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I hereby declare that I have read this thesis and in my opinion this project is sufficient in terms of scope and quality for the award of Bachelor of Technology Management (Innovation)

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A STUDY ON INVENTORY MANAGEMENT TOWARDS ORGANIZATIONAL
PERFORMANCE OF MANUFACTURING COMPANY IN MELAKA

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DECLARATION

I hereby declare that the report has been prepared by my own except for the summaries and citations that I have clarified the sources.

Signature :

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DEDICATION

I would like to dedicate this work to my dear parents and family member. They have shown various supports such as moral and financial support, at the same time encouraged and taught me not to give up and be brave even facing with challenges. I would also like to dedicate this study to my fellow friends who have given me help and assistance throughout the completion of this work.

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ABSTRACT

Inventory exists in almost every organization, it is crucial for an organization to have good understanding and strategy about inventory management. Inventory management has significance for an enterprise in an inventory intensive manufacturing industry (Rajeev, 2008). In this research, the researcher aimed to know the relationship between inventory management and organizational performance of manufacturing company in Melaka. Thus, the researcher identify out the three inventory management strategies, Vendor Managed Inventory (VMI), Material Requirement Planning (MRP), and Just-In-Time (JIT), as the independent variables to investigate the research questions. In order to collect the data and information needed, the researcher used qualitative method as the research methodology. The interviewee is aimed to be the inventory management manager of the target company. The data analysis will be using a deductive approach where all interview questions will be constructed based on the research questions, research objectives and conceptual framework. After the interview is conducted, the researcher will transcribe the script and start analysing based on the answer given by the interviewee.

ABSTRAK

Inventori wujud dalam hamper semua organisasi. Oleh demikian, adalah sangat penting untuk sesebuah organisasi untuk memahami dan mempunyai strategi yang baik tentang pengurusan inventori. Pengurusan inventori mempunyai kepentingan untuk perusahaan dalam industry pembuatan yang intensif. Dalam penyelidikan ini, penyelidik bertujuan untuk menyiasat hubungan antara pengurusan inventori dengan prestasi organisasi syarikat perkilangan di Melaka. Oleh itu, penyelidik mengenalpastikan tiga strategi pengurusan inventori, Vendor Managed Inventory (VMI), Material Requirement Planning (MRP), dan Just-In-Time (JIT), sebagai pembolehubah bebas untuk menyiasat soalan penyelidikan. Demi mengumpul data dan maklumat yang diperlukan, penyelidik telah menggunakan meta kualitatif sebagai kaedah kajian. Mereka yang akan ditemuduga adalah pengurus pengurusan inventori syarikat tersebut. Penganalisis data telah menggunakan pendekatan deduktif di mana semua soalan temuduga dibina berdasarkan soalan dan objektif penyelidikan ini. Setelah temuduga dijalankan, penyelidik menghasilkan transkripsi dan bermula menganalisis berdasarkan jawapan yang diberi oleh para responden.

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LIST OF ABBREVIATIONS

VMI	Vendor Managed Inventory
MRP	Material Requirement Planning
JIT	Just-In-Time
SMI	Supplier Managed Inventory

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CHAPTER 1

INTRODUCTION

1.0 BACKGROUND OF THE STUDY

Inventory exists in most of the organization, especially for manufacturing company it acts as a significant amount of current assets. As inventory plays a critical role to an organization, inaccuracies in an inventory will cause the organization to have chain problem, including loss or poor productivity, manufacture of excessive outcomes, reduction of customer loyalty, accumulation of overpricing inventory and etc. According to Rajeev (2008), inventory management has significance for an enterprise in an inventory intensive manufacturing industry because effective practices in inventory management will allow an enterprise to minimize inventory costs and therefore, avoid the dire consequences that come with a shortage of material resources. Inventory management is even challenging for large organization and firms as they are required to deal with various types of designs, inventory types, size, model and etc. the management process will be more complex to identify and keep track of all the inventories.

There is a trend showing that the manufacturing industry has been in rapid growth since the year 2016, and the trend is believed to continue for few more years. The growth in advance technology and innovation is also one of the potential factors that lead to the increased productivity in the industry. Thus, it can be said that in the manufacturing industry time is money, it is very crucial for firms to act fast and responsive to the rapid change that occurs. In order to cope with the change, inventory plays a crucial role as machines in the production line need raw material to start operating; it is the bridge between connecting the production and distribution of

goods. Not every inventory has long shelf life some easily perished if not use in time, unused or on hold inventory will later be classified as waste by the organization which will lead to increase in cost. Inventory costs are determined not only by their level of inventory but also by the time the materials spend in the system (Rajeev, 2008). It is important for an organization to have a good practice of inventory management to sustain its operation and performance for long-term since too much of inventory will cause wastage; too less of inventory will cause a shortage.

Inventory is defined as a list of goods and materials which are available in stock for business (A. Sharma, 2016). Statistical tests show that perceived improvements in organizational performance are associated with improvements in supply chain quality management practices (Chu Hua Kuei, 2001). High levels of inventory held in stock affect adversely the procurement performance out of the capital being held which affects cash flow leading to reduced efficiency, effectiveness and distorted functionality (Koin Violet Resia, 2014). The type of inventory management strategy applied in the company depends fundamentally on a solid appreciation and comprehension of a set of critical factors that should drive the decision to adopt one inventory management approach over another, particularly when all four inventory management approaches are considered concurrently (Cythia Wallin, 2006).

The main purpose of this research is to investigate the relationship between inventory management and organization performance. Focusing on how inventory management can bring impact to the performance of an organization, the research goes in depth to the strategies of inventory management analyzing its pros and cons. Lastly, through analyzing the data and evidence collected from manufacturing company in Melaka we identified which strategy is the most effective in affecting the organization performance.

1.1 PROBLEM STATEMENT

Poor inventory management in production floor will cause excess or shortages of raw material which indirectly impact business performance of the company. Poor inventory management has posed great challenges to many companies across several industries including manufacturing industry (Ooi Chun Wei, 2017). Those potential impact to the organization includes product delivery delay or shortages, inventory overstock or stock out, tied up cash flow and other issues that risk the profitability of the company (A. Sharma, 2016).

In the manufacturing industry, the above threats stated will bring more significant damage. Manufacturing lines down will cause the organization unable to achieve the estimated shipped date committed to customers, which will lead to lost of customers support and trust later changing their product supplier to other competitor company. Inefficient inventory management will also cause perishable inventory to be released to the production line, not at the right time, that will cause the output to have a potential defect in it. The negative impact of ineffective inventory management show more direct impact on the semiconductor industry. Provisional data for March from the Statistics Department show that Malaysia's manufacturing sector continues to grow, with sales jumping 13.6% compared to the previous year (The Star Online, 2017). As the industry is still expanding, semiconductors company with poor inventory management will have difficulty in supporting production due to lack of raw materials and other inventory. Since the demand has increased, the firm will increase their inventory level as well, poor inventory management will cause problems in storing and retrieving of materials. Workers will need extra time to relocate each of the material ending up with inefficient productivity. Dimitrios P.K (2008) states that an inventory managers' goal, for example, is modeled as minimizing cost or maximizing profit while satisfying customers' demands and if inventory decisions do not affect the revenue stream, these two criteria result in the same optimal replenishment policy. The firm performance can be measured in various criteria, as an overall, it needs to achieve improvement in effectiveness and efficiency.

1.2 RESEARCH QUESTIONS

The purpose of this research is about the study of inventory management towards organizational performance. The research will be based on the following research question to act as a guide:

1. What are the inventory management strategies towards organizational performance?
2. What is the relationship between inventory management strategy and organizational performance?
3. What is the most significant inventory management strategy towards organizational performance?

1.3 RESEARCH OBJECTIVES

This research is to investigate the study of inventory management towards organizational performance. The study also includes identifying the strategy and relationship between inventory management and organizational performance. To answer the research questions, the following research objectives were constructed:

1. To identify the inventory management strategy towards organizational performance.
2. To identify the relationship between inventory management strategy and organizational performance.
3. To identify the most significant inventory management strategy towards organizational performance.

1.4 SCOPE, LIMITATION & KEY ASSUMPTION

This research aims to study inventory management towards organizational performance. To ensure that the scope and location are easy to assess during the research, the researcher has narrow down to manufacturing company in Melaka. Among all manufacturing company in Melaka, only 3 will be chosen for this study. The researcher will visit the 3 chosen company to conduct an interview with their person in charge of inventory management. The respondent for the interview will be someone from the top or middle management as he or she will require of having the knowledge and understanding about the organizations' inventory flow. Thus, the department that will be targeted is mostly logistics department since the department deals with inventory the most. The scope of this research will on inventory management, wherein the next chapter the researcher will address what are the inventory strategies which will influence the organizational performance. By outlining the factors, the theory of inventory management will be used to evaluate how important inventory management is to an organization performance.

The limitation of this research will be constrained of time, as it will take a lot of time for the targeted company to approve interview request. The willingness of top management is also one of the limitations of the study since it is year end, many companies are busy doing year-end close-up. It is difficult for the company to spare time for the interview. Besides, due to the confidential and sensitive problem, some company will reject the interview request to prevent negative or confidential information from exposing to the public.

There will be two main key assumptions for this research. First, the research assumes that all respondents participated the interview provide absolute honest and accurate answers. Secondly, the research assumes that all respondent has sufficient understanding and knowledge of inventory management towards organizational performance before participating interview. By achieving the above key assumptions, the respondent will be valid for the research's data collection.

1.5 IMPORTANCE OF THE STUDY

This research is the study of inventory management towards organizational performance in Melaka. In this particular study, the research outlines the inventory strategy that potentially affects the organization performance. Based on different organization, the strategy, and technique used to manage inventory various. It identifies the relationship between inventory management and organizational performance, experimenting whether there is a positive relationship between both variables. A positive relationship indicates that inventory management has an impact on organizational performance. As the manufacturing industry is still in rapid growth through this few years, it is important for an organization to have a good inventory management. A good inventory management enables the organization top management to have better decision making. Thus, in the last research objective, the research aims to determine the most significant inventory management strategy towards organizational performance. The contributions that were done are the exploring of in-depth inventory management and organizational performance knowledge. By completing this research, the research is able to have detailed understanding of the topic investigated. Secondly the results recorded from this research can also be applied in future practical or workplace use.

1.6 SUMMARY

With the increase in demand in the market, manufacturing industry must figure a way to cope with the needs of inventory. The introduction of inventory management to manufacturing organization is able to assist the firm to handle inventory by preventing the shortage and excessive which would cause wastage. Manufacturing industry in Melaka is still growing with many of the large company based in the free trade zone area. It is crucial for manufacturing industry to handle their inventory according to their available capacity in order to maximize the organizational performance. Identifying the most significant inventory management strategy can enhance the organization in decision making.

This chapter identifies the objectives of the research. A clearly stated research objective acts as a guideline for researchers to conduct the research. The research also covers the area of identifying the relationship between inventory management and organizational performance. After investigating the type of inventory strategy, the research determines which inventory strategy is the most significant towards organizational performance. These research objectives will be determined and achieve through interviewing with top management who is related to inventory management. Lastly, based on the research objectives that are constructed the research hopes to obtain the desired result at the end of the study.

CHAPTER 2

LITERATURE REVIEW

2.0 INTRODUCTION

Before this research carried out, there is already several of thesis and research about the relationship of inventory management and organizational performance. This study covers from many aspects and perspective, manufacturing, financial, return of assets, company growth and etc.. The investigations and surveys were carried out in different sizes of firms including small and medium enterprise, retail-type business, family-based business, large-scale organization, and manufacturing company. In several results, it shows that a good inventory management practice is crucial to achieving a positive outcome of organization performance.

In order to investigate the research questions, researcher goes through secondary sources to support the findings and theoretical meaning of the topic. Further, in this chapter, the literature review related to inventory management and organizational performance will be discussed. It will enhance the understanding of researchers towards the title and the study.

2.1 INVENTORY MANAGEMENT

The inventory itself has many definitions according to different people and party, top management uses different terms as well to describe the same idea. An inventory is actually a list of the items held in stock, but many people use it to mean both the list of items and the stocks themselves (Waters, 2017). As stated by Ballou (2004), inventory can be defined as the supply of raw materials, suppliers, work-in-progress, components, and finished goods that appear at numerous points throughout a firm's production and logistics process. Inventory is defined as a list of goods and materials which are available in stock for business and in accounting inventory is considered as an asset (A. Sharma, 2016).

Since inventory exists in almost all of the organization, it is essential for an organization to have what is called „inventory management“. Inventory management is an activity of monitoring and controlling the business and production processes of a company from the beginning of the booking, storage and using the components and production business (Musa Partahi Marbum, 2015). The scope of inventory management also involves managing the replenishment lead time, replenishment of goods, returns and defective goods and demand forecasting, carrying cost of inventory, asset management, physical inventory, available physical space, demand forecasting, inventory valuation, inventory visibility, future inventory price forecasting and quality management (Agu Okoro Agu, 2016). Inventory management deals with active control program which deals with the management of sales and purchase department, help in providing good understanding of inventory and capacity to control financial cost, provide control over operating cost, and help in identifying the inventory requirement, stock up techniques and actual and projected inventory status (A. Sharma, 2016).

An inventory managers goal, for example, is modeled as minimizing cost or maximizing profit while satisfying customers' demands (Koumanakos, 2008). Inventory management is always about optimizing the inventory to achieve good firm performance, increase, and effectiveness and increase efficiency. Poor inventory management in production floor will cause excess or shortages of raw material which indirectly impact business performance of the company (Ooi Chun Wei, 2017).