

CHAPTER I

INTRODUCTION

The first chapter of this writing contains the introduction part of the whole research, which includes the research background, problem formulation, research objectives, research scopes, and the outline of the report.

1.1 Background

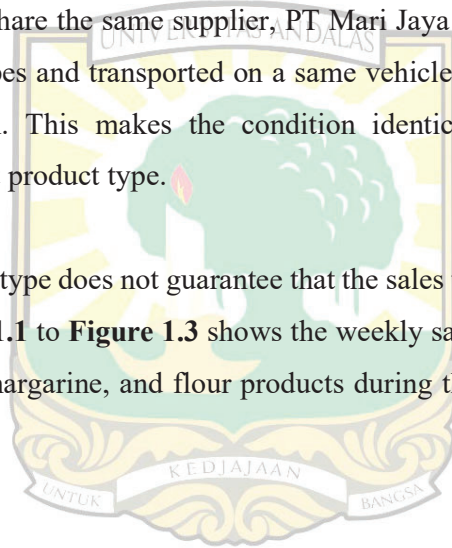
Wheat flour and cooking oil (palm oil products in general) are two of the most vital foodstuffs. In Indonesia, during the year of 2022 the consumption of palm oil reached 20.9 million tons, with 9.94 million tons used for the food needs of cooking oil and their derivative products such as margarines (databoks.katadata.co.id). Meanwhile, although rice is the main source of carbohydrate for Indonesian people, the consumption of wheat flour on average reaches 0.014 kg per capita per week in West Sumatera province, which makes it 4,106.4 tons a year accounting the total population in West Sumatera on 2022 (sumbar.bps.go.id). The high demand for those products attracts a lot of business activities to be involved along its supply chain, and one of them is PT Mari Jaya who involves as the distributor for cooking oils, margarines, and flours.

PT Mari Jaya is a company established in the late 1990's in Padang, West Sumatra. Started their business at selling and distributing papers and office supplies, today they managed to grow and involving themselves into several other business branch, such as cooking oil, margarine, and flour distribution which is the study object in this research. The three products share a single storehouse which is located in Bypass road Km 12, Kuranji Subdistrict, Padang City, and from here they distributes those three products to the customers which most of them are small and medium enterprises (SMEs) as the sole distributor for the brands. Since the focus market target is the SMEs, PT Mari Jaya's products are large-sized for industrial

needs. For example, the cooking oils are available in 18 litre packages, the margarines are 15 kilograms per box, and sacks of flours which are available is 25 kilograms each.

Each type of product consists of several different brands. Cooking oils for instance, include three different brands: Fortune, Sovia, and Siip which all supplied by Wilmar from North Sumatra. Meanwhile, margarine products consist of four brands: Fortune margarine, Fortune cream, Fortune shortening, and Siip margarines, also supplied by Wilmar; and flour products consist of eight brands: Lonceng Hijau, Tegu, Lonceng Biru, Perdana, Peacock Biru, Mila, Lonceng Merah, and Mila Mie which supplied from Pundi Kencana. However, even though cooking oils and margarines share the same supplier, PT Mari Jaya is not allowed to order these two product types and transported on a same vehicle since they are handled by different division. This makes the condition identical to having different suppliers for different product type.

Same product type does not guarantee that the sales too will be the same for each brands. **Figure 1.1** to **Figure 1.3** shows the weekly sales for different brands within cooking oil, margarine, and flour products during the year of 2023 in that order.



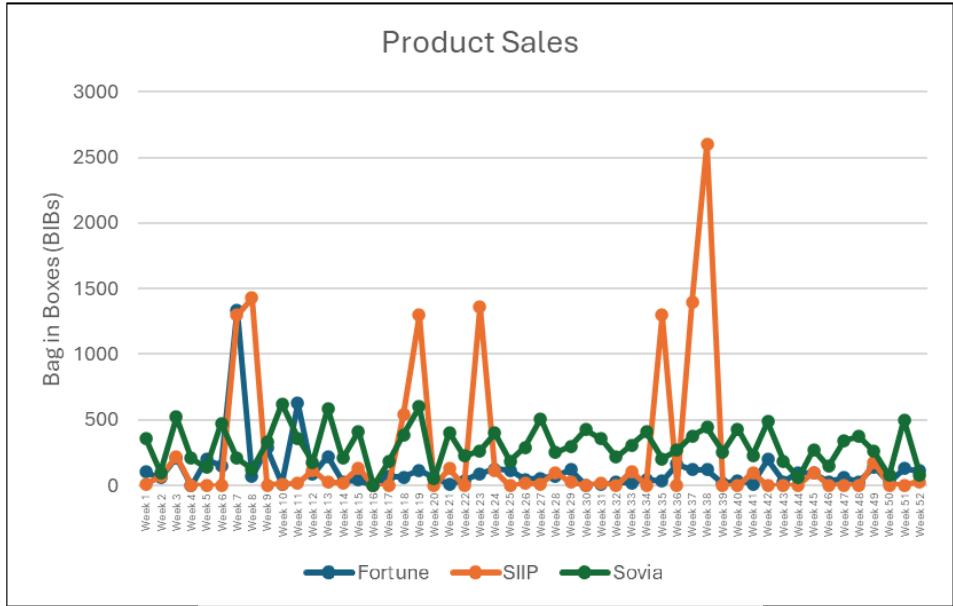


Figure 1.1 The Sales of Cooking Oil Brands During 2023

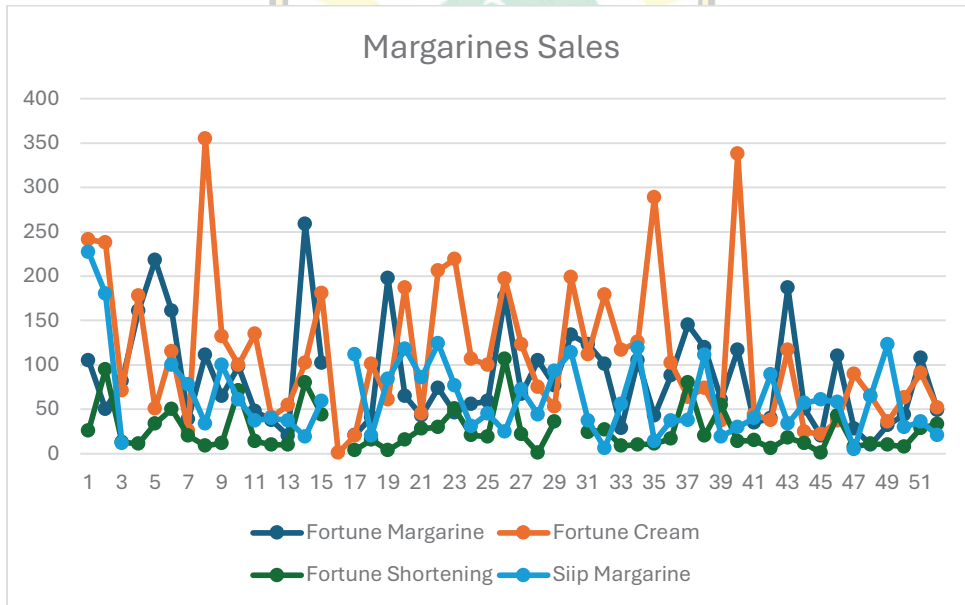


Figure 1.2 The Sales of Margarines Brands During 2023

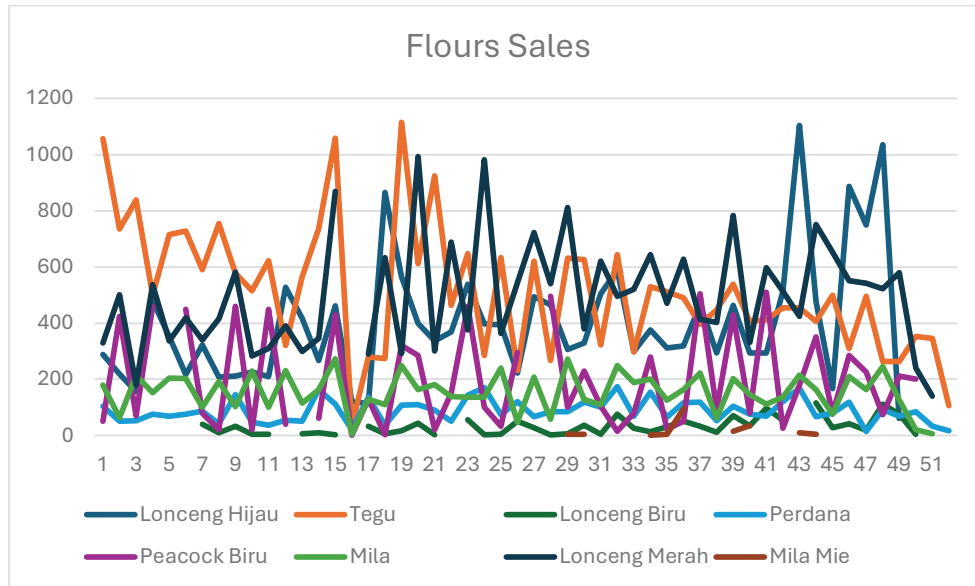


Figure 1.3 The Sales of Flours During 2023

From **Figure 1.1** to **Figure 1.3** we can see that each brand has a different demand rate. Meanwhile, the supplier has a policy regarding the amount of purchase where each purchase should be exactly 1300 units or its multiple for cooking oils, 1400 units for margarines, and 950 units for flours, unless the supplier is unable to fulfill the placed order. Those order requirement numbers are set according to the capacity of the truck used to transport the goods. Each truck has to contain the same of product, but the . Due to this policies, there may be an imbalance in the inventory of each brands because the order is preferably made for all brands at a time. The size of inventory must be controlled not only to prevent them from piling up in the storehouse but also fulfilling the demand for the products. The problem is that keeping stock to meet the demand is not an easy task to do. The company claimed that they have already applied the necessary strategies for such, but the data may suggest the opposite. **Figure 1.4 – 1.6** show the weekly stock for each product type.

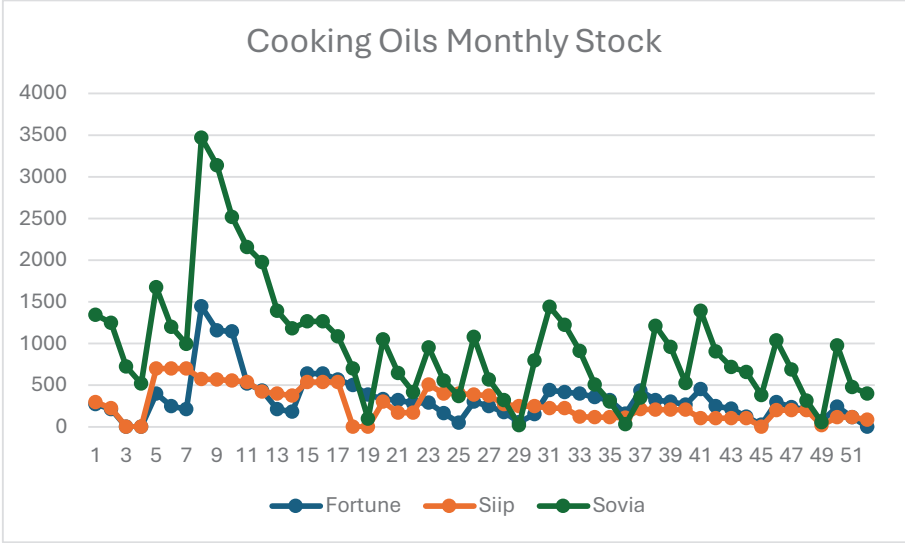


Figure 1.4 Inventory Movement for Cooking Oil Products

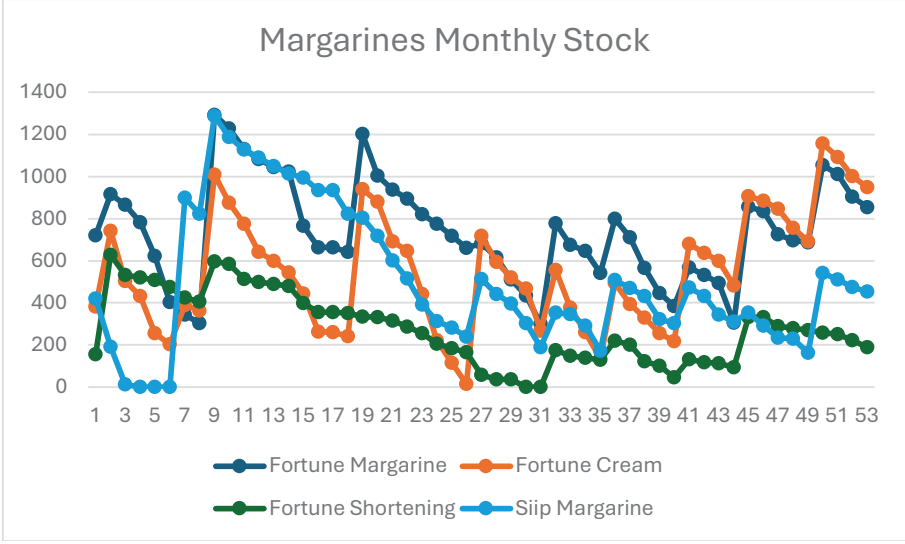


Figure 1.5 Inventory Movement for Margarine Products

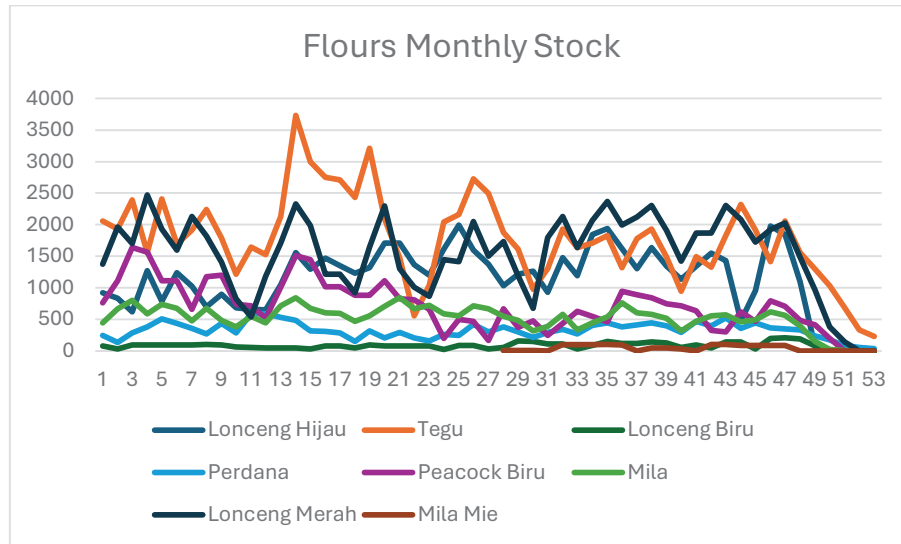


Figure 1.6 Inventory Movement for Flour Products

Based on the data, there are some cases where the inventory of one brand is empty. For instance, the stock for Siip cooking oil is empty at week 4, 18, and 19. There are also similar cases of empty stock on the other products, such as Siip margarine on week 3 to 6. Thus, PT Mari Jaya need to calculate the order ratio to prevent the inbalance between the inventory of each brand within a type of products, because if that happens the company might either place another order for one or two specific brand while the other still have their stock piling in the storehouse to fulfill the lack of stock in said brand or take the risk of losing sales, either way means decreases the profit.

1.2 Problem Formulation

Referring to the background, the problem formulation in this research will focus on evaluating the current inventory policy and proposing a new inventory plan based on calculation.

1.3 Research Objective

The objective of this research is to evaluate the current inventory policy and proposing a new inventory plan based on calculation.

1.4 Research Scopes

The research will have some scopes to bound the case which is shown as below.

1. The data to be used for the study is the inventory movement during the year 2023.
2. The price change of the products is out of consideration and deemed as constant.
3. The product's expiration date, or shelf life, is inconsidered due to its long duration and the product is known for fast moving.

