

CHAPTER I

INTRODUCTION

1.1. Background

The fast-moving consumer goods (FMCG) business has exhibited strong expansion and enhanced prominence in global markets, propelled by various pivotal causes. There is a noticeable trend towards increased demand for FMCGs product due to the desire for convenient and easy to consume. The FMCG sector is of great importance to the economy in emerging markets and developing countries. The rising urbanization in these regions, coupled with the growing middle class and increased purchasing power, is driving the growth of FMCG market as well as the need for high-quality consumer goods (*FMCG Market Opportunities & Forecast 2020-2027*, n.d.; *Grocery in Asia: Ever-Changing Consumption Trends | McKinsey*, n.d.).

The Asia region is widely recognized as the primary driver of global demand in FMCG industry. By neglecting the Asia region, there is a significant risk of forfeiting the opportunity to tap into a \$10 trillion increase in global consumption over the next decade (*The Shifting Consumer Packaged Goods Market in a Diversifying Asia | McKinsey*, n.d.). The expenditure on FMCG products in the Asian region demonstrates a strong performance, with continued positive growth projected from 2022 to 2023, as illustrated in figure 1.1.

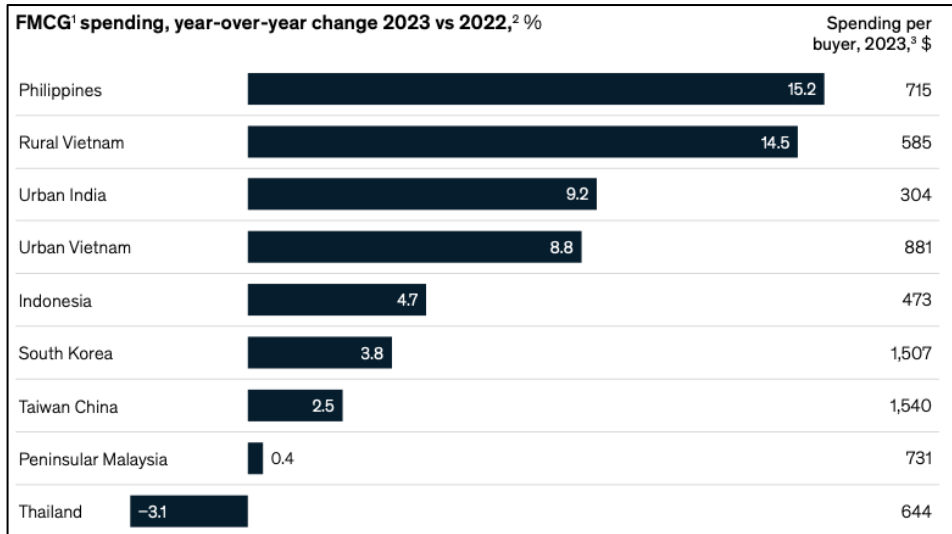


Figure 1.1. Spending on FMCG in Year 2023 (McKinsey)

Indonesia, along with other nations in Southeast Asia, is renowned for being the fastest growing and largest country in terms of the FMCG industry area. The growth rate surpasses the global total value by 3.6% (Mujianto et al., 2023). The industry plays a crucial role in the Indonesian economy, with an estimated Compound Annual Growth Rate (CAGR) of 7.6% by 2025 (InvestinAsia Team, 2023). Nevertheless, the industry also faces some obstacles such as the significant impact of COVID-19 outbreak on consumer behavior.

FMCG refers to products that are manufactured in large quantities and are intended for daily necessities. The industry is distinguished by low production costs and rapid product turnover, allowing products to be supplied quickly and meet client demands without delay. Product types considered in this industry are packaged foods, beverages, personal care products, household items and pet supplies/ care (Bocken et al., 2022).

The pet care market in Indonesia is expected to grow at CAGR of 9.5% by the year 2033 and estimated to account for approximately 1.5% of the global pet care industry. The expansion is driven by various causes, including rising

disposable income, changing trends that result in an increase in pet ownership, and significant expenditures on pet-related products. The FMCG pet care category encompasses a range of products such as grooming items, accessories, vitamins, and pet food. The market is projected to sustain its rise primarily due to the rising number of pet owners and their inclination to invest more on premium products and services (*Indonesia Pet Care Market*, n.d.).

The pet food industry in Indonesia is showing significant growth. In 2021, Indonesia ranked as the third-largest importer of cat and dog food and the second-largest market for pet food within the ASEAN region. The projected CAGR for pet food retail sales in Indonesia is 26.8%, reaching a value of US \$1,214 million by the year 2026 (ZhiDuo Wang, 2022). Other source from Euromonitor estimate the pet food category in Indonesia will grow until 170,430 tones in 2029 (Euromonitor International, 2024).

An increasing number of Indonesians are now considering pets as integral members of the families, treating pets with the same care and attention as to own children, and ensuring the happiness and well-being of the pets. The pet cat population in the country has significantly increased mainly due to the lockdowns and movement restrictions imposed by the COVID-19 pandemic. Individuals increasingly spent extended periods at their residences and the desire to have companionship, resulting in a surge of owning pets, particularly cats.

The cat and dog populations in Indonesia have experienced CAGRs of 15.3% and 7.9% respectively in 2021. In 2022, the population of pet cats in the country exceeded pet dogs. The cat population accounts for 65.4% of the overall pet population in 2022, and pet dog population is 619.3% smaller than the pet cat

population. The growing popularity of pet cats is also reflected in household statistics, with 47% of homes in Indonesia owning at least one cat. Cats have become popular pets due to distinctive personalities, adaptability to small spaces, and the fact that Indonesia has a predominantly Muslim population (*Indonesia Pet Food Market Trends*, n.d.; ZhiDuo Wang, 2022).

Due to the growing number of pets, Indonesia has emerged as one of the leading pet food markets in the Asia-Pacific region. There is a growing inclination towards spending more on pet food in the country, with a notable increase of almost 8.5% observed between 2019 and 2022. The current value sales of cat food have a compound annual growth rate (CAGR) of 27.3% from 2016 to 2021, reaching a total of US\$187.7 million. In 2021, Indonesian clients allocated a total of US\$131.5 million towards the purchase of dry cat food over wet cat food (ZhiDuo Wang, 2022).

The dry pet food known as kibble was produced firstly in 1956 by Purina Company. The experiment and development began through the process of extrusion. Extrusion is a method of mass-producing shelf-stable foods by mixing wet and dry ingredients together. The mixture then convey through a machine with high heat and pressure and fed through a die-cutting machine to form shapes. Extruded food products are commonly coated after drying to increase palatability (Food, 2018)

As the demand for pet food continues to increase year after year, the supply chain becomes increasingly crucial in ensuring the seamless operation of businesses (Abi Anwar et al., 2023). Indonesian pet food manufacturers also encounter unique obstacles particularly in area of demand forecasting, which has

a direct effect on the optimization and availability of facilities. The management of pet food manufacturers must prepare and ensure the capacity and production facilities ready to fulfill and adapt with increasing unpredictable future demand.

Accurately forecasting unpredictable market demand is essential and challenging for pet food factory. Demand planning involves the prediction of consumer purchase patterns and the coordination of production schedules and inventory levels. (Anwar et al., 2023). These forecasts are derived from a multitude of dynamic elements, such as evolving consumer preferences, seasonal patterns, and economic fluctuations.

The capability to precisely forecast and meet demand, without excessive or insufficient supply, is highly advantageous in a manufacturing environment. Pet food manufacturers can more accurately anticipate future demand trends by utilizing advanced predictive analytics in the era of big data. By properly analyzing existing data, the management can make informed, data-driven decisions to optimize facility, production processes and supply chain operations (Anwar et al., 2023). An effective strategy is required to overcome the challenge to provide a distinct advantage in the highly competitive market.

1.2. Problem Statement

Based on the above background, the problem statement for the research is inability to meet the increasingly demand of pet food for the next one year that leads to operational failure.

1.3. Objective

The objectives of this research are:

1. Provide in-depth analysis of three years trend of pet food manufacturing sales to identify pattern for pet food industry.
2. Provide prediction for sales trend of factory by using forecasting method and compare to factory's capacity.
3. Make a plan of action that includes actionable recommendations for management to facilitate the expansion of the factory.

1.4. Scope

Scopes defined in this research:

1. The research use dataset from factory sales quantity.
2. Dataset were obtained from year 2021 to year 2023.
3. Data limit to local product that sold to distributor and direct customer for both cat and dog dry pet food.

1.5. Systematic Writing

This research aims to precisely identify and outline the improvements with a thorough structure. Therefore, the writing will be systematic and follow the following pattern:

CHAPTER I

The chapter provides a concise overview of the background of pet food industry, the challenges faced by businesses in this industry, the objectives of the research,

and the scope and systematic writing of the research's development. This chapter will provide a comprehensive overview of the research.

CHAPTER II

The chapter provides a theoretical framework and reviews multiple literatures that demonstrate expert perspectives supporting the research objectives. These literary works will serve as the fundamental information to identify and develop effective solutions as improvement to address the problem outlined in this research.

CHAPTER III

The chapter explain the methodology used in this research to achieve objective described in previous chapter. This chapter includes collecting data, cleaning and processing, data analysis, data prediction, and comparison to data capacity.

CHAPTER IV

The chapter starts with data collection, processing, modelling phase and concluding with the assessment phase. The chapter includes analysis approach of data trend and forecasting. Factory capacity then will be analysed in comparison to the forecast to develop future Factory strategy.

CHAPTER V

The chapter explain the summary from all data processing and offers recommendations for the company to ensure the constant implementation of the suggested improvements.