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I/We hereby declare that I/We had read
this thesis and in my opinion this thesis is sufficient in terms of scope and quality for
the award Bachelor Technology Management (High Technology Marketing)

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**THE EFFECT OF LEAN PRODUCTION TOWARD COMPANY
PERFORMANCE IS NOODLE SMEs COMPANY IN MALAYSIA**

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This Report Submitted in Partial Fulfilment of the Requirements for the Award
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DECLARATION

“I hereby declare that the work of this exercise is mine except for the quotations and summarize that have been duly acknowledge”

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DEDICATION

I dedicate this thesis to my parents, Shahrudin bin Hj Abd Hadi and Safiah binti Sidek. I hope that this thesis achievement will complete the dream that you had for me all those many years ago when you chose to give me the best education you could.

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Alhamdulillah and Praise be Upon Allah the Most Gracious and Most Merciful for His Blessing and be Upon His Messenger Muhammad S.A.W.

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ABSTRACT

The purpose of this study is to explore the effect of lean production towards company performance in noodles SMEs companies in Malaysia. The researcher was choose the qualitative method for conduct the research. Then, the researcher had done interviewed three (3) SMEs companies for the researcher. The questions is related to time study, production responsiveness, production target and cycle time which it is affect the company performance. Lean production is the major aspect that make one organization or company increase their profitability and company performance as well. Lean production also help company or organization to decrease the waste during the production process. The result of this thesis is highlight about lean production, production responsiveness, production target, cycle time and time study to company performance. The results also provide the answer of suitability of this topic. The framework was developed through case studies conducted in these companies.

Keyword : lean production, company performance

ABSTRAK

Tujuan kajian adalah untuk meneroka kesan pengeluaran tanpa lemak ke arah prestasi syarikat dalam mi PKS di Malaysia. Penyelidik itu memilih kaedah kualitatif untuk menjalankan penyelidikan. Kemudian, pengkaji telah selesai ditemuramah tiga (3) PKS syarikat untuk penyelidikan. Soalan-soalan adalah berkaitan dengan kajian masa, responsif pengeluaran, sasaran pengeluaran dan masa kitaran mana ia memberi kesan kepada prestasi syarikat. Pengeluaran tanpa lemak adalah aspek utama yang membuat satu organisasi atau syarikat meningkatkan keuntungan dan prestasi syarikat juga. pengeluaran tanpa lemak juga membantu syarikat atau organisasi untuk mengurangkan sisa semasa proses pengeluaran. Hasil karya ini adalah kemuncak mengenai pengeluaran lemak, responsif pengeluaran, sasaran pengeluaran, kitaran masa dan kajian masa kepada prestasi syarikat. Keputusan juga menyediakan jawapan kesesuaian topik ini. Rangka kerja ini telah dibangunkan melalui kajian kes yang dijalankan di syarikat-syarikat ini.

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LIST OF ABBREVIATIONS/SYMBOL

SME	=	Small and Medium Enterprise
MITI	=	Ministry of International Trade and Industry Malaysia
FYP	=	Final Year Project
%	=	Percentage
ton	=	Tonnes
kg	=	Kilograms
RM	=	Ringgit Malaysia
R1	=	First Respondent
R2	=	Second Respondent
R3	=	Last Respondent
RQ1	=	Research Question 1
RQ2	=	Research Question 2
H1	=	Hypothesis 1
H0	=	Hypothesis 0
g	=	gram

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CHAPTER 1:

INTRODUCTION

1.0 Introduction

Noodles (pasta) is universally. Most of country in this world serves a lot type of noodles. Noodle or pasta can be attributed to several factors which is it is easily manufactured, it takes up little storage space and it's easily to cook. During 1300s, Italian explorer Marco Polo was bring the noodle back to Italy from his travel in the Orient. Nowadays have several type of noodles that have been to customers. In early 15th century, that is a first industrial production of noodle (pasta) occurred in Naples. These site was chosen for its naturally fluctuating temperatures which provide the hot and cold temperatures necessary for drying. Until 1800s, mechanical drying is not invented.

In the past, noodle is produce by manually but nowadays its produce by using a current technology. The production process is from selecting raw material, mixing and kneading, flavouring and colouring, rolling, pasteurization, cutting, drying and packaging. During the production process, the important part is quality control of product. Each of company have been set their own standards for quality, some of which are set in practice before the noodle reaches the plant. Usually, check the quality control based on colour, texture and purity before sale it. In addition, protein and moisture content are be measure and monitor on sophisticated quality control computer software.

Every type of company will be have problem in production process, in order to help company to implement these typical of problem, companies must identify the problem in the company. According to Andrea Chiarini (2012), lean production is the major aspect that effect to the company performance. In this research, the researcher want to identify the effect of lean production towards company performance. And it only will focusing at Small Medium Enterprises (SMEs) that produce noodles as their main product in Malaysia.

1.1 Chapter Overview

The title of this research that will be carried out during Final Year Project (FYP 1 and FYP 2) is the study of The Effect of Lean Production towards Company Performance in Small and Medium Enterprises (SMEs). In this chapter, the researcher explained about the details and elements use in this research such as the overview, problems, objectives and path of flow in this study. This chapter consists of Section 1.3: Research Background; Section 1.4: Problem Statements; Section 1.5: Research Objectives; Section 1.6: Research Questions; Section 1.7: Scope of Study and Limitation; Section 1.8: Significant of Study; and Section 1.9: Key Assumption.

1.2 Research Background

In SME Corporation Malaysia official websites state that this organization is one agency which is Central Coordinating Agency that under Ministry of International Trade and Industry Malaysia (MITI) that formulates overall policies and strategies for Small and Medium Enterprises (SMEs) and it coordinates the implementation of SME development programmes across all related Ministries and Agencies. In era 1996, Small Medium Industries Development Corporation was form under MITI for develop SMEs to be a competitive in global market.

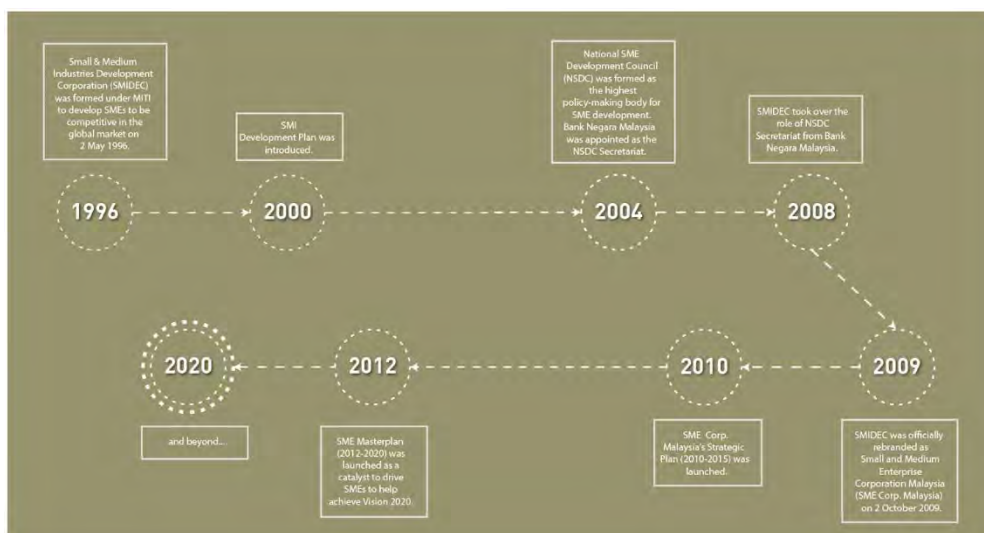


Figure 1.1: SME Corporation Malaysia

Sources: SMEs Corp. Malaysia Official Website

According to official website of SMEs Corporation Malaysia, definition of SMEs Malaysia is covered all sectors, like services, manufacturing, agriculture, construction and mining & quarrying. This SMEs corporation sector is divided into two which is manufacturing sector and service and others sectors. Manufacturing sectors is sales turned over not exceed RM50 million or the number of full time employees not exceed 200. In addition, the service and other sectors is sales turn over not exceed RM20 million or the number of full time employees no exceed 75.

Manufacturing		Services and Other Sectors
Sales turnover: RM15 mil ≤ RM50 mil <u>OR</u> Employees: From 75 to ≤ 200		Sales turnover: RM3 mil ≤ RM20 mil <u>OR</u> Employees: From 30 to ≤ 75
Sales turnover: RM300,000 < RM15 mil <u>OR</u> Employees: From 5 to < 75		Sales turnover: RM300,000 < RM3 mil <u>OR</u> Employees: From 5 to < 30
Sales turnover: < RM300,000 <u>OR</u> Employees: < 5		Sales turnover : < RM300,000 <u>OR</u> Employees: < 5

Figure 1.2 : Definition of SMEs (SME Corp Malaysia)

Sources: SMEs Corp. Malaysia Official Website

Food and beverages the food that is made in the kitchen and drinks prepare in the bar for customers or guest and the premises can be in restaurant, hotels, airlines, cruise ship, companies school, college and etc. According to official website of SMEs Corporation, the SMEs that register their company under categories food and beverages in Malaysia already have 3800 companies. And only 22 companies that under SMEs that produce noodles as their product in Malaysia.

1.3 Problem Statement

The production management is the application of management principles to the production function in a factory. In other words, production management involves application of planning, organizing, directing and controlling the production process. The SMEs is small or medium company which is produce product or services in Malaysia. Even SMEs is small or medium company, its still have the production management. Generally in big or small company have a problem even that is small or big problem. Likes problem in operation department, financial department and also production department.

According to Da'vid Losonci and Krisztina Demeter (2013), company performance will been affect by lean production and lean manufacturing. In order to implement lean production to achieve company performance likes increase sales, production, and achieve profitability. In order to help, SME companies must know the effect of lean production in their company to achieve their company performance and customer needs and wants.

1.4 Research Objectives

The research objectives of The Effect of Lean Production towards Company Performance in SMEs are listed as below:

- To identify the effect of lean production in SMEs specifically in noodles production.
- To identify the effect of company performance when apply lean production in SMEs specialize in noodles production.

1.5 Research Questions

The research questions of The Effect of Lean Production towards Company Performance in SMEs companies are listed as below:

- What is the effect of lean production in SMEs noodles production?
- What is the effect the company performance when apply lean production in SMEs specialize in noodles production?

1.6 Scope and Limitation of Study

The main scope of this research is focusing three companies which registered under SMEs that produce noodles as their product. In Malaysia, that are have only 22 SMEs companies that produce noodles as their product. This is stated in SME Corp. Malaysia official website. Moreover, when the researcher do the research of this company the researcher will more focusing on the effect of lean production towards company performance that companies will achieve. Due to from the production researcher will know about lean of production and what the impact on company performance of SMEs companies during the produce the product in production process.

The limitation of this research is this research is conduct in qualitative method. Which is researcher is conduct interview session with manager of operation management in SMEs that have been choose by researcher. During the interview the respondent may lie due to company confidential information. Most people would like to present a positive image of the company and so may lie or bend the truth to look good, e.g. pupils would exaggerate revision duration. (McLeod, S.A., 2014).

Other than that, the respondent has the adequate knowledge the topic the researcher want to study. The respondent is not understand well about the research that want to be done by the researchers. Moreover, the respondent did not have much experience about the company. And the information that given by the researcher is not complete and not achieve the researcher objective.

1.7 Importance of the study

The finding of this study will redound to the benefit of company considering the lack in production management when producing noodles which it is important to gain the profit for SMEs. When have a greater demand for noodles, the company need to produce the product (noodles) based on the demand and it will achieve customer needs and wants. For the researcher, this problem will help the company to solve the problem in production management which is through the timing of producing product per unit and quantity the product that the company can produce in one time.

1.8 Key Assumption

The respondent has the adequate knowledge the topic the researcher want to study such as the respondent know about production process of noodle. Next, the respondent have a lot of experience in these company. And the lastly, the respondent provide honest answers especially during interview session.

1.9 Summary

This chapter has included introduction and background of study, problem statement, research objectives, and research questions, scope of the study, several limitations and importance of the study. The next chapter, chapter 2 will discuss about literature review.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter deliberate the overview, theory, keyword research, and concepts of performance and productivity in food and beverages sectors specialize in noodles. In addition, this chapter also will focus about SMEs companies. The outline of company performance and their productivity in food and beverages sector and several previous studied that are related with the topics is viewed. Researchers have studied on these variables and found that there are varied results based on the relationships between each variables on pay out decision respectively.

2.2 Lean Production

According to Chiarini A. (2012), many company in this world including SMEs companies have gradually abandoned mass production to implement lean thinking and lean production. Thus, most of companies including SMEs companies have problem in production process. Due to this, lean production is one major aspect that makes one company increase their profitability. Chiarini A. (2012) also state that production personnel understand that the link between disturbances, responses and production performance are not always well or uniform. This is because have a lean during the production process of the one product. To increase the profitability in SMEs companies, they should prevent this lack in production. In addition, they need to apply lean production in their company to achieve company performance.

Based on Chiarini A. (2012), there have several type of waste that can increase product cost which is overproduction, inventory, motion, defect, waiting transportation and extra processing step. Other than that, to implement lean production, most of companies can use “Kaizen Teams” which is continuous improvement that is based on certain guiding principles that have been introduce by Imai M. (1986). This will helps most of companies including SMEs companies can improve their company’s improvement.

2.2.1 Time Study

The methods that used by engineers in work measurement is time studies, particularly study by using a stopwatch. Time study is a work measurement technique consisting of careful time measurement of the task with a time measuring instrument, adjusted for any observed variance from normal effort or pace and to allow adequate time for such items as foreign elements, unavoidable or machine delays, rest to overcome fatigue, and personal needs. Over 89% of companies using the method of time study (Lawrence S. Aft, 2000). Generally, time was originally introduced by Frederick W. Taylor (1881) and its developed by Gilbreth is used primarily aimed at determining the standard time and motion studies. Frederick W. Taylor (1881) also known as the father of time study. He use stopwatch to record whatever he did.

During the production process, stopwatch is one important thing to measure how much the product can be produce in certain time. In certain circumstances, employees can view and evaluate at least the physical aspects of human studies to determine the time using a stopwatch. However, prior to the time the study was conducted, it is important to understand the objectives of the study. Time study essentially measures the amount of work of qualified operator, and can enable a trained operator to perform work at a given time. (Lawrence S. Aft, 2000) said that the operator usually work according to certain rules, under certain conditions and certain rates that will lead to certain physical reactions. Specific allowances for personal and other delays are also included. In addition, study time can also be defined as a measurement method that involves labour, equipment, machinery and materials to be used in determining job performance.

However, in manufacturing industry, especially for industries which carry 90% of manual production time is very important (David and González, 2005). For example,

manufacturing plant management need time standards, even before production begins, to determine how much people to hire, how many machines to buy, how to divide among employees, and how much the product will cost; after production began, to determine how much cost reduction will be back, working the hardest, and perhaps the need to earn more money; and after completion of the production, which is used as reference data for bidding for new projects and acquisitions. The time can reduce and control costs, improve working conditions and the environment and to motivate employees.

In addition, study time can also be defined as a measurement method that involves labour, equipment, machinery and materials to be used in determining job performance. In the study José David, the parameters involved are, find ways to be more efficient and economical to do the work, coordinating work, equipment, materials and machinery used, determine the time needed to do the job or task and help or training workers to learn and improve their skills if they introduce new ways or methods (David and González, 2005) Time study will help companies, including SMEs companies to measure how much sales or profit that they will get when producing products.



Figure 2.1: Digital Stop Watch