A STUDY ON THE IMPACT OF PRICE, HEALTH, TASTE, AND SMELL ON CONSUMER PURCHASING DECISION-MAKING OF PEANUT OIL BRANDS IN MYANMAR

Dr. Silvi Hafianti[1], Dr. Elizabeth Furio Perez[1]*, Than Win[2]

[1]Department of Master in BioManagement, Indonesia, International Institute for Life Sciences, School of Business.

[2]Lincoln University College, Myanmar, River Samon Institute of Management, Myanmar

*Corresponding Author: elizabeth.perez@i3l.ac.id

Abstract

This study aims to investigate the factors that influence consumer purchasing decisions of peanut oil brands in Myanmar, specifically examining the impact of price, health, and taste and smell on purchasing behavior. A quantitative research approach was employed to analyze the data collected from 225 participants who are Facebook friends living in the Yangon region. The study utilized regression analysis to achieve its objectives. The results show that peanut oil price significantly impacts consumer purchasing decisions, while health considerations also play a role in decision-making. However, taste and smell did not significantly contribute to the prediction of the relationship between the dependent and independent variables.

Keywords: peanut oil brand, consumer purchasing decision, price impact, health influence.

1.0 Introduction

1.1 Background of the Study

The global edible oil market has been characterized by unprecedented price fluctuations, influenced by various factors such as decreased output and increasing demand (Statista, 2024). In Myanmar, edible oil is an essential component of daily life, often used for frying and mixed with food. The country has a diverse range of edible oil types, including peanut oil, sesame oil, sunflower oil, palm oil, vegetable oil, olive oil, soybean oil, mustard oil, and mixed oil. According to data from 2001 to 2017, Myanmar's peanut oil production increased significantly, with an average annual production of 270,000 tons (Htar et al., 2022). However, the edible oil industry has faced challenges in recent years, with 90% of expeller mills ceasing operation due to the sale of lower quality mixed edible oils and a lack of competition in the local market (Htar et al., 2022). Furthermore, the palm oil industry has been criticized for its use of chemically modified peanut oil fragrance and lack of standardization, with the government attempting to regulate the sale of unhealthy and unstandardized oils (Moh Moh et al., 2021). The country's reliance on imported palm oil has had a significant impact on the domestic edible oil industry, with monthly imports averaging 7,000 tons in the early 1990s and growing to 70,000 tons today (Moh Moh et al., 2021). Currently, local oil mills in Myanmar are struggling with declining production and high costs of electricity, raw materials, and labor, while the growing market for lower quality mixed edible oils poses a significant challenge.

1.2 Problem Statement

Myanmar is the fourth largest peanut oil consumption country in the world (Index Mundi, 2023). However, despite that the consumption of peanut oil is high, the local producers are still facing

challenges due to the increasing availability of substitute imported edible oils, which have disrupted the market (Belton & Win, 2019). Researchers have emphasized the need to identify the factors influencing consumer purchasing decisions towards peanut oil brands, including price, health, taste, and smell, as these factors can contribute to purchasing behavior (Moh Moh et al., 2021). As the import of edible oils continues to harm Myanmar's peanut oil producers, understanding the associations among these factors and their impact on consumer purchasing decisions has become crucial. A regression model can be used to predict consumer purchasing decision-making behavior, helping local peanut oil producers adjust their resources and remain competitive. This study aims to investigate how price, health, taste, and smell affect consumer purchasing decisions of peanut oil brands, and develop a regression model to predict purchasing behavior on edible peanut oil brands.

This study aims to investigate the relationship between consumer purchasing decisions and the factors influencing them, specifically price, health, taste, and smell, when buying edible peanut oil. The research questions that this study seeks to answer are: how do price, health, taste, and smell affect consumer purchasing decisions when buying edible peanut oil? What are the associations between edible peanut oil price, health, taste, and smell and consumer purchasing decisions of peanut oil brands? Furthermore, what recommendations can be provided to local edible peanut oil producers to improve their product offerings, packaging, and distribution strategies? To achieve these objectives, the study will explore how price, health, taste, and smell affect consumer purchasing decisions when buying edible peanut oil; analyze the association between peanut oil price, health, taste, and smell and consumer purchasing decisions of peanut oil brands; and provide recommendations based on the findings to the local edible peanut oil producers.

1.3 Research Methodology

This study employs a mixed-methods approach, combining both descriptive and analytical research methodologies. The descriptive approach is used to present demographic data from the respondents. Additionally, binary logistic regression analysis is employed to examine the relationship between peanut oil's price, health, and taste, and peanut oil brands. To further investigate the associations between consumer behavior and peanut oil's taste, smell, health, and price, various statistical tests are conducted, including the Chi-square test, Hosmer and Lemeshow (H-L) tests, -2 Log Likelihood, Cox & Snell R Square, and Nagelkerke R Square tests. The analysis of the data is conducted using the SPSS statistical analysis tool, specifically designed for social science research.

1.4 Scope and Limitations of the Study

This study has a specific scope and is limited by certain factors. It focuses on the binary logistic regression analysis of peanut oil brands and the association between price, health, taste, and smell among Facebook users from 39 townships. The goal of this study is to address the knowledge gap in understanding consumer preferences regarding health, taste, and smell when purchasing edible peanut oil brands, as well as the association between consumer preferences, health, taste, and smell on edible peanut oil brands. The data for this study was collected from a total population of 760 Facebook friends in these 39 townships. A structured questionnaire was used to gather primary data. Due to time and cost constraints, the study was limited to the Yangon region. The

sample size is therefore a limitation of this study. Additionally, this study only examined the relationship between price, health, taste, and smell and edible peanut oil brands, without considering other external factors such as political situations and competitiveness.

2.0 Literature Review
2.1 Myanmar Peanut Oil Industry Overview

In Myanmar, oilseed crops cover approximately 16.4% of the total agricultural land, with peanuts being one of the main crops. The production of peanut oil is a significant industry, but it faces challenges due to competition from imported palm oil. The Myanmar Edible Oil Dealers' Association and the Myanmar Edible Oil Manufacturers' Association have reported that the sudden imposition of import restrictions by India on beans and pulses led to a shift in farming practices, with many farmers switching to growing peanuts. However, this change has proven difficult due to the different skills required (Global New Light of Myanmar, 2023c).

The demand for edible oil in Myanmar is high, with each person consuming an average of 9.3 kg of edible oil per year. The country imports significant amounts of palm oil to meet this demand, particularly from Malaysia. However, this has had negative effects on the national economy and consumer base in Myanmar's oilseed crop industry. It is also important for consumers to be aware of the importance of eating nutritious oils, such as those found in peanuts, sesame seeds, and sunflower seeds (Moh Moh et al., 2021). According to a survey, peanut oil is the most popular edible oil in Myanmar, with 61.40% of respondents selecting it as their preferred oil type (Htar et al., 2022).

2.2 Consumer Decision Making Process

Understanding consumer behavior is crucial for businesses to gain a competitive advantage in today's market. A consumer is defined as an individual with sufficient income to purchase goods or services, and their demand for superior services plays a significant role in the success or failure of an industry (Singh et al., 2022). To thrive in a competitive market, businesses must understand and adapt to the decision-making processes and actions of their customers (Sbakhi et al., 2018). Consumer decision-making involves a complex process, including information search, evaluation of alternatives, purchase decision, and post-purchase evaluation, with various factors influencing the decision-making process (Ganlari, 2018). According to Philip Kotler, customer behavior is the study of how individuals or groups choose, use, and reject goods, services, concepts, or encounters to satisfy their wants and needs (P. Kotler, 2020). Researchers have developed various models to depict the decision-making process involved in purchasing and the factors that affect it (Ganlari, 2018). By understanding what consumers like to buy, where they buy, how much they buy, how often they buy, and why they buy, businesses can reorganize their decision-making process at different stages (P. Kotler et al., 2021).

2.2.1 The Need Recognition

The buying process begins with need recognition, where a customer identifies a desire or issue, often triggered by internal and external stimuli, such as cultural and social factors (Chen et al., 2018). This initial phase involves recognizing a gap between the ideal and current circumstances, creating demand, and the need to fulfill that desire (Stankevich, 2017). Marketers may influence consumers to buy by highlighting the difference between their ideal and present circumstances, creating a sense of urgency (Ganlari, 2018). Factors such as financial considerations, past

decisions, family characteristics, social status, marketing campaigns, and personal preferences can impact the identification of needs (Ganlari, 2018). The genuine condition is influenced by various factors, including evaluation after purchase, want excitement, and inappropriate group. Scholars argue that a need can be something one needs rather than something one just wants to preserve one's way of life (Chen et al., 2018). The problem is detected when a consumer observes a significant difference between their current circumstances and an ideal or preferred state.

2.2.2 Sourcing Information

Consumers seek information from various sources, including personal, commercial, public, and experimental sources, during the information search process, which is a crucial step in the buying decision-making process. This search is often triggered by an unconscious desire, and once consumers are aware that a product or service can satisfy their needs, they will evaluate whether to purchase it. The level of consumer interest determines the amount of information needed during the search process, with consumers being more likely to make a decision quickly if the product is readily available or instantaneously accessible (Chen et al., 2018). Consumers have the right to access knowledge from multiple sources, including both private and public data (Panwar et al., 2019). As consumers seek to make informed decisions, they often search for experiences associated with products and similar products or services. They may also seek advice from friends, family, and acquaintances who have experience with the products or solutions they need. Positive customer feedback can significantly increase the likelihood of purchase, while external data can also aid in decision-making. Additionally, consumers can obtain information through various channels, such as magazines, TV, and online resources. For example, advertising on TV or the internet can serve as important cues to make a purchase (Kotni, 2020). Researchers refer to the initial stage of information search as "internal search," where customers identify products within their "expressed set," meaning those they are already familiar with. "External search" refers to information obtained from third-party sources such as packaging and advertisements. After identifying a problem, customers need sufficient information to resolve it, which can be obtained from both internal and external sources (Aung, 2023).

2.2.3 Evaluation of Alternatives

Consumers are faced with a vast array of options, which can lead to overwhelming decision-making. To alleviate this, businesses can simplify the process by highlighting their products' unique qualities, guiding consumers towards more informed purchases. During this process, customers evaluate all available options, develop a mental framework of brand associations, and consider various factors such as brand, quality, originality, and usefulness (Kotni, 2020). As they gather more information, they may elevate their standards for evaluation and categorize options based on shared qualities, with emotional connections influencing their perception of different choices (Ganlari, 2018). Businesses must identify reliable information sources and understand what aspects of their products or services resonate with customers (Kotni, 2020) to effectively navigate this complex decision-making process.

2.2.4 Purchasing Decision

During the evaluation stage, consumers weigh their options, considering factors such as social influences and unexpected situations, to form a purchase intention and rank their preferred brands (Ganlari, 2018). As they reach the "end goal", they have selected the product they wish to purchase, guided by their needs, wants, and challenges (Kotni, 2020). Purchase decisions are influenced by various factors, including social relationships, reference groups, and personal

preferences (Panwar et al., 2019), with some customers opting for exclusive brand loyalty if they have a positive perception of the brand (Ganlari, 2018).

2.2.5 Post-Purchase Behavior

After purchasing a product, the customer's job is not done, as they will either be satisfied or dissatisfied and engage in post-purchase behavior. Satisfaction depends on the gap between expectations and disappointment, and vendors must evaluate customer needs, satisfaction, and retention. Some buyers may make impulsive purchases, leading to dissatisfaction and returns, while others may feel guilty, ashamed, or helpless after making an extravagant purchase (Chen et al., 2018). The customer assesses whether the product meets, exceeds, or falls short of their expectations (Ganlari, 2018), and their satisfaction is influenced by whether the product meets their needs, exceeds their expectations, or falls short (Ganlari, 2018).

2.3 Factors Affecting the Purchasing Decision of Edible Peanut Oil

The edible oil market has various types of edible oil for consumers. Several factors are affecting the purchasing decision-making of edible oil. Among them, price, health, smell, and taste are explored in detail in the following section.

2.3.1 Price

Price is the only instrument employed by businesses to generate income from marketing mix elements, and as such, the prices that companies establish for their goods are essential to ensuring a good return on their investments (Akdogan, 2021). In a competitive marketplace, the price is acknowledged as a financial amount regardless of the level of quality of the goods (Akdogan, 2021). Consumers perceive price as a measure of quality and use it to compare reference rates in a marketplace, where comparable products are sold at a variety of prices (Yu et al., 2017). Many scholars believe that price has a significant influence on purchasing decisions (Weerasooriya & Mendis, 2023), and research has shown that price and product quality play significant roles in consumers' decisions (Auf et al., 2018; Mohammed & Murova, 2019; Yuan et al., 2019). The findings of these studies indicate a relationship between price-related variables and consumer purchasing decisions, as well as the potential for a positive or negative relationship between price and purchasing probability. In Myanmar, consumers have expressed that the price is high for them to consume edible oil, but even if the price is low and income increases, they will not increase their consumption (Htar et al., 2022). This suggests that price might influence consumer purchasing decisions in Myanmar, particularly in terms of switching to high-quality edible oils.

2.3.2 Health

The consumption of edible oil in Myanmar is high, with an annual per capita consumption of 14.39kg, which has increased by 64% in recent decades (Htar et al., 2022). However, this increase in consumption has led to a growing market demand for high-quality edible oils, which has resulted in the mixing of inexpensive oils and chemicals, leading to adulteration and health problems (Jesadiya et al., 2023; Pandey et al., 2022). As a result, consumers are becoming more sensitive to the quality of edible oil they consume, and many countries are switching to healthier options (Jesadiya et al., 2023). In Myanmar, consumers are complaining about the difficulty in distinguishing blended edible oil from contaminants and are demanding healthier options (Global New Light of Myanmar, 2023a). Peanut oil producers are reportedly blending peanut oil with palm oil to increase profits, which can lead to health problems for consumers (Li, 2019). These concerns highlight the importance of consumers finding brands and edible oil types that are

healthier and more authentic.

2.3.3 Taste and Smell

Edible oils, particularly peanut oil, are refined to achieve a neutral flavor before consumption, but customers can detect even minute amounts of aromatic product residue. While flavorless oils are preferred in the United States and many Western countries, faint natural flavor notes, such as nutty, buttery, or oily, are acceptable and often necessary in countries like Myanmar, Asia, and Africa (Gulcin, 2020). In Myanmar, peanut oil is a popular choice for cooking, frying, and adding flavor, with most variants having a mild, neutral flavor (Htar et al., 2022; Moncel, 2022). Myanmar people tend to appreciate nutty and oily smells and tastes, making peanut oil a suitable fit for their preferences. Additionally, people often use taste and smell as indicators of the state and quality of edible oil products, as each type of oil has its unique smell and flavor. For example, a bad oil can have an acidic or peculiar smell, while a bitter or pungent taste can indicate an inferior product (Tonde, 2024). As a result, consumers are likely to choose edible oils based on their taste and smell.

2.4 Other Related Studies

Several studies have explored the factors influencing consumer purchasing decisions of edible oil, with one study conducted in Myanmar confirming that price, health, taste, and smell affect consumption rates, although the researchers noted that further research is needed to fully understand the effects of these variables (Htar et al., 2022). A study in Kandy, Sri Lanka, found that price is the most significant factor influencing consumer purchasing decisions of edible oil, with consumers also considering how they use edible oil in a healthy way (Weerasooriya & Mendis, 2023). In another study in Surendranagar City, Gujarat, researchers found that taste and smell, health considerations, price, availability, and brand reputation are all factors influencing consumer purchasing decisions of edible oil, with consumers placing significant importance on health considerations and taste and smell (Jesadiya et al., 2023). A study in India used variables such as quality, quantity, health benefits, and oil taste to understand consumer awareness and perception of edible oils, finding that edible oil quality and health benefits are significant factors influencing purchasing decisions (Yamuna & Kumaran, 2023). These studies collectively suggest that health considerations, taste and smell, and price are all important factors influencing consumer purchasing decisions of edible oil. Consumer-based sensory evaluation techniques are becoming increasingly common in product development (Varela & Ares, 2012; Yansen, Perez, Pradipta, Anvolia, 2023).

2.5 Conceptual Framework of the Study

Drawing from existing research, literature, and reports, the conceptual framework presented here encompasses three independent variables: price, health, and taste and smell, with the dependent variable being consumer purchasing decision-making regarding edible peanut oil brands. The aim of this conceptual framework is to explore the influence of price, health, taste, and smell on consumer purchasing decisions related to peanut oil brands.
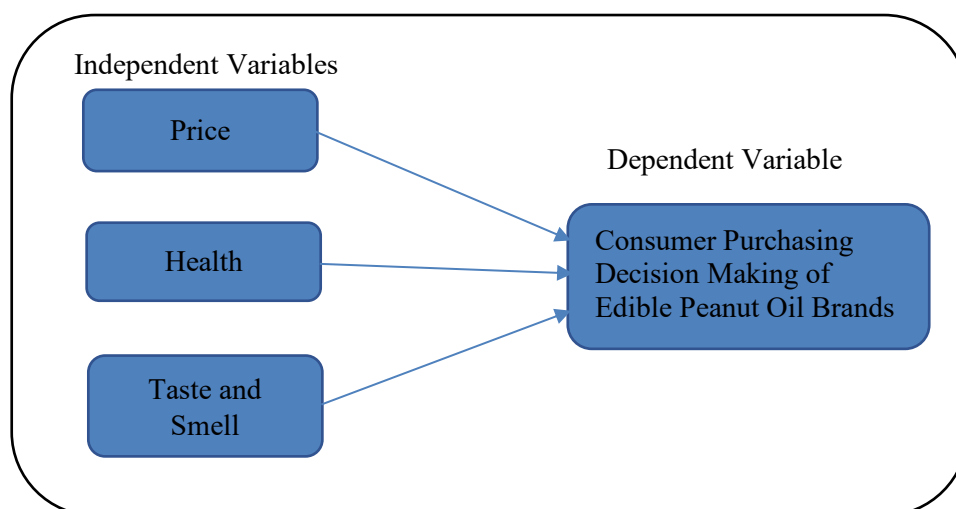
Figure: 2.2 Conceptual Framework of the Study

This conceptual framework is adapted from previous studies on consumer behavior and purchasing decision-making (Kotler et al., 2016; Solomon et al., 2019).

3.0 Research Methodology
This chapter outlines the research methodology employed in the study, including the research design, data collection methods, and the data analysis tool utilized, which in this case is logistic regression.

3.1 Research Design
This study focuses on the impact of price, health, taste, and smell on consumers' decision-making regarding edible peanut oil. It uses a quantitative research approach to establish relationships between variables through numerical methods. Survey research strategy is preferred for its focused investigation, while a descriptive research approach provides detailed data explanation. Structured questionnaires are used for their efficiency in gathering primary data, and a deductive approach is used to evaluate the study's hypotheses.

3.2 Population and Sampling
The study population consists of all edible oil consumers, but due to time and cost constraints, it is limited to 760 Facebook friends living in Yangon. The sample size of 255 was determined by the known population sample size calculation formula.

3.3 Research Instrument Development
The study uses structured questionnaires with five-point Likert scale responses to investigate the impact of price, health, taste, and smell on consumers' edible peanut oil purchases. Logistic regression is employed to analyze the gathered data, utilizing Likelihood Ratio, Wald, Hosmer-Lemeshow, Cox and Snell R-Square, Nagelkerke R-Square, and Omnibus tests for model fitting. Logistic regression predicts a binary outcome based on predictor variables without assumptions on their distribution. Likelihood Ratio test assesses the significance of adding variables to the model, while Wald test determines the coefficient significance. Hosmer-Lemeshow test evaluates model fit, and Cox and Snell R-Square quantifies model improvement. Nagelkerke R-Square

extends R-Square's range to 1, and Omnibus test examines the overall significance of coefficients in the model.

4.0 Findings of the Study

This chapter analyzes the impact of brand image, taste, smell, price, and health on peanut oil consumption using regression analysis. The survey was conducted on a sample of Facebook friends from thirty-nine townships. Statistical analysis includes descriptive data analysis and regression analysis to identify key independent and dependent variables.

4.1 Socio Demographic Characteristics of Respondents

The socio demographic characteristics of the respondents by gender for Facebook friends who are consuming the peanut oil in figure (4.1).

In this survey, Total respondents were 255. Male respondents are forty-two and female respondents are two hundred and thirty-three respectively.
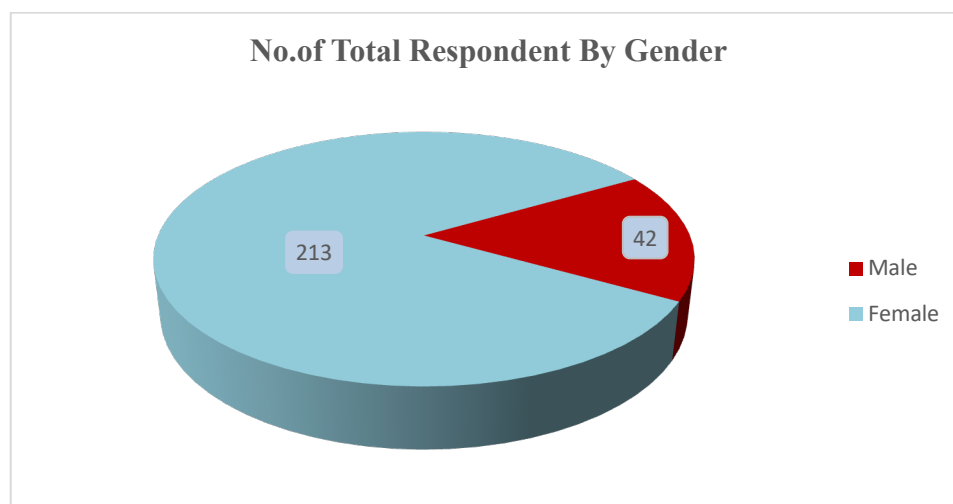
Figure 4.1 Respondent by gender
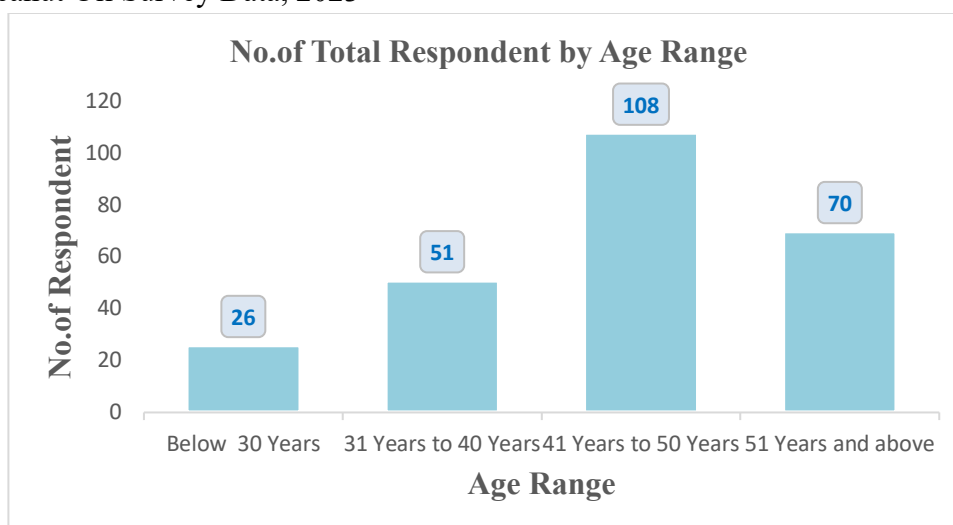
Source: Peanut Oil Survey Data, 2023

Figure 4.2 Total Respondent by Age Range

Source: Peanut Oil Survey Data, 2023

The analysis shows that peanut oil consumers are divided into four age groups: below 30 years (26 respondents), 31 to 40 years (51 respondents), 41 to 50 years (108 respondents), and above 50 years (70 respondents).
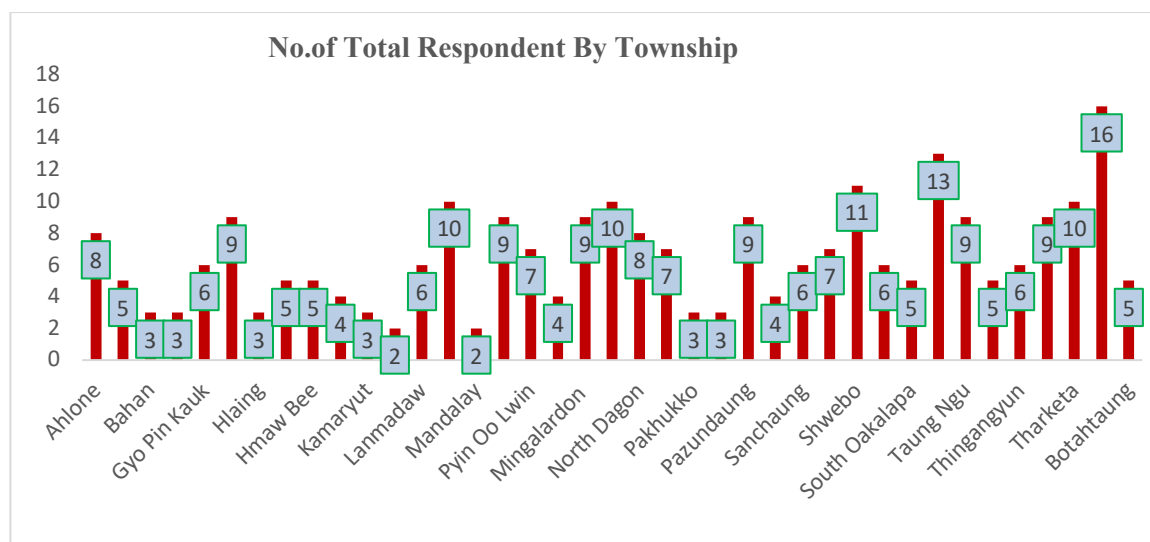

Figure 4.3 Respondent by Township

Source: Peanut Oil Survey Data, 2023

The chart shows the Breakdown of 39 townships in survey:

Eight (8) respondents in Alone, 5 in Bago, 3 in Bahan, 3 in East Dagon, 6 in Gyo Pin Kauk, 9 in Hinthada, 3 in Hlaing, 5 in Hlaing Thar Yar, 5 in Hmaw Bee, 4 in Insein, 3 in Kamaryut, 2 in Kyimyinttine, 6 in Lanmadaw, 10 in Lashio, 2 in Mandalay, 9 in Magway, 7 in Pyin Oo Lwin, 4 in Mayangone, 9 in Mingalardon, 10 in Monywa, 8 in North Dagon, 7 in North Okkalarpa, 3 in Pakhukko, 3 in Pathein Gyi, 9 in Pazundaung, 4 in Phyar Pon, 6 in San Chaung, 7 in Shwe Pyi Thar, 11 in Shwe Bo, 6 in South Dagon, 5 in South Oakalapa, 13 in Tarmwe, 9 in Taung Ngu, 5 in Taunggyi, 9 in Thanlyin, Thingangyun, 10 in Tharketa, and 16 in Yankin, 5 in Botahtaung.
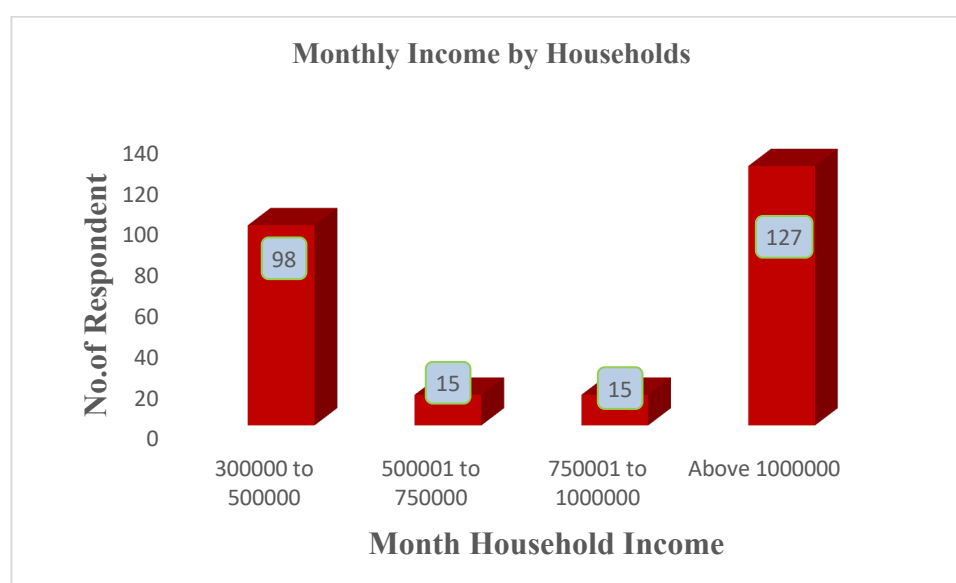

Figure 4.4 Monthly Income by Households Range

Source: Peanut Oil Survey Data, 2023

To study the peanut oil business and sales forecast, the marketer should focus on monthly household income as it influences housewives' purchasing decisions. The study targets peanut oil consumers among Facebook friends and categorizes them into four income ranges: 1) 300,000 to 500,000 kyats, 2) 500,001 to 750,000 kyats, 3) 750,001 to 1,000,000 kyats, and 4) above 1,000,000 kyats. There were 127 respondents in the above 1,000,000 kyats group, 98 respondents in the 300,000 to 500,000 kyats group, and 15 respondents in the other two groups combined. Respondents with a monthly household income below 750,000 kyats contributed 44%, while those above 750,000 kyats contributed 56% of the total respondents.
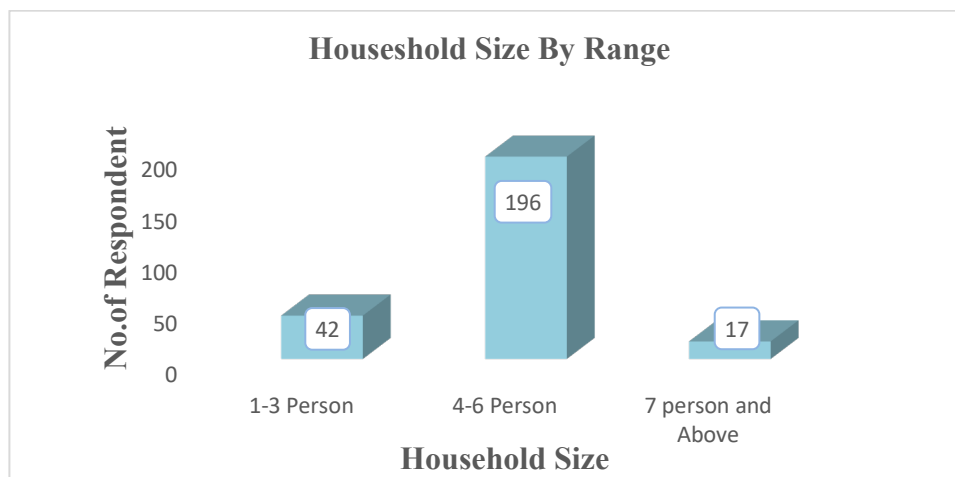

Figure 4.5 Household Size by Range

Source: Peanut Oil Survey Data, 2023

In the peanut oil consumer survey, households are categorized into three groups based on size: 1) one to three family members, 2) four to six family members, and 3) above seven family members. The largest group is four to six family members, with 196 respondents. The one to three family members group follows with 42 respondents, while the above seven family members group is the smallest in this study.
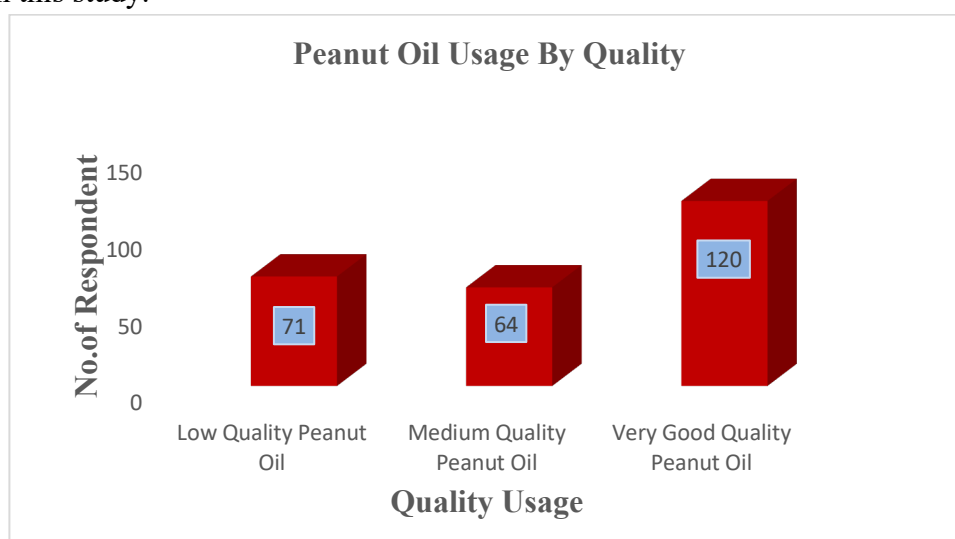

Figure 4.6 Peanut Oil Usage by Quality

Source: Peanut Oil Survey Data, 2023

According to the survey data, seventy-one respondents are using low quality peanut oil, sixty-four respondents are consuming medium quality peanut oil, and one hundred and twenty respondents are consuming very good quality peanut oil. There are seventy-two percent of peanut oil consumers in medium and very good quality in this study. Twenty-eight percent of peanut oil consumers are consuming low quality peanut oil.
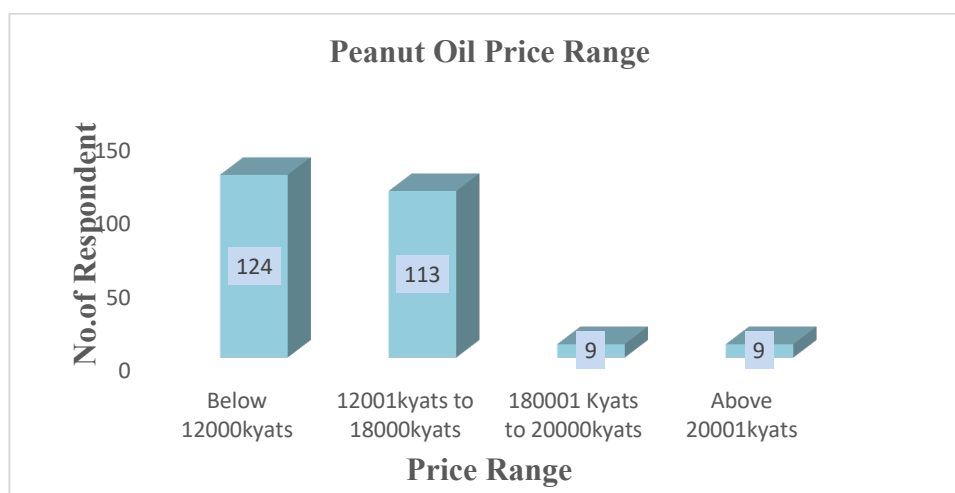

Figure 4.7 Peanut Oil Price Range

Source: Peanut Oil Survey Data, 2023

In the local edible oil market, pricing strategy is crucial for marketers. The survey revealed that the majority of respondents purchase peanut oil below twelve thousand kyats, contributing forty-nine percent. The price range of twelve thousand to eighteen thousand kyats follows closely behind, with forty-four percent of respondents. There are nine respondents who purchase peanut oil between eighteen thousand and twenty thousand kyats, and an additional nine respondents who opt for peanut oil above twenty thousand kyats, which is considered of very good quality. Only a few respondents purchase in the above eighteen thousand kyats pricing range. The survey shows that consumers prefer peanut oil priced below eighteen thousand kyats per viss, accounting for ninety-three percent of total respondents.
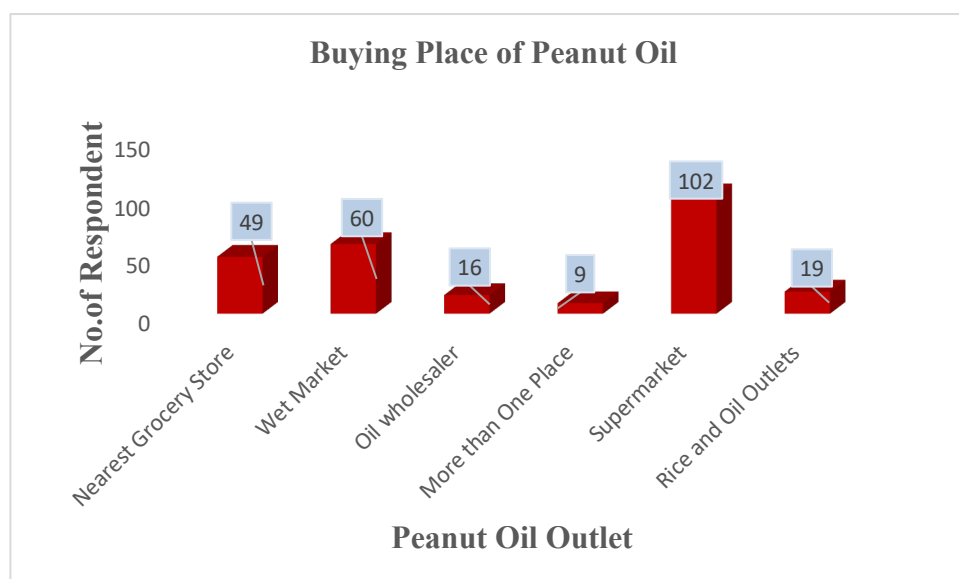
Figure 4.8 Buying Place of Peanut Oil
Source: Peanut Oil Survey Data, 2023

Most peanut oil consumers purchase from various locations such as grocery stores, wet markets, oil wholesalers, supermarkets, and rice and oil outlets. In this study, one hundred and two respondents buy from supermarkets, sixty from wet markets, forty-nine from the nearest grocery store, nineteen from rice and oil outlets, sixteen from oil wholesalers, and the remaining nine from other convenient places. The key selling technique is to have a visible and easily accessible presence everywhere. According to the study, consumers prefer buying peanut oil in supermarkets, followed by the nearest grocery store, and then wet markets. Marketers take into account consumer buying behavior and strategically place peanut oil in these locations.
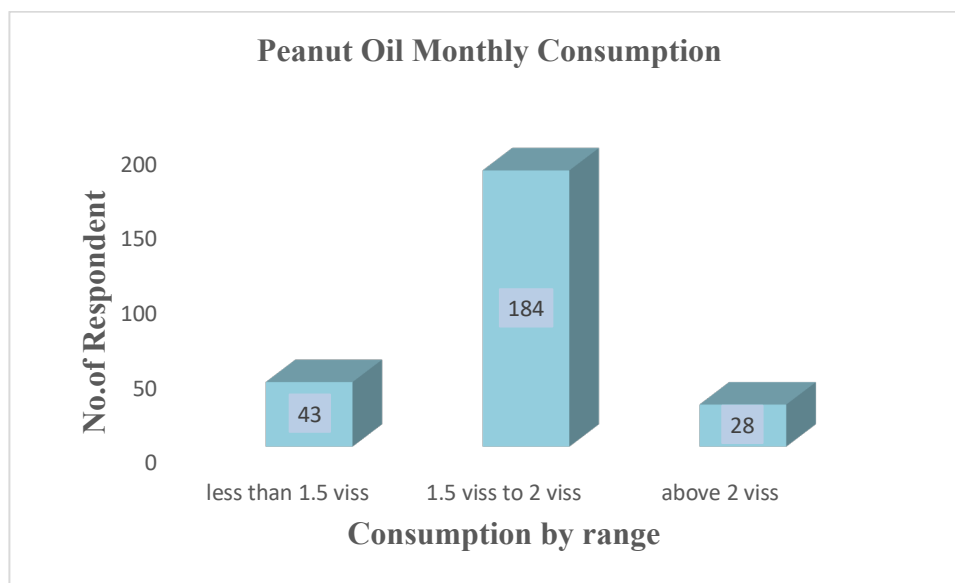

Figure 4.9 Peanut Oil Monthly Consumption
Source: Peanut Oil Survey Data, 2023

In this study, seventy-four percent of total respondents consume an average of 1.5 viss to 2 viss of peanut oil per month. The highest number of households, one hundred and eighty-four respondents, fall within the 1.5 viss to 2 viss range. Those consuming less than one viss of peanut oil make up forty-three respondents, contributing seventeen percent to the study. The remain
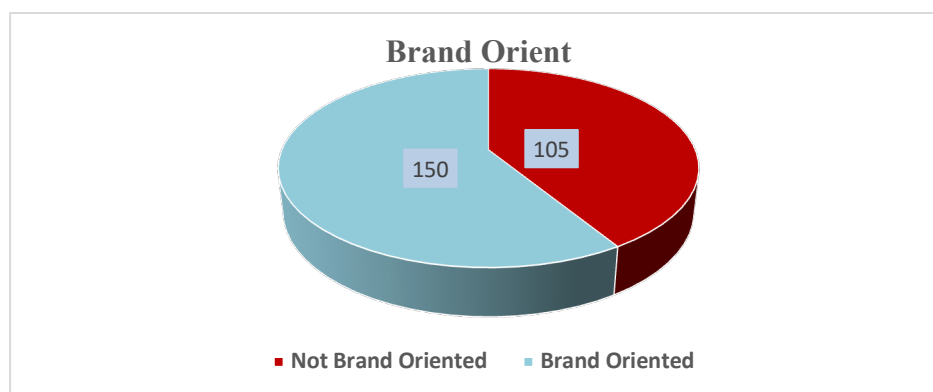

Figure 4.10 Brand Orient

Source: Peanut Oil Survey Data, 2023

The study findings reveal an interesting pattern in brand preference among survey participants. Brand-building is a central focus for marketers across various industries. The research indicates that 59% of respondents (a total of 150 individuals) do not prioritize brand when selecting peanut oil, while 41% (101 participants) exhibit brand-oriented behavior. This suggests that for most peanut oil consumers, brand does not play a significant role in their purchasing decisions, as they are willing to switch to another brand if their preferred choice is unavailable. In contrast, the brand-oriented segment displays greater loyalty to a specific brand, even in the absence of their preferred option. The study highlights the importance of branding, as a strong brand identity can drive sustainable business growth. Furthermore, a positive brand reputation has the potential to entice non-brand-focused consumers to shift their allegiance to your brand.
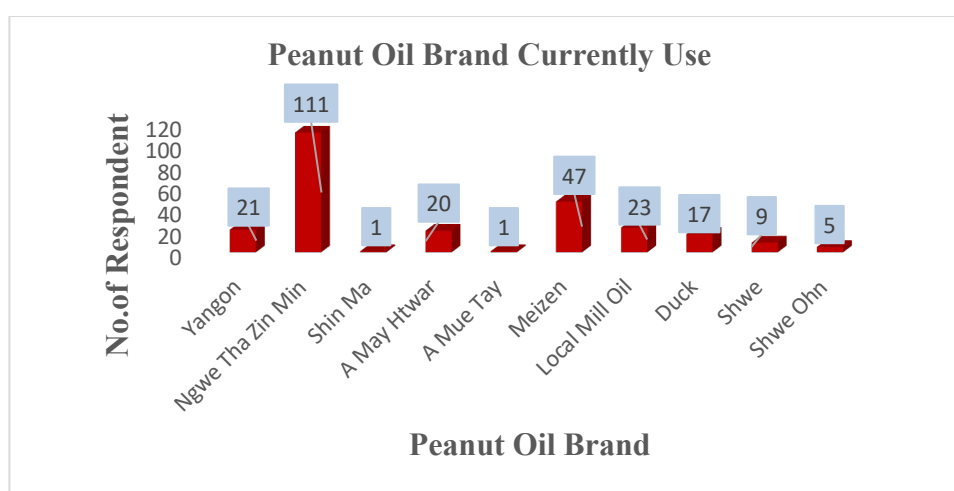

Figure 4.11 Peanut Oil Brand Currently Use By Respondents
Source: Peanut Oil Survey Data, 2023

There is a diverse selection of peanut oil brands to choose from in the local market. In the study, participants mentioned using various brands, including Yangon peanut oil, Ngwe Tha Zin Min peanut oil, Shin Ma peanut oil, A May Htwar peanut oil, A Mue Tay peanut oil, Meizen peanut oil, Duck peanut oil, Shwe peanut oil, Shwe Ohn peanut oil, and local mill peanut oil. Among the respondents, 111 indicated using Ngwe Tha Zin Min peanut oil, 47 mentioned using Meizen peanut oil, 21 reported using Yangon peanut oil, 20 reported using A May Htwar peanut oil, 23 mentioned using local mill peanut oil, 17 reported using Duck peanut oil, 9 indicated using Shwe peanut oil, 5 mentioned using Shwe Ohn peanut oil, while Shin Ma and A Mye Tay were each used by one respondent.

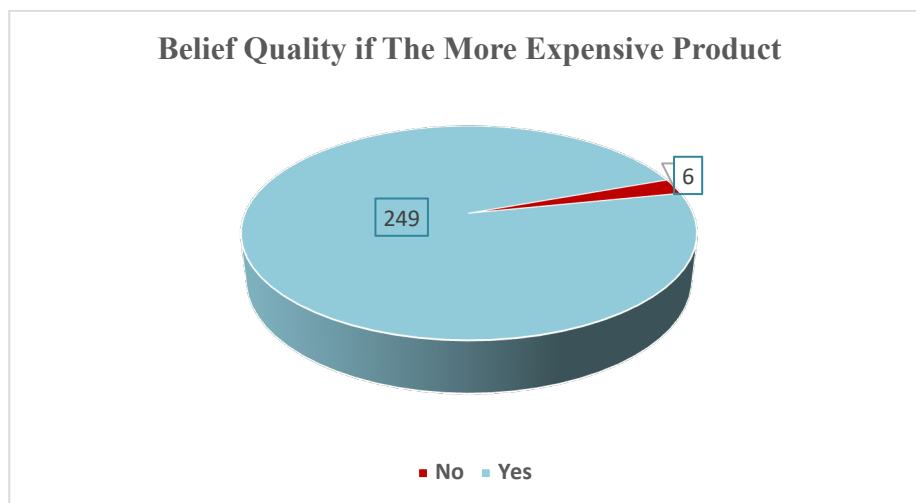**Belief Quality if The More Expensive Product**

6

249

■ No ■ Yes

Figure 4.12 Peanut Oil Consumer Responds on Spend and Quality
Source: Peanut Oil Survey Data, 2023

The belief in the relationship between quality and price is strong among ninety-eight percent of respondents. The general perception is that higher prices are often associated with better quality products. Therefore, if a product is priced lower than expected for its perceived quality, ninety-eight percent of consumers may question its quality. This suggests that even if your product is of good quality, selling it at a lower price could lead consumers to doubt its quality.

Peanut Oil Taste and Smell Preferrence

1

254

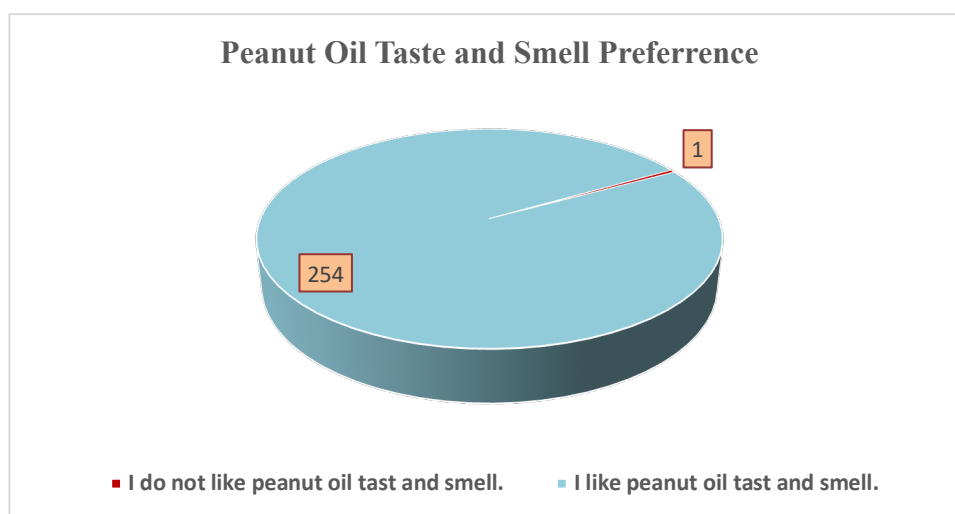■ I do not like peanut oil tast and smell.   ■ I like peanut oil tast and smell.

Figure 4.13 Consumer respond on peanut oil taste and smell
Source: Peanut Oil Survey Data, 2023

The survey findings indicate that ninety-nine percent of respondents enjoy the taste and smell of peanut oil. Only one respondent reported not liking the taste and smell of peanut oil.
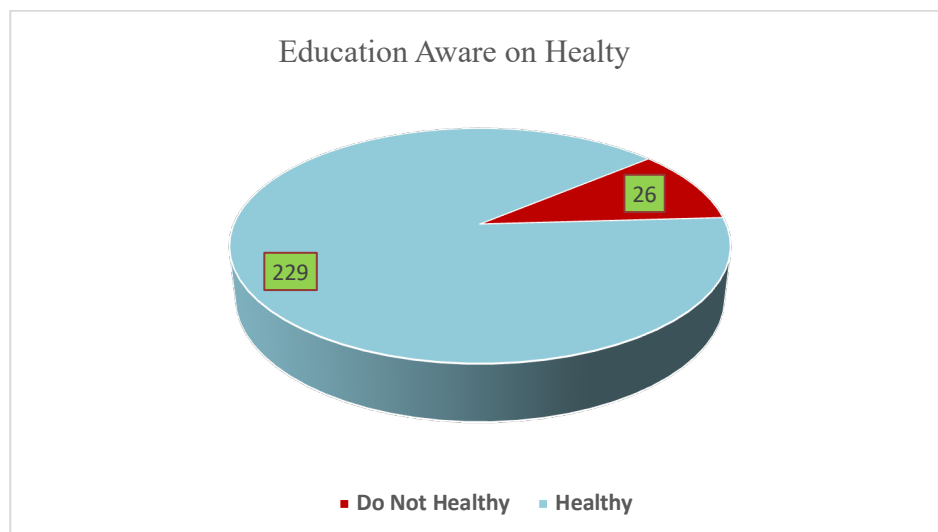
Figure 4.14 Health Awareness of Peanut Oil Consumer

Source: Peanut Oil Survey Data, 2023

This study examines the level of health awareness among consumers of peanut oil. It revealed that some consumers of peanut oil are unaware that it falls under the category of healthy oils, despite consuming it. Out of two hundred twenty-nine respondents, ninety percent were aware that peanut oil is considered healthy. However, twenty-six respondents, comprising ten percent of the total, were unsure whether peanut oil is healthy or unhealthy.
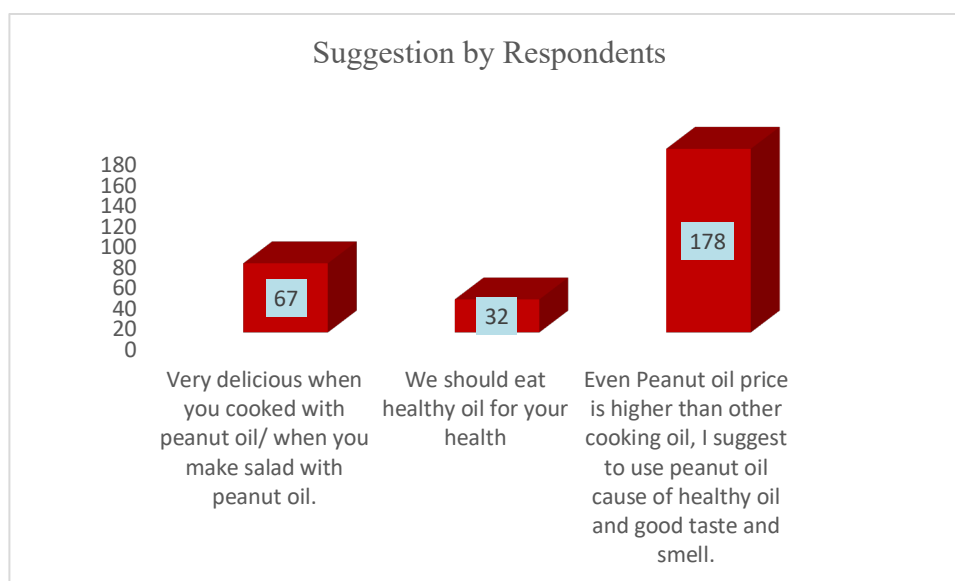
Figure 4.15 Suggestion by Respondents

Source: Peanut Oil Survey Data, 2023

Peanut oil consumers/respondents in this study shared recommendations with new users of the product. Sixty-seven respondents highlighted the deliciousness of peanut oil when used in cooking and salads. Thirty-two respondents suggested incorporating peanut oil into one's diet for its health benefits. Furthermore, despite the price rise, one hundred and seventy-eight respondents recommended consuming peanut oil for its health benefits and great taste.

4.2 Variable in the Binary Logistic Regression Model

According to the findings from the binary logistic regression analysis survey, the consumption of peanut oil is designated as the independent variable, while variables such as peanut oil price, taste, smell, and health are understood as dependent variables. The survey involved respondents who are peanut oil consumers from the Facebook Friends group. The decision-making process for purchasing a peanut oil brand is seen as the dependent variable, with peanut oil price, taste, smell, and health serving as the independent variables.

4.3   Analysis of Consumption, Pricing Factors, Health Aspects, Taste and Smell on Purchasing Decision

4.3.1 Analysis of Consumption

To maintain good health, it is recommended to limit individual oil consumption to less than 500ml per month, with a guideline of 1000-1500 ml per month for a family of three. The study highlights the need to reduce edible oil consumption for overall health due to observed high individual consumption levels.

4.3.1 Peanut Oil Pricing Factors:

In terms of the model coefficients for peanut oil pricing demonstrates statistical significance, with a chi-square value of 10.670 and 1 degree of freedom. The impact of pricing predictor variables on consumer decisions is assessed, showing an enhanced ability to predict purchasing choices. Additional tests, including the Hosmer and Lemeshow test, reinforce the model's adequacy and the relationship between variables.

4.3.2 Health Aspects of Peanut Oil:

With regards to the health aspects of peanut oil, the statistical significance in the Omnibus tests highlights the impact of healthy variables on predicting purchasing decisions. Model fitting information, alongside R Square estimates, supports the relationship between health factors and consumer choices. Pseudo R2 estimates provide insights into the variation explained by health aspects in purchasing decisions.

4.3.3 Taste and Smell Influence on Purchasing Decisions:

The influence of taste and smell on peanut oil purchasing decisions is examined, indicating no statistical significance, suggesting that these variables do not significantly impact consumer choices. Model fitting information, including R Square estimates, further supports these findings. Binary logistic regression models align with these conclusions.

The research highlights the significance of pricing and health factors in influencing peanut oil purchasing decisions. While pricing and health considerations are crucial in consumer choices, taste and smell variables do not seem to have a substantial impact. This in-depth analysis offers valuable insights into the determinants of peanut oil purchasing decisions.

5.0 Conclusions and Recommendations

5.1 Conclusions

The study findings reveal several key insights regarding consumer behavior and preferences related to peanut oil.

Firstly, the majority of respondents have sufficient income to afford peanut oil for their daily consumption, with most prices falling within the range of 10,000 to 20,000 kyats. Consumers strongly associate price with quality, indicating that they view price as a crucial indicator of

product quality. Additionally, a significant portion of consumers (59%) exhibit brand orientation, suggesting that brand loyalty plays a role in their purchasing decisions. However, fluctuations in prices may prompt non-brand-oriented consumers to switch to other brands.

Concerningly, 10% of respondents perceive peanut oil as unhealthy, highlighting the importance of marketers ensuring that their products are perceived as part of the healthy oil category. On the contrary, 90% of consumers are aware of peanut oil's health benefits and perceive it as a healthy option.

Regarding the factors influencing consumer decision-making, binary linear regression results indicate that while taste and smell are not significant predictors, both price and health considerations significantly impact consumer choices.

Even slight changes in price or health perceptions can lead to shifts in consumer purchasing decisions. Logistic regression analysis further confirms the significance of price and health concerns in influencing consumers' choices of peanut oil brands.

The data accuracy for these factors is high, indicating a strong relationship between price, health considerations, and brand preferences among consumers.

5.2 Recommendations

Based on the conclusions drawn from the data analysis, here are some recommendations for marketers and manufacturers of peanut oil:

1. Capitalize on Price Perception

Since consumers strongly link price with product quality, it is essential to maintain competitive pricing within the range of 10,000 to 20,000 kyats. Communicating value for money and highlighting quality aspects associated with pricing can help attract and retain customers.

2. Build Brand Loyalty

With a significant portion of consumers showing brand orientation, it is crucial to invest in building brand equity, loyalty programs, and engaging marketing campaigns to strengthen brand loyalty. Consistent messaging and product quality can help retain brand-conscious consumers.

3. Address Health Perceptions

The perception among some consumers that peanut oil is unhealthy presents an opportunity for marketers to educate consumers about the health benefits of peanut oil. Emphasize the nutritional value, health benefits, and positioning of peanut oil as a healthy cooking option to dispel misconceptions and attract health-conscious consumers.

4. Monitor Pricing and Health Factors

Given that price and health considerations significantly influence consumer decisions, it is important to track and analyze market trends, pricing strategies of competitors, and consumer perceptions regarding health benefits. Regularly monitoring these factors can help anticipate changes in consumer preferences and adapt marketing strategies accordingly.

5. Enhance Product Communication

Focus on highlighting the taste, smell, and overall sensory experience of peanut oil to create a differentiated product positioning. While taste and smell may not be significant predictors in consumer decision-making, emphasizing these aspects can enhance the overall product appeal and customer satisfaction.

6. Continuous Data Monitoring and Analysis

Given the strong relationship between price, health considerations, and brand preferences among

consumers, ongoing data collection and analysis are essential. Regular surveys, consumer feedback mechanisms, and market research can provide valuable insights for refining marketing strategies, product offerings, and communication efforts.

By implementing these recommendations and staying attuned to consumer preferences and market dynamics, marketers and manufacturers can effectively cater to consumer needs, drive brand loyalty, and capitalize on the unique selling propositions of peanut oil in the competitive market landscape.

6.0 Suggestion for Future Research

This study solely examined the influence of price, health, taste, and smell on consumer purchasing decisions regarding peanut oil brands. However, other unforeseen variables, such as the economy impacting disposable income and potentially altering purchasing decisions, require further exploration. Additionally, due to time and cost constraints, only Facebook friends from the Yangon region were included in the study. Therefore, future research should involve larger sample sizes to ensure more reliable research findings.

About the Authors

Dr. Elizabeth Furio Perez *currently serves as the Dean of the School of Business at Indonesia International Institute for Life Science (i3L), Dr. Perez holds a Doctor of Business Administration degree. With a background in teaching business courses in universities across the Philippines, Vietnam, Myanmar, UAE, and Indonesia, Perez's research interests cover women entrepreneurship, SMEs, stress management, consumer behavior, human resource management, organizational culture, and marketing.*

Dr. Silvi Hafianti, S.E., M.Com., *serves as a lecturer in Economics and Research for the Master in BioManagement program at the School of Business in Indonesia International Institute for Life Science (i3L). With a Doctor of Economics degree, she has established herself as a respected academic in the field of economics, known for her dedication to advancing economic knowledge.*

Than Win *currently holds the position of National Sales Manager for FMCG Myanmar Consumer Goods at DKSH (Myanmar) Ltd. He holds an MBA from Lincoln University College (LUC) and a BSc in Physics. With two decades of experience in the FMCG sector, he has worked at FMCG Myanmar Consumer Goods, Friesland Campina Myanmar Co., Ltd., DKSH (Myanmar) Ltd., and Mayson Industries Co., Ltd. in Myanmar.*

References

1. Akdogan, C. (2021). *A Study on The Effect of Price On Consumer Purchase Decision-Making*.
2. Auf, M. A. A., Meddour, H., Saoula, O., & Majid, A. H. A. (2018). Consumer buying behaviour: The roles of price, motivation, perceived culture importance, and religious orientation. *Journal of Business and Retail Management Research*, *12*(4).
3. Aung, M. N. S. (2023). *Factor Affecting the Consumer Purchasing Decision Making of the Mobile Phones in Myanmar*. Lincoln University College.
4. Belton, B., & Win, M. T. (2019). *The Edible Oil Milling Sector in Myanmar's Dry Zone* (Research Paper 138; p. 27). Food Security Policy Project (FSPP).

5. Chen, C.-M., Liu, H.-M., & Ann, B.-Y. (2018). Product attributes and purchase intention for smartphones: A moderated mediation model. *International Journal of Mobile Communications*, *16*(1), 1–23.

6. Ganlari, D. (2018). A study on consumer buying behavior of mobile phones. *Journal of Management in Practice (Online Only)*, *1*(1).

7. Global New Light of Myanmar. (2023a, August 11). Consumers call for hazard assessment of edible oil [Journal]. *Global New Light of Myanmar*. https://www.gnlm.com.mm/consumers-call-for-hazard-assessment-of-edible-oil/

8. Global New Light of Myanmar. (2023b, October). Oil production cost declines as peanut price drops [Blog]. *Oil Production Cost Declines as Peanut Price Drops*. https://www.gnlm.com.mm/oil-production-cost-declines-as-peanut-price-drops/

9. Global New Light of Myanmar. (2023c, December). India extends free import policy for black grams, pigeon peas until March 2025 [Journal]. *India Extends Free Import Policy for Black Grams, Pigeon Peas until March 2025*. https://www.gnlm.com.mm/india-extends-free-import-policy-for-black-grams-pigeon-peas-until-march2025/#:~:text=According%20to%20a%20Memorandum%20of,year%20to%202025%2D2026%20Y.

10. Gulcin, İ. (2020). Antioxidants and antioxidant methods: An updated overview. *Archives of Toxicology*, *94*(3), 651–715.

11. Htar, M. T., Myint, T., Soe, T. T., Moh, M., Aye, Y. N., Hnin, C. H., & Aye, H. M. (2022). *Analysis of Edible Oil Consumption in Myanmar: Consumers' Perception towards Brands, Price and Health Aspects* [Research Paper, Yezin Agricultural University]. https://ap.fftc.org.tw/article/3103

12. Htoon, K. L. (2018, February 6). *Myanmar's edible oils sector bites back against palm oil* [Journal]. https://www.frontiermyanmar.net/en/myanmars-edible-oils-sector-bites-back-against-palm-oil-2/

13. Index Mundi. (2023). *Peanut Oil Food Use Domestic Consumption by Country in 1000 MT* [Index]. https://www.indexmundi.com/agriculture/?commodity=peanut-oil&graph=food-use-domestic-consumption

14. Jesadiya, B., Thorat, V. S., Choudhary, K., & Kuthe, S. (2023). Consumers' Awareness and Buying Behaviour for Edible Oils in Surendranagar City of Gujarat. *International Journal of Education and Management Studies*, *13*(3), 292–296.

15. Kotler, P. (2020). The consumer in the age of coronavirus. *Journal of Creating Value*, *6*(1), 12–15.

16. Kotler, P., Kartajaya, H., & Setiawan, I. (2021). *Marketing 5.0: Technology for humanity*. John Wiley & Sons.

17. Kotler, P. T., & Armstrong, G. (2017). *Principles of Marketing, eBook, Global Edition: Principles of Marketing*. Pearson Higher Ed.

18. Kotler, P., Keller, K. L., & Brady, M. (2016). Marketing management. Pearson.

19. Kotni, V. (2020). An adapted model for the consumer decision making process of hand sanitizer products in COVID-19 scenario. *Dogo Rangsang Research Journal*.

20. Kumaran, M. (2023). Consumer awareness and perception towards edible oils. *EPRA International Journal of Research and Development (IJRD)*, *8*(7), 33–37.

21. Lat, Z. K. (2019). *A STUDY OF PUBLIC AWARENESS ON EDIBLE OIL CONSUMPTION IN MYANMAR (Case Study: Insein Township and Mayangone Township)*.

22. Li, X. (2019, September). Which Edible Oils Are Preferred in World's Healthiest Countries 2019? [Social Media]. *LinkedIn*. https://www.linkedin.com/pulse/which-edible-oils-preferred-worlds-healthiest-countries-xudong-li

23. Moe, S. A. (2017, May 2). *The Impact of World Palm Oil Price Changes on the Edible Oil Industry of Myanmar: Case Study on Groundnut Oil* [Research Paper]. https://ap.fftc.org.tw/article/1178

24. Moh Moh, Theingi Myint, Cho Zin Win, Thi Thi Soe, Chue Htet Htin, & Thida Hnin. (2021). *Does Myanmar Have Sufficient Edible Oil Production?* [Research Paper, Yezin Agricultural University]. https://ap.fftc.org.tw/article/2936

25. Mohammed, R., & Murova, O. (2019). The effect of price reduction on consumer's buying behavior in the US differentiated yogurt market. *Applied Economics and Finance*, *6*(2), 32–42.

26. Moncel, B. (2022, September 27). What Is Peanut Oil? [Blog]. *Spruce Eat*. https://www.thespruceeats.com/what-is-peanut-oil-1328456

27. Pandey, R., Kumari, S., & Kumari, K. (2022). Consumers prefer edible oil in Patna city, Bihar. *Intern. J. Home Sci*, *8*, 8–12.

28. Panwar, D., Anand, S., Ali, F., & Singal, K. (2019). Consumer decision making process models and their applications to market strategy. *International Management Review*, *15*(1), 36–44.

29. Sbakhi, B., Esa, M., & Mohd, W. M. S. (2018). Investigation Study towards Consumer Behavior and PurchasingDecisions. *Int. J Sup. Chain. Mgt Vol*, *7*(5), 559.

30. Singh, P., Arora, L., & Choudhry, A. (2022). Consumer Behavior in the Service Industry: An Integrative Literature Review and Research Agenda. *Sustainability*, *15*(1), 250.

31. Solomon, M. R., White, K., Dahl, D. W., & Zaichkowsky, J. L. (2019). Consumer behavior: Buying, having, and being. Pearson.

32. Stankevich, A. (2017). Explaining the consumer decision-making process: Critical literature review. *Journal of International Business Research and Marketing*, *2*(6).

33. Statista. (2024). Edible Oils—Myanmar. *Edible Oils - Myanmar*. https://www.statista.com/outlook/cmo/food/oils-fats/edible-oils/myanmar#:~:text=Revenue%20in%20the%20Edible%20Oils,US%2434%2C750m%20in%202024).

34. Tonde. (2024, February 19). How to judge the quality of edible vegetable oil [Blog]. *Tonde*. https://www.seedoilpress.com/news/how-to-judge-quality-of-edible-vegetable-oil.html

35. Weerasooriya, N. L., & Mendis, E. (2023). *Study on Consumer Knowledge, Attitude and Purchasing Practices Regarding Edible Fats and Oil in Kandy*.

36. Yansen E., Perez, EF., Pradipta, A., Anvolia, K (2023) The Impact of Packaging Design on Sensory Attributes. *Journal of Namibian Studies, 35 S1 (2023), 4156-4176*

37. Yu, U.-J., Cho, E., & Johnson, K. K. (2017). Effects of brand familiarity and brand loyalty on imagery elaboration inn online apparel shopping. *Journal of Global Fashion Marketing*, *8*(3), 193–206.

38. Yuan, L. W., Iqbal, S., Hussain, R. Y., & Ali, S. (2019). Impact of price on customer satisfaction: Mediating role of consumer buying behavior in telecom sector. *International Journal of Research*, *6*(04).