

**A COMPARATIVE STUDY ON THE CONSUMER  
PREFERENCE TOWARDS PDDP MILK AND  
OTHER MILK BRANDS**

**Project Report**

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**MASTER OF BUSINESS ADMINISTRATION**



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By

**SINDHU T A**

**(Reg. No: YPAWMBA034)**

Under the guidance of

**Ms. Nayana S**

**Assistant Professor**



**NAIPUNNYA BUSINESS SCHOOL**

Affiliated to University of Calicut, Accredited by NAAC with B++

Approved by AICTE, ISO 9001:2015 Certified

Pongam, Koratty East, Thrissur Dist.

Kerala. Pin: 680 308

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## **DECLARATION**

I, **SINDHU T A** hereby declare that the Project Report entitled “**A COMPARATIVE STUDY ON THE CONSUMER PREFERENCE TOWARDS PDDP MILK AND OTHER MILK BRANDS**”, has been prepared by me and submitted to the University of Calicut in partial fulfilment of requirement for the award of Master of Business Administration, is a record of original work done by me under the supervision of Ms. Nayana S, Assistant Professor, Naipunnya Business School, Pongam, Koratty East, Thrissur.

I also declare that this Project work has not been submitted by me fully or partly for the award of any Degree, Diploma, Title or recognition before any authority.

Place: Pongam, Thrissur

Sindhu T A

Date:

YPAWMBA034

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Place: Pongam, Thrissur

Sindhu T A

Date:

YPAWMBA034

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**CHAPTER I**  
**INTRODUCTION**

## **1.1 INTRODUCTION**

The milk industry stands as a cornerstone of global agriculture, catering to diverse consumer demands and serving as a vital source of nutrition worldwide. From traditional dairy products to innovative alternatives, the industry continually evolves in response to shifting consumer preferences, technological advancements, and economic dynamics. This comprehensive overview delves into the global scenario of the milk industry, exploring key trends, challenges, and opportunities shaping its trajectory.

Historically, milk has been revered as a symbol of sustenance and abundance across civilizations. Its consumption dates back millennia, with evidence of early domestication of dairy animals such as cows, goats, and sheep. Ancient cultures recognized the nutritional value of milk, harnessing its proteins, fats, vitamins, and minerals to nourish populations and sustain agricultural communities. The advent of dairy farming revolutionized human societies, providing a reliable source of protein and essential nutrients, particularly in regions where crop cultivation was challenging.

As societies evolved, so too did the milk industry. The rise of agrarian civilizations saw the development of dairy farming practices, including selective breeding, animal husbandry techniques, and the establishment of dairy cooperatives. These innovations laid the groundwork for more efficient milk production and distribution systems, enabling dairy products to become staples in diets around the world. In Europe, the medieval era witnessed the proliferation of monasteries as centers of dairy production, with monks pioneering techniques in cheese and butter making that would endure for centuries.

The consumption of milk dates back thousands of years, with archeological evidence suggesting that humans have been milking animals since the domestication of cattle, goats, and sheep around 9,000 years ago. The ancient civilizations of Mesopotamia, Egypt, and the Indus Valley all practiced dairy farming, and milk was highly valued for its nutritional content. Over time, the methods of milk production and processing evolved, leading to the development of cheese, butter, and other dairy products, which could be preserved for longer periods.

The industrial revolution in the 19<sup>th</sup> century marked a significant turning point for the milk industry. Advancements in transportation, refrigeration, and pasteurization



transformed dairy farming from a local, subsistence activity into a major commercial enterprise. Pasteurization, in particular, developed by Louis Pasteur in the 1860s, played a crucial role in ensuring the safety of milk, reducing the incidence of milk-borne diseases and extending shelf life. The 20<sup>th</sup> century saw further innovations such as homogenization, improved breeding techniques, and automated milking machines, all contributing to increased efficiency and productivity in the milk industry.

In the 20th century, the milk industry experienced unprecedented growth and diversification, driven by advancements in science, technology, and marketing. Pasteurization became standard practice, ensuring the safety of milk by eliminating harmful bacteria while preserving its nutritional integrity.

The proliferation of refrigeration and cold chain logistics facilitated the expansion of dairy products beyond liquid milk to include cheese, yogurt, ice cream, and other value-added items. Meanwhile, advertising campaigns promoted milk as a symbol of health and vitality, cementing its status as a dietary staple in households worldwide.

The milk industry is a major contributor to the global economy. According to the Food and Agriculture Organization (FAO) of the United Nations, the dairy sector accounts for approximately 10 percent of global agricultural production value. The industry provides livelihoods for millions of people worldwide, from small-scale farmers in developing countries to large agribusinesses in industrialized nations. The economic impact of the milk industry extends beyond the farm, encompassing processing, packaging, transportation, and retail sectors, each adding value to the raw milk and generating employment opportunities.

The milk industry is a global behemoth, encompassing a complex network of producers, processors, distributors, and retailers spanning continents. Dairy farming has evolved into a sophisticated enterprise, characterized by large-scale operations, specialized breeds, and intensive management practices aimed at maximizing productivity and efficiency. Modern dairy farms utilize state-of-the-art technology, including robotic milking systems, automated feeding equipment, and data analytics, to optimize herd health, milk production, and environmental sustainability.

At the heart of the milk industry lies a commitment to quality, safety, and sustainability. Regulatory agencies enforce stringent standards for milk production and processing, ensuring that dairy products meet strict criteria for hygiene,

composition, and labelling. Dairy farmers adhere to best practices in animal welfare, environmental stewardship, and resource management, striving to minimize their ecological footprint while maximizing the welfare of their livestock. Moreover, the milk industry is increasingly embracing innovation and research to address emerging challenges such as antimicrobial resistance, climate change, and shifting consumer preferences.

Milk consumption patterns vary significantly across regions, influenced by cultural, economic, and dietary factors. While traditional dairy products like cow's milk dominate in many Western countries, alternative sources such as plant-based milk substitutes gain traction among health-conscious consumers and those with lactose intolerance or dietary preferences. Developing economies witness a rising demand for dairy products, driven by population growth, urbanization, and increasing disposable incomes.

The global milk industry operates with a complex framework of supply chains, trade agreements, and regulatory environments. Major dairy-producing countries like United States, India, and China play pivotal roles in shaping market dynamics, with factors such as government subsidies, technological innovation, and environmental sustainability influencing production levels and competitiveness. Moreover, international trade agreements and geopolitical tensions impact the flow of milk products across borders, contributing to market volatility and strategic considerations for industry stakeholders.

Advancements in technology revolutionize various facets of milk industry, from production and processing to distribution and marketing. Precision agriculture techniques enhance herd management and optimize milk production, while automation and robotics streamline processing operations, improving efficiency and product quality. Furthermore, research and development initiatives drive innovation in dairy alternatives, resulting in a diverse array of plant-based milks and cultured dairy products that cater to evolving consumer preferences and dietary trends.

Changing consumer preferences and lifestyle choices exert profound influence on the milk industry, driving demand for innovative products and transparent sourcing practices. Health-conscious consumers seek dairy products with perceived health benefits, such as probiotics and functional ingredients, while ethical considerations

prompt scrutiny of animal welfare standards and production methods. Moreover, the rise of e-commerce enables companies to engage directly with consumers, customize product offerings, and respond swiftly to evolving market trends.

The tradition of dairy farming in India dates back thousands of years, with historical texts and archaeological evidence showcasing the importance of cattle and dairy products in ancient Indian societies. The reverence for cows in Hindu culture further solidifies the significance of dairy in Indian life. Over the centuries, traditional methods of milk production and distribution evolved, eventually giving rise to more organized dairy systems.

The Indian milk industry comprises mix of small-scale farmers, cooperative societies, private companies, and government initiatives. One of the most prominent entities in the sector is the cooperative movement spearheaded by the National Dairy Development Board (NDDB) and its flagship brand Amul.

These cooperatives have empowered millions of smallholder farmers by providing them with access to markets, technology, and veterinary services. The rising demand for organic and premium dairy products provides avenues for niche producers to cater to discerning consumers.

Despite its resilience and adaptability, the milk industry faces many challenges in the 21st century. Economic volatility, fluctuating commodity prices, and geopolitical instability pose risks to dairy producers and processors alike, necessitating agile strategies for risk management and market diversification.

Furthermore, changing dietary trends, health concerns, and ethical considerations have prompted shifts in consumer behaviour, with some opting for plant-based alternatives to traditional dairy products. In response, the milk industry is exploring new product formulations, marketing strategies, and distribution channels to remain competitive in an increasingly crowded marketplace.

One of the most significant challenges facing the milk industry today is the changing preferences of consumers, particularly in Western markets. Traditional dairy products, such as cow's milk, have long been staples in households around the world. However, in recent years, there has been a noticeable shift in consumer behaviour, driven by concerns about animal welfare, environmental sustainability, and health.

Many consumers are increasingly opting for plant-based milk alternatives, such as almond milk, soy milk, oat milk, and coconut milk. These alternatives are perceived as healthier, more environmentally friendly, and cruelty-free compared to traditional dairy products. The rise of veganism, lactose intolerance, and ethical consumerism has fuelled demand for plant-based milk alternatives, posing a significant challenge to the dominance of the dairy industry.

Health-conscious consumers are becoming more discerning about the nutritional content of dairy products, leading to a growing demand for products that are perceived as healthier and more nutritious. While cow's milk is rich in essential nutrients such as protein, calcium, and vitamins, concerns about saturated fat, cholesterol, and lactose intolerance have prompted some consumers to seek alternative sources of nutrition.

The prevalence of dairy allergies and sensitivities has driven demand for lactose-free and allergen-friendly dairy products. There is increasing scrutiny on the use of growth hormones, antibiotics, and pesticides in dairy farming, with consumers favouring products that are perceived as natural, organic, and ethically produced. Meeting the evolving health and nutrition preferences of consumers while maintaining the taste, quality, and affordability of dairy products poses a significant challenge for the milk industry.

The dairy industry faces mounting pressure to address its environmental footprint, particularly in terms of greenhouse gas emissions, water usage, and land degradation. Intensive dairy farming practices, such as confinement operations and feedlot systems, contribute to deforestation, soil erosion, water pollution, and biodiversity loss. Moreover, the production and processing of dairy products require significant inputs of water, energy, and resources, further exacerbating environmental degradation.

The carbon footprint of dairy production, including methane emissions from enteric fermentation and manure management, is a major contributor to climate change. Additionally, the disposal of dairy waste, such as manure and effluent, poses significant challenges for environmental sustainability. Adopting sustainable farming practices, such as rotational grazing, agroforestry, and nutrient management, is

essential to mitigate the environmental impact of dairy production and ensure the long-term sustainability of the milk industry.

## **1.2 STATEMENT OF THE PROBLEM**

The dairy industry plays a crucial role in the global food sector, providing essential nutrition to millions. Among the diverse offerings, milk stands out as a staple product with numerous brands vying for consumer attention. In this competitive landscape, understanding consumer preferences is crucial for brands to tailor their strategies and enhance their market position.

This study aims to conduct a comparative analysis of consumer preferences towards PDDP (People's Dairy Development Project) milk and other competing milk brands. Despite the nutritional and economic importance of milk, consumer preferences can be influenced by various factors such as price, quality, taste, packaging, brand reputation, and availability. PDDP milk, known for its unique selling propositions, faces competition from established and emerging milk brands in the market.

The core problem addressed in this study is to identify and analyse the factors driving consumer preferences and to compare how PDDP milk performs relative to other brands in these key areas. BY understanding these dynamics, the study seeks to provide insights that can help PDDP and other milk producers enhance their product offerings and marketing strategies to better meet consumer needs and preferences.

## **1.3 OBJECTIVES OF THE STUDY**

1. To understand the preference towards packaged milk among the consumers.
2. Determine the factors influencing consumer's preference when purchasing packaged milk.
3. To study the influence of brand name of the milk in the purchase decision of consumers.
4. To analyze demographic factors that show a preference for PDDP milk compared to other milk brands.

## **1.4 SCOPE OF THE STUDY**

The scope of this study, "A comparative study on consumer preference towards PDDP milk and other milk brands" encompasses a comprehensive analysis of the various factors influencing consumer choices in the milk market. This research aims to delve

into the multifaceted dimensions of consumer preferences, comparing PDDP milk with other competing brands to offer a detailed understanding of the market dynamics.

Firstly, the study will examine the primary factors that drive consumer preferences in the context of milk consumption. These factors include but are not limited to price, quality, taste, packaging, brand reputation, and availability. By dissecting these elements, the research seeks to uncover the underlying motivations that prompt consumers to choose one brand over another. This will involve a thorough review of existing literature to identify theoretical frameworks and previous findings related to consumer behaviour in the dairy sector.

The study will specifically focus on PDDP milk, known for its distinct positioning in the market, and compare it with a range of other milk brands, including both well-established names and emerging players. The comparative aspect will be central to the analysis, highlighting how PDDP milk fares against its competitors across various parameters. This will be achieved through a mixed-methods approach, combining quantitative surveys and qualitative interviews to gather rich, comprehensive data from a diverse consumer base.

Demographic and psychographic profiling will form a crucial part of the study. By segmenting consumers based on age, gender, income, education, lifestyle, and purchasing habits, the research will aim to identify specific groups that show a marked preference for PDDP milk as opposed to other brands. This segmentation will help in the distinct needs and expectations of different consumer groups, providing insights into how PDDP milk can better cater to these segments.

The geographical scope of the study will include urban, suburban, and rural areas to capture a broad spectrum of consumer behaviours and preferences. This will ensure that the findings are representative of the diverse market conditions and consumer demographics that PDDP milk and its competitors operate within. The research will also consider regional variations in taste preferences and purchasing power, which could significantly influence consumer choices.

## **1.5 RESEARCH METHODOLOGY**

Research is a systematic process of investigating a particular concern or problem using scientific methods. According to American Sociologist Eari Robert Babble, research involves systematic inquiry to describe, explain, predict, and control observed phenomena, utilizing both inductive and deductive methods. Research methodology refers to the strategic approach to solving a research problem in a systematic manner.

It focuses on the logical process of conducting research, encompassing the overall strategy and rationale behind the investigation. The methodology outlines the work plan, guiding the selection of strategies, materials, tools, and techniques necessary for problem resolution. Essentially, it serves as a blueprint for a research project, detailing how data will be collected, analysed and interpreted.

Research methods are the specific techniques and procedures used to conduct research. They encompass a range of activities, including formulating the research problem, conducting an extensive literature review, developing hypotheses, preparing the research design, determining the sample design, collecting data, testing hypotheses, generalizing findings, interpreting results, and preparing the final research report. These steps collectively form the research process, ensuring a structured and systematic approach to investigation.

### **1.5.1 RESEARCH DESIGN**

Research design is a comprehensive framework that outlines the methods and procedures for collecting, analysing and interpreting data in a study. It serves as the blueprint for addressing research questions or testing hypotheses, ensuring that the study is systematically and logically planned. A research design encompasses several key components, including the selection of a research approach (qualitative, quantitative or mixed methods), the determination of the sampling strategy, and the choice of data collection techniques (such as surveys, interviews, experiments, or observations).

It involves deciding on the type of research and establishing protocols for data analysis. Ensuring validity and reliability is crucial in a research design, as it impacts the accuracy and consistency of the results.

A well-constructed research design helps mitigate biases and errors, providing a structured plan that guides the entire research process. By defining how data will be collected and analysed, it enables researchers to draw meaningful and credible conclusions, ultimately contributing valuable insights to the field of study. This study is based on both primary and secondary data.

The primary data is collected by using a structured questionnaire from a sample size of 120 respondents. The secondary data is collected from the books, published articles, and the company website. To analyse the data collected, percentage analysis is used. The duration of the study is only two months from April 1<sup>st</sup> to May 31<sup>st</sup> of 2024. The sampling technique which used for collecting the samples is convenience sampling method. Percentage analysis is used to analyse the collected data.

### **1.5.2 QUESTIONNAIRE DESIGN**

Questionnaire design in research methodology involves creating a structured set of questions to systematically gather data from respondents. It starts with defining research objectives and identifying the target population. Questions are carefully crafted, ensuring clarity, and absence of bias, and can be open-ended or close-ended.

The sequence of questions is logically arranged to maintain respondent engagement. The questionnaire involves demographic part as well as the questions which directing to the objectives. A questionnaire was designed to meet the research objectives ,and it was pre-tested on consumer population. The pilot study indicated that there is no need of any changes to the questionnaire. The questionnaire have mainly two parts:

- a) Demographic information
- b) Main questions directing to the objectives

The questionnaire was used to collect the required responses from 120 samples. By using the questionnaire, primarily 50 samples were collected to ensure the accuracy of the questions. And it is found that approximately 45 were accurate responses.

### **1.5.3 NATURE OF STUDY**

The nature of the study is comparative, focusing on consumer preference between PDDP milk and other milk brands. The research aims to identify and analyse the differences in consumer behaviour, perceptions, and purchasing decisions related to



various milk brands. It employs a mixed-method approach, integrating both qualitative and quantitative data to provide a comprehensive understanding of consumer preferences.

Quantitative data gathered through structured questionnaires, which include both open-ended and closed-ended questions to capture a wide range of consumer insight. This is complemented by qualitative data from focus group discussions and in-depth interviews, offering deeper insights into the motivations and attitudes driving consumer choices.

The study examines various factors influencing preferences, such as taste, price, nutritional content, brand reputation, and marketing efforts. It also considers demographic variables like age, gender, income level, and lifestyle. By comparing these elements across different milk brands, the study seeks to uncover patterns and trends that can inform marketing strategies and product development.

The findings aims to provide valuable insights for dairy producers, marketers, and retailers, helping them to better understand their target audience and tailor their offerings to meet consumer needs more effectively. The target population for the study is Ernakulam District. The samples are collected various places within the district. The sample size for the study is limited to 120. The data collected from the respondents through a well-structured questionnaire.

## **1.6 LIMITATIONS OF THE STUDY**

The present study on consumer preference towards PDDP milk and other milk brands is subject to several limitations. The sample size may not be representative of the broader population, as it was confined to a specific geographic region and demographic group.

This limits the generalizability of the findings. The study relies heavily on self-reported data, which is susceptible to biases such as social desirability and recall bias, potentially affecting the accuracy of the results. External factors such as marketing campaigns, price fluctuations, and seasonal variations were not controlled for, which could have influenced consumer preferences.

The study did not extensively explore the impact of product availability and distribution channels, which are crucial factors in consumer decision-making.

Addressing these limitations in future research could provide a more comprehensive understanding of consumer preferences in the dairy industry.

## **1.7 INDUSTRY PROFILE**

### **1.7.1 THE EVOLUTION OF MILK INDUSTRY**

The evolution of the milk industry on a global scale has been a fascinating journey, marked by centuries of innovation, technological advancements, and shifting consumer preferences. From its humble beginnings as a local commodity traded in village markets to its current status as a multi-billion-dollar global industry, milk production and consumption have undergone significant transformations. Historically, milk was primarily sourced from domesticated animals such as cows, goats, and sheep, providing essential sustenance for early human populations.

However, it wasn't until the advent of agriculture and animal husbandry that milk production began to be more systematically managed and scaled. Ancient civilizations such as the Sumerians and Egyptians were among the first to recognize the nutritional value of milk and develop methods for its preservation, such as fermentation and cheese-making.

The industrial revolution of the 18<sup>th</sup> and 19<sup>th</sup> centuries marked a turning point in the milk industry, as mechanization and urbanization led to the establishment of large-scale dairy farms and the emergence of commercial dairy processing facilities. Pasteurization, pioneered by Louis Pasteur in the 19<sup>th</sup> century, revolutionized milk safety and distribution, making it possible to transport milk over longer distances without spoilage.

In ancient times, milk was primarily consumed in its raw form or processed into simple dairy products such as cheese and butter. The earliest evidence of dairy farming dates back to around 9000 BCE in present-day Turkey and the Middle East, where Neolithic communities domesticated goats and sheep for milk production. Over time, dairy farming spread across Europe and Asia, with different regions developing their own traditions and techniques for milk processing and preservation.

During the Middle Ages, monasteries played a crucial role in advancing dairy farming and cheese-making practices in Europe. Monks experimented with different cheese varieties and techniques, laying the foundation for the rich diversity of cheeses that

exist today. As trade routes expanded and cities grew, demand for dairy products increased, leading to the establishment of specialized dairy farms and markets.

The Industrial Revolution of the 18th and 19th centuries brought about profound changes in the milk industry. Mechanization and technological innovations revolutionized farming practices, enabling larger-scale milk production and processing. Steam-powered machinery and later, electrical equipment, mechanized tasks such as milking, separating cream, and churning butter, significantly increasing efficiency and productivity.

The late 19th and early 20th centuries witnessed further advancements in milk processing and distribution. The invention of pasteurization by Louis Pasteur in the 1860s revolutionized the safety and shelf life of milk, making it safer for consumption by killing harmful bacteria. Pasteurization became a standard practice in many dairy operations, ensuring the quality and safety of milk for consumers.

The development of refrigeration technology in the late 19th century further transformed the milk industry, enabling the safe transport and storage of perishable dairy products over long distances. Refrigerated rail cars and later, refrigerated trucks, facilitated the expansion of dairy markets beyond local regions, leading to the emergence of national and international dairy trade networks.

The 20<sup>th</sup> century saw further advancements in milk production and processing techniques, including the development of homogenization, and the introduction of refrigeration technologies, enabling the widespread distribution of fresh milk. The rise of supermarkets and refrigerated transportation networks facilitated the globalization of the milk industry, allowing consumers worldwide access to a diverse range of dairy products.

The mid-20th century saw further consolidation and modernization of the milk industry, with the rise of large-scale dairy farms and industrial processing facilities. Technological innovations such as homogenization, which prevents cream separation in milk, and the development of powdered milk and condensed milk, expanded the range of dairy products available to consumers.

The proliferation of supermarkets and grocery chains also transformed the retail landscape, offering consumers a wide selection of dairy products in convenient

locations. The recent decades, the milk industry has faced numerous challenges and opportunities driven by changing consumer preferences, health concerns, environmental sustainability, and technological innovation.

The emergence of plant-based milk alternatives, such as soy, almond, and oat milk, has disrupted traditional dairy markets, appealing to consumers seeking dairy-free options for health, ethical, or environmental reasons. Additionally, advancements in biotechnology have enabled the production of synthetic milk proteins and alternative dairy products, further diversifying the market.

The globalization of milk industry has also been accompanied by concerns over sustainability and animal welfare. Large-scale dairy farming operations have come under scrutiny for their environmental impact, including greenhouse gas emissions, water usage, and deforestation associated with feed production. Animal welfare advocates have called for improvements in farming practices, such as pasture-based grazing systems and humane treatment standards, to ensure the well-being of dairy animals.

Furthermore, the globalization of the milk industry has raised questions about food security and economic equity. While developed countries have access to a wide variety of dairy products year-round, many developing regions still struggle with inadequate access to nutritious dairy foods due to economic constraints, infrastructure limitations, and supply chain inefficiencies. Efforts to address these disparities include initiatives to improve dairy farming productivity, enhance market access for smallholder farmers, and promote dairy consumption as part of balanced nutrition programs.

Once milk is produced, it undergoes a series of processing steps to transform it into various dairy products suitable for consumption. Milk processing involves techniques such as pasteurization, homogenization, separation, and fermentation, each aimed at enhancing safety, shelf life, and product quality.

Pasteurization, for example, involves heating milk to a specific temperature to destroy harmful bacteria while preserving its nutritional integrity. Homogenization breaks down fat globules in milk to create a uniform texture and prevent cream separation, while fermentation is used to produce yogurt, cheese, and other cultured dairy products.

The processed dairy products are then distributed and marketed to consumers through a variety of channels, including supermarkets, grocery stores, specialty shops, and online platforms. Dairy products are available in various forms, including fresh, refrigerated, frozen, and shelf-stable formats, catering to diverse consumer preferences and dietary needs.

Marketing strategies for dairy products often emphasize their nutritional benefits, taste, convenience, and versatility, targeting different demographic segments such as families, health-conscious consumers, and culinary enthusiasts. The milk industry is not without its challenges, however, as it grapples with issues such as changing consumer preferences, environmental sustainability, economic volatility, technological disruptions, regulatory changes, and supply chain disruptions.

The rise of plant-based milk alternatives, such as almond milk, soy milk, and oat milk, has posed a significant threat to traditional dairy products, prompting dairy producers to innovate and diversify their offerings to meet evolving consumer tastes. Concerns about animal welfare, environmental sustainability, and health have also influenced consumer purchasing decisions, driving demand for organic, pasture-raised, and ethically sourced dairy products.

Environmental sustainability is a growing concern within the milk industry, as intensive dairy farming practices can contribute to deforestation, soil erosion, water pollution, and greenhouse gas emissions. Sustainable farming methods, such as rotational grazing, manure management, and renewable energy adoption, are increasingly being adopted to mitigate the environmental impact of dairy production and ensure the long-term viability of the milk industry.

Moreover, technological advancements in precision agriculture, waste management, and resource conservation are helping dairy farmers optimize their operations and reduce their ecological footprint. The challenges including fluctuating milk prices, volatile input costs, and regulatory pressures. Price volatility, in particular, poses risks for farmers and processors, impacting their profitability and long-term viability.

Moreover, concerns about animal welfare, environmental impact, and food safety regulations are prompting stricter standards and certifications, adding complexity and costs to the supply chain. Climate change is another significant concern for the milk industry, affecting both production and distribution. Extreme weather events, shifting

precipitation patterns, and rising temperatures pose risks to dairy farming, affecting feed availability, animal health, and productivity.

Additionally, transportation and logistics face disruptions due to natural disasters and changing weather conditions, impacting the timely delivery of milk and dairy products. Economic volatility presents another challenge for the milk industry, as fluctuations in commodity prices, input costs, currency exchange rates, and market demand can impact the profitability and competitiveness of dairy operations.

Rising production costs, including feed, labour, energy, and land, further strain dairy farmers' finances, particularly small-scale producers with limited resources. To mitigate these risks, dairy industry stakeholders must adopt strategic planning, risk management, and diversification strategies to navigate turbulent market conditions and ensure the financial sustainability of their operations.

Technological disruptions are reshaping the milk industry, with advances in automation, robotics, artificial intelligence, and data analytics revolutionizing dairy farming practices, processing techniques, and supply chain management. Robotic milking systems, for example, automate the milking process, reducing labour costs and improving animal welfare.

Precision agriculture technologies optimize feed management, breeding programs, and health monitoring, leading to better herd management and resource utilization. However, the adoption of new technologies requires significant investment, training, and infrastructure upgrades, which may pose challenges for smaller producers or those operating in remote areas.

Regulatory changes and policy shifts can also impact the milk industry, as government regulations, labelling requirements, and international trade agreements influence market access, product formulations, and supply chain logistics. Compliance with food safety, animal welfare, environmental, and labour regulations requires ongoing monitoring, documentation, and reporting, which can be resource-intensive for dairy industry stakeholders.

Moreover, changes in consumer preferences, dietary trends, and health regulations may require dairy producers to reformulate their products, invest in new technologies, or adapt their marketing strategies to remain competitive in the marketplace.

In response to these challenges, stakeholders across the milk industry are adopting various strategies to enhance resilience and sustainability. These include investing in renewable energy, improving water management practices, implementing carbon-neutral initiatives, and exploring alternative feed sources.

Additionally, collaborations and partnerships are formed to share knowledge, resources, and best practices, fostering innovation and collective action. The global milk industry is expected to continue evolving in response to changing consumer preferences, technological advancements, and environmental pressures. While challenges remain, there are also opportunities for growth and innovation, driven by emerging markets, diversification of products, and sustainability initiatives.

By embracing change and adopting forward-thinking strategies, stakeholders can navigate the complexities of the milk industry and build a more resilient and sustainable future. In order to overcome the challenges, the milk industry has embarked on a journey of innovation and diversification, seeking to meet the evolving needs and tastes of consumers. Dairy producers have introduced a wide range of innovative products and formulations, including lactose-free milk, flavoured milk, functional dairy beverages, and specialty cheeses, to cater to different demographic segments and dietary preferences.

Moreover, dairy processors have invested in research and development to develop new processing techniques, product formulations, and packaging solutions that enhance the taste, nutritional profile, and convenience of dairy products. Marketing strategies for dairy products have also evolved to emphasize their health benefits, sustainability credentials, and ethical sourcing, resonating with environmentally conscious and health-conscious consumers.

Environmental sustainability has emerged as a priority for the milk industry, prompting stakeholders to adopt sustainable farming practices, reduce their ecological footprint, and mitigate climate change impacts. Dairy farmers have embraced practices such as rotational grazing, cover cropping, agroforestry, and soil conservation to improve soil health, water quality, and biodiversity on their farms.

Moreover, investments in renewable energy technologies, such as solar panels, wind turbines, and anaerobic digesters, are helping dairy operations reduce their carbon emissions and energy costs. Collaborative initiatives, such as dairy sustainability

programs and industry partnerships, facilitate knowledge-sharing, best practices dissemination, and collective action to address environmental challenges across the dairy supply chain.

Economic volatility poses challenges for the milk industry, but stakeholders have adopted strategies to mitigate risks, improve resilience, and enhance competitiveness. Dairy farmers employ risk management tools, such as futures contracts, hedging strategies, and crop insurance, to protect against price fluctuations and income volatility. Moreover, diversification into value-added dairy products, agritourism activities, and alternative revenue streams helps dairy operations diversify their income sources and reduce dependency on volatile commodity markets.

Cooperative structures, such as dairy cooperatives and producer organizations, provide small-scale farmers with collective bargaining power, market access, and financial stability in the face of economic uncertainties. Additionally, government support programs, such as subsidies, grants, and loan programs, assist dairy farmers in managing financial risks and investing in productivity-enhancing technologies.

Technological disruptions are driving innovation and efficiency improvements throughout the milk industry, enabling stakeholders to optimize their operations, reduce costs, and enhance productivity. Dairy farmers are embracing precision agriculture technologies, such as automated feeding systems, robotic milking machines, and sensor-based monitoring devices, to improve herd management, feed efficiency, and labour productivity.

Similarly, dairy processors are investing in automation, robotics, and artificial intelligence to streamline production processes, increase throughput, and ensure product consistency and quality. Data analytics and digital platforms enable stakeholders to gather, analyse, and utilize real-time data to make informed decisions, optimize resource allocation, and identify areas for improvement across the dairy supply chain.

Regulatory changes and policy shifts present challenges for the milk industry, but stakeholders are actively engaged in advocacy, compliance, and dialogue with policymakers to shape regulations and standards that are fair, science-based, and conducive to industry growth. Dairy industry associations and trade organizations



represent the interests of stakeholders and provide a platform for collaboration, information exchange, and policy advocacy.

Moreover, engagement with government agencies, regulatory bodies, and international organizations facilitates dialogue, transparency, and mutual understanding on issues such as food safety, animal welfare, environmental sustainability, and trade regulations. By actively participating in the policymaking process, the milk industry can influence regulations, standards, and policies that support innovation, competitiveness, and sustainability while ensuring consumer protection and public health.

Supply chain disruptions, such as the COVID-19 pandemic, have underscored the importance of resilience, agility, and collaboration within the milk industry. Stakeholders have implemented contingency plans, diversified supply chains, and enhanced logistics capabilities to mitigate the impact of disruptions and ensure the continuity of dairy operations. Collaboration between dairy producers, processors, distributors, and retailers facilitates information sharing, coordination, and resource pooling to address supply chain challenges and meet consumer demand.

Investments in technology-enabled solutions, such as supply chain visibility tools, predictive analytics, and inventory management systems, enhance transparency, efficiency, and responsiveness within the dairy supply chain. Additionally, partnerships with government agencies, NGOs, and humanitarian organizations enable stakeholders to leverage resources, expertise, and networks to address food security, nutrition, and emergency response needs during times of crisis.

Overcoming the challenges facing the milk industry requires a collaborative and multifaceted approach that leverages innovation, collaboration, and strategic adaptation. By embracing sustainability, technology, and consumer-centricity, the milk industry can navigate the complexities of the modern marketplace and emerge stronger, more resilient, and better positioned to meet the evolving needs and preferences of consumers while ensuring the long-term viability and sustainability of the dairy sector.

Through collective action and continuous improvement, the milk industry can overcome challenges and seize opportunities for growth, innovation, and positive impact on society and the environment.

## **1.7.2 THE GLOBAL SCENARIO OF MILK INDUSTRY**

The global milk industry is a vast and intricate network encompassing various stakeholders, including farmers, processors, distributors, and consumers. With an ever-growing population and increasing demand for dairy products, the industry faces both challenges and opportunities.

The milk industry is a significant economic driver in many countries, contributing to employment, income generation, and rural development. Globally, dairy farming supports millions of livelihoods, from small-scale farmers to large dairy cooperatives and multinational corporations. The industry includes a diverse range of stakeholders involved in milk production, processing, distribution, and retail.

One of the defining features of the global milk industry is its geographical distribution, with significant production occurring across all continents. The largest milk-producing regions include the European Union, the United States, India, China, and New Zealand, each contributing significantly to global milk output. These regions benefit from favourable climatic conditions, abundant natural resources, and advanced agricultural infrastructure, enabling efficient milk production and processing.

Milk production is primarily sourced from dairy cows, with significant contributions also from other animals like goats, sheep, and buffaloes. Major milk-producing countries include the United States, India, China, Brazil, and countries across Europe. Dairy farming practices vary widely, ranging from traditional small-scale operations to modern, intensive systems using advanced technologies for breeding, feeding, and milking.

Additionally, emerging economies such as Brazil, Argentina, and parts of Africa are experiencing rapid growth in dairy production, driven by rising incomes, urbanization, and changing dietary patterns. The structure of the global milk industry varies widely from region to region, reflecting differences in production systems, market conditions, and government policies.

Consumption of milk and dairy products varies regionally, influenced by cultural traditions, dietary habits, income levels, and demographic factors. Some regions, particularly in Europe and North America, have high per capita consumption of dairy products, including fluid milk, cheese, yogurt, and butter. In contrast, other regions

may have lower consumption rates due to cultural preferences, lactose intolerance, or dietary choices favouring alternatives like plant-based milk substitutes.

In developed countries, dairy farming is often characterized by large-scale, intensive operations that utilize modern technologies and practices to maximize efficiency and productivity. These operations typically involve high-yielding dairy cattle breeds, mechanized milking systems, and advanced feeding and herd management techniques. In contrast, dairy farming in developing countries tends to be more diverse, with a mix of smallholder farms, medium-sized enterprises, and larger commercial operations.

Milk and dairy products are valued for their nutritional content, providing essential nutrients such as protein, calcium, vitamins (e.g., vitamin D and B12), and minerals (e.g., potassium and phosphorus). These nutrients are crucial for bone health, muscle function, and overall growth and development, particularly in children and adolescents. Dairy consumption has been associated with various health benefits, including reduced risk of osteoporosis and improved cardiovascular health, though individual health outcomes may vary.

The milk industry faces several challenges, including environmental sustainability concerns, animal welfare issues, and market volatility. Environmental impacts such as greenhouse gas emissions, water usage, and land management practices are increasingly scrutinized. Efforts to enhance sustainability include promoting efficient resource use, adopting renewable energy sources, and improving waste management practices within dairy operations.

Smallholder dairy farmers play a significant role in many developing economies, contributing to food security, poverty alleviation, and rural development. The global milk industry is heavily influenced by market forces, trade dynamics, and consumer preferences, shaping production, consumption, and distribution patterns. Milk and dairy products are traded extensively on the international market, with major exporting and importing countries participating in global trade networks.

International trade in dairy products is substantial, with major exporting countries like New Zealand, the European Union, the United States, and Australia supplying dairy products to global markets. Trade agreements, tariffs, and regulatory frameworks influence market access and competitiveness among dairy-producing nations. Price

fluctuations, currency exchange rates, and geopolitical factors also impact global dairy markets and trade flows.

The European Union, the United States, New Zealand, and Australia are among the leading exporters of dairy products, leveraging their competitive advantages in production efficiency, quality, and branding. On the other hand, countries such as China, Russia, and Mexico are major importers of dairy products, driven by growing demand, limited domestic production, and changing dietary habits.

The global milk market is a multifaceted sector shaped by diverse production systems, consumption patterns, trade dynamics, and technological advancements that collectively define its landscape and impact. Major milk-producing regions such as the European Union, the United States, India, China, Brazil, and Russia play pivotal roles, each contributing significantly to global milk output through varied farming practices tailored to regional agricultural capabilities, cultural preferences, and environmental considerations.

In high-income regions like North America, Europe, and Oceania, per capita consumption rates are notably higher, driven by entrenched dietary habits and extensive marketing promoting a wide array of dairy products. Conversely, consumption patterns in Asia, Africa, and Latin America reflect economic factors, urbanization rates, and dietary traditions, with increasing adoption of dairy products fuelled by rising incomes and evolving consumer preferences.

International trade is a critical component of the global milk market, facilitating the movement of dairy products from surplus-producing regions to deficit-consuming areas. Leading exporters such as New Zealand, the European Union, the United States, and Australia dominate global dairy exports, supplying products like milk powder, butter, cheese, and whey derivatives to meet demand in import-dependent regions, particularly across Asia, the Middle East, and parts of Africa. This dynamic trade environment is shaped by population growth, urbanization trends, and evolving dietary habits, highlighting dairy's role as a nutritional staple in diverse global diets.

Technological innovations have revolutionized dairy farming and processing, enhancing efficiency and sustainability worldwide. Advances in genetics, breeding techniques, and animal husbandry practices have boosted milk yields while improving animal welfare standards.

Modern dairy operations leverage precision agriculture technologies such as automated milking systems, data analytics, and IoT devices to optimize resource management, monitor animal health, and increase farm productivity. These innovations not only bolster production capabilities but also address sustainability challenges by reducing greenhouse gas emissions, optimizing water usage, and minimizing environmental impacts associated with intensive farming practices.

However, sustainability remains a pressing concern within the global milk industry. Environmental challenges such as methane emissions from livestock, nutrient runoff causing water pollution, and land degradation from intensive farming practices underscore the need for sustainable farming approaches.

Dairy producers and processors are increasingly adopting renewable energy sources, implementing waste reduction strategies, and embracing circular economy principles to enhance resource efficiency and minimize ecological footprints. Consumer demand for ethically sourced and environmentally friendly products is driving industry-wide initiatives towards greater transparency and sustainability across the dairy supply chain.

Market volatility presents another significant challenge for dairy stakeholders, influenced by factors like weather conditions, global supply and demand dynamics, currency fluctuations, and trade policies. Fluctuations in milk prices can impact profitability and financial stability for producers and processors worldwide, necessitating effective risk management strategies and diversified market approaches to mitigate economic uncertainties.

Furthermore, evolving consumer preferences towards health-conscious products and dietary trends, including organic, lactose-free, and plant-based alternatives to dairy, are reshaping market dynamics and driving product innovation within the global milk industry. The increasing popularity of plant-based milk alternatives derived from almonds, soy, oats, and other sources reflects growing consumer concerns over lactose intolerance, dietary choices like veganism, and environmental sustainability.

Looking ahead, the future of the global milk industry is poised for continued evolution and innovation as stakeholders navigate complex challenges and opportunities in an interconnected and competitive global market. Sustainability initiatives, technological advancements, and consumer-driven trends will likely shape

industry trajectories, driving advancements in production practices, product diversification, and market strategies aimed at meeting global demand while promoting environmental stewardship and social responsibility.

By embracing these dynamics, the global milk industry is well-positioned to thrive in a rapidly changing global landscape, ensuring a sustainable and resilient future for dairy farming and dairy products worldwide. Consumer preferences and dietary trends also play a significant role in shaping the global milk industry, with demand for dairy products influenced by factors such as taste, nutrition, convenience, and cultural preferences.

In many developed countries, there is growing demand for organic, natural, and specialty dairy products, driven by concerns about health, sustainability, and animal welfare. Plant-based milk alternatives, such as almond milk, soy milk, and oat milk, have also gained popularity as consumers seek alternatives to traditional dairy products for health, environmental, and ethical reasons.

However, dairy consumption remains strong in many parts of the world, particularly in emerging economies where rising incomes and urbanization are driving increased demand for dairy products. The global milk industry faces a range of challenges and opportunities, including environmental sustainability, technological innovation, market volatility, and regulatory pressures.

Environmental sustainability is a growing concern within the industry, as intensive dairy farming practices can contribute to deforestation, soil erosion, water pollution, and greenhouse gas emissions. Sustainable farming methods, such as rotational grazing, agroforestry, and waste management, are being adopted to mitigate these environmental impacts and promote long-term sustainability.

In the global milk industry, several challenges impact its dynamics, sustainability, and growth trajectory. One of the primary challenges is market volatility, driven by fluctuating demand-supply dynamics, economic conditions, and geopolitical factors. This volatility affects milk prices and profitability for dairy farmers and processors worldwide, making financial planning and risk management crucial in navigating market uncertainties.

Another significant challenge is the increasing competition and globalization of the milk market. Major dairy-producing regions such as the European Union, the United States, New Zealand, and Australia dominate global milk production and exports, leveraging economies of scale and advanced technologies. This poses challenges for smaller producers in developing countries who may struggle to compete on price and quality in international markets.

Environmental sustainability is a pressing concern for the global milk industry. Dairy farming, particularly intensive operations, contributes to environmental impacts such as greenhouse gas emissions, water usage, and land degradation. Efforts to mitigate these impacts through sustainable farming practices, resource management, and technological innovations are essential for reducing the industry's carbon footprint and improving environmental stewardship.

Quality and safety standards vary across countries and regions, posing challenges in ensuring uniform standards and meeting regulatory requirements for milk and dairy products. Issues related to food safety, hygiene, and traceability can impact consumer confidence and market access, necessitating stringent quality control measures and adherence to international standards.

Technological advancements play a dual role in both facilitating productivity gains and posing challenges. While innovations in genetics, breeding techniques, and farm management technologies enhance milk yields and efficiency, the adoption costs and digital divide between developed and developing regions can create disparities in technological access and implementation.

Consumer preferences and dietary trends also influence the global milk industry. Increasing consumer demand for healthier, organic, and plant-based alternatives to dairy products presents challenges and opportunities for traditional milk producers. Market shifts towards lactose-free milk, plant-based milk substitutes (e.g., almond, soy, oat milk), and functional dairy products require adaptation and innovation within the dairy sector to meet evolving consumer preferences.

Moreover, geopolitical tensions, trade disputes, and regulatory changes can disrupt global milk trade flows and market access, impacting export-dependent countries and global supply chains. Uncertainties surrounding trade agreements, tariffs, and export

regulations add complexity and risk to international dairy trade, affecting market stability and profitability.

Global milk industry faces a complex array of challenges spanning market volatility, competitive pressures, environmental sustainability, regulatory compliance, technological advancements, shifting consumer preferences, and geopolitical uncertainties. Addressing these challenges requires collaboration among stakeholders, investment in sustainable practices and technologies, adaptation to consumer trends, and strategic policy interventions to foster a resilient and sustainable global milk industry.

Technological innovation is driving efficiency improvements and cost reductions across the milk industry, enabling stakeholders to optimize production, processing, and distribution processes. Advances in genetics, nutrition, and animal health are enhancing the productivity and resilience of dairy cattle, while automation, robotics, and data analytics are revolutionizing farm management and dairy processing.

Additionally, digital technologies and e-commerce platforms are transforming marketing, distribution, and consumer engagement, enabling dairy companies to reach new markets and better serve customer needs. Market volatility and regulatory uncertainty pose challenges for the global milk industry, affecting pricing, profitability, and investment decisions.

Fluctuations in milk prices, input costs, currency exchange rates, and trade policies can impact the financial stability of dairy farmers, processors, and exporters. Moreover, changing consumer preferences, food safety regulations, and trade agreements require dairy companies to adapt quickly to market trends and regulatory requirements to remain competitive and compliant.

In recent years several trends have shaped the global milk market. Firstly, there has been a shift towards larger dairy farms, particularly in developed countries, driven by economies of scale and technological advancements. These larger farms often employ modern practices such as automated milking systems and precision agriculture, leading to higher efficiency and productivity.

However, this trend has also raised concerns about the welfare of animals and environmental sustainability. The milk industry boasts a rich and multifaceted profile



that encompasses a diverse array of stakeholders, processes, and products. As one of the oldest and most fundamental sectors of the agricultural economy, the milk industry plays a pivotal role in global food security, nutrition, and economic development.

From the pastoral landscapes of dairy farms to the bustling production facilities of processing plants, the journey of milk encompasses a complex network of production, processing, distribution, and consumption that spans continents and cultures. At its core, the milk industry revolves around the production and processing of milk, a nutrient-rich liquid produced by lactating mammals, primarily cows, goats, and sheep.

Milk serves as a primary source of nutrition for infants and young animals, providing essential nutrients such as protein, calcium, vitamins, and minerals. Moreover, milk is a versatile raw material used to produce a wide range of dairy products, including cheese, yogurt, butter, ice cream, and milk powder, each with its unique production processes, flavors, and applications.

On the other hand, small-scale and organic dairy farming has gained popularity, especially in regions where consumers prioritize sustainability and animal welfare. These farms often employ traditional methods and focus on producing high-quality, niche products. While they may not match the scale of industrial operations, they play a vital role in meeting the demand for premium dairy products and promoting biodiversity.

The globalization of the milk industry has led to increased trade and competition among countries. Major exporters such as the European Union, the United States, New Zealand, and Australia dominate the international market, leveraging their comparative advantages in production efficiency, infrastructure, and government support. However, emerging economies like China and India are becoming significant players, both as consumers and producers, reshaping the dynamics of global trade.

### **1.7.3 THE INDIAN SCENARIO OF MILK INDUSTRY**

The milk industry in India is a vital component of the country's agricultural and economic landscape, deeply ingrained in its cultural fabric and providing livelihoods to millions of people. With India being the largest producer and consumer of milk globally, the industry plays a crucial role in ensuring food security, rural development,

and poverty alleviation. At the heart of the Indian milk industry are millions of small-scale dairy farmers, often owning just a few cows or buffaloes.

These farmers are distributed across the country, from the fertile plains of Punjab and Haryana to the rural hinterlands of Uttar Pradesh and Bihar. They rely on traditional husbandry practices and often supplement their income through other agricultural activities. While small in scale, these dairy operations collectively account for a significant portion of India's milk production.

In addition to small-scale farmers, there are also large dairy cooperatives and private companies that play a prominent role in the Indian milk industry. The most notable among these is the Gujarat Cooperative Milk Marketing Federation (GCMMF), popularly known by its brand name, Amul. Founded in 1946, Amul revolutionized the dairy sector in India by empowering farmers through cooperative principles and establishing a robust supply chain from farm to consumer. Today, Amul is a household name synonymous with quality dairy products across the country.

The Indian milk industry stands at the forefront globally, distinguished as the largest producer with an annual output exceeding 200 million metric tons, driven by a diverse array of dairy animals including cows, buffaloes, goats, and sheep. This sector plays a pivotal role in India's agricultural landscape, contributing significantly to rural economies by providing livelihoods to millions of small-scale dairy farmers and bolstering the country's overall agricultural output.

The industry's landscape is characterized by a rich tapestry of traditional small-scale dairy operations and modern dairy farms that integrate advanced technologies for breeding, feeding, and milking. In rural areas, traditional methods rooted in indigenous breeds and time-honored practices prevail, reflecting local agricultural heritage and community-based farming. Meanwhile, larger dairy farms in more developed regions leverage mechanized milking systems, automated feeding technologies, and scientific breeding techniques to enhance productivity, efficiency, and animal welfare standards.

Central to the transformation and success of the Indian milk industry are cooperative dairy movements exemplified by the likes of Amul and numerous other dairy cooperatives across the country. These cooperatives revolutionized milk procurement by organizing small-scale farmers into cohesive units, ensuring fair prices for milk,

and providing critical infrastructure such as chilling plants, milk collection centers, and veterinary services. This organizational model has empowered dairy farmers economically, improved milk quality through standardized practices, reduced wastage, and facilitated better market access, thereby fostering rural development and enhancing overall economic stability.

The consumption patterns of dairy products in India are deeply ingrained in cultural traditions and everyday diets. Fresh milk serves as a dietary staple consumed by people of all ages, prized for its nutritional value and versatility in culinary applications. Yogurt (curd), ghee (clarified butter), and paneer (cottage cheese) are integral ingredients in diverse regional cuisines, reflecting India's culinary diversity and cultural heritage. Moreover, dairy products hold significant cultural importance in festive and religious rituals across the country and feature prominently in a wide range of traditional sweets and confections enjoyed throughout the year.

Despite its robustness, the Indian milk industry faces several challenges that impact its sustainability and growth. Price volatility in milk markets, influenced by fluctuating demand-supply dynamics, poses risks to farmers' incomes and financial stability. Rising costs of animal feed and fodder, exacerbated by climate change-induced erratic weather patterns affecting agricultural yields, further compound these challenges, requiring adaptive strategies and resilience-building measures.

In response to these challenges, the Indian government has implemented various interventions aimed at supporting dairy farmers. These include subsidies for fodder development, access to credit facilities, and insurance schemes designed to mitigate risks associated with milk production. Policy initiatives also focus on promoting research and development in dairy farming technologies, enhancing dairy animal genetics, improving feed efficiency, and developing climate-resilient agricultural practices to ensure sustainable growth and productivity in the sector.

Technological innovations continue to be pivotal in shaping the evolution of the Indian milk industry. Research efforts emphasize advancements in dairy farming technologies, precision agriculture, and the adoption of digital solutions for milk procurement, quality testing, and supply chain management. These innovations have streamlined operations, improved productivity, and enhanced transparency throughout

the dairy value chain, promoting efficiency and profitability for farmers and stakeholders alike.

Indian milk industry hinges on sustainable growth strategies that address productivity challenges, promote environmental sustainability, and ensure food security for the country's growing population. Continued government support, strategic investments in infrastructure development, research, and development initiatives, coupled with efforts to empower dairy cooperatives and small-scale farmers, will be instrumental in fostering a resilient and inclusive dairy sector. This approach will not only meet the diverse needs of India's consumers but also position the country competitively in the global dairy market, navigating evolving market dynamics and contributing to overall economic growth and agricultural sustainability.

One of the defining features of the Indian milk industry is the prevalence of the cooperative movement, spearheaded by organizations like Amul and National Dairy Development Board (NDDB). These cooperatives have played a pivotal role in organizing small-scale farmers, providing them with access to markets, veterinary services, and leveraging economies of scale, cooperatives have helped improve the livelihoods of farmers and strengthen the dairy supply chain.

The Indian milk industry is characterized by a diverse range of dairy animals, including cows, buffaloes, goats, and even camels in certain regions. Buffalo milk, in particular, is highly valued for its rich fat content and is preferred for making traditional dairy products like ghee, paneer, and khoa. However, the dairy sector also faces challenges such as low productivity, poor infrastructure, and limited access to quality feed and veterinary services, especially in remote rural areas.

Despite these challenges, India has made remarkable progress in increasing milk production over the years, thanks to a combination of factors including genetic improvement, better nutrition, and enhanced management practices. The country's milk production has more than tripled since the 1980s, making it the largest producer of milk in the world. This growth has been driven primarily by increase in both the number of milch animals and their productivity per animal.

In recent years, there has been a growing emphasis on improving the quality and safety of milk and dairy products in India. Food safety regulations and quality standards have been strengthened to address concerns about adulteration,

contamination, and microbial hazards. Initiatives such as the National Dairy Plan (NDP) and Operation Flood have focused on modernizing the dairy sector, upgrading infrastructure, and promoting best practices in milk production and processing.

The Indian milk industry is also witnessing changes in consumer preferences and market dynamics, driven by urbanization, rising incomes, and exposure to western lifestyles. There is a growing demand for value-added dairy products such as flavored milk, yogurt, cheese, and ice-cream, especially among urban consumers.

This shift towards processed and packaged dairy products presents opportunities for dairy companies to diversify their product portfolios and cater to evolving consumer tastes. However, the Indian milk industry also faces challenges related to sustainability, environmental degradation, and climate change. Rapid urbanization and industrialization have led to land fragmentation, loss of grazing lands, and environmental pollution, and impacting the long-term viability of dairy farming.

Technological advancements continue to revolutionize dairy farming practices, enhancing productivity, efficiency, and sustainability across the industry. Innovations in genetics, breeding techniques, herd management, and milking automation have significantly improved milk yields and quality while reducing labor costs and environmental impacts.

Precision agriculture techniques, including the use of data analytics and IoT (Internet of Things) devices, are increasingly adopted to optimize resource management, monitor animal health, and improve overall farm efficiency. These technological innovations are crucial in enabling dairy producers to meet the rising global demand for dairy products while simultaneously addressing sustainability challenges such as greenhouse gas emissions, water usage, and waste management.

However, sustainability remains a critical concern within the global milk industry. The environmental impact of dairy farming, including methane emissions from cattle, water pollution from nutrient runoff, and land degradation from intensive farming practices, poses significant challenges to long-term sustainability.

Efforts to mitigate these impacts are underway, with many dairy producers and processors implementing sustainable farming practices, investing in renewable energy

sources, and adopting circular economy principles to reduce waste and improve resource efficiency.

Consumer awareness and demand for ethically sourced, environmentally friendly products are also driving industry-wide initiatives towards greater sustainability and transparency in dairy production and supply chains.

Health and nutritional considerations continue to shape consumer preferences and market trends within the dairy industry. Milk and dairy products are valued for their high nutritional content, providing essential nutrients such as protein, calcium, vitamins (e.g., vitamin D and B12), and minerals (e.g., potassium and phosphorus). These nutrients play a crucial role in supporting bone health, muscle function, and overall growth and development, particularly in children and adolescents.

The health benefits associated with dairy consumption, including reduced risk of osteoporosis and improved cardiovascular health, continue to drive demand in both developed and developing markets. Furthermore, evolving consumer preferences and dietary trends are influencing product innovation and diversification within the dairy industry. There is growing demand for organic, hormone-free, and locally sourced dairy products, reflecting consumer concerns about food safety, animal welfare, and environmental sustainability.

The rise of plant-based alternatives to dairy, such as almond milk, soy milk, and oat milk, represents a notable shift in consumer behavior towards plant-based diets and dairy-free options. This trend is driven by factors including lactose intolerance, ethical considerations regarding animal agriculture, and perceived health benefits associated with plant-based diets.

Market volatility remains a significant challenge for dairy producers and processors worldwide. Fluctuations in milk prices, currency exchange rates, and geopolitical tensions can impact profitability and financial stability within the industry. Dairy farming is inherently sensitive to external factors such as weather conditions, global supply and demand dynamics, and government policies affecting agricultural subsidies and trade regulations. Effective risk management strategies, diversification of product offerings, and adaptation to changing market conditions are crucial for dairy stakeholders seeking to navigate volatility and ensure long-term sustainability and profitability.

The global milk industry today stands at a crossroads of challenges and opportunities, driven by evolving consumer preferences, technological advancements, sustainability imperatives, and global trade dynamics. Stakeholders across the dairy supply chain, including farmers, processors, traders, and policymakers, must collaborate to address sustainability challenges, innovate to meet changing consumer demands, and capitalize on emerging market opportunities. The future of the milk industry hinges on its ability to embrace innovation, foster sustainable practices, and adapt to the evolving landscape of global agriculture and food systems.

Moreover, climate variability and extreme weather events pose risks to milk production, affecting feed availability, animal health, and livelihood of farmers. To address these challenges and capitalize on opportunities, stakeholders in the Indian milk industry are implementing various strategies aimed at enhancing productivity, sustainability, and market competitiveness.

These include promoting climate-smart agriculture practices, investing in infrastructure development, adopting technological innovations, and strengthening value chains. Government policies and programs such as the Rashtriya Gokul Mission and the Dairy Processing and Infrastructure Development Fund are also supporting the growth and modernization of the dairy sector.

#### **1.7.4 THE STATE SCENARIO OF MILK INDUSTRY**

The milk industry in Kerala has been undergoing significant transformations in recent years. Traditionally, Kerala has been dependent on neighboring states like Tamil Nadu and Karnataka for meeting its milk requirements. However, there has been a concerted effort to boost local milk production and reduce dependence on external sources.

One of the key initiatives driving this change is the Kerala Government's promotion of dairy farming through various schemes and subsidies. These initiatives aim to encourage farmers to take up dairy farming as a viable livelihood option and increase milk production within the state. Subsidies for cattle feed, veterinary care, and infrastructure development have been provided to support dairy farmers.

Additionally, the establishment of dairy cooperatives has played a crucial role in organized and empowering dairy farmers across the state. These cooperatives not only

facilitate the procurement and distribution of milk but also provide technical assistance and marketing support to farmers.

The Kerala Cooperative Milk Marketing Federation (KVMMF), popularly known as Milma, is one such cooperative that has been instrumental in promoting the dairy sector on the state. Furthermore, advancements in technology and breeding techniques have led to improvements in milk yield and quality among indigenous cattle breeds in Kerala. Cross-breeding programs and the introduction of high-yielding exotic breeds have contributed to increased milk production per animal, thereby enhancing the overall productivity of dairy farming in the state.

Despite these advancements, the milk industry in Kerala faces several challenges. One of the primary challenges is the fragmentation of landholdings, which limits the scalability of dairy farming operations. Small landholdings make it difficult for farmers to expand their dairy herds and achieve economies of scale, thereby affecting their profitability.

Moreover, the rising cost of inputs such as cattle feed and healthcare services pose financial constraints for dairy farmers, particularly small-scale ones. Fluctuations in milk prices and competition from cheaper imports also add to the challenges faced by local dairy producers.

Another concern is the environmental impact of dairy farming, particularly in a state like Kerala, where land availability is limited. The expansion of dairy farming could lead to deforestation and encroaching upon ecologically sensitive areas, thereby exacerbating environmental degradation.

In response to these challenges, there is a growing emphasis on sustainable dairy farming practices, including organic farming methods and the promotion of native cattle breeds. Efforts are also being made to enhance value addition in the dairy sector through the production of dairy based products such as cheese, yogurt, and ice cream, which have higher profit margins compared to raw milk.

The milk industry in Kerala, though integral to the state's agricultural landscape, faces several distinct challenges that impact its sustainability and growth. One of the primary challenges is the high production cost associated with dairy farming in Kerala. The state's hilly terrain and limited availability of fertile land make fodder



cultivation expensive and challenging, leading to higher input costs for dairy farmers. This, coupled with the lack of economies of scale compared to larger dairy-producing states, results in relatively higher milk production costs.

Market volatility poses another significant hurdle for the Kerala milk industry. Fluctuating demand-supply dynamics, seasonal variations in milk production, and external factors such as climate change impacts can lead to unpredictable milk prices. These price fluctuations affect the incomes of dairy farmers and the profitability of dairy cooperatives, making financial planning and risk management crucial for stakeholders in the sector.

Inadequate infrastructure for milk collection, storage, and transportation is another major challenge in Kerala. The state's fragmented geography and rural landscape make establishing efficient cold chain logistics and transportation networks challenging. This deficiency results in operational inefficiencies, milk spoilage, and higher costs for dairy cooperatives and farmers. Improving infrastructure facilities, including the establishment of modern chilling plants and transportation hubs, is essential to streamline the milk supply chain and reduce post-harvest losses.

Ensuring consistent milk quality and hygiene standards across Kerala poses ongoing challenges. Issues such as improper handling practices during transportation and storage, milk adulteration, and variations in quality control measures can compromise consumer confidence and pose risks to public health. Strengthening regulatory oversight, implementing stringent quality assurance protocols, and enhancing monitoring mechanisms are critical to maintaining product integrity and ensuring consumer trust in dairy products.

Environmental sustainability is also a concern for the Kerala milk industry. Intensive dairy farming practices, if not managed sustainably, can contribute to environmental degradation, including soil erosion and water pollution. Promoting sustainable farming practices, such as organic farming methods, efficient water management systems, and waste recycling initiatives, is essential to minimize the environmental footprint of dairy farming in the state.

Technological adoption and access to modern farming practices are areas where Kerala's dairy sector can benefit from improvement. While some dairy farmers have adopted advanced technologies for farm management and milking, there is a need for

broader adoption across the sector, particularly in remote and rural areas. Enhancing access to training, extension services, and financial support for technology adoption can help improve productivity, efficiency, and animal welfare standards in Kerala's dairy farms.

Addressing these challenges requires concerted efforts from government agencies, dairy cooperatives, research institutions, and stakeholders within the dairy industry. Investing in infrastructure development, promoting sustainable farming practices, enhancing technological capabilities, and strengthening regulatory frameworks are essential steps toward building a resilient and competitive milk industry in Kerala. By overcoming these challenges, Kerala can sustainably enhance its milk production capabilities, improve livelihoods for dairy farmers, and meet the growing demand for high-quality dairy products in the state and beyond.

Overall, the milk industry in Kerala is at a crucial juncture, with significant opportunities for growth and development. By addressing the challenges and leveraging the strengths of the local dairy sector, Kerala can achieve self-sufficiency in milk production and create sustainable livelihoods for its farmers while ensuring environmental conservation.

## **1.8 COMPANY PROFILE**

### **1.8.1 MISSION OF PDDP**

PDDP Central Society is committed to achieve continual improvement in the procurement, processing, and marketing of quality milk and milk products in harmony with our customers' needs and regulatory requirements through the involvement of dedicated and trained employees.

### **1.8.2 VISION OF PDDP**

Best quality milk for better health and living.

### **1.8.3 HISTORY OF PDDP**

Fr. Joseph Muttumana, born on January 3, 1923, in Vaikom, Kerala, was ordained as a priest for the Archdiocese of Ernakulam in 1950. His journey towards founding PDDP

was marked by a deep commitment to serving the poor, inspired by the words of Mahatma Gandhi: “Growth of the nation depends on the growth of the village”.

This ethos guided Fr. Joseph as he embarked on various social welfare initiatives, eventually leading him to focus on dairy development as a means of empowering rural communities. With the support of local farmers and the generosity of institutions like St. Thomas church, Malayattoor, Fr. Joseph launched PDDP with a mission to uplift the lives of farmers through dairy farming.

Despite facing challenges, such as the rejection of PDDP’s milk by MILMA, a cooperative society governed by the Kerala Government, Fr. Joseph’s resilience and determination led to the establishment of PDDP’s own marketing strategy and the successful introduction of the PDDP brand milk in the market.

Fr. Joseph’s leadership style was characterized by humility, compassion and a genuine concern for others. He was known for his selfless dedication to serving the marginalized sections of society, embodying the ideals of Christian love and social responsibility.

Under his chairmanship, PDDP expanded its reach to different parts of Ernakulam and Thrissur districts, growing from 10 members to 20,000 farmers and processing 50,000 liters of milk per day. The management structure of PDDP reflects its commitment to inclusivity and accountability.

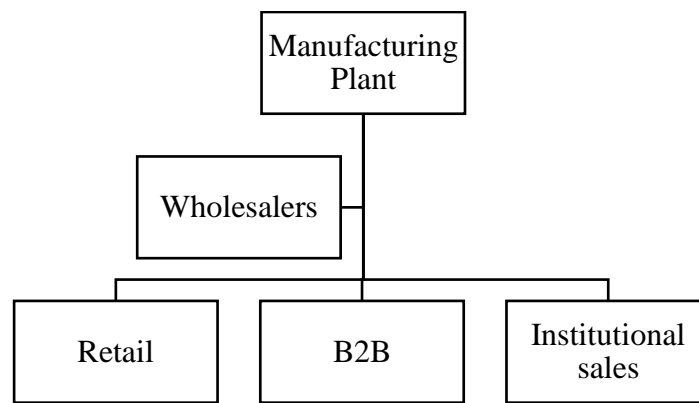
Governed by a Board of Directors comprising 13 members, including representatives nominated by the Archbishop of Ernakulam-Angamaly and elected members from primary societies, PDDP ensures that stakeholders have a voice in its decision-making processes. The current chairman, Fr. Thomas Mangattu, continues to uphold Fr. Joseph’s legacy of service and excellence.

The story of Fr. Joseph Muttumana and the People’s Dairy Development Project is one of resilience, compassion, and community empowerment. Through his pioneering efforts, Fr. Joseph transformed PDDP from a small initiative into leading dairy enterprise, enriching the lives of thousands of farmers and contributing to the socio-economic development of Kerala.

His legacy continues to inspire generations to come, reminding us of the power of compassion and the potential for positive change when we work together for the

common goal. The company is working with approximately 156 employees. Out of the 156 employees 14 employees are at the managerial staff, 98 employees are permanent employees, approximately 47 employees are working on contract basis, and the rest 11 are daily waged employees. PDDP serves various categories in the market such as institutional business, retail segment, HoReCa (Hotel, Restaurant, Cafe/ Catering), field etc. Mostly they have sales in regions such as Ernakulam district, Thrissur district, Alappuzha district, and Kottayam district. The main sales are happening through the supermarkets, hypermarkets, local stores etc.

Figure 1.1 Main distribution channels



The figure 1.1 shows that PDDP have a very good distribution channel for reaching their customers. The figure indicates that, from the manufacturing plant the wholesalers purchase milk in bulk quantity, and then from the wholesalers there will be three types of sales is starting. They are retail sales, institutional sales and business to business sales.

Wholesalers purchase milk directly from the manufacturing plant of PDDP. Retail sales operate through retail shops which directly reach the ultimate consumers. They distribute milk in various places within Kerala. In the manufacturing plant, the milk is sourced mainly from the farmers, co-operative societies under PDDP, etc. The sourced milk is tested to ensure its quality, nutritional value, and taste.

After the test of milk is done in the manufacturing plant, the wholesalers will purchase the milk, and the rest of the milk will be used for the production of various dairy products such as, curd, ice cream, peda, butter, etc.

They have various types of milk, especially pasteurized milk. Pasteurization is a process by which milk is heated to a specific temperature for a set period of time to

kills harmful bacteria that can lead to diseases like as listeriosis, typhoid fever, tuberculosis, diphtheria and brucellosis. Research shows no meaningful differences in the nutritional content of pasteurized milk and unpasteurized milk. Pasteurization helps in providing safe, nutrient-rich milk.

#### **1.8.4 PEOPLE'S HAPPY FEEDS**

It sounds like People's Happy Feed is revolutionizing the feed manufacturing industry in India with its innovative GMF (Growth, Milk, Fertility) technology. This three-in-one formula aimed at enhancing dairy farming productivity is quite impressive.

The emphasis on feed processing, including milling, mixing, cooking, and pelleting, demonstrates a commitment to optimizing both shelf life and digestibility, which are crucial factors for animal health and performance.

Collaborating with reputable institutions like the Kerala Veterinary and Animal Sciences University ensures that the feed meets rigorous quality and safety standards. It's great to see such partnerships to maintain international standards and hygiene levels.

The utilization of diverse ingredients such as deoiled cakes, pure rice bran, and high-quality maize not only ensures nutritional balance but also helps in cost optimization by minimizing the need for additional raw material supplements.

Moreover, the involvement of the PDDP Central Society, a farmer producer organization, highlights a commitment to continuous improvement and farmer-centric approaches. Scientific logistics, inventory management, and a well-structured distribution network contribute to maintaining consistent pricing and availability across the state. People's Happy Feed seems to be a game-changer in the dairy farming sector, offering a comprehensive solution for improved productivity, quality, and sustainability.

The People's Dairy Development Project (PDDP) is a beacon of hope and progress in Kerala, India. Founded in 1973 by the visionary Fr. Joseph Muttumana, PDDP started with humble beginnings, collecting a mere 60 liters of milk per day from one village. Fr. Joseph, a man of deep compassion and commitment to serving others, believed in the power of empowering rural communities.

However, under Fr. Joseph’s guidance, PDDP steadily grew to become a significant player in the dairy industry, now processing and distributing nearly 1 lakh liters of milk and milk products per day on behalf of more than 200 societies owned by around thirty-thousand-member farmers.

**Achievements of PDDP:**

- Kerala State productivity Council Award, 2019
- World Malayalee Federation Award, 2018
- Janam TV Global Excellence Award, 2018
- Business Deepika Business Excellence Award, 2016
- Award from Pollution Control Board, 2014
- Award from Pollution Control Board, 2013
- Best Productivity Award – Second Prize, 2012-13
- Award from Pollution Control Board, 2012
- Best Productivity Awards 2007-08
- Reception of ISO 22000:2005
- ISO Certification 2005
- Best Material Management award, 2004 in INTEGRATED Materials Management Competition
- Best Productivity Award of Kerala State Productivity Council 2003-04
- Best Priest Award for Fr. Joseph Muttumana, 2003
- Award from Pollution Control Board for the Best Effluent Treatment Plant, 2001

**TABLE 1.1 PRODUCTS OF PDDP**

<b>Sl. No.</b>	<b>Product Category</b>	<b>Product Name/ Types</b>
1	Milk	Pasteurized & Homogenized toned milk
		Pasteurized toned milk – Tea Special
		Pasteurized toned milk
		Pasteurized toned milk -

		Premium
		Standardizes milk – Superior quality
		Standardized milk
		People’s milk fortified with Vitamin A & D
2	Ice Cream	Jackfruit
		Strawberry
		Vanila
		Mango
		Pista
		Tender coconut
		Banan
		Black currant
		Butterscotch
		Caramel delight
		Chocolate
		Coffee
		Fig and Honey
		Fruit and Nut
		Grape
		Kulfi
		Lime Mangic
		Lichy
		Mixed fruit
		Orange
Passion fruit		
Pine		
Pineapple		
Pink Guava		
Roseberry		
Cassata		

		Green Apple
		Milky
3	Curd	Curd
4	Peda	Peda
5	Paneer	Paneer
6	Ghee	Ghee (1ltr, 500ml, 200ml)
7	Butter	Butter

### 1.8.5 SWOT ANALYSIS

- **Strengths:**

- High quality products:** PDDP is known for producing dairy products of high quality, which can be a significant advantage in a competitive market. Consumers are increasingly willing to pay a premium for products they trust and perceive as healthy.
- Increasing demand:** The demand for dairy products in India is growing steadily due to factors like rising disposable income, urbanization, and increasing health consciousness. This presents a significant opportunity for PDDP to expand its market share.
- Brand recognition:** PDDP has established a strong brand reputation in its local market, this can be a valuable strength. Brand recognition can create customer loyalty and trust, making it easier to attract and retain customers.
- Established distribution network:** A well-developed network for distributing PDDP's products to retailers and consumers can be a significant strength. An efficient distribution system ensures product availability and reduces costs associated with getting products to market.

- **Weaknesses:**

- Lack of raw material availability:** A consistent supply of high-quality milk is essential for PDDP's operations. If PDDP struggles to



secure reliable sources of raw materials, it can hinder production and limit growth.

- b. **Low margin:** The dairy industry can be competitive, with tight margins. If PDDP struggles to control costs or is forced to compete solely on price, it can impact profitability.
  - c. **Limited product portfolio:** If PDDP offers a limited range of dairy products, it may miss out on potential sales opportunities. Consumers are increasingly looking for variety and innovation in the dairy aisle.
  - d. **Dependence on local markets:** PDDP primarily focuses on local market, it may be vulnerable to economic preferences within that region.
- **Opportunities:**
    - a. **Expansion into new margins:** The growing demand for dairy products in India presents a s opportunity for PDDP to expand its reach into new markets within the country.
    - b. **Product diversification:** PDDP can develop new product lines to cater to a wider range of consumer preferences. This could include introducing new flavours, formats, or value-added products like yogurt or cheese.
    - c. **Strategic partnerships:** Partnering with other companies in the dairy industry could help PDDP secure a more reliable supply of raw materials or expand its distribution network.
    - d. **E-commerce expansion:** The growing popularity of online grocery shopping presents an opportunity for PDDP to reach new customers and expand its sales channels.
  - **Threats:**
    - a. **Competition:** The Indian dairy industry is competitive, with established players like MILMA and Amul. PDDP needs to stay competitive in terms of price, quality, and product innovation.
    - b. **Fluctuations in milk prices:** Fluctuations in the price of raw milk can significantly impact PDDP's profitability.

- c. **Regulations:** Government regulations on food safety, animal welfare, and environmental sustainability can impact PDDP's production costs and overall operations.
- d. **Consumer trends:** Shifting consumer preferences towards plant-based alternatives or concerns about lactose intolerance could pose a threat to PDDP's sales.

### 1.8.6 PESTLE ANALYSIS

- **Political:**
  - a. **Government policies:** Government policies on the dairy sector can significantly impact PDDP, Subsidies for milk producers, import duties on dairy products, and regulations on milk prices can all influence PDDP's profitability and growth prospects.
  - b. **Political stability:** Political instability can disrupt PDDP's operations and distributions networks. Additionally, changes in Government leadership could lead to shifts in policy that could affect PDDP's business environment.
- **Economic:**
  - a. **Economic growth:** Economic growth in India is expected to continue in the coming years, which is positive news for PDDP as it is likely to lead to increased demand for dairy products.
  - b. **Inflation:** Inflation rate fluctuations can impact the cost of borrowing capital for PDDP. Higher interest rates can make it more expensive to invest in new facilities or equipment.
- **Social:**
  - a. **Changing demographics:** India's population is growing and urbanizing. This trend is likely to benefit PDDP as urban consumers trend to have a higher disposable income and are more likely to purchase processed dairy products.
  - b. **Health and wellness trends:** The growing focus on health and wellness in India could create opportunities for PDDP to develop and market dairy products that are perceived as healthy, such as those fortified with vitamins or minerals.

- c. **Lactose intolerance:** An increasing number of people in India are diagnosed with lactose intolerance. PDDP could address this by offering lactose-free dairy products or exploring alternative sources of calcium.
- **Technological:**
  - a. **Advancements in dairy processing:** New technologies in dairy processing can help PDDP improve efficiency, reduce waste, and extend the shelf life of its products.
  - b. **E-commerce growth:** The growing popularity of online grocery shopping presents an opportunity for PDDP to reach new customers and expand its sales channels.
  - c. **Investment in automation:** Automation can help PDDP reduce labour costs and improve production efficiency. However, the initial investment in automation technology can be significant.
- **Legal:**
  - a. **Food safety regulations:** Strict food safety regulations are essential to ensure the quality and safety of PDDP's products. However, complying with these regulations can be complex and expensive.
  - b. **Environmental regulations:** Regulations on environmental sustainability, such as waste disposal and water usage, can impact PDDP's operations. Investing in sustainable practices can help PDDP comply with regulations and potentially improve its brand image.

**CHAPTER II**  
**LITERATURE REVIEW & THEORETICAL**  
**FRAMEWORK**

## 2.1 LITERATURE REVIEWS

A literature review in research methodology is a comprehensive summary and analysis of the existing research and literature related to a specific topic or research question. It involves critically evaluating and synthesizing previous studies, theories, and findings to identify patterns, gaps, and areas of disagreement.

This process helps to situate the current study within the broader context of existing knowledge, providing a foundation for understanding what has already been explored and what needs further investigation.

A well-conducted literature review demonstrates the researcher's familiarity with the field, highlights the significance of the research problem, and supports the justification for the new study. It also assists in refining the research questions, methodology, and theoretical framework, ensuring that the new research contributes meaningfully to the academic discourse. Ultimately, a literature review is an essential component of the research process, guiding and informing the direction and scope of the study.

**Naveen Venkata Prasanna (2003)** study on customer satisfaction towards Aavin milk in Coimbatore provides valuable insights into consumer preferences and perceptions regarding various attributes of the Aavin brand. Through non-probability convenience sampling, 150 respondents were selected for the study. The research aimed to understand consumer preferences regarding Aavin milk, analyse perceived differences among various milk brands based on key attributes, and suggest measures to enhance customer satisfaction. The study focused on several criteria, including purity, taste, thickness, availability, price, service of agents, and place of purchase. Results indicated that the Aavin brand of milk received high ratings for purity, taste, and thickness, which are crucial factors influencing consumer satisfaction. Additionally, attributes such as availability, price, and service of agents were also perceived positively by respondents. These findings suggest that Aavin has successfully positioned itself as a preferred brand among consumers in Coimbatore, particularly in terms of quality attributes such as purity, taste, and thickness. Moreover, the study highlights areas where Aavin can further improve, such as enhancing availability, pricing strategies, and service quality, to maintain and strengthen its competitive edge in the market.

**Riyas Mohammed (2003)** study comparing Aavin, Arokya, and Sakthi milk brands in Coimbatore sheds light on consumer preferences and perceptions regarding branded milk. With a sample size of 150 respondents selected through convenience sampling, the research aimed to understand consumer preferences for branded milk and the impact of packaging on consumer expectations. The study found that Aavin brand milk was preferred for its purity, quality, and price, indicating that these attributes were significant factors influencing consumer choices. However, points of dissatisfaction were identified in areas such as advertisement campaigns, home delivery services, and non-availability in retail outlets compared to Arokya and Sakthi milk brands. Furthermore, despite claims by these brands that milk packaged in polyethylene packs was safe, the study revealed concerns about its health implications, suggesting a perception of unhealthiness associated with such packaging. These findings suggest that while Aavin excels in certain aspects such as quality and affordability, there are areas where it lags behind competitors, particularly in terms of marketing strategies and distribution channels. Additionally, the perceived health risks associated with packaging materials highlight the importance of ensuring consumer trust and confidence through transparent communication and adherence to safety standards in the dairy industry.

**Dr. S. Sivasankaran and Dr. R. Sivanesan (2013)** study on "Brand preference of packaged milk – comparative study on rural and urban consumers in Kanyakumari district" addresses the evolving dynamics within the dairy industry, particularly in the context of increasing competition from private companies. The research aims to gauge consumer satisfaction with the performance of branded milk producers and underscores the importance of understanding consumer preferences to sustain market presence and enhance customer retention. As the dairy industry experiences heightened competition and the entry of numerous private companies, it becomes imperative for companies to prioritize customer satisfaction to maintain their market position. By continually assessing consumer satisfaction levels and implementing necessary measures to address their needs and preferences, companies can cultivate customer loyalty and strengthen their foothold in the market. This study serves as a valuable resource for dairy companies seeking insights into the preferences and satisfaction levels of both rural and urban consumers in the Kanyakumari district. By identifying factors influencing brand preference and consumer satisfaction, companies

can tailor their strategies to meet evolving consumer demands and navigate the competitive landscape effectively.

**V. Vijay Anand, N. Panchanatham and B. Rajasekaran (2013)** conducted a study on “Consumer’s brand preferences and brand loyalty – An empirical study reference to packaged milk”. The study unveiled a notable correlation between demographic factors like age and consumer preferences regarding the price and preferred size of packaged milk. This suggests that age plays a pivotal role in shaping consumer decisions, indicating distinct preferences or purchasing patterns among different age groups. Conversely, the study found no significant relationship between income and gender with regards to pricing preferences, suggesting that these factors may not heavily influence consumers' willingness to pay for packaged milk. Furthermore, demographic variables such as age, gender, and occupation were not found to have a significant impact on consumers' opinions about advertisements for packaged milk. This implies that while age may influence purchasing decisions, other demographic factors may not significantly sway consumer perceptions of marketing efforts in this context.

**Ananda Kumar and S Babu (2014)** study, titled "Factors influencing consumer buying behaviour with special reference to dairy products," provides valuable insights into consumer purchasing behaviour within the dairy industry. The study employs descriptive analysis and utilizes statistical tools such as percentages and the weighted average method to examine various factors that influence consumer buying decisions. The factors explored in the study encompass a range of variables, including packaging, cost, availability, product quality, and product taste, among others. By investigating these factors, the research aims to elucidate the key determinants shaping consumer preferences and choices when it comes to dairy products. The findings of this study are invaluable for marketers seeking to enhance their performance and competitiveness in the dairy market. By understanding the factors driving consumer behaviour, marketers can tailor their strategies to effectively address consumer needs and preferences, thereby maximizing customer satisfaction and loyalty. Moreover, insights gleaned from this study can inform marketing initiatives aimed at optimizing product packaging, pricing strategies, distribution channels, and product quality assurance measures. By aligning their efforts with consumer preferences, marketers can position their dairy products more effectively in the

marketplace and gain a competitive edge. Overall, Kumar and Babu's study serves as a practical resource for marketers in the dairy industry, offering actionable insights to guide decision-making and drive performance improvements that resonate with consumer expectations.

**Elan Govan N. and Gomatheeswaran M (2015)** study delves into the persistence of consumer behaviour concerning different brands of milk and milk products. The research recognizes that consumers' lifestyles are influenced by a myriad of factors, including cultural influences, subcultures, values, demographic variables, social status, reference groups, family dynamics, as well as internal psychological factors such as emotions, personality traits, buying motives, perceptions, and knowledge levels. The study adopts an exploratory approach to investigate the variations in consumer behaviour concerning brand selection in relation to socio-economic characteristics. By exploring these dynamics, the research aims to uncover patterns and insights that shed light on how consumers make choices among various brands of milk and milk products. Understanding the complex interplay between socio-economic factors and consumer behaviour is crucial for marketers and businesses in the dairy industry. By gaining insights into the drivers of consumer preferences and brand loyalty, companies can tailor their marketing strategies and product offerings to better meet the needs and expectations of their target audience. Moreover, by identifying the factors that influence brand selection, businesses can develop more effective branding and positioning strategies to differentiate themselves in the competitive marketplace. This deeper understanding of consumer behaviour can ultimately lead to enhanced customer satisfaction, increased brand loyalty, and improved business performance in the dairy sector.

**Kameswara Rao Poranki (2015)** conducted a study on “Brand preference and customer satisfaction of branded milk”. In his research, he emphasizes the significance of brand preference in determining customer satisfaction. The study focuses on the customers in Bangalore, India, who express contentment with Nandini Shubham milk, considering it a high-quality product that meets their expectations. However, a notable challenge arises when the preferred brand is unavailable, prompting consumers to opt for alternative brands regardless of their name recognition. This highlights a crucial aspect of consumer behaviour, where loyalty to a specific brand is conditional upon its availability. Despite acknowledging the quality



of Nandini Shubham milk, customers are compelled to seek alternatives when faced with limited options. This underscores the importance of not only producing superior products but also ensuring their consistent availability in the market. In essence, the study underscores how brand preference influences consumer choices and satisfaction levels, particularly in situations where access to the preferred brand is restricted.

**L Ramesh and S Poornima (2016)** made a study on “Consumer brand preference towards pasteurized milk in Gudalur town”. The primary goals of the study were to elucidate customer brand preferences regarding pasteurized milk in Gudalur town, situated within the scenic Nilgiris. To achieve this, the study meticulously gathered data from 100 respondents, employing a well-structured sampling methodology. Leveraging statistical tools like the Chi-square test, the research aimed to analyse the collected data comprehensively. Additionally, the study sought to delve into the intricate interplay of factors influencing brand loyalty within this specific consumer context. It particularly focused on elucidating how mediating factors, namely price and quality, impact brand preferences and subsequent loyalty among consumers. By exploring these mediating factors, the research aimed to offer deeper insights into the complex dynamics of consumer behaviour and decision-making processes concerning pasteurized milk brands in the Gudalur region. Ultimately, the study aspired to contribute valuable knowledge to both academia and industry, potentially guiding marketing strategies and business decisions aimed at enhancing brand loyalty and market share in the competitive pasteurized milk market of Gudalur, Nilgiris.

**Mrs. Sonali Dhawan (2016)** conducted a study titled "A study of consumer preference towards various branded and non-branded milk in Jabalpur District, Madhya Pradesh," sheds light on the consumption patterns of milk in the region. The research reveals that in Madhya Pradesh, unbranded milk enjoys significant popularity among consumers, surpassing the preference for branded milk options. This preference for unbranded milk is primarily attributed to its perceived freshness. The findings of the study underscore the significance of freshness as a key factor influencing consumer choices in the dairy market. While branded milk products may offer certain assurances in terms of quality and safety standards, consumers in Jabalpur District prioritize the immediate freshness associated with unbranded milk. This consumer preference for unbranded milk highlights the importance of understanding local preferences and consumption habits in specific regions. In areas

where unbranded milk holds sway, marketers and dairy producers may need to tailor their strategies accordingly, perhaps by emphasizing the freshness and quality of their branded offerings or by exploring opportunities to bridge the gap between branded and unbranded milk in terms of freshness. Overall, Mrs. Sonali Dhawan's study underscores the nuanced dynamics of consumer preferences in the dairy industry, emphasizing the need for market players to adapt their approaches to meet the unique demands of local consumers.

**Anita Kumari Patra (2017)** made a study on consumer decisions regarding the purchase of dairy products in Berhampur offers valuable insights into the factors influencing consumer behaviour in this specific market. The study highlights that consumers in Berhampur prioritize convenience when selecting dairy products, with product availability being a key consideration. The occurrence of product switching behaviour among respondents when their preferred products are unavailable further underscores the significance of convenience in purchasing decisions. Hygiene emerges as another critical factor influencing consumer choices in Berhampur. Consumers place a premium on the hygiene standards of dairy products, reflecting concerns for food safety and quality. Additionally, the study identifies several other factors that influence consumers' purchasing decisions, including the nutritional content, freshness, shelf life, taste, and brand preference of dairy products. These attributes collectively contribute to consumers' perceptions of product quality and value. Furthermore, external influences such as family dynamics, economic factors, advertising, and packaging colour also play a role in shaping consumer preferences and purchasing behaviour in the dairy product market of Berhampur. Overall, Anita Kumari Patra's study provides valuable insights for dairy product marketers in Berhampur, emphasizing the importance of understanding and catering to consumer preferences for convenience, hygiene, quality, and external influences to effectively meet consumer needs and drive purchasing decisions.

**Hassa Rahnama and Shayam Rajabpour (2017)** study, titled "Factors for consumer choice of dairy products," investigates the various factors influencing consumer preferences in the dairy product market. The research explores consumer preferences regarding taste, price, health considerations, product quality, and other relevant factors. The study draws upon a sample of 1420 individuals, comprising both men and women, surveyed in 2015. By examining consumer choice behaviour in relation to

dairy products, the research aims to gain insights into the factors that drive purchasing decisions among consumers. In addition to assessing consumer preferences based on taste, price, health considerations, and product quality, the study also takes into account consumer experiences and positive emotions associated with dairy products. This holistic approach provides a comprehensive understanding of consumer behaviour and the underlying motivations that influence purchasing decisions in the dairy product market. By considering not only the functional attributes of dairy products but also the emotional and experiential aspects, the study offers valuable insights for dairy product marketers. Understanding the multifaceted nature of consumer preferences can inform product development, marketing strategies, and communication efforts aimed at resonating with consumers and meeting their needs effectively. Overall, Rahnama and Rajabpour's study contributes to the body of knowledge surrounding consumer choice behaviour in the dairy product market, offering insights that can inform decision-making and strategy development for businesses operating in this industry.

**Maurizio Lanfranchi, Agata Zirilli, Annamaria Passantino and Angela Alibrandi (2017)** conducted “Assessment of milk consumer preferences: identifying the choice factors through the use of a discrete logistic model”. The study focuses on assessing milk consumer preferences, particularly towards donkey milk, through the use of a discrete logistic model. It aimed to understand consumer attitudes and perceptions regarding milk, with a specific focus on donkey milk, within randomly selected supermarkets in Italy. From the analysis, it was found that consumers primarily choose milk because of its affordability and easy availability in supermarkets. However, there is also a subset of consumers who opt for special milk due to food allergies or intolerances. The study utilized a generalized linear model to identify significant predictors of special milk consumption. It was discovered that only age and the presence of health problems or intolerances were significant factors influencing the consumption of special milk. The research sheds light on the socio-economic and behavioural characteristics of consumer groups, providing valuable insights for dairy producers and marketers in understanding and catering to consumer preferences, particularly in the context of specialty milk products like donkey milk.

**Amanda Norris and John Cranfield (2019)** study titled "Consumer preference on Dairy market" suggests that the presence of imported dairy products in the market can

influence consumer preferences within the dairy market. This finding implies that consumer choices and preferences for dairy products may be responsive to the availability and presence of imported alternatives. The study likely explores how the introduction of imported dairy products affects consumer behaviour, including preferences for locally produced versus imported dairy items. Factors such as quality, price, variety, and perceived value may play a role in shaping consumer decisions when faced with a broader range of dairy product options, including imported ones. The implication of increased presence of imported dairy products in the market suggests that dairy producers and marketers need to remain attuned to shifting consumer preferences and market dynamics. Understanding how consumers respond to imported offerings can inform product development, marketing strategies, and efforts to differentiate domestic products in the face of increased competition. Moreover, this finding underscores the importance of market research and consumer insights in guiding strategic decision-making within the dairy industry. By monitoring consumer preferences and market trends, dairy stakeholders can adapt their offerings and strategies to remain competitive and meet evolving consumer demands effectively.

**Dadi Regassa Hunde (2019)** made a study on “Factors affecting consumers brand preference of dairy products in Fiche town”. A study looked into what makes people choose one brand over another. It found that product quality, advertisement, and brand name awareness are really important. To figure this out, the researcher used descriptive analysis. They looked at how many people agreed or disagreed with statements, like strongly disagree to strongly agree. From this, they learned that price and quality matter most when people pick a brand. The study also showed that small businesses, like cooperatives, are super important for dairy products. People care a lot about the price and quality of what they buy. This study helps us understand why people choose certain brands and why small businesses are so important in some markets.

**Sina Ahmadi Kaliji, Seyed Mojtaba, Moiaverian, Hamid Amirneiad and Maurizio (2019)** conducted a study on factors affecting consumers dairy products preferences. The analysis of factors affecting consumer preferences revealed several demographic variables that significantly influenced their choices. Among these variables were age, gender, family size, education level, and the cost of living. Each

of these factors played a role in shaping consumer preferences. Specifically, increasing age was found to impact preferences for certain dairy products such as low-fat yogurt, non-carbonated doogh, regular butter, and low-fat milk. This shift in preference with age may be attributed to changes in lifestyle, health considerations, and the overall cost of living. For instance, as individuals age, they may become more health-conscious and opt for lower-fat options like low-fat yogurt and milk. Additionally, concerns about health and well-being may lead older consumers to choose non-carbonated doogh as a healthier alternative. Similarly, older individuals may prefer regular butter over alternatives, possibly due to taste preferences or perceived quality. Furthermore, the influence of age on consumer preferences could be intertwined with the cost of living. Older consumers may prioritize cost-effective options that align with their budget constraints while still meeting their nutritional needs. Overall, the findings underscore the complex interplay between demographic factors, lifestyle choices, health considerations, and economic factors in shaping consumer preferences for dairy products. Understanding these dynamics is essential for dairy producers and marketers to effectively target and meet the evolving needs of diverse consumer segments.

**Balaji Parasuram, Parminder Singh, Shalini Nachimuthu and Vidhyavathi (2021)** made a study on “Consumer’s choice and preferences of dairy based products”. The study found that the most important factor driving consumers towards dairy products is their quality and nutritional value. It was observed that socio-demographic factors, such as education and income level, also have a significant impact on consumer choices regarding dairy. Additionally, price emerged as a crucial determinant in consumers' decisions, alongside marketing promotions. When analysing consumer preferences, it became evident that quality and nutritional content were the primary influencers. This suggests that consumers prioritize these aspects when selecting dairy items. The findings underscore the importance of understanding consumer needs and preferences in the dairy industry. By emphasizing quality and nutritional value in product offerings and considering socio-demographic factors in marketing strategies, dairy companies can better cater to consumer demands. Moreover, adjusting pricing strategies and optimizing promotional efforts can further enhance consumer satisfaction and drive sales. Overall, the study highlights the complex interplay of factors influencing consumer behaviour in the dairy market and

underscores the need for tailored approaches to meet diverse consumer needs effectively.

**Valentina Maria Merlino, Oriana Mosca, Simone Blanc, and Antonia Sarcino (2023)** investigated the influence of socio-demographic variables and buying habits on milk purchasing decisions. They aimed to explore the preferences of milk purchasers regarding various product attributes, taking into account both socio-demographic characteristics and purchasing habits as independent variables in their model. The findings of the study revealed distinct preferences among consumers regarding sales channels and certain socio-demographic factors such as income and age. This suggests that different consumer segments may have varying preferences when it comes to purchasing milk. Furthermore, the inclusion of nutritional characteristics, such as fat content, in the analysis allowed for the identification of consumption profiles based on nutritional parameters. This insight provides valuable information for improving the product itself and its marketing strategies. For instance, it could inform strategies to tailor product offerings or communication efforts to better meet the needs and preferences of specific consumer segments. Overall, the study contributes to the existing literature by offering practical implications for production, marketing, and targeted value decisions within the milk industry. By understanding the factors influencing milk purchasing decisions, producers and marketers can better align their strategies with consumer preferences, ultimately enhancing product appeal and competitiveness in the market.

**Venkatesa Palanichamy N, Raja K, Kalpana M, and Aruna Prabha S (2024)** study on consumer brand preference of packaged milk in Coimbatore sheds light on the prevailing consumer trends in the region. The study reveals that the majority of respondents prefer the Aavin brand, followed by Aroma and Hutsun. This indicates the strong market presence and brand loyalty enjoyed by Aavin in the packaged milk segment in Coimbatore. The study also highlights the significant role of advertising in shaping consumer awareness and preferences, with TV and radio advertisements being the primary sources of awareness for various packaged milk brands. This underscores the importance of effective marketing and advertising strategies in influencing consumer behaviour and brand perception. Furthermore, the study indicates that a considerable proportion of respondents purchase packaged milk on a daily basis, reflecting the essential nature of milk as a staple food item. Additionally,

the willingness of consumers to recommend packaged milk to others suggests a high level of satisfaction and confidence in the quality and reliability of the products available in the market. Overall, Venkatesa Palanichamy N, Raja K, Kalpana M, and Aruna Prabha S's study provides valuable insights into consumer preferences and behaviour in the packaged milk market in Coimbatore, offering valuable information for dairy companies and marketers to tailor their strategies and offerings to better meet consumer needs and expectations.

## **2.2 THEORETICAL FRAMEWORK**

A theoretical framework in research refers to the structure that support a theory of a research study. It introduces and describes the theory that explains why the research problem under study exists. This framework provides a foundation upon which the entire research project is based.

It includes the theories and models that are relevant to the research, guiding the researcher in formulating hypotheses, defining variables, and setting up the study's structure. It serves as a lens through which the research is viewed and interpreted, offering a context for examining the research questions and hypotheses.

By anchoring the study within a specific theoretical perspective, it helps to ensure that the research findings can be understood in a broader context, linking them to existing knowledge and theory in the field.

A well-developed theoretical framework not only provides a rationale for the study also defines key concepts, relationships among the variables, and provides a framework for interpreting findings. It integrates and synthesizes a range of theories and concepts that help to explain the phenomena under investigation. It also helps to identify gaps in existing research and highlight areas where new research is needed, guiding the direction of the study.

It assists in developing a coherent structure for the research, ensuring that the study is methodologically sound and that the results are reliable and valid. In developing theoretical framework, researchers review existing literature to identify theories and models that are relevant to their study. They critically evaluate these theories, considering their strengths and weaknesses, and decide which theoretical perspectives are most appropriate for their research.

This process involves defining key terms and concepts clearly, establishing the relationships among them, and explaining how they will be measured. The theoretical framework also provides a basis for making predictions about the outcomes of the study, offering a set of expectations based on existing knowledge.

It helps to justify the research design and methodology, demonstrating how the chosen methods align with the theoretical perspectives underpinning the study. Researchers can communicate their approach to the study more effectively, making it easier for others to understand the basis of their research and the interpretation of their findings.

### **2.2.1 MEANING OF CONSUMER PREFERENCE**

Consumer preferences play a central role in shaping markets and driving economic activity. Understanding these preferences is essential for businesses and policymakers alike. By analysing consumer preferences through the lens of utility, economists can gain insights into how individuals make choices and allocate their resources.

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Utility theory helps economists' model and understand consumer behaviour by quantifying the satisfaction or happiness derived from consuming goods and services. This theory assumes that consumers aim to maximize their utility subject to their budget constraints. By studying how consumers allocate their limited resources across different goods and services, economists can make predictions about market demand, pricing strategies, and the overall functioning of markets.

Moreover, preferences are not static; they can change over time due to factors like changes in income, tastes, technology, or external influences. Hence, continuous analysis of consumer preferences is crucial for businesses to adapt their offerings and for policymakers to formulate effective economic policies.

Consumer preferences, analysed through the framework of utility theory, provide valuable insights into market dynamics, helping businesses and policymakers make informed decisions to meet the needs and wants of consumers efficiently.



## 2.2.2 THE FACTORS AFFECTING CONSUMER PREFERENCE

- **Cultural background:** Cultural norms, values, and traditions significantly influence what products and services consumers prefer. For example, dietary habits, fashion trends, and even colour preferences can vary widely across cultures.
- **Social influences:** People are often influenced by their social circles, including family, friends, peers, and online communities. Social approval and conformity play a role in shaping consumer preferences, as individuals may adopt the choices of those they admire or want to emulate.
- **Economic factors:** Economic conditions such as income levels, employment status, inflation, and interest rates impact consumer preferences. For instance, during economic downturns, consumers may prioritize essential goods over luxury items.
- **Marketing efforts:** Advertising, branding, promotions, and product placement influence consumer perceptions and preferences. Effective marketing strategies can create awareness, shape attitudes, and drive purchasing decisions.
- **Product quality and features:** Consumers often prefer products and services that offer high quality, reliability, and functionality. Unique features, innovation, and customization options can also influence consumer preferences toward certain products over others.
- **Personal values and beliefs:** Individual values, ethics, and moral principles influence consumer preferences. For instance, environmentally conscious consumers may prefer eco-friendly products, while those prioritizing social responsibility may support fair trade initiatives.
- **Demographic characteristics:** Factors such as age, gender, income, education, occupation, and family life stage impact consumer preferences. Different demographic segments have distinct needs, lifestyles, and consumption patterns, leading to varying preferences for products and services.
- **Psychological factors:** Consumer preferences are influenced by psychological processes, including perception, motivation, attitudes, emotions, and cognitive biases. Factors such as brand loyalty, perceived

value, and emotional associations affect decision-making and shape preferences.

- **Perceived risk:** Consumers assess the risks associated with purchasing a product or service, including financial risk, performance risk, social risk, and psychological risk. Risk perception influences consumer preferences, as individuals may favour brands or products perceived as safer or more reliable.
- **Product familiarity:** Familiarity with a product or brand affects consumer preferences. Consumers often prefer products they are familiar with or have previous positive experiences with, as familiarity reduces uncertainty and perceived risks.
- **Availability and accessibility:** The availability and accessibility of products and services influence consumer preferences. Consumers are more likely to choose products that are easily accessible, convenient to purchase, and readily available in their preferred distribution channels.
- **Peer influence and social proof:** Social influence and peer recommendations impact consumer preferences. Individuals may be more inclined to choose products or brands endorsed by their peers or supported by positive reviews and testimonials, seeking social validation and reassurance.
- **Brand image and reputation:** Brand image, reputation, and equity shape consumer perceptions and preferences. Strong brands with positive associations, credibility, and trustworthiness often attract loyal customers and influence their preferences over time.
- **Emotional appeal:** Emotional factors such as nostalgia, happiness, fear, or excitement can influence consumer preferences. Emotional appeals in marketing campaigns evoke feelings and emotions that resonate with consumers, creating stronger connections and preferences for certain brands or products.
- **Cognitive dissonance:** Consumers seek consistency between their beliefs, attitudes, and behaviours, avoiding cognitive dissonance. To reduce discomfort or inconsistency, individuals may adjust their preferences or

rationalize their choices, aligning them with their self-image or social norms.

- **Technological advancements:** Technological innovations and advancements impact consumer preferences by introducing new products, services, and experiences. Consumers may embrace new technologies that offer convenience, efficiency, and enhanced functionality, leading to shifts in preferences and adoption rates.
- **Environmental influences:** Environmental factors such as geographical location, climate, and natural surroundings can influence consumer preferences. For example, consumers in tropical regions may prefer products suitable for hot and humid climates, while those in colder climates may prioritize warmth and insulation.
- **Government regulations:** Government regulations and policies, including health and safety standards, labelling requirements and taxation, influence consumer preferences. Regulatory interventions can shape consumer choices by incentivizing certain behaviours or restricting access to certain products.
- **Cultural trends and fads:** Cultural trends, fads, and zeitgeist influence consumer preferences and lifestyle choices. Consumers may embrace products or brands associated with current cultural movements, fashion trends, or popular phenomena with prevailing cultural norms and values.
- **Personal experiences and feedback:** Individual experiences, feedback, and past interactions with products or services influence consumer preferences. Positive experiences build trust and loyalty, while negative experiences can lead to dissatisfaction and a shift in preferences toward alternative options. Additionally, word-of-mouth recommendations and user-generated content influence consumer perceptions and preferences, shaping their choices.

### 2.2.3 PSYCHOLOGICAL DIMENSIONS OF CONSUMER PREFERENCE

At its core, consumer preference is driven by individual psychology and the unique makeup of each consumer's personality, beliefs, and cognitive processes. Psychologically, preferences are shaped by several key factors:

- **Perceived value and utility:** Consumers evaluate products and services based on the utility they provide, which refers to the satisfaction or benefit derived from consumption. The concept of utility is central to many economic theories, such as the Marginal Utility Theory, which posits that consumers seek to maximize their satisfaction from consuming goods and services. Preferences are therefore influenced by how consumers perceive the value offered by different options and their perceived ability to satisfy their needs or desires.
- **Emotional and affective responses:** Beyond rational calculations of utility, consumer preferences are often influenced by emotional responses and affective states. Emotional branding, for example, leverages emotions such as happiness, nostalgia, or a sense of belonging to create strong consumer attachments to specific brands or products. Emotional responses can override purely rational considerations in decision-making processes.
- **Cognitive biases:** Human decision-making is also subject to various cognitive biases, which can distort preferences and lead to suboptimal choices. For instance, anchoring bias occurs when consumers rely too heavily on the first piece of information they encounter when making a decision, while confirmation bias leads individuals to seek out information that confirms their existing beliefs or preferences.
- **Habit formation and familiarity:** Consumer preferences can be influenced by habits formed through repeated consumption of particular products or brands. Habitual purchases often stem from familiarity, convenience, or past positive experiences. Breaking established habits or changing consumer preferences may require significant effort or stimuli that disrupt habitual behaviour.

## 2.2.4 ECONOMIC DIMENSIONS OF CONSUMER PREFERENCE

Economically, consumer preference is shaped by factors related to income, prices, and market dynamics:

- **Income and budget constraints:** The level of disposable income available to consumers significantly impacts their purchasing decisions and preferences. Higher-income individuals may have greater flexibility to prioritize quality or prestige over price, while lower-income consumers may be more price-sensitive and prioritize affordability.
- **Price sensitivity:** Price plays a crucial role in shaping consumer preferences, as consumers evaluate the trade-offs between price and perceived value or utility. Elasticity of demand measures how sensitive consumers are to changes in price; products with more elastic demand are more sensitive to price changes, affecting consumer preferences and purchase decisions accordingly.
- **Substitute and complementary goods:** Preferences for specific goods can also be influenced by the availability and pricing of substitute and complementary goods. Substitute goods are alternatives that can replace each other (e.g., different brands of cola), while complementary goods are consumed together (e.g., coffee and sugar). Changes in the prices or availability of these related goods can impact consumer preferences and choices.

## 2.2.5 SOCIAL AND CULTURAL DIMENSIONS OF CONSUMER PREFERENCE

Consumer preferences are not formed in isolation but are profoundly influenced by social and cultural factors:

- **Social influences:** Consumer behaviour is often shaped by social norms, peer influences, and reference groups. Social approval and conformity can lead individuals to adopt preferences or behaviours that align with those of their social circles or desired social identity. For example, fashion trends and product endorsements by celebrities or influencers can significantly impact consumer preferences.

- **Cultural values and traditions:** Cultural factors play a crucial role in shaping consumer preferences, as they reflect broader societal values, beliefs, and traditions. Preferences for certain foods, clothing styles, or entertainment choices can be deeply rooted in cultural heritage and norms. Marketers must navigate cultural sensitivities and preferences when targeting diverse consumer segments across different cultural backgrounds.
- **Ethical and environmental considerations:** Increasingly, consumer preferences are influenced by ethical considerations, such as sustainability, fair trade practices, and corporate social responsibility. Consumers may favour products and brands that align with their ethical values and support causes they care about, influencing purchasing decisions and brand loyalty.

## 2.2.6 MARKETING AND CONSUMER PREFERENCE

Marketing strategies play a pivotal role in shaping and influencing consumer preferences:

- **Brand positioning and differentiation:** Effective brand positioning helps differentiate products or services in the minds of consumers, highlighting unique attributes or benefits that resonate with target audiences. Brand equity, built through consistent branding efforts and positive consumer experiences, can strengthen consumer preferences and loyalty over time.
- **Advertising and promotion:** Advertising campaigns leverage psychological principles and emotional appeals to influence consumer perceptions and preferences. Effective advertising communicates product benefits, addresses consumer needs or desires, and reinforces brand positioning in competitive markets.
- **Product innovation and consumer feedback:** Understanding consumer preferences is essential for product development and innovation. Gathering consumer feedback through surveys, focus groups, and market research helps identify emerging trends, consumer preferences, and unmet needs that can guide product improvements or new product launches.

### 2.2.7 CHARACTERISTICS OF CONSUMER PREFERENCE

- **Subjectivity:** Consumer preferences are subjective and vary from person to person based on individual tastes, needs, and experiences. Preferences are shaped by personal factors such as upbringing, culture, and lifestyle choices.
- **Dynamic nature:** Consumer preferences are not static; they evolve over time due to changes in trends, technology, personal circumstances, and life stages. What was preferred yesterday may not be preferred tomorrow.
- **Hierarchy of preferences:** Consumers prioritize their preferences, often ranking them based on importance or relevance. Certain preferences may be essential, while others are secondary or less critical in influencing purchasing decisions.
- **Context dependence:** preferences are influenced by the context in which decisions are made. Factors such as location, time, social setting, and available options can impact consumer preferences.
- **Trade-offs and compromises:** Consumers often face trade-offs and compromises when making decisions. They weigh the benefits and drawbacks of different options, considering factors such as price, quality, convenience, and brand reputation.
- **Influenced by marketing:** Marketing efforts, including advertising, branding, and promotions, play a significant role in shaping consumer preferences. Effective awareness, generate interest, and influence perceptions about products or brands.
- **Emotional and psychological influences:** Emotions, Attitudes, and psychological factors such as social proof and cognitive biases influence consumer preferences. Emotional appeals, brand loyalty, and perceived status can influence consumer choices.
- **Varied across product categories:** Preferences vary across different product categories and industries. What consumers prioritize in one category, such as technology, may differ from what they prioritize in another, such as food or clothing.
- **Cultural influences:** Cultural norms, values, and traditions influence consumer preferences. Cultural factors shape perceptions of beauty, taste, and social norms, impacting preferences for certain products or services.

- **Social influences:** Social networks, peer groups, and societal trends influence consumer preferences. People often seek validation and conformity within their social circles, leading to shared preferences and behaviours.
- **Brand loyalty:** Consumer preferences can be influenced by brand loyalty. Positive experiences with a brand can create strong emotional connections and repeat purchases, influencing future preferences.
- **Product experience:** personal experiences with products or services shape consumer preferences. Positive experiences can lead to brand loyalty, while negative experiences can drive consumers away and influence preferences for alternatives.
- **Perceived value:** Consumer preferences are influenced by perceived value, which includes factors such as quality, price, and utility. Consumers assess whether a product or service meets their needs and offers value for money.
- **Aspirational preferences:** Consumers may have aspirational preferences for products or brands associated with status, luxury, or lifestyle aspirations. Aspirational branding can influence consumer choices and desires.
- **Environmental concerns:** Growing environmental awareness influences consumer preferences for eco-friendly, sustainable, and ethically sourced products. Consumers may prefer brands that align with their values and contribute to environmental sustainability.
- **Health and wellness:** Consumer preferences for health and wellness products have grown due to increasing awareness of healthy lifestyles and wellbeing. Preferences may include organic foods, natural ingredients, and fitness-related products and services.
- **Convenience and accessibility:** Consumers prefer products and services that are convenient and accessible. Factors such as location, ease of purchase, delivery options, and user-friendly interfaces influence preferences.
- **Customization and personalization:** Consumers value customization and personalization options that cater to their unique preferences and needs. Brands that offer personalized experiences, such as customizable products or tailored recommendations, can appeal to consumer preferences.
- **Reviews and recommendations:** Consumer preferences are influenced by reviews, recommendations, and social proof. Positive reviews and



endorsements from trusted sources can build credibility and influence consumer choices.

- **Tech-savvy preferences:** With advancements in technology, consumer preferences are influenced by innovation, digital experiences, and connectivity. Preferences may include tech gadgets, smart devices, and digital services that enhance convenience and connectivity.

## **2.2.8 DEFINITIONS OF CONSUMER PREFERENCE**

Consumer preferences is the study of varying consumer choices that govern buying decisions in a market. They are the factors that influence the choices that consumers make when buying products and services. Consumers are driven by a desire to maximize their satisfaction with every purchase.

Paul Anthony Samuelson introduced the Theory of Revealed Preference in 1938. It states that consumer preferences can be revealed by the choices they make in different scenarios and conditions. For example, if a consumer chooses to buy a certain product over another, it can be concluded that the consumer prefers the first product.

Consumer preference in microeconomics is the study of rational consumer behaviour. It is important to note that this theory operates under certain assumptions, and it describes why people buy what they buy.

**Economic Definition:** From an economic standpoint, consumer preference is defined as "the subjective tastes and preferences of individuals or households that determine their choices in the marketplace, based on the perceived utility or satisfaction derived from consuming goods or services"

**Marketing Definition:** In marketing terms, consumer preference is described as "the set of attitudes and inclinations towards a product or service, which influences consumer choice and purchasing behaviour in competitive markets"

**Psychological Definition:** Psychologically, consumer preference can be understood as "the individual's predisposition or liking for certain products or brands, shaped by emotional, cognitive, and social factors that impact decision-making processes"

Behavioural Definition: Behaviourally, consumer preference refers to "the repeated selection of specific products or brands over time, reflecting consumer habits, satisfaction levels, and loyalty towards preferred choices"

### 2.2.9 TYPES OF CONSUMER PREFERENCES

- **Qualitative:** It focuses on the features and characteristics of a product or service, such as design, brand reputation, durability, and usability, defining the core qualities of the product.
- **Quantitative:** Such preferences are based on the tangible and quantifiable attributes of a product. For example, the size, shape, and quantity of a product are considered important.
- **Conditional:** It refers to preferences that change based on certain conditions. If the conditions a consumer has defined are not met, they would mostly opt for an alternative. For example, a consumer buying cleaning supplies may set a condition that they would buy a particular company's products only if it offered a discount or sold a bundle (a set of related items sold together).
- **Unconditional:** This refers to preferences that do not depend on any parameter or condition. It means a consumer will be willing to spend money on such products, irrespective of their price, size, shape, colour, timely availability, features, functions, etc.
- **Taste-based preferences:** These preferences are driven by individual tastes and subjective liking for specific attributes of products or services. For example, preferences for certain flavours, textures, or styles in food, clothing, or entertainment.
- **Quality preferences:** Consumers often prioritize products or services perceived to offer superior quality in terms of durability, reliability, performance, or craftsmanship. Quality preferences can influence purchasing decisions in sectors such as electronics, automotive, and luxury goods.
- **Price preferences:** Price sensitivity varies among consumers, influencing preferences towards products that offer the best value-for-money proposition. Some consumers may prioritize affordability and seek lower-

priced alternatives, while others may equate higher prices with better quality or status.

- **Brand preferences:** Brand loyalty and recognition can shape consumer preferences, as some individuals develop strong affiliations with specific brands based on trust, reputation, perceived status, or past positive experiences. Brand preferences often play a significant role in consumer decisions in sectors like fashion, technology, and personal care.
- **Environmental and ethical preferences:** Increasingly, consumers are making choices based on environmental sustainability, ethical considerations, and corporate social responsibility practices. Preferences for eco-friendly products, fair trade goods, and socially responsible brands reflect consumers' values and commitment to ethical consumption.
- **Convenience preferences:** Consumers may prioritize convenience and ease of use when selecting products or services. Preferences for products that offer time-saving features, hassle-free shopping experiences, or convenient delivery options are prevalent in sectors such as retail, food delivery, and digital services.
- **Cultural and social preferences:** Cultural norms, traditions, and social influences shape consumer preferences in diverse ways. Preferences for specific cuisines, clothing styles, entertainment choices, or holiday traditions are often rooted in cultural heritage and social identities.
- **Experience preferences:** Preferences may be influenced by past experiences and familiarity with certain products or services. Consumers often develop preferences based on positive or negative experiences, influencing their future purchasing decisions and brand loyalty.
- **Health and wellness preferences:** Growing awareness of health and wellness influences consumer preferences towards products and services perceived to promote well-being. Preferences for organic foods, fitness products, wellness services, and sustainable lifestyles reflect consumer priorities in health-conscious markets.

## **2.2.10 CONSUMER BEHAVIOUR THEORIES**

### **Theory of Planned Behaviour (TPB)**

- The theory of Planned Behaviour, developed by Ajzen (1991). Posits that an individual's intention to engage in a behaviour, in this case purchasing a particular milk brand) is influenced by three factors: attitude towards the behaviour, subjective norms, and perceived behavioural control.
- Attitudes reflect the positive or negative evaluations of buying PDDP milk versus other brands. Subjective norms involve the perceived social pressure to choose one brand over another, influenced by family, friends, and societal trends
- Perceived behavioural control refers to the ease or difficulty of purchasing a specific brand, which might be influenced by availability, price, or convenience. This theory helps to identify and measure the different psychological factors that drive consumer preferences and purchasing decisions.

### **Maslow's Hierarchy of Needs**

- Maslow's Hierarchy of Needs theory suggests that consumer's choices are influenced by the needs to satisfy various levels of needs, from basic physiological needs to higher-level psychological needs such as esteem and self-actualization.
- In the context of milk consumption, consumers might prioritize basic needs like health and nutrition when choosing milk. They might perceive PDDP milk as more nutritious or safer, thereby fulfilling their physiological needs. At higher levels, brand choices might be influenced by esteem associated with buying local or ethical products, reflecting on social responsibility or personal values.

### **Brand Equity Theory**

- Brand Equity Theory, as proposed by Aaker (1991), emphasizes the importance of brand assets like brand loyalty, brand awareness, perceived

quality, and brand associations in influencing consumer preferences. For PDDP milk, the brand equity could be analysed based on these components.

- High brand loyalty might stem from trust in local products, awareness might be influenced by marketing efforts, perceived quality could be linked to product characteristics like freshness or organic certification, and brand associations might include notions of supporting local farmers or sustainable practices.
- This theory helps to understand how the equity of PDDP milk compares to other brands in the eyes of consumers and how it influences their purchase decisions.

### **2.2.11 CONSUMER PREFERENCE FORMULATION MODELS**

#### **Multi-Attribute Model**

The Multi-Attribute Model suggests that consumer's attitudes towards products are based on their beliefs about the product attributes and the importance they assign to these attributes. In this study, key attributes of milk such as taste, price, nutritional value, brand reputation, and packaging will be evaluated.

Consumer's preferences for PDDP milk versus other milk brands will depend on how they rate these attributes and the relative importance of each.

This model will help to break down and quantify the specific attributes that drive consumer preferences, providing detailed insights into why consumers might prefer one brand over the other.

### **2.2.12 SOCIO-CULTURAL ECONOMIC FACTORS**

#### **Social Identity Theory**

Social Identity Theory suggests that consumers derive part of their identity from the social groups they belong to. Choosing PDDP milk could be influenced by the desire to align with a social identity that values local production, sustainability, or health consciousness. This theory helps to explain how social influences and group memberships impact consumer preferences and brand loyalty.

### **2.2.13 ECONOMIC THEORIES OF CONSUMER CHOICE**

Economic theories, such as the Rational Choice Theory, assume that consumers make purchasing decisions to maximize their utility given budget constraints. The study will consider how price sensitivity and income levels affect preferences for PDDP milk versus other brands.

Additionally, concepts like price elasticity of demand will be relevant in understanding how changes in price might affect consumer choices between competing brands. The theoretical framework for this comparative study on consumer preference towards PDDP milk and other milk brands integrates multiple theories and models from psychology, marketing, and economics.

By leveraging the Theory of Planned Behaviour, Maslow's Hierarchy of Needs, Brand Equity Theory, the Multi-Attribute Model, the Consumer Decision-Making Process Model, Social Identity Theory, and Economic Theories of Consumer Choice, this framework provides a comprehensive basis for investigating the complex factors influencing consumer preferences.

It helps to structure the research, guiding the formulation of hypotheses, the design of surveys, and the interpretation of results, ensuring that the study is grounded in well-established theoretical perspectives that enhance its validity and relevance.

### **2.2.14 PERCEIVED VALUE THEORY**

Perceived Value Theory suggests that consumers assess the value of a product based on their perceptions of its benefits relative to its cost. Exploring consumers' perceptions of the value offered by PDDP milk compared to other milk brands in terms of factors such as taste, nutritional content, price, and health benefits can help understand their preference.

### **2.2.15 ADVANTAGES OF CONSUMER PREFERENCE**

- **Increased sales:** Products or services that align with consumer preferences are more likely to experience higher demand and increased sales volume. Consumers are more willing to purchase items that cater to their specific needs and preferences.

- **Brand loyalty:** When consumers consistently choose a particular brand or product due to their preference, it fosters brand loyalty. Loyal customers are more likely to repeat purchases, recommend the brand to others, and remain committed to the brand over time.
- **Competitive advantage:** Understanding and catering to consumer preferences can provide businesses with a competitive advantage in the marketplace. By offering products or services that meet or exceed consumer expectations, companies can differentiate themselves from competitors and attract more customers.
- **Higher profit margins:** Products or services that are preferred by consumers often command higher prices and profit margins. Consumers are willing to pay a premium for items that they perceive as superior in quality, value, or alignment with their preferences.
- **Reduced marketing costs:** Targeting products or services to specific consumer preferences can streamline marketing efforts and reduce costs. Businesses can focus their marketing efforts on reaching the most receptive audience, resulting in more efficient use of resources.
- **Improved customer satisfaction:** Meeting consumer preferences leads to higher levels of customer satisfaction. When consumers find products or services that align with their needs and desires, they are more likely to be satisfied with their purchases and overall experience with the brand.
- **Innovative opportunities:** Consumer preferences provide valuable insights that can inform product development and innovation. By understanding what consumers want and need, businesses can create new products or improve existing ones to better meet consumer demands.
- **Enhanced brand reputation:** Consistently delivering products or services that are preferred by consumers contributes to a positive brand reputation. Brands that prioritize consumer preferences are perceived as customer-centric, trustworthy, and responsive to consumer needs.
- **Word-of-Mouth marketing:** Satisfied customers who prefer a particular product or brand are more likely to share their positive experiences with others through word-of-mouth recommendations. This organic form of marketing can help increase brand awareness and attract new customers.

- **Adaptability to market changes:** Businesses that are attuned to consumer preferences are better equipped to adapt to changing market dynamics and trends. By staying responsive to shifting consumer needs and preferences, companies can maintain relevance and competitiveness in the market.

## 2.2.16 DISADVANTAGES OF CONSUMER PREFERENCE

- **Market saturation:** Over-reliance on consumer preference can lead to market saturation, where numerous competitors offer similar products or services tailored to the same preferences. This can result in intense competition, price wars, and diminished profitability for businesses.
- **Limited innovation:** Focusing solely on meeting existing consumer preferences may stifle innovation within the industry. Businesses may become reluctant to invest in research and development for new products or services that deviate from established preferences, hindering long-term growth and competitiveness.
- **Niche market neglect:** Consumer preference may not always align with the needs or preferences of niche market segments. Businesses that prioritize mass-market preferences may overlook niche markets with unique needs, missing out on potential revenue opportunities and customer loyalty.
- **Vulnerability to shifting trends:** Consumer preferences can be influenced by changing trends, fads, or cultural shifts. Businesses that heavily rely on current consumer preferences risk being caught off guard by shifts in market demand, leading to sudden declines in sales and profitability.
- **Difficulty in differentiation:** In industries where products or services are highly commoditized and consumer preferences are similar across competitors, it can be challenging for businesses to differentiate themselves solely based on consumer preference. This can lead to price competition and erode brand loyalty.
- **Dependency on external factors:** Consumer preferences are influenced by various external factors such as economic conditions, social trends, and technological advancements. Businesses that solely rely on consumer



preference may face vulnerability to fluctuations in these external factors, impacting their sales and profitability.

- **Short-term focus:** Prioritizing immediate consumer preferences over long-term strategic goals may result in a short-term focus for businesses. This can lead to decisions that prioritize short-term gains at the expense of long-term sustainability and growth.
- **Negative externalities:** Consumer preferences may not always align with broader societal or environmental concerns. Businesses that cater exclusively to consumer preferences without considering the broader impact on society or the environment may contribute to negative externalities such as environmental degradation or social inequality.
- **Loss of brand identity:** Overemphasis on meeting consumer preferences may lead to a loss of brand identity or differentiation for businesses. Brands that constantly adapt to shifting consumer preferences may struggle to maintain a clear and consistent brand identity, resulting in confusion among consumers.
- **Risk of overextension:** Businesses that continuously chase consumer preferences may risk overextending their product or service offerings beyond their core competencies. This can dilute brand equity and result in decreased quality or customer satisfaction.

### 2.2.17 MEANING OF BRAND NAME

A brand name is like a special tag that a company or product wears. It's the name that tells people what something is all about. Just like how your name is important to you, a brand name is important to a business. It's what makes them different from others and helps them get noticed. When you hear a brand name, it's like meeting an old friend – you know what to expect.

A good brand name can make you feel happy and confident about choosing it. It's like finding your favourite snack in a store full of options – you know it's going to be good. That's why companies spend a lot of time and money picking the perfect name. They want it to be catchy, easy to remember, and make people feel good. A brand name is like a stamp of approval that tells you it's worth your time and money.

Brand names aren't just important for companies – they're important for us, too. They help us make choices and feel confident in our decisions. When we see a brand name we like, we feel a connection to it. It's like seeing a friend across the room – you feel happy and excited. That's why companies work hard to make their brand names stand out. They want to be the friend you're excited to see.

Think about some of your favourite brands. What do you like about them? Is it their products, their colours, or their logos? Maybe it's all of those things combined. A brand name is like the cherry on top of a sundae – it's what makes everything come together. Without it, the sundae would still be good, but it wouldn't be as special.

Brand names can also tell us a lot about a company. For example, a brand name like "Eco-Friendly Cleaning" tells us that the company cares about the environment. On the other hand, a brand name like "Luxury Cars" tells us that the company sells high-end cars. Whatever the name, it gives us a clue about what to expect from the company.

Brand name is more than just a word – it's a promise. It tells us what to expect from a company or product and helps us make choices. Whether it's a familiar friend or an exciting new discovery, a brand name is something we can always rely on. So next time you see a brand name you like, remember how important it is. After all, it's what makes the world go round. Brand is a promise which is unique, relevant and deliverable to customers and different from competition.

### **2.2.18 DEFINITIONS OF BRAND**

- AMA (American Marketing Association) defines a brand is a name, term, sign, symbol, design or a combination of them, intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competition.
- According to Philip Kotler, a brand is a name, term, sign, symbol or a combination of these, identifies the maker or seller of product.
- David Aaker "A brand is a distinguishing name and/or symbol (such as a logo, trademark, or package design) intended to identify the goods or services of either one seller or a group of sellers, and to differentiate those goods or services from those of competitors."

- Keller and Lehmann "A brand is a set of mental associations, held by the consumer, which add to the perceived value or satisfaction that he or she obtains from a product or service."
- Seth Godin "A brand is the set of expectations, memories, stories, and relationships that, taken together, account for a consumer's decision to choose one product or service over another."
- Marty Neumeier "A brand is not what you say it is. It's what they say it is."

### 2.2.19 CHARACTERISTICS OF BRAND NAME

- **Memorability:** A good brand name is easy to remember, ensuring that consumers can recall it when needed. Memorable names are often catchy, distinctive, and resonate with the target audience.
- **Distinctiveness:** A strong brand name stands out from competitors, helping the brand to be easily recognizable in a crowded marketplace. It avoids generic or common terms and instead offers something unique and memorable.
- **Relevance:** The name should be relevant to the product, service, or company it represents. It communicates something meaningful about the brand's identity, values, or offerings, making it easier for consumers to understand and connect with.
- **Clarity:** Clarity ensures that the brand name is easily understood by the target audience. It avoids confusion or ambiguity, clearly conveying the brand's purpose, function, or value proposition.
- **Pronounceability:** A brand name should be easy to pronounce to facilitate word-of-mouth marketing and verbal communication. Complex or difficult-to-pronounce names may deter consumers from discussing the brand with others.
- **Versatility:** The brand name should be adaptable across various platforms, languages, and cultures. It should be suitable for use in different marketing materials, online platforms, and global markets without losing its meaning or impact.
- **Emotional appeal:** A brand name can evoke emotions and create positive associations with the brand. It should resonate with the target audience's values, aspirations, and desires, fostering a deeper connection and loyalty.

- **Longevity:** A brand name that withstands the test of time remains relevant and effective even as markets evolve. It avoids trends or fads that may quickly become outdated, ensuring lasting recognition and relevance.
- **Legal availability:** Before finalizing a brand name, it's essential to ensure that it's legally available for use and trademark registration. This prevents potential legal disputes and protects the brand's intellectual property rights.
- **Scalability:** A scalable brand name can accommodate future growth and diversification of the brand's offerings or market presence. It allows the brand to expand into new product categories or geographic regions without limitations.
- **Positive imagery:** The brand name should evoke positive imagery or associations in the minds of consumers. It should conjure up desirable qualities, experiences, or outcomes related to the brand, enhancing its appeal and memorability.
- **Ease of spelling:** Simplifying the spelling of a brand name makes it easier for consumers to find and remember. Complex or unconventional spellings may lead to misspellings and hinder online searchability or brand recognition.
- **Cultural sensitivity:** In a globalized world, it's crucial for brand names to be culturally sensitive and respectful across different regions and demographics. Avoiding offensive or inappropriate connotations ensures broad acceptance and inclusivity.
- **Visual appeal:** A visually appealing brand name translates well into logos, signage, packaging, and other visual elements of branding. It should have aesthetic qualities that enhance its attractiveness and memorability.
- **Association potential:** A brand name with association potential allows for storytelling and brand narrative-building. It provides a foundation for creating meaningful brand experiences and connections with consumers.
- **Strategic alignment:** The brand name should align with the overall strategic goals and positioning of the brand. It should support the brand's mission, vision, and core values, reinforcing its identity and differentiation.
- **Market research:** Conducting market research and testing can help validate the effectiveness of a brand name. Gathering feedback from the target

audience can identify potential strengths, weaknesses, and opportunities for improvement.

- **Domain availability:** In today's digital landscape, securing a matching domain name is essential for online presence and branding consistency. Ensuring domain availability helps maintain brand cohesion and accessibility.
- **Scarcity:** Creating a sense of scarcity or exclusivity with the brand name can enhance its perceived value and desirability. Limited availability or unique features contribute to a brand's allure and appeal.
- **Adaptability to brand extensions:** A versatile brand name allows for future brand extensions or product line expansions. It accommodates diversification efforts while maintaining coherence and continuity across the brand portfolio.

#### **2.2.20 ADVANTAGES OF BRAND NAME**

- **Recognition:** A strong brand name enhances recognition among consumers, making it easier for them to identify and remember the brand amidst a sea of competitors. This recognition builds familiarity and trust over time.
- **Differentiation:** A distinctive brand name sets the brand apart from competitors, helping it to stand out in the market. It creates a unique identity and positioning that distinguishes the brand from others offering similar products or services.
- **Credibility:** A well-established brand name conveys credibility and reliability to consumers. It signals that the brand has a proven track record of delivering quality products or services, fostering trust and confidence among customers.
- **Customer loyalty:** A strong brand name cultivates customer loyalty by building emotional connections and positive associations. Customers who identify with the brand name are more likely to remain loyal and continue purchasing from the brand.
- **Premium pricing:** Brands with strong reputations can command premium pricing for their products or services. Consumers are often willing to pay more for brands they trust and perceive as offering higher quality or value.

- **Market expansion:** A recognizable brand name facilitates market expansion into new regions or product categories. Consumers are more likely to try new offerings from a familiar brand, reducing the barriers to entry in new markets.
- **Marketing efficiency:** Brand names streamline marketing efforts by providing a cohesive identity and message. A strong brand name simplifies communication with consumers and enables more effective marketing campaigns.
- **Word-of-Mouth promotion:** Consumers are more likely to recommend brands with memorable names to their friends and family. A positive word-of-mouth reputation generated by a strong brand name can lead to organic growth and increased sales.
- **Brand extensions:** A successful brand name can be leveraged to introduce new products or services under the same brand umbrella. Brand extensions benefit from the existing brand equity and trust associated with the original brand name.
- **Resilience to competition:** Brands with strong names are better equipped to withstand competitive pressures and market fluctuations. Consumers are less likely to switch to competitors when they have a strong emotional connection to a brand name.
- **Attracting talent:** A reputable brand name can attract top talent to the company. Job seekers are often drawn to companies with strong brand names due to their positive reputation and perceived stability.
- **Partnership opportunities:** Established brand names can attract strategic partnerships with other companies or organizations. These partnerships can create opportunities for co-branding initiatives and mutually beneficial collaborations.
- **Risk mitigation:** A well-known brand name provides a level of security and stability for investors and stakeholders. It reduces the perceived risk associated with investing in or partnering with the company.
- **Brand equity:** Over time, a brand name accumulates brand equity, which represents the value and goodwill associated with the brand. Brand equity can

be leveraged for various purposes, such as attracting investors or securing financing.

- **Consumer preferences:** Consumers often develop preferences for brands they trust and feel connected to. A strong brand name influences consumer preferences and purchase decisions, driving demand for the brand's products or services.
- **Brand loyalty programs:** Brands with loyal customer bases can implement loyalty programs to reward repeat purchases and encourage customer retention. A strong brand name enhances the effectiveness of these loyalty programs by fostering deeper connections with customers.
- **Brand advocacy:** Loyal customers who identify with a brand name are more likely to become brand advocates, promoting the brand to others through positive reviews, testimonials, and social media engagement.
- **International expansion:** Recognizable brand names facilitate expansion into international markets by overcoming language and cultural barriers. A strong brand name transcends geographical boundaries, making it easier to gain traction in new regions.
- **Product line extensions:** Brands can introduce new products or product variations under the same brand name, leveraging existing brand equity and consumer trust to drive sales and adoption of the new offerings.
- **Long-term growth:** Ultimately, a strong brand name contributes to the long-term growth and success of the company. It serves as a valuable asset that appreciates over time, driving sustainable revenue and profitability for the business.

### **2.2.21 DISADVANTAGES OF BRAND NAME**

- **Costly brand development:** Creating and establishing a strong brand name requires significant investment in research, marketing, and branding efforts, which can be financially burdensome for startups and small businesses.
- **Brand dilution:** Over time, if a brand name is extended to too many products or services, it can lead to brand dilution, where the original brand identity and

value proposition become less clear or diluted, potentially diminishing consumer perception and loyalty.

- **Negative publicity impact:** A tarnished brand name due to negative publicity, scandals, or product failures can severely damage brand reputation and consumer trust, leading to decreased sales and loss of market share.
- **Legal challenges:** Securing trademark rights for a brand name can be challenging, especially if the name is similar to existing trademarks or if competitors challenge the brand's use of the name, resulting in costly legal battles.
- **Dependency on brand equity:** Companies heavily reliant on their brand name may struggle to innovate or adapt to changing market trends, as consumers' loyalty may be primarily tied to the brand name rather than the product or service itself.
- **Market saturation:** In saturated markets with numerous competing brands, it can be challenging for new brands to gain traction and recognition, making it harder to establish a strong brand name and differentiate from competitors.
- **Brand parity:** When multiple brands within the same industry offer similar products or services with comparable brand names, it can lead to brand parity, making it difficult for consumers to distinguish between brands and reducing brand loyalty.
- **Cultural insensitivity:** A brand name that inadvertently offends or alienates certain cultural or demographic groups can damage brand reputation and hinder market acceptance, especially in diverse or global markets.
- **Limited flexibility:** Once a brand name is established, changing or rebranding it can be costly and disruptive, requiring extensive repositioning efforts and potentially alienating existing customers who are loyal to the original brand name.
- **Negative associations:** A brand name that unintentionally evokes negative associations or connotations in consumers' minds can hinder brand perception and limit market acceptance, affecting sales and profitability.
- **Overreliance on brand name:** Companies may become overly reliant on their brand name as a primary driver of sales and marketing, neglecting other



aspects of the business such as product quality, customer service, and innovation.

- **Brand counterfeiting:** Well-known brand names are often targeted by counterfeiters seeking to exploit brand equity and deceive consumers with fake or inferior products, resulting in revenue loss and damage to brand reputation.
- **Limited geographical reach:** Brand names that are difficult to pronounce or culturally insensitive may face challenges in international markets, limiting the brand's geographical expansion and growth opportunities.
- **Inflexibility in niche markets:** A brand name that is too broad or generic may limit the brand's ability to effectively target niche markets or specific consumer segments with specialized needs or preferences.
- **Dependence on founders or spokespersons:** Brands heavily associated with their founders or spokespersons may face challenges if these individuals become embroiled in controversy or disassociate from the brand, potentially damaging brand perception and trust.

## **CHAPTER III**

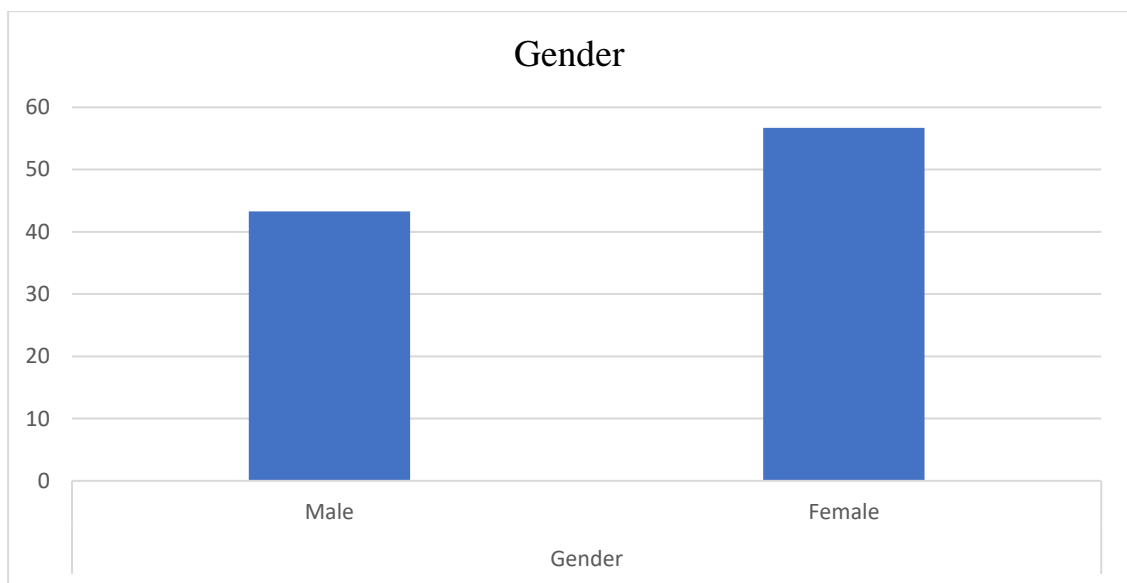
### **DATA ANALYSIS & INTERPRETATION OF DATA**

### 3.1 PERCENTAGE ANALYSIS

**TABLE 3.1 – GENDER**

Scale	% of responses
Male	43.3
Female	56.7
Total	100

**FIGURE 3.1 - GENDER**



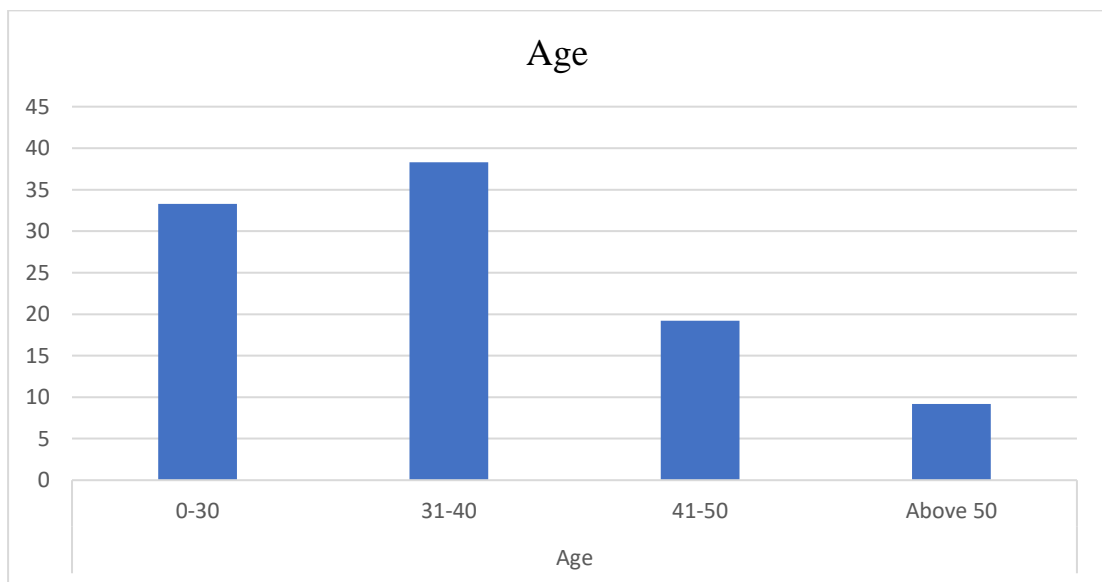
#### **INTERPRETATION**

Figure 3.1 shows that 56.7% of the respondents are female and the rest 43.3% are male. It indicates that comparing to male respondents' female respondents are the major users of PDDP milk.

**TABLE 3.2 – AGE**

Scale	% of responses
0-30	33.3
31-40	38.3
41-50	19.2
Above 50	9.2
Total	100

**FIGURE 3.2 – AGE**



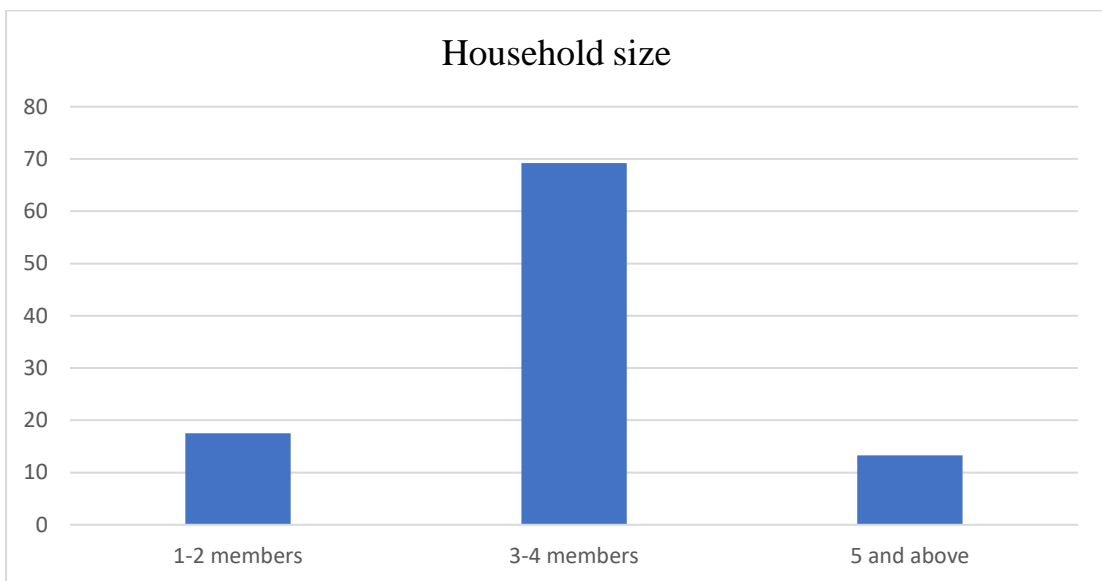
**INTERPRETATION**

Figure 3.2 shows that 33.3% of the respondents are belongs to the age group of 0-30. 38.3% of the respondents are belongs to the age group 31-40. 19.2% of the respondents are belong to the age group 41-50. And the rest 9.2 % of the respondents are belong to the age group of above 50. It indicates that the age group of 31-40 are prefer PDDP milk.

**TABLE 3.3 – HOUSEHOLD SIZE**

<b>Scale</b>	<b>% of responses</b>
1-2 members	17.5
3-4 members	69.2
5 and above	13.3
Total	100

**FIGURE 3.3 – HOUSEHOLD SIZE**



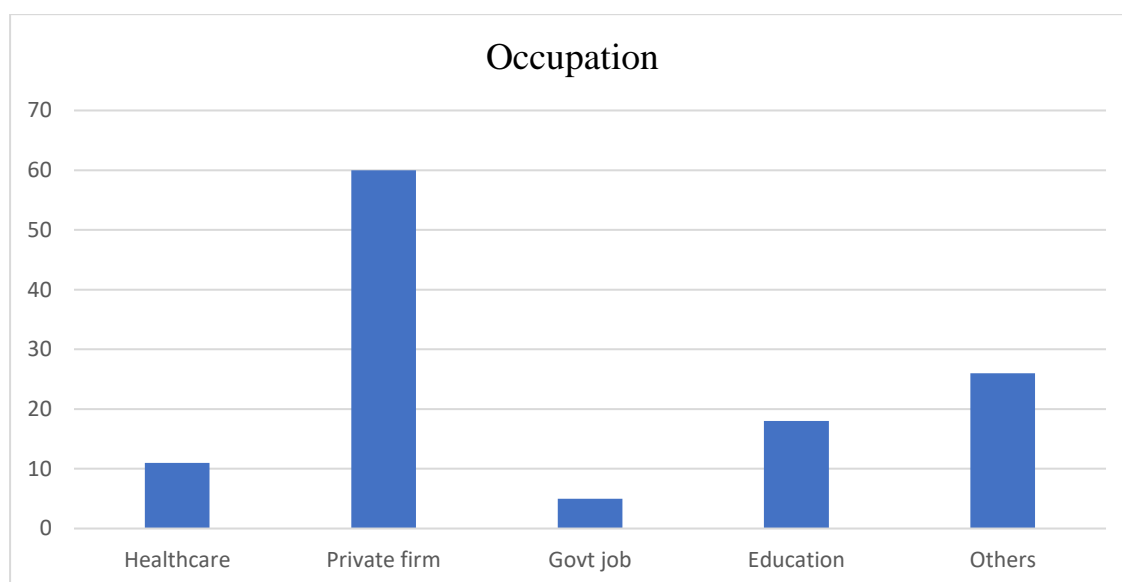
**INTERPRETATION**

Figure 3.3 shows that 17.5% of the respondents have 1-2 members at home. 69.2% of the respondents have at least 3 or 4 members at home. 13.3% of the respondents have 5 and above members at home. The figure indicates that the houses consists of at least 3 or 4 members are the major consumers of PDDP milk.

**TABLE 3.4 – OCCUPATION**

<b>Occupation</b>	<b>Number of respondents</b>
Healthcare	11
Private firm	60
Govt job	5
Education	18
Others	26
Total	120

**FIGURE 3.4 – OCCUPATION**



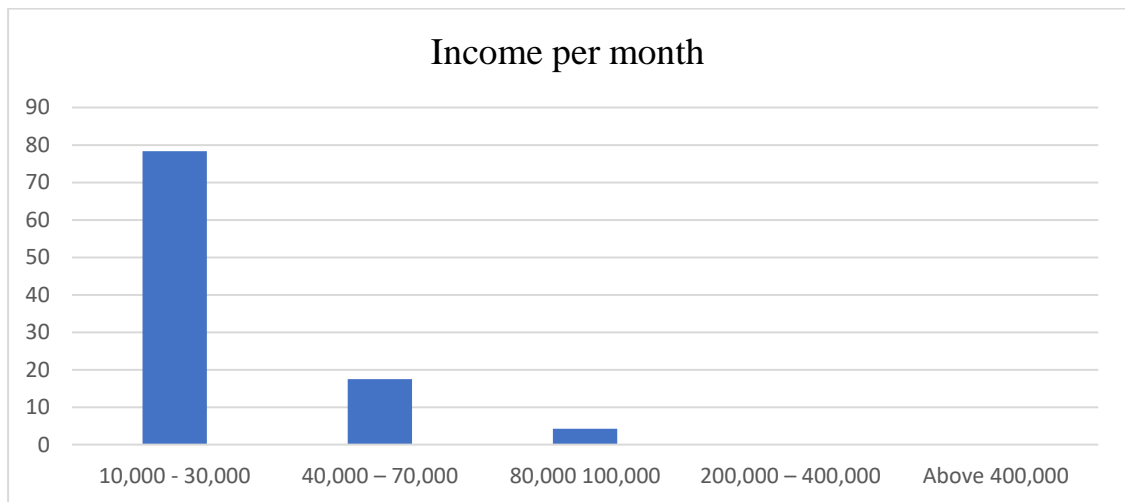
**INTERPRETATION**

Figure 3.4 shows that most of the respondents who are using PDDP milk is teachers, nurses, business people, accountants, daily wage workers, private firm employees and salesman. Others are showing less preference towards PDDP milk compared to other milk brands.

**TABLE 3.5 – INCOME PER MONTH**

Scale	% of responses
10,000 - 30,000	78.3
40,000 – 70,000	17.5
80,000 100,000	4.2
200,000 – 400,000	0
Above 400,000	0
Total	100

**FIGURE 3.5 – INCOME PER MONTH**



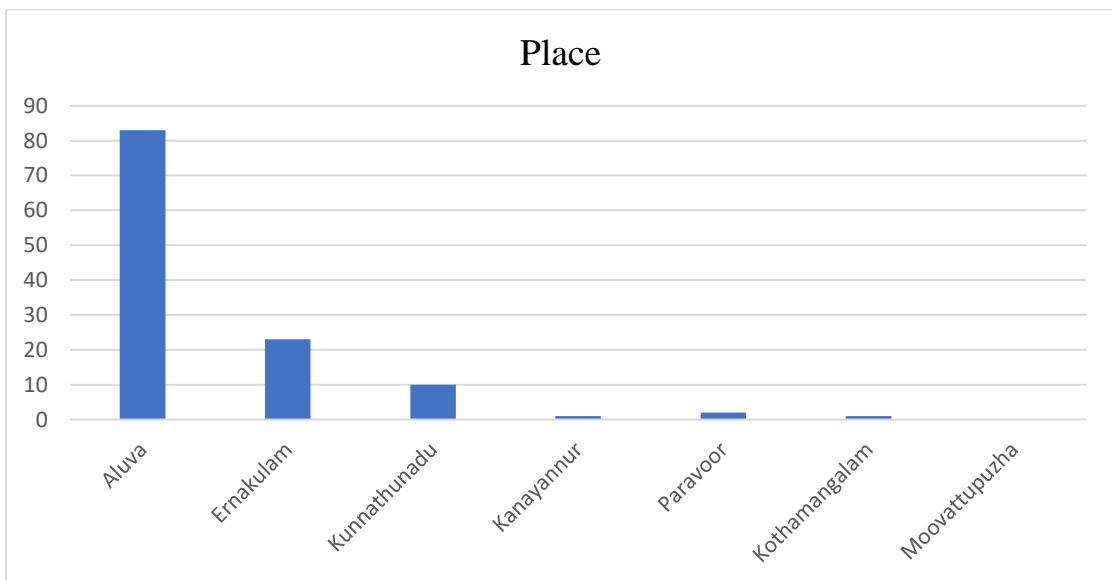
**INTERPRETATION**

Figure 3.5 shows that 78.3% of the respondents have monthly income in between 10,000-30,000. 17.5% of the respondents have monthly income in between 40,000-70,000. Rest of the respondents have monthly income in between 80,000-400,000. The figure indicates that people who have monthly income in between 10,000-30,000 mostly prefer PDDP milk.

**TABLE 3.6 – PLACE**

<b>Taluks</b>	<b>No. of respondents</b>
Aluva	83
Ernakulam	23
Kunnathunadu	10
Kanayannur	1
Paravoor	2
Kothamangalam	1
Moovattupuzha	0

**FIGURE 3.6 – PLACE**



**INTERPRETATION**

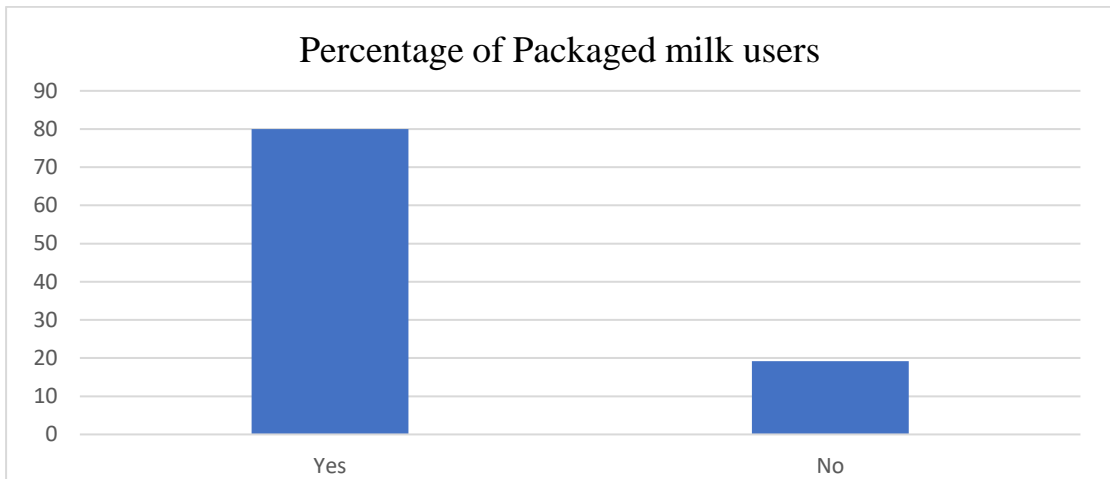
Figure 3.6 shows that places like Angamaly, Aluva, Karukutty, and Ernakulam are showing higher sales for PDDP milk. The rest of the places have less or moderate sales compared to these places. Except Karukutty, the other three places are known towns in Ernakulam district where the sales is high.



**TABLE 3.7 – PERCENTAGE OF PACKAGED MILK USERS**

Scale	% of response
Yes	80.0
No	19.2
	100

**FIGURE 3.7 – PERCENTAGE OF PACKAGED MILK USERS**



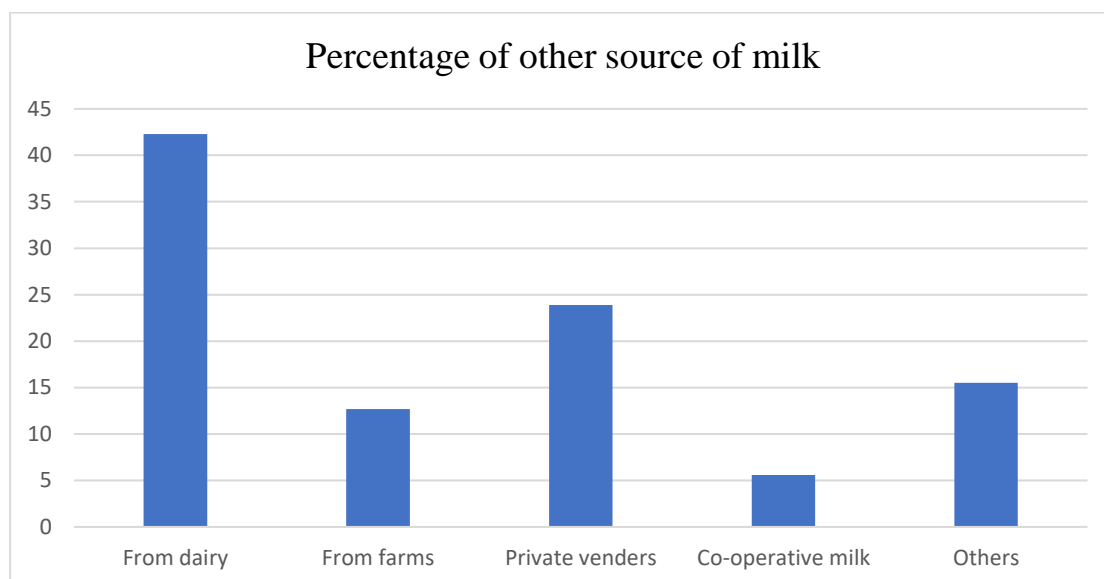
**INTERPRETATION**

Figure 3.7 shows that 80.8% of the respondents are the users of packaged milk. The rest 19.2% of the respondents are non-users of packaged milk. The figure indicates that majority of the people are the users of packaged milk.

**TABLE 3. 8 – PERCENTAGE OF OTHER SOURCES OF MILK**

<b>Scale</b>	<b>&amp; of responses</b>
From dairy	42.3
From farms	12.7
Private venders	23.9
Co-operative milk	5.6
Others	15.5
Total	100

**FIGURE 3.8 – PERCENTAGE OF OTHER SOURCES OF MILK**



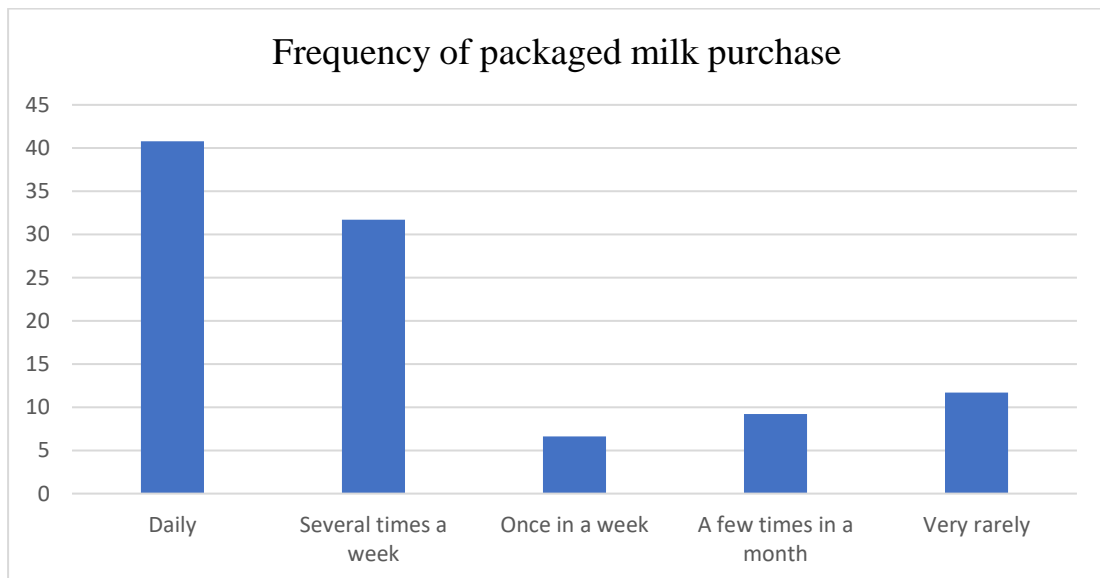
**INTERPRETATION**

Figure 3.8 shows the non-users of packaged milk. It shows that 42.3% of the consumers are use milk from the dairy, 12.7% of the respondents are use milk from the farms, 23.9% of the respondents are the users of milk bought from the private venders, 15.5% of the respondents are the users of milk bought from other sources, and a very few percentages of the respondents are preferring the milk from co-operatives.

**TABLE 3.9 – FREQUENCY OF PACKAGED MILK PURCHASE**

Scale	% of responses
Daily	40.8
Several times a week	31.7
Once in a week	6.6
A few times in a month	9.2
Very rarely	11.7
Total	100

**FIGURE 3.9 – FREQUENCY OF PACKAGED MILK PURCHASE**



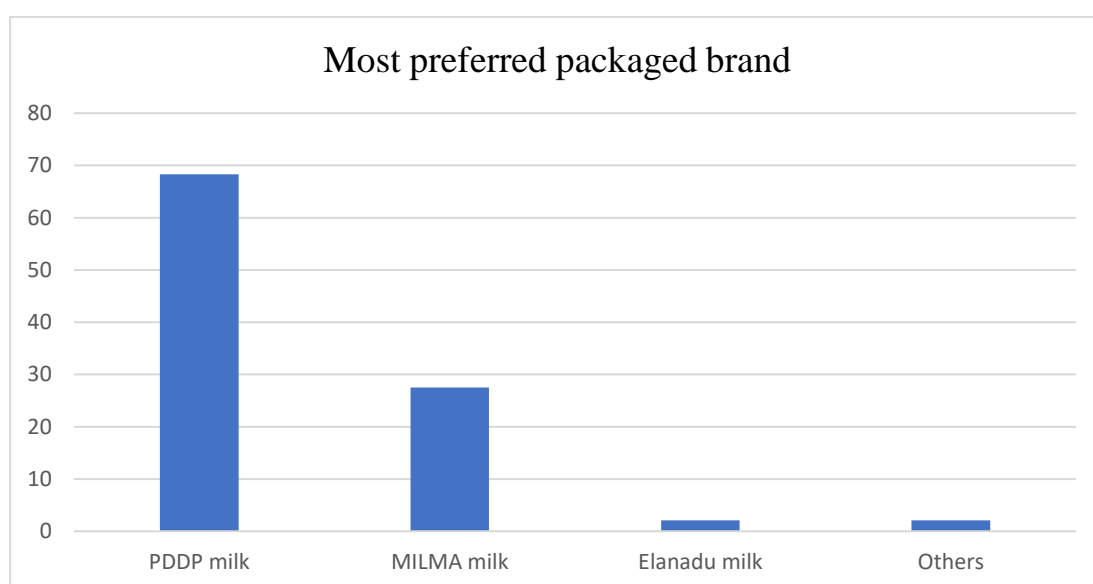
**INTERPRETATION**

Figure 3.9 shows that 40.8% of the respondents are the regular customers of PDDP milk. 31.7% of the respondents purchase PDDP milk several times in a week. 9.2% of the respondents purchase PDDP milk a few times in a month. 11.7% of the respondents purchase PDDP milk very rarely. And the rest of the consumers purchase PDDP milk once in a week. The figure indicates that majority of the consumers shows a daily purchase habit for PDDP milk.

**TABLE 3.10 – MOST PREFERRED PACKAGED MILK**

Scale	% of responses
PDDP milk	68.3
MILMA milk	27.5
Elanadu milk	2.1
Others	2.1
Total	100

**FIGURE 3.10 – MOST PREFERRED PACKAGED MILK BRAND**



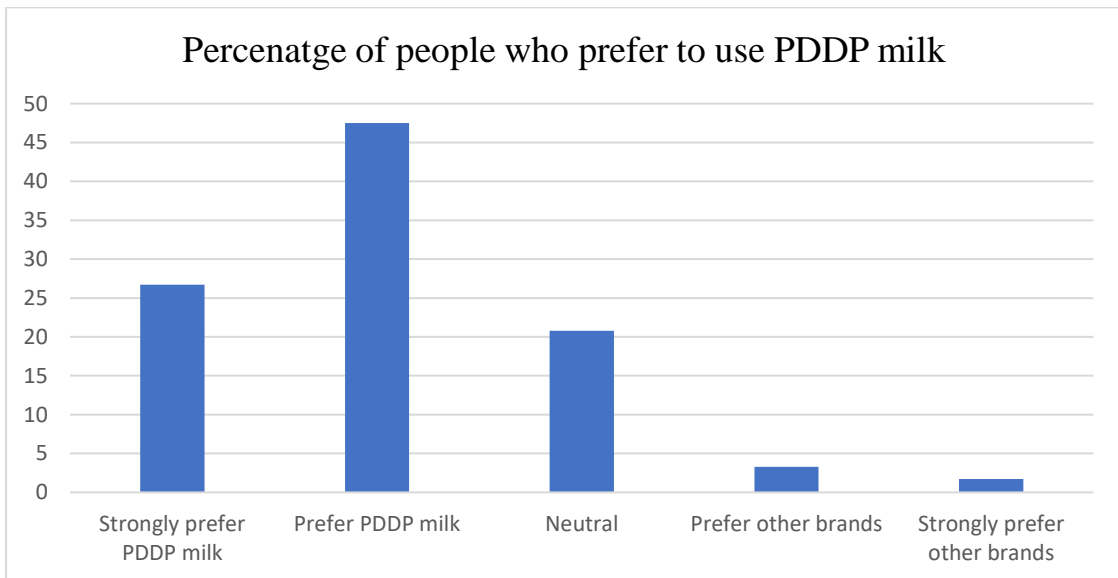
**INTERPRETATION**

Figure 3.10 shows that 68.3% of the respondents prefer PDDP milk. 27.5% of the respondents prefer MILMA milk. The rest of milk brands are having only less preferences. The figure clearly indicates the strong preference of PDDP milk among the consumers compared to other milk brands such as MILMA milk, Elanadu milk, and Milky mist milk.

**TABLE 3.11 – THE PERCENTAGE OF PEOPLE WHO PREFER TO USE PDDP MILK**

Scale	% of responses
Strongly prefer PDDP milk	26.7
Prefer PDDP milk	47.5
Neutral	20.8
Prefer other brands	3.3
Strongly prefer other brands	1.7
Total	100

**FIGURE 3.11 – THE PERCENTAGE OF PEOPLE WHO PREFER TO USE PDDP MILK**



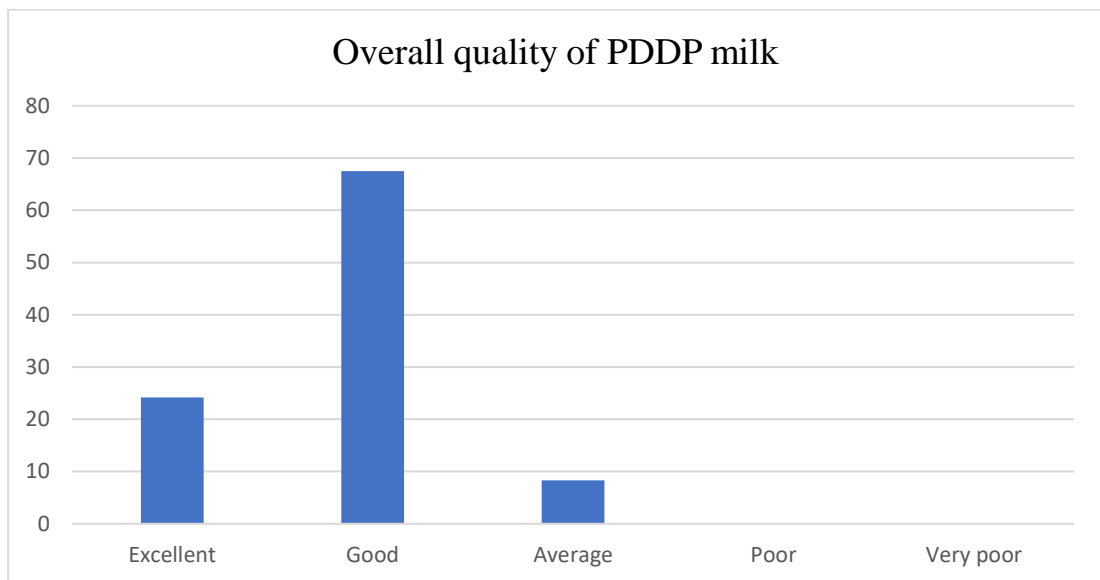
**INTERPRETATION**

Figure 3.11 shows that 26.7% of the respondents prefer PDDP milk. 47.5% of the respondents prefer PDDP milk. 20.8% of the respondents prefer neither PDDP milk nor other milk. The rest of the respondents are preferring other brands. This figure clearly indicates that majority of the respondents strongly prefer PDDP milk compared to other milk brands.

**TABLE 3.12 – OVERALL QUALITY OF PDDP MILK**

Scale	% of responses
Excellent	24.2
Good	67.5
Average	8.3
Poor	0
Very poor	0
Total	100

**FIGURE 3.12 – OVERALL QUALITY OF PDDP MILK**



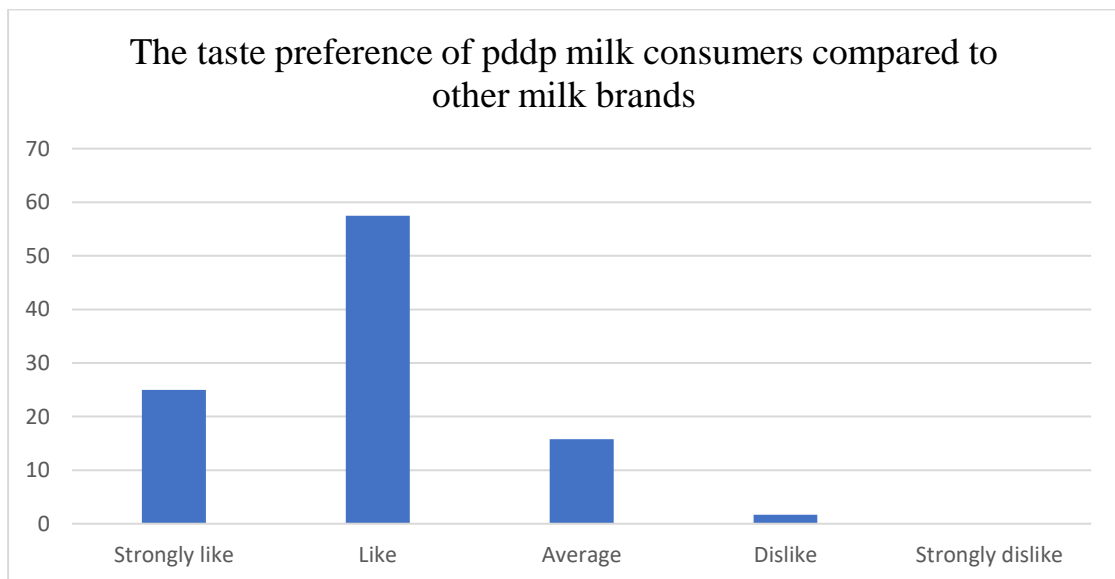
**INTERPRETATION**

Figure 3.12 shows that 24.2% of the respondents are saying that PDDP milk is excellent in its quality. 67.5% of the respondents perceived that PDDP milk is a good quality milk. 8.3% of the respondents are saying that PDDP milk is an average quality milk. It indicates that PDDP milk is a good quality milk compared to other milk brands.

**TABLE 3.13 - THE TASTE PREFERENCE OF PDDP MILK CONSUMERS  
COMPARED TO OTHER MILK BRANDS**

Scale	% of responses
Strongly like	25
Like	57.5
Average	15.8
Dislike	1.7
Strongly dislike	0
Total	100

**FIGURE 3.13 – THE TASTE PREFERENCE OF PDDP MILK CONSUMERS  
COMPARED TO OTHER MILK BRANDS**



**INTERPRETATION**

Figure 3.13 shows that 25% of the respondents prefer PDDP milk for its taste. Approximately 57.5% of the respondents prefer PDDP milk for its taste. 15.5% of the respondents are saying that they are having an average preference to the taste of PDDP milk with compared to other brands. A few of the respondents dislike the brand. From the figure it is clear that majority of the consumers prefer PDDP milk compared to other milk brands for its natural taste.

**TABLE 3.14 – THE FACTORS BASED ON CONSUMERS INFLUENCE ON  
DECISION TO PURCHASE PACKAGED MILK**

<b>Factors</b>	<b>Scale</b>	<b>% of responses</b>
Price is a very important consideration when I'm purchasing packaged milk.	Extremely influential	55
	Very influential	40
	Moderately influential	18
	Slightly influential	5
	No influence at all	7
Quality is an essential factor for me.	Extremely influential	57
	Very influential	48
	Moderately influential	14
	Slightly influential	3
	No influence at all	1
Brand reputation plays a significant role in my choice of packaged milk.	Extremely influential	38
	Very influential	62
	Moderately influential	17
	Slightly influential	1
	No influence at all	5
Packaging of the milk significantly influence my purchase decision.	Extremely influential	55
	Very influential	42
	Moderately influential	24
	Slightly influential	4
	No influence at all	4
Easy access to packaged milk is crucial for me when making purchase.	Extremely influential	59
	Very influential	45
	Moderately influential	22
	Slightly influential	7
	No influence at all	0



**FIGURE 3.14 – THE FACTORS BASED ON CONSUMERS INFLUENCE ON DECISION TO PURCHASE PACKAGED MILK**



### INTERPRETATION

Figure 3.14 shows that less than 20% of the price is moderately influential and very few percentages of price of packaged milk is not at all influencing the purchase decision of consumers, and a very few percentages of price of packaged milk have influence over the purchase decision of consumers.

On the other hand, quality has an extreme influence (more than 55%) on the purchase decision of the consumers. It shows that more than 40% of the quality of packaged milk influence the purchase decision of consumers, and the rest of the part showing less or no influence at all on the purchase decision of the consumers.

In case of brand reputation, it clearly shows that brand reputation of packaged milk is very much influential (more than 60%) in the purchase decision of packaged milk, whereas brand reputation has approximately 38% of influence on the purchase decision of consumers. Also, it has less than 20% of influence on the purchase decision of consumers, and more or less 5% of brand reputation is not at all influencing the purchase decision of consumers.

In the case of packaging, approximately above 55% of the packaging of milk is extremely influencing the purchase decision of consumers. More than 40% of packaging has very much influence over the purchase behaviour of consumers. Less

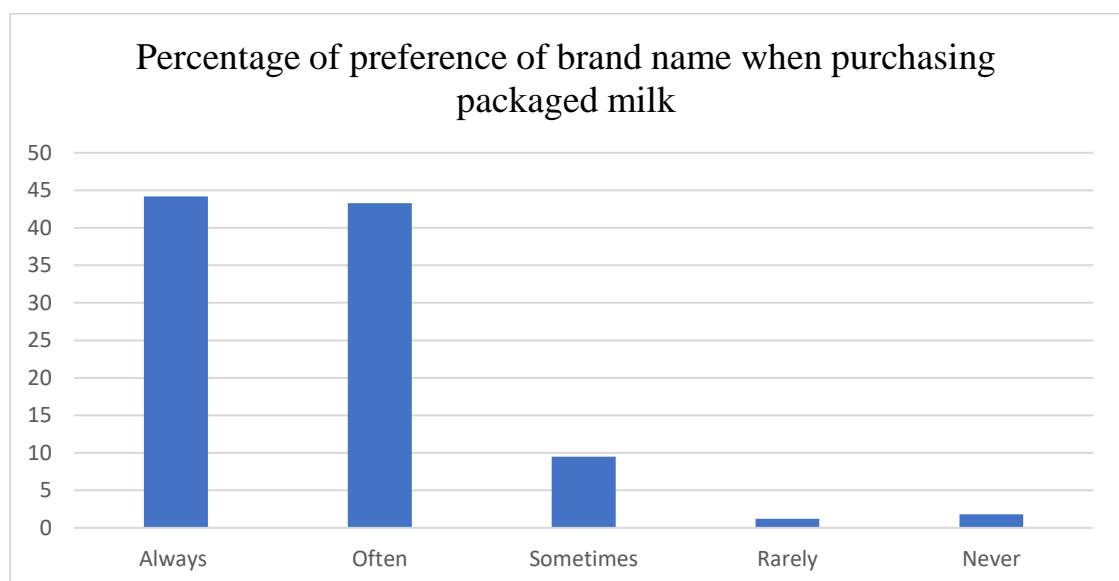
than 20% of packaging have influence over the purchase decision of consumers. The rest have no influence over the purchase decision of the consumers.

On the other hand, availability have more influence in the purchase decision of packaged milk of consumers. It shows that availability is an extremely influencing factor in the purchase decision of packaged milk. Nearly 45% of the availability of the packaged milk have a very influence on the purchase decision of consumer for packaged milk. Less than 20% of availability have a moderately influence over the purchase decision of packaged milk. The figure indicates that all the factors have very much influence on the purchase decision of packaged milk.

**TABLE 3.15 – PERCENTAGE OF PREFERENCE OF BRAND NAME WHEN PURCHASING MILK**

Scale	% of responses
Always	44.2
Often	43.3
Sometimes	9.5
Rarely	1.2
Never	1.8
Total	100

**FIGURE 3.15 – PERCENTAGE OF PREFERENCE OF BRAND NAME WHEN PURCHASING PACKAGED MILK**



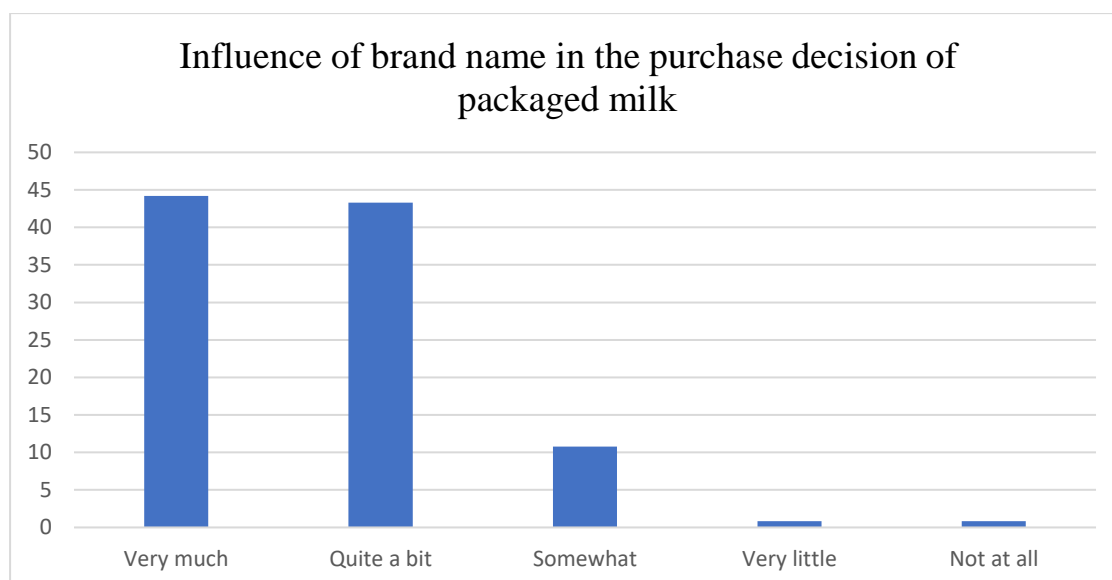
## INTERPRETATION

Figure 3.15 shows that 44.2% of the respondents are always consider the brand name when purchasing particular packaged milk. 43.3% of the respondents are often consider the brand name when purchasing a particular packaged milk. Only few of the respondents consider the brand name in the purchase of packaged milk. From the figure it is very clear that majority of the consumers consider the brand name when purchasing a particular brand of milk.

**TABLE 3.16 – INFLUENCE OF BRAND NAME IN THE PURCHASE DECISION OF PACKAGED MILK**

Scale	% of responses
Very much	44.2
Quite a bit	43.3
Somewhat	10.8
Very little	0.85
Not at all	0.85
Total	100

**FIGURE 3.16 – INFLUENCE OF BRAND NAME IN THE PURCHASE DECISION OF PACKAGED MILK**



## INTERPRETATION

Figure 3.16 shows that 44.2% of the respondents are very much influenced by the brand name when purchasing a particular milk. 43.3% of the respondents are little

influenced by the brand name, and 10.8% of the respondents are somewhat influenced by the brand name when purchasing a particular milk. And the rest of the respondents have very little influence on brand name when purchase a particular milk. The figure indicates that brand name of packaged milk have very much influence on the purchase decision of consumers.

**TABLE 3.17 – COMPARISON OF MILK BRANDS**

<b>Milk brand</b>	<b>Milk variety</b>	<b>Quantity</b>	<b>Place of availability</b>	<b>Price in Rs.</b>
PDDP	Pasteurised toned milk	450ml	Aluva, Ernakulam, Moovattupuzha, Kanayannur, Kunnathunadu, Paravoor, and Kothamangalam	28
	Tea special	500ml		25
	Premium	500ml		30
	Standardised milk	450ml		29
	People's milk	500ml		26
	Pasteurised & Homogenised milk	500ml		26
MILMA	Pride	500ml	Aluva, Moovattupuzah, Kanayannur, Kunnathunadu, Paravoor, and Kothamangalam	26
	Smart	500ml		25
	Rich	500ml		29
	Plus	200ml		30
	Prime	525ml		28
	HT milk	500ml		26
	Toned milk	500ml		26
Elanadu	Cow milk	320ml	Aluva, Ernakulam, and Moovattupuzha	25
	Cow milk	400ml		28
	Standardised milk	475ml		29
	Standardised milk	950ml		30

## **INTERPRETATION**

Table 3.17 shows the various milk brands with their milk varieties along with quantity and price. From table is found that each of the milk brands have their own unique milk varieties. MILMA has its own milk variety such as Pride, Prime, Rich and Plus and HT milk. Like MILMA , PDDP also have its own unique brands such as People's milk, Tea special, Pasteurised milk, Standardised milk, and so on. In the case of Elanadu milk, they have Basically pasteurised cow milk and standardised milk.

If we compare these brands on the basis of the availability of the milk, it is found that PDDP milk and MILMA milk were available in most of the taluks in Ernakulam district. The places such as Aluva, Kunnathunadu, Ernakulam etc, shows high volume of consumers than the other places. On the other hand, Elanadu milk have only limited distribution in the above-mentioned areas.

By comparing these milk brands on the basis of price of milk, is can be seen that, PDDP and MILMA have the similar prices for their special and unique milk varieties such MILMA Pride, Prime, Rich, and Plus and PDDP's milk varieties such as Tea special, People's milk, Pasteurised milk and Standardised milk.

On the other hand, Elanadu milk have only few milk varieties such as Cow milk and Standardised milk. From the table. It is understood that, the major competitor of PDDP milk is MILMA milk based on the price and quantity of their packaged milk. Other thing is that the quantity may or may not change according to the location and price fluctuations in the market.

## **CHAPTER IV**

### **FINDINGS, RECOMMENDATIONS & SUMMARY**

## 4.1 FINDINGS

In recent years, the dairy industry has witnessed significant changes in consumer preferences, influenced by factors such as quality, price, brand reputation, and availability. This study, titled “ A comparative study on the consumer preference towards PDDP milk and other milk brands” aims to explore these evolving preferences, specifically comparing PDDP milk with its competitors.

By analysing consumer behaviour, purchasing patterns, and satisfaction levels, this research seeks to provide a comprehensive understanding of the factors that drive consumers choices in the dairy market. The findings will offer valuable insights for dairy producers, marketers to better meet consumer needs and enhance market competitiveness.

- Major users of PDDP milk are found to be the female respondents. The responses shows that the majority of the female respondents are the users of PDDP milk. The male respondents are also the users but not more than that of female respondents.
- In the case of age of consumers who prefer PDDP milk, it is found that consumers belong to 0-30 age group and 31-40 age group showing a very much preference towards PDDP milk.
- From the responses collected it is clear that the aged people is less prefer PDDP milk when compared to the young people who are belongs to the age group 0-30 and 31-40.
- The household size of PDDP milk consumers are mostly from 3 to 4 members. This indicates that even if only 2 members ae in a family, they also prefer PDDP milk than other packaged milk. If the family consists of more than 5 members also have preference towards PDDP milk.
- It is found that all the members in a family prefer PDDP milk than the other packaged milk brands irrespective of the number of members in the family.
- The occupation is one of the important factors in consideration of the purchase decision of packaged milk. In the study there are approximately 48 occupations ae found from various respondents. And it is found that most of the respondents are possess occupation such as staff nurse, teacher, and business.

- The other respondents are drivers, cleaners, lab technician, delivery agent, office assistant, receptionist, assistant librarian etc. All of the respondents are showing a preference towards PDDP milk. But it is less than that of the above-mentioned category of people.
- In the study, most of the respondents are having a monthly income between 10,000-30,000, and they prefer PDDP milk the most. The rest of the respondents are having a monthly income in between 30,000-40,000, 40,000-70,000. Only a few respondents are having a monthly income between 80,000-100,000.
- From the responses collected from the consumers, it is understood that the middle-income group of consumers are mostly prefer PDDP milk than other high-income group of consumers.
- The data collection results shows that as the income increases there is a negative trend in the purchase behaviour of the consumers for packaged milk. As the income increases, the consumers may switch from liquid milk to milk powder or related dairy products.
- From the data collected from the respondents it is clearly understood that most of the consumers are staying in towns or cities where PDDP milk is easily available.
- The results shows that Karukutty, Angamaly, Aluva, and Ernakulam are the place where PDDP milk is easily available for the consumers. The other places show less or moderate availability of PDDP milk when compared to other milk brands.
- Except Karukutty, the rest three are known town in Ernakulam district. Mostly the consumers purchase PDDP milk from the nearest supermarkets, local stores etc. So, the study indicates that for the above-mentioned places PDDP milk have got more sales than the other milk brands.
- From the study it is found that majority of the respondents are the consumers of packaged milk. The data collection results shows that a very huge population is using packaged milk, approximately 80.8% of the milk consumers. It indicates that major part of the sample size are the users of packaged milk.



- On the other hand, there are some non-users for packaged milk is found in the study. They purchase milk may be directly form the farms, dairy, private venders, or even from the co-operatives. This indicates that the non-users are of less in amount and may switch to purchase packaged milk in the coming future.
- The frequency of purchase of packaged milk among the consumes shows that there are consumers who daily purchase packaged milk is very much higher than the consumer's purchase habits.
- There are consumers who purchase packaged milk several times in a week, and once in a week. Also, there are consumers who never purchase packaged milk. They are belonging to the category of non-users of packaged milk.
- The study shows that majority of the respondents prefer PDDP milk and not less than that of the percentage of PDDP milk consumers, MILMA milk also have a good percentage of brand preference with other brands. This indicates that MILMA milk is the strongest competitor of PDDP milk.
- The other milk brands have got only less amount of preference. From the responses received from the consumers it is clear that PDDP milk will experience a high competition with MILMA milk.
- It is understood from the study that PDDP milk has got more than 50% of preference among the consumers of packaged milk. The consumers show strong preference to PDDP milk than other milk brands. It indicates that PDDP milk has got a very huge population as their consumers.
- The findings from the data collection shows that more or less 24.5% of the respondents are saying that the overall quality of PDDP milk is good. A very huge percentage of the respondents (67.5%) says that the quality of PDDP milk is excellent.
- A very few of the consumers says that the quality of PDDP milk is average. This indicates that majority of the consumers are satisfied with the quality of PDDP milk when compared to other milk brands.
- In case of taste preference of consumers for PDDP milk, it is found that the consumer strongly like or likes the taste of milk. A few of the respondents says that they have average preference on taste of PDDP milk when compared to

other packaged milk brands. This indicates that most of the milk consumers are satisfied or like the taste of PDDP milk.

- The most important factors influence the purchase decision of consumers are price of milk, quality of milk, brand reputation of milk, packaging of milk, and availability of milk.
- The study shows that each of the factors have its own importance in the purchase decision of consumers. For some consumers price is the most important factor. On the other hand, few of the consumers give importance for the quality of milk. The other consumers who give importance for the brand reputation. They are loyal consumers of PDDP milk. The other consumer give more importance for packaging and the rest of the consumers give importance for availability of milk. The factors influencing the purchase decision of consumer are always changing.
- The study shows that approximately more than 50% of the consumers are more conscious about the brand name when purchasing a particular packaged milk. Brand name is an important factor which influence the purchase decision of consumers.
- A well-reputed brand have its loyal customers everywhere. In this study it is found that majority of the respondents are very loyal to the milk brand they prefer. In the case of PDDP milk, from the study, it is understood that, there are a huge population is very loyal to PDDP milk.
- The brand name always a factor which influence the purchase decision of consumers. Here, PDDP milk has got huge number of loyal customers. The study shows that brand name of a particular packaged milk will have very much influence on the purchase decision of consumers. If the consumers are loyal to a particular milk brand, then they will not even think of any change from the brand.
- PDDP milk have a strong competition with the MILMA milk on the basis of their milk varieties, price of milk, and quantity of milk.
- On the basis of place of availability, quantity of milk, price of milk and the milk variety, the consumers are mostly preferring PDDP milk than other milk such as MILMA milk and Elanadu milk.

## 4.2 RECOMMENDATIONS

- Increase the milk varieties such as whole milk, skim milk, low fat milk or reduced fat milk, and UHT milk. Whole milk contains 3.25% milk fat by weight. It contains 150 calories in an 8-ounce glass of whole milk, with 8 grams of fat (12 percent of daily value). Skimmed milk also known as no fat milk, which is fat free milk. Reduced fat milk is labelled as 2 percent milk, which means the milk fat is 2 percent of the total weight of the milk. 8 -ounce of glass of milk contains 2 percent fat. Ultra-High Temperature or UHT milk is a type of milk goes through ultra-pasteurisation process. The regular pasteurisation kills bacteria in the milk.
- Introduce UDH packaging for milk. The milk is packed in aseptic containers basically to improve shelf life of the milk.
- Introduce Powdered milk or dairy whitener. Milk powder is obtained from the dehydration of milk and is usually in the form of powder or granules.
- Expand the product line.

## 4.3 SUMMARY

The study shows that female respondents are the major milk consumers than males. The consumers of age 31-40 are the major consumers of PDDP milk than other milk brands. Mostly they are belonging to salaried employees. The household size of the milk consumers consists of 3 or 4 members.

The responses collected from the sample size of 120 people shows that most of the respondents who are using PDDP milk are teachers, nurses, business people. Others are showing less preference towards PDDP milk compared to other milk brands. The monthly income of the consumers were in between 10,000 – 30,000, which means they are in the middle-income category.

The study shows that places like Angamaly, Aluva, Karukutty, and Ernakulam are showing higher sales for PDDP milk. The rest of the places have less or moderate sales compared to these places. Except Karukutty, the other three places are known towns in Ernakulam district where the sales is high.

The responses collected from the consumers shows that 80.8% of the respondents are the users of packaged milk. The rest 19.2% of the respondents are non-users

of packaged milk. The results indicates that majority of the people are the users of packaged milk.

On the other hand, there are some consumers who are the non-users of packaged milk. It shows that the non-users of packaged milk source milk from private venders, co-operative, various farms, etc. The study shows that majority of the milk consumers shows a daily purchase habit of PDDP milk than other milk brands. Most of the consumers strongly prefer PDDP milk compared to other milk brands such as MILMA and Elanadu milk.

Quality of the milk is very important to consumers who purchase packaged milk. From the study it is understood that majority of the consumers are very much conscious about the quality of milk they purchase and they are satisfied with the quality of PDDP milk. The taste preference of consumers shows that approximately 70% of the consumers are likes the taste of PDDP milk than other milk brands for its natural taste. The price of milk have a significant influence on the purchase decision of consumers. Approximately 60% price of milk brands influence the consumers in purchase decision.

Brand reputation is another important factor that influence consumers. Majority of the consumers are considering the brand reputation while purchasing the milk. Also packaging of milk is an extremely influencing factor for a milk consumer. Approximately 60% of packaging of milk influence the purchase decision of milk brands. Only a few percentages of the consumers are less considering the packaging of milk brands.

The availability of the milk is another important factor take into consideration when purchasing packaged milk. Approximately 60% of the consumers consider the availability of the milk brands. Most of the consumers consider the brand name of the milk when purchasing particular milk. Nearly 50% of the consumers consider brand name of the milk. Also, the brand name have a significant influence on the consumer's purchase decision of milk brands. All the consumers who consider brand name for the purchase of milk brand will be a loyalty consumer.

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## **APPENDIX**



## QUESTIONNAIRE

1. Gender:
  - Male
  - Female
2. Age:
  - 0-30
  - 31-40
  - 41-50
  - Above 50
3. Household size:
  - 1-2 members
  - 3-4 members
  - 5 and above
4. Occupation:
5. Income per month:
  - 10,000-30,000
  - 40,000-70,000
  - 80,000-100,000
  - 200,000-400,000
  - Above 400,000
6. Place:
7. Are you a user of packaged milk?
  - Yes
  - No
8. If no, what other milk you use?
  - From dairy
  - Farom farms
  - Private venders
  - Co-operative milk
  - Others

9. How often do you purchase packaged milk?
- Daily
  - Several times a week
  - Once in a week
  - A few times in a month
  - Very rarely
10. Which brand of packaged milk do you usually prefer?
- PDDP milk
  - MILMA milk
  - Elanadu milk
  - Milky mist milk
  - Others
11. Please indicate your preference for PDDP milk compared to other milk brands using the following scale:
- Strongly prefer PDDP milk
  - Prefer PDDP milk
  - Neutral
  - Prefer other brands
  - Strongly prefer other brands
12. How do you perceive the overall quality of PDDP milk?
- Excellent
  - Good
  - Average
  - Poor
  - Very poor
13. Please rate the taste of PDDP milk with other milk brands by using the following scale:
- Strongly like
  - Like
  - Neutral
  - Dislike
  - Strongly dislike

14. Please rate the following factors based on their influence on your decision to purchase packaged milk:

<b>Factors</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
Price is a very important consideration when I'm purchasing packaged milk.					
Quality is an essential factor for me.					
Brand reputation plays a significant role in my choice of packaged milk.					
Packaging of the milk significantly influence my purchase decision.					
Easy access to packaged milk is crucial for me when making a purchase.					

15. How often do you consider the brand name when purchasing packaged milk?

- Always
- Often
- Sometimes
- Rarely
- Never

16. How much does the brand name influence your decision to buy particular milk?

- Very much
- Quite a bit
- Sometimes
- Very little
- Not at all