demonstrated in a number of ways including the continuous introduction of innovative ideas, the reduction of costs, and the enhancement of resource use. The term "little changes" does not indicate that transitions take place gradually rather it only acknowledges that seemingly insignificant adjustments made at the present can have significant repercussions in the future. Any worker can suggest improvements at any time and they can come from anywhere. The concept behind this is that everyone has a stake in the success of the firm and as such everyone should make it a priority to contribute at all times to the improvement of the business model. Hasan (2013) mentioned that improved risk management and reputation are two aspects of operational performance that need to be incorporated into the framework. This is one of the elements of operational performance.

In order to remain competitive in an increasingly competitive environment, firms must increase their operational performance whenever it's possible. The benefit of running a business is that each new day brings with it the chance to improve upon the previous day's results. There are a lot of ways to increase operational performance, so it's important to know what they are if you want to keep growing and maintaining your competitive advantage. Alkhaldi *et al.* (2019) mentioned that workers have mastered their tasks to the point where their input is invaluable in creating better processes and products.

1.2.3 Denso Malaysia Sdn Bhd

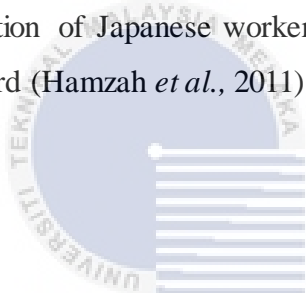
DENSO (MALAYSIA) SDN. BHD. can trace its roots back to 1980 when it was established as a joint venture between Denso Corporation, Japan and its local partners. Since then, the company has grown to become the largest automotive components manufacturer in Malaysia as well as a major automotive components supplier to reputable car assemblers in the country.

Denso is an industry leader in Japan that specializes in producing automotive components of the highest quality and most modern technology. Since it was first established in 1949 under the name Nippon Denso, the Denso Group has made a name for itself as a leader in the development of products that are connected to engines, electronics, and bodywork. The headquarters of the Denso worldwide network are located in Japan, and the network consists of over 198 enterprises located in 31 different countries. Denso (Malaysia) Sdn.Bhd. is aware of the significance of doing its business in a manner that is compatible with the preservation of the environment and the efficient use of resources.

Today, the company employs more than one thousand people, and a significant portion of its business is comprised of international trade. Companies that are active in the automotive and related industries anticipate an acceleration of the horizontal division of labor in ASEAN countries as a result of AFTA and AICO, and they are

preparing for this scenario. Denso has also begun making these preparations in order to adapt to the strategic arrangements made by the principal clients. The recent economic crisis has resulted in a significant decrease in automobile production, which has led to a reduction in the number of new orders received from customers. Additionally, the cancellation of some already placed orders has taken place. The production schedule at Denso has been adjusted accordingly.

Denso, however is not wavering from its commitment to maintain its existing production base in Malaysia. This is in contrast to the actions of a large number of other Japanese affiliated automobile and related companies. When it comes to the production technology in Malaysia, it is not difficult to reduce the number of products with a low quality however, Denso is trying to impress upon Malaysian workers the dedication of Japanese workers to achieve a quality that is higher than the current standard (Hamzah *et al.*, 2011).



1.3 Problem Statement

The existence of quality improvement was part of a system of labor-management relations that was largely cooperative in nature. Following the principles of enterprise-oriented system, quality improvements were established to encourage production workers to participate in company affairs while also providing management with the opportunity to benefit from production workers intimate knowledge of the operation process. Those ideas are built on two premises that employees may often make better suggestions for improving work processes than management and that employees are motivated by their involvement in creating such improvements. Prester *et al.*, (2012) had mentioned that when the approach properly implemented, quality improvements can assist organization in reducing expenses, increasing productivity, and improving staff morale. In addition, increased operational efficiency, reduced absenteeism, enhanced employee health and safety, and an overall better working environment are all potential benefits that organization could experience.

There are also some impacts of operational performance ignorance. One of them is less engaged employees. If the degree of engagement of the team as a whole decline, the firm as a whole will experience decreasing morale which will in turn bring disruption and unhappiness inside the company. Less competitive products and services is the next issue to address. If there was no rivalry in the market, businesses would stop investing in research and development of new technologies and stop looking for ways to lower their costs. The price and quality of the service would improve for the benefit of the firms, while the customers would see no improvement in their lot.

In order to increase productivity in Denso Malaysia Sdn Bhd, it is necessary to solve issues that arise in the quality improvement. Majumdar *et al.*, (2011) mentioned that in order to achieve success, management styles must be altered. When it comes to putting the quality improvement into action, a participatory management style is vital. Higher levels of employee engagement must be encouraged and enthusiastically supported by upper management who must also have the purpose of providing all necessary assistance to the quality improvement. The management team must be really interested in considering the ideas suggested by the circles, which must be approved by them in order to be taken into consideration. Aside from that, they must be understanding of the quality improvement's requirement for all of the information necessary to tackle the quality problems that they have chosen to work on.

1.4 Research Questions

1. How important is the link between quality improvement and operational performance for Denso Malaysia Sdn Bhd?
2. Is there any correlation between the different variables of quality improvement?
3. Does quality improvement have a significant impact on Denso Malaysia Sdn Bhd as a method of operational performance?

1.5 Research Objectives

1. To determine the significance relationship between quality improvement and operational performance in Denso Malaysia Sdn Bhd.
2. To verify the correlation of quality improvement model as an approach towards operational performance in Denso Malaysia Sdn Bhd.
3. To identify the significance techniques that can be used to sustain good quality in Denso Malaysia Sdn Bhd.

1.6 Scope of the Study

In the course of this study, Denso Malaysia Sdn Bhd's operational performance will be examined from the perspective of quality improvement as a strategy. This work contributes to the quality improvement field in the areas of quality analysis, quality decision making, and quality management. In order to carry out this study, the researchers will need to make use of the information that was gleaned from the questionnaires. The employees of Denso Malaysia Sdn Bhd will be given this questionnaire to fill out and return. Within Denso Malaysia Sdn Bhd, there are 214 respondents that are designated as the target respondents to answer this questionnaire.

The reason why academics are focusing on this specific group of respondents is due to the fact that the knowledge of quality improvements is being used in a widespread manner towards this particular respondent. The respondents have increased knowledge of operational performance and a greater grasp regarding changes in quality.