

CHAPTER I

PRELIMINARY

I.1 Background

The city of Banjarmasin, the capital city of South Kalimantan, known by the nickname "city of a thousand rivers", has an area of 72km², although according to data from the Banjarmasin Kimprasko Office, in 1997 there were 117 rivers in the capital of South Kalimantan, then in 2002 it was reduced to 70 rivers, then from 2004 until now only 60 rivers remain. the river remains an important part of Banjarmasin City's community life such as for water transportation, tourist attractions and as a food source. (Tepian, 2013)

The city of Banjarmasin, with swampy conditions, is flooded and affected by the rainy and dry seasons and has specific flora and fauna, also quite rich in germplasm. The raw area is overgrown with various types of plants including Rambai (*soneritia Alba*), Rengas (*Gluta Rengas*), Baked Mangroves, Pulantan (*Alstonia Sp*) / fires, Waru Tancang (*Bruguiera SP*), As for living fauna such as Bekantan mammals and Apes. Creeping type; Monitor lizard. Type of Aves; Lost. Fish Type; *Ikan Haruan (ikan gabus)*, Papuyu, Patin. (Ditjen Cipta Karya)

Fish is one of the important sources of nutrition for the process of human survival (Telo, 2015). The many restaurants, depots and / or restaurants that sell river fish make it easy for Banjarmasin people to get the protein contained from these fish. As in Depot Sari Patin Banjarmasin which is located on Jl Brigjend H. Hasan Basri Banjarmasin City sells a lot of food menu based on *ikan patin*, *Ikan Haruan (ikan gabus)*, *Ikan Nila*, *ikan mas* etc. *Ikan patin* for the Banjarmasin community, which belongs to the genus *Pangasius*, has become one of the favorite fish as Banjarmasin's main food menu. As in the Depot Sari Patin located in Banjarmasin City that sells food menus with catfish raw materials. Available menu of *Ikan Patin Bakar*, *ikan patin goreng*, *pepes ikan patin* which are customers favorite from Depot Sari Patin Banjarmasin.

Inventory is an asset that includes goods belonging to the company with the intention to sell within a certain period or inventory of raw materials that are waiting for its use in a process of production (Rangkuti, 2007). Planning and controlling of raw materials is an important matter that too much supply can cause overstocks which can result in high costs for storage.

Inventory exist in the supply chain because of a mismatch between supply and demand (Chopra, 2016, p. 49)

The fish are included in the type of perishable food (Paul R. Dittmer, and J. Desmond Keefe. 2009). The main thing that distinguishes perishable food from others is the component of product age (Parwati et al., 2016). Product life is defined as the difference between products that can be used up to the time when the product can no longer be used (Janssen 2018). Depot Sari Patin Banjarmasin is a culinary company (restaurant) that produces or sells food made from fish.

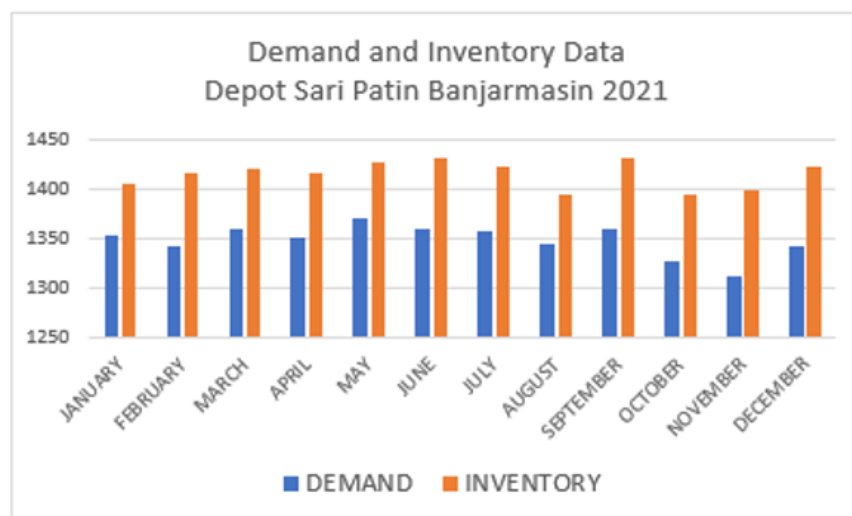


Figure I. 1 Demand and Inventory January - December 2021

As seen in figure 1.1 Demand and Inventory Data January – December 2021 the sales of the Depot Sari Patin Banjarmasin show that demand fluctuates in the range of 1312 kg to 1361 kg in total and each month there is no amount same to the other months which show the demand for Depot Sari Patin Banjarmasin is probabilistic.

	DEMAND	INVENTORY
JANUARY	1353	1405
FEBRUARY	1344	1417
MARCH	1360	1420
APRIL	1352	1416
MAY	1372	1427
JUNE	1361	1432
JULY	1357	1422
AUGUST	1345	1395
SEPTEMBER	1361	1431
OCTOBER	1328	1395
NOVEMBER	1312	1400
DECEMBER	1344	1423

Figure I. 2 Inventory Data January-December 2021

Inventory Data January – December 2021 has a total inventory of 16983kg with an average inventory of 1415kg/month. The lowest inventory was in July with 1395kg and the highest inventory was in April with 1432 kg.. According to Wursanto (2001: 22) Perishable storage is a procedure for organizing, storing, maintaining, recording and reporting dry and wet material/inventory ingredients. As soon as you receive food that meets the requirements, you should bring it into a storage room, warehouse, or refrigerator.

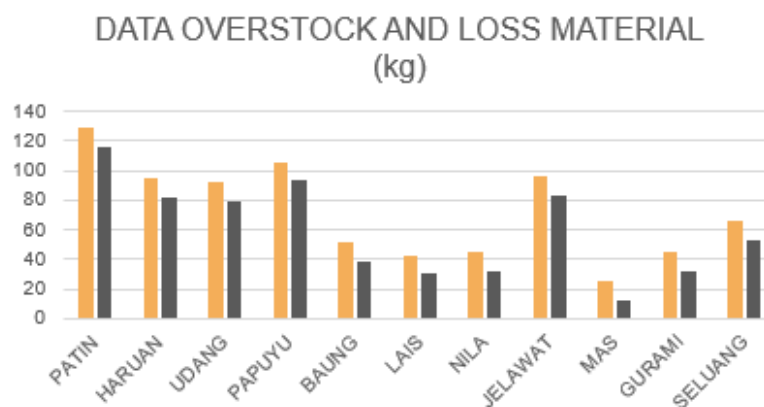


Figure I. 3 Data Overstock and Loss Material

Based on Comparison shown figure 1.3 *Overstock and Loss Material* data of Depot Sari Patin raw material, it shows that the imbalance between demand (Sales) and supply (Inventory) results overstock and in an excess/loss material which resulted in an increase in the total inventory cost by the Depot Sari Patin.

Fish can be stored in fish refrigerators or drainers at temperatures between -1 and 1 ° C . While frozen fish are stored at BC -18 °, it is necessary to isolate all types of fish. C (34°F).

Fish should be stored frozen at -18°C , but all types of fish should be separated. (Parwati *et al.*, 2016).

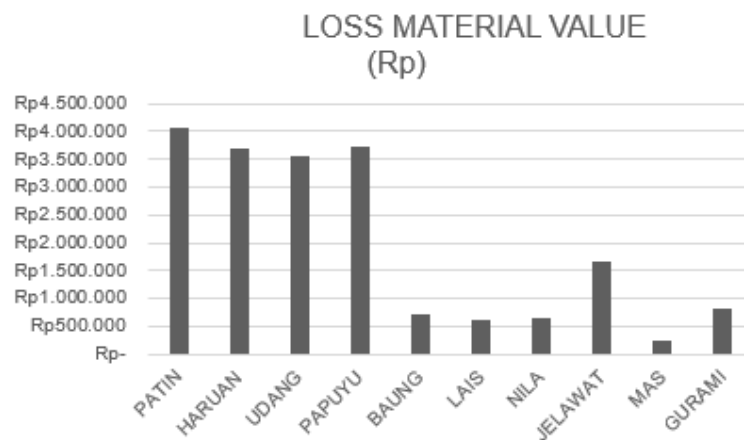


Figure I. 4 Loss Material Value

Storing fresh fish using ice or other refrigeration systems has a limited ability to keep fish fresh, usually 10–14 days.(Syarifuddin, 2017). The obsolescence (or spoilage) cost estimates the rate at which the value of the stored products drop because its market or quality falls. Perishable products have high obsolescences rates (Chopra, 2016, p. 272). For storing raw materials, fish must use perishable inventory management because fish have a lifetime or expired in a certain time. As shown in Table 1.4 Loss Materials and Values because material overstock with average 59kg/month it will lost Rp1.727.250/Month and Rp20.727.000 for each year.

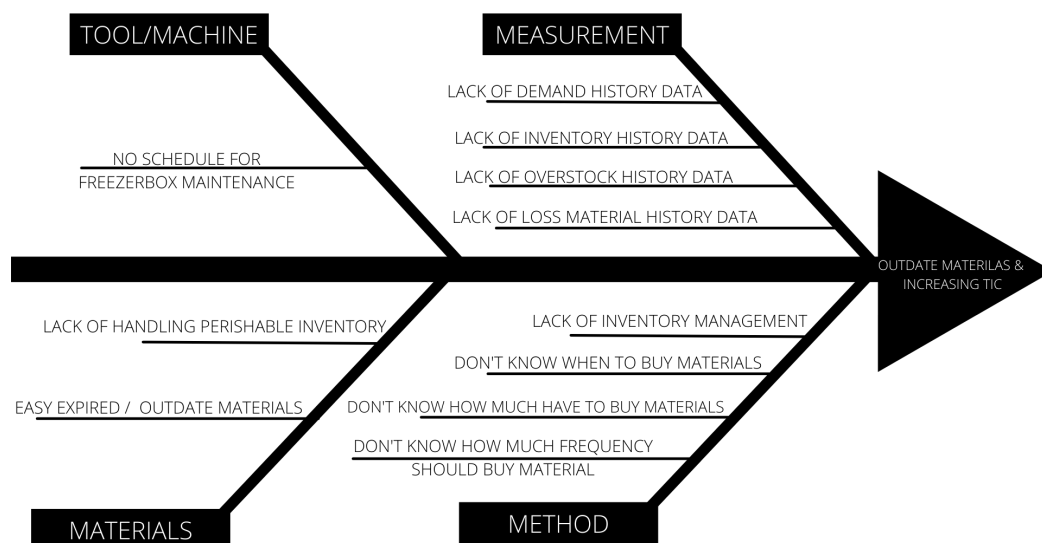


Figure I. 5 Fishbone Diagram

This is caused by poor inventory control planning such as companies only using average demand from history to decide the amount of raw materials to buy. the lack of coordination increases inventory cost in the supply chain (Chopra, 2016, p. 250). This can be proven by the wasted raw materials because the quality of the raw material has declined and is not suitable for sale and the total inventory cost continues to increase. the high level of inventory also increases the warehousing space required and thus the warehousing cost incurred (Chopra, 2016, p. 250)

The amount of fresh raw material availability becomes very important for the Depot Sari Patin to avoid excess stock of raw material (loss material) and the increase in the total inventory cost of the Depot Sari Patin Banjarmasin.

I.2 Problem Formulation

The formulation of the problem in this study is how to determine the policy of FISH RAW MATERIALS inventory **to reduce wasted inventory and the total inventory cost of Depot Sari Patin Banjarmasin**

I.3 Purpose

The Purpose of this research can be obtained is to determine the policy of FISH RAW MATERIALS Inventory in **reducing waste inventory and the total inventory cost of Depot Sari Patin Banjarmasin.**

I.4 Benefits

The benefit of this research is that the company obtained a proposed policy on the supply of catfish raw materials at the Depot Sari Patin Banjarmasin.

I.5 Limitations

So that research is focused on the objectives to be achieved, this research has the following limitations:

1. Research conduct in inventory system at Depot Sari Patin Banjarmasin.
2. Focus on the supply of fish raw materials.
3. This research only calculates inventory in class A.
4. Research conducted using inventory data, ordering data, sales data in 2021.
5. The price of fish is assumed to be based on a yearly average.
6. Lead time is constant.

I.6 Systematic Writing

CHAPTER I Preliminary

This chapter contains a description of the background of the problem at the Banjarmasin Patin Sari Depot, the formulation of the problem, the purpose of the study, the limitations of the study, the benefits of the study, and the systematic writing.

CHAPTER II Theoretical Based

This chapter contains literature that is relevant to the problem under study and also discusses the results of previous studies as a reference in conducting final project research.

CHAPTER III Research Methodology

In this chapter the steps of the research are explained in detail including: the stages of formulating research problems, formulating the theories used, formulating conceptual models and systematic problem solving.

CHAPTER IV Data Processing

This chapter presents company data and other data from several processes such as interviews, observations, and company data. Processing is carried out in accordance with the stages in Chapter III and then analyzed to be proposed

CHAPTER V Analysis

In this chapter the data processing in the previous chapter is analyzed. This chapter compares the calculation of the initial conditions before the proposals are applied and the conditions after the proposals.

CHAPTER VI Conclusion and Recommendation

In this chapter conclusions are drawn from the results of the study and suggestions for the company and further research as input for future improvement.