CUSTOMER SATISFACTION FOR PLANT-BASED MILK

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Abstract: *Nowadays, an increasing number of individuals are opting to forgo dairy products for various reasons, whether motivated by medical conditions or a desire to abstain from animal-derived products. Consequently, plant-based alternatives to animal-derived dairy, such as plant-based milk, have emerged in the market. This paper explores the theme of customer satisfaction specifically in the context of plant-based milk, shedding light on the factors influencing consumer preferences and the overall experience with non-dairy alternatives.*

Key words*: plant-based milk, customer satisfaction, satisfaction for vegan products*

INTRODUCTION

Plant-based milk has appeared on the market as an alternative to cow's, goat's, sheep's, or other animal milks and is obtained from various plants [13]. The number of consumers has been increasing steadily in recent years, with people choosing plant-based products for various reasons, whether it be for medical reasons or the desire to adopt a vegan lifestyle.

Plant-based milk does not contain lactose and has a low quantity of fats and cholesterol; it is also a rich source of vitamins, minerals, and fiber. It is especially recommended for individuals with lactose intolerance. For individuals who may be lactose intolerant or have dairy allergies, plant-based milk offers a palatable solution without compromising nutritional value. Additionally, the diverse range of plant sources provides various nutrients, catering to different dietary needs. As consumers become increasingly health-conscious, the versatility and nutritional content of plant-based milk make it an attractive choice in the quest for a balanced and wholesome diet [15].

Currently, a wide range of such products is available on the market. Types of plant-based milk include soy milk, almond milk, coconut milk, rice milk, oat milk, and hemp milk [11,12]. Other options include walnut milk, cashew milk, flax or sesame milk, as well as quinoa milk. There are options without added sugar as well as versions with artificial sweeteners, which can also be used in the subsequent manufacture of products such as ice creams [6]. The growing popularity of plant-based milk can be attributed to a shift in consumer awareness toward ethical and environmental considerations. Many individuals are making conscious choices to reduce their ecological footprint, and opting for plant-based alternatives aligns with this sustainability trend. The production of plant-based milk generally requires less land, water, and resources compared to traditional animal farming, making it a more eco-friendly option [3]. As environmental concerns continue to gain prominence, the demand for plant-based alternatives is likely to persist and even expand [4,10].

An important factor in the decision to consume plant-based milk is its higher price compared to milk from animals. The main reason for the higher cost of plant-based milk is that plant-based products are more environmentally friendly and have a lower impact on greenhouse gas emissions [5]. At the same time, however, animal milk is still an important factor in agricultural production [1].

The market for plant-based milk is continuously evolving, with ongoing innovations and introductions of new varieties. Manufacturers are exploring novel plant sources and refining production processes to enhance taste and texture, closely mimicking the qualities of traditional dairy milk [2]. This dynamic landscape encourages experimentation and diversity in choices, allowing consumers to find plant-based alternatives that not only meet their dietary preferences but also satisfy their taste buds. As research and development in this field progress, it is likely that the plant-based milk market will continue to flourish, offering a compelling array of options to a broadening consumer base [8,15].

MATERIALS AND METHODS

We conducted a quantitative research study on the consumption of plant-based milk among the population. Employing a questionnaire-based survey as our primary methodology, we sought to gain insights into consumer preferences, assess the degree of satisfaction with plant-based milk, and understand patterns of usage in consumption. Previous works in related subjects have employed similar methods [7,9,10,14].

The purpose of this questionnaire was to observe consumer preferences, the level of satisfaction with plant-based milk, and usage behavior in consumption. The questionnaire was designed with the specific aim of gathering comprehensive data on individuals' preferences regarding plant-based milk. It delved into aspects such as flavor preferences, frequency of consumption, and the factors influencing the choice of plant-based milk over traditional dairy options.

RESEARCH RESULTS

To be able to observe the frequency of consumption and satisfaction experienced among consumers, we conducted a questionnaire that was distributed among students attending the University of Life Sciences „King Mihai I" from Timișoara. The sample size in our study was 50 students. The purpose of this questionnaire was to observe consumer preferences, the level of satisfaction with plant-based milk, and usage behavior in consumption.

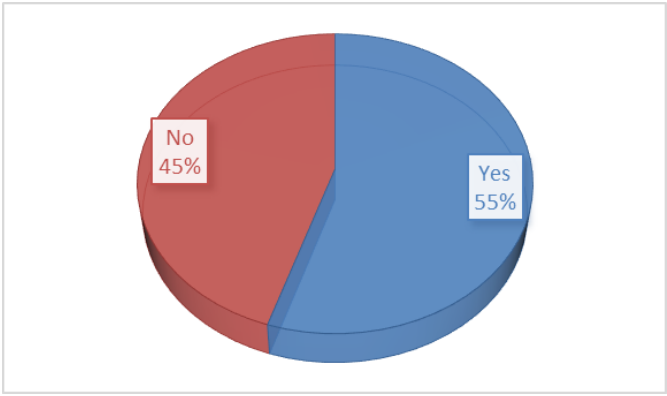

Figure 1. Previous consumption of plant-based milk

As we can observe from Figure 1, more than half of the questionnaire respondents have consumed plant-based milk so far, and these are the individuals who completed the rest of the questionnaire. 45% of people have not consumed plant-based milk up to the present moment.

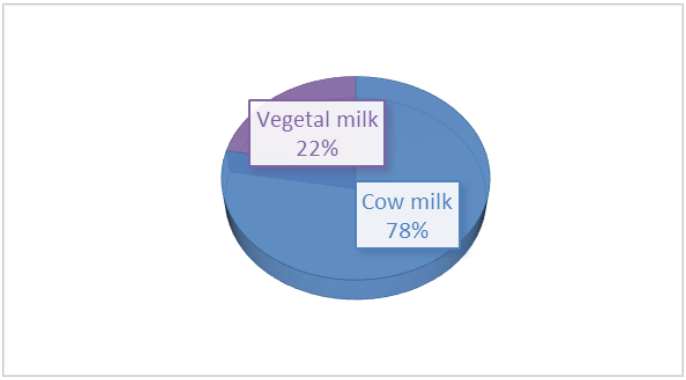

Figure 2. Preference for animal or plant-based milk

The vast majority lean towards the consumption of animal-derived products, with 78% of consumers generally choosing cow's milk. On the other hand, 22% prefer plant-based milk. Therefore, dairy consumers tend to favor animal-derived products over plant-based milk.

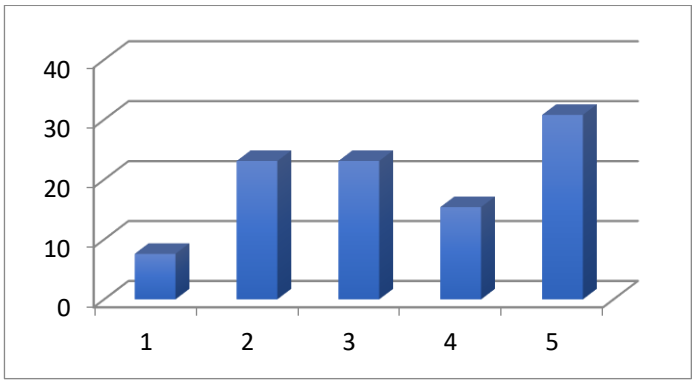

Figure 3. Satisfaction ranking after consumption of plant-based milk

Most of the respondents experienced a high level of satisfaction after consuming plant-based milk. On the other hand, 7.6% of responses were negative, indicating that some consumers did not experience any satisfaction regarding plant-based milk.

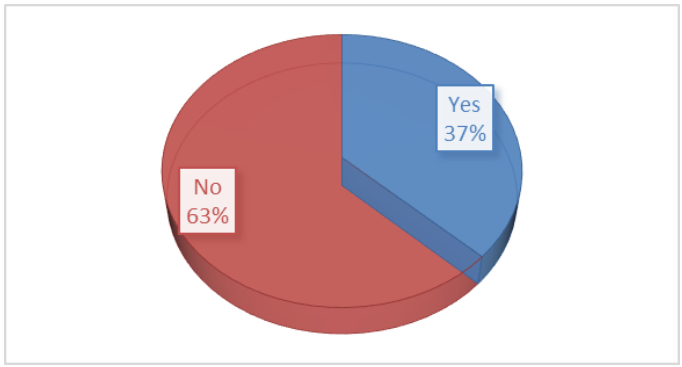

Figure 4. Preference for plant based milk based on taste and smell

Plant-based milk has different organoleptic characteristics compared to milk derived from animals. For the majority of consumers, the taste and smell of plant-based milk are not reasons to purchase this type of product. 37% of respondents choose plant-based milk because of its taste and aroma.

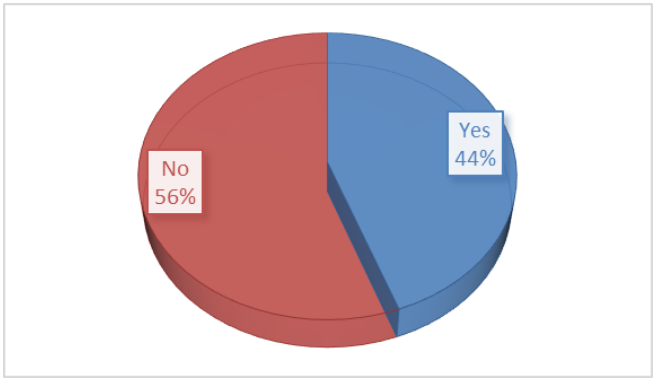

Figure 5. Price is a barrier in the consumption of plant-based milk

As mentioned earlier, plant-based milk has a much higher price compared to milk derived from animals, so 44% of individuals consider its price to be a barrier to consuming plant-based milk. However, the majority of respondents do not consider this to be a significant barrier.

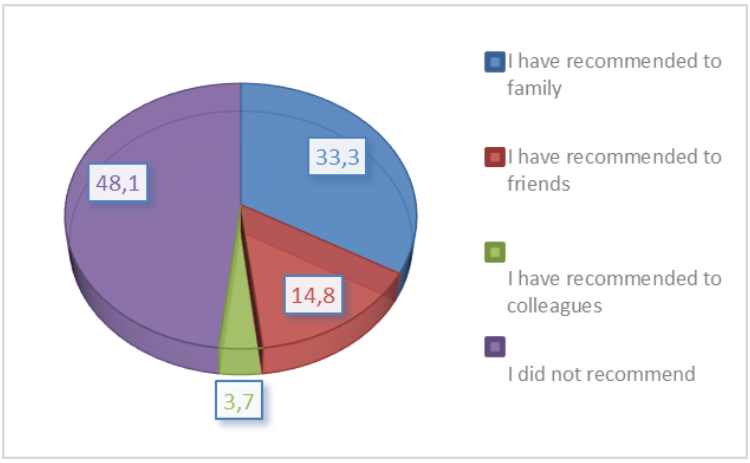

Figure 6. Recommendation of plant-based milk

In total, 52% of individuals have recommended plant-based milk to their acquaintances, family and colleagues, while 48% have not recommended the consumption of this product at all.

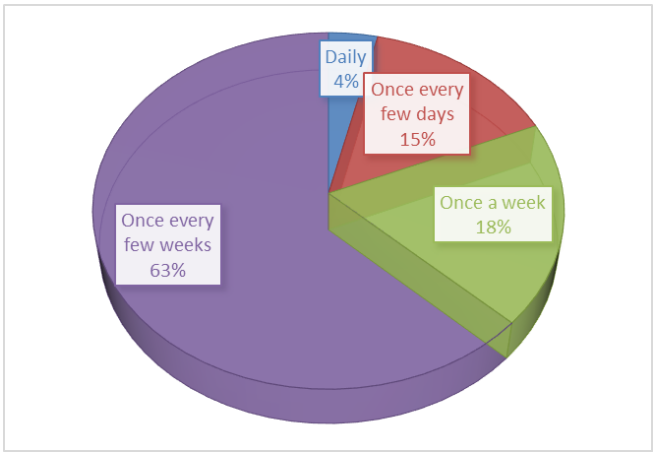

Figure 7. Frequency of consumption for plant-based milk

As evident from the data, 63% of individuals acquire plant-based milk once every few weeks, 15% consume it every few days, and an additional 18% opt for it once a week. Interestingly, only 4% of respondents incorporate this type of product into their daily routine. This diversity in consumption frequencies suggests varied preferences and usage patterns among the surveyed individuals

For the question regarding the factors influencing the decision to consume plant-based milk, we chose to allow free-form responses, letting each person express the factors that influenced their decision to consume plant-based milk. In a majority of cases, curiosity emerged as the determining factor for trying a plant-based product. Additionally, individuals with lactose intolerance opt for this alternative, given its absence of lactose. Some people also choose a vegan product as a substitute during fasting periods.

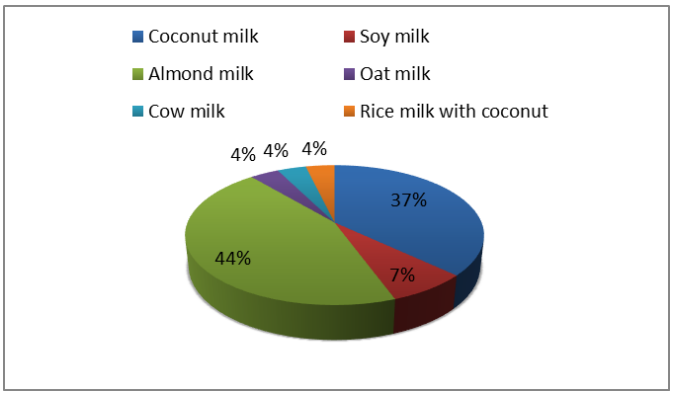

Figure 9. Prefered plant-based milk type

There is a wide range of such products available on the market. Among the consumer favorites are almond milk, followed by coconut milk and soy milk.

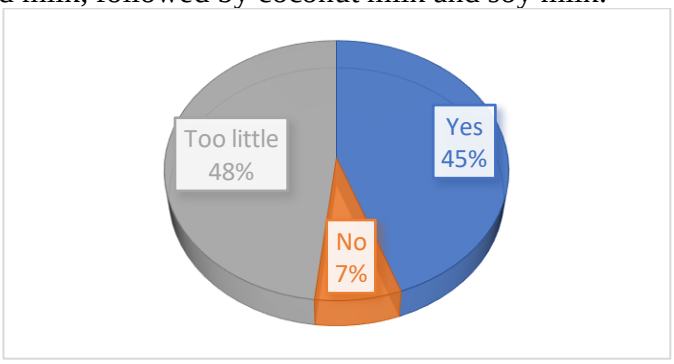

Figure 10. Information-seeking behaviour for the properties of plant-based milk before purchasing

Plant-based milk is a product that offers numerous benefits, but the majority of consumers were poorly informed before consumption. 45% of responses were positive, and 7% of consumers did not seek any information before consumption.

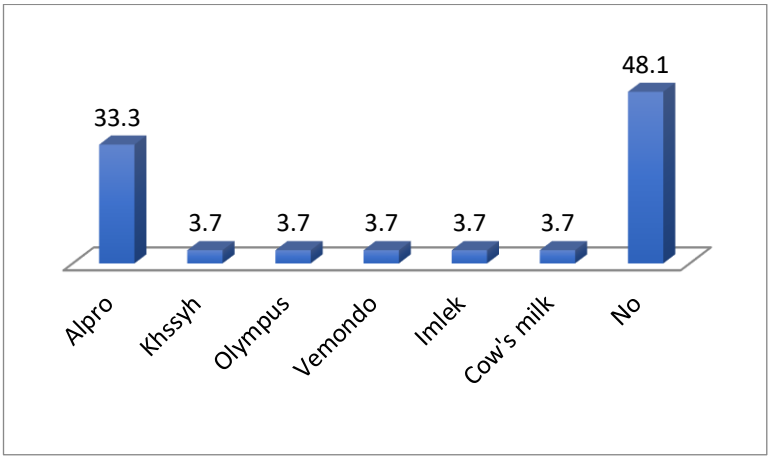

Figure 11. Preference for plant-based milk brand.

48% of questionnaire participants do not have a preferred brand of milk. However, 33.3% prefer Alpro plant-based milk.

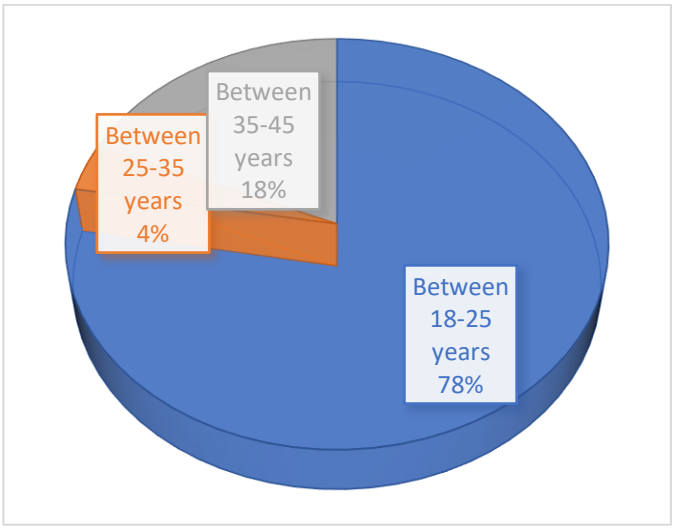

Figure 12. Respondents' age

The majority of consumers fall within the age range of 18 to 25 years, 18% are between 35 and 45 years old, and 4% are between 25 and 35 years old.

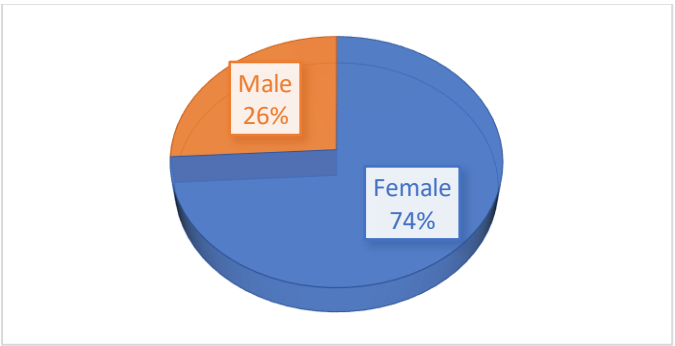

Figure 13. Gender of respondents

The majority of consumers are female, with only 26% representing the male gender.

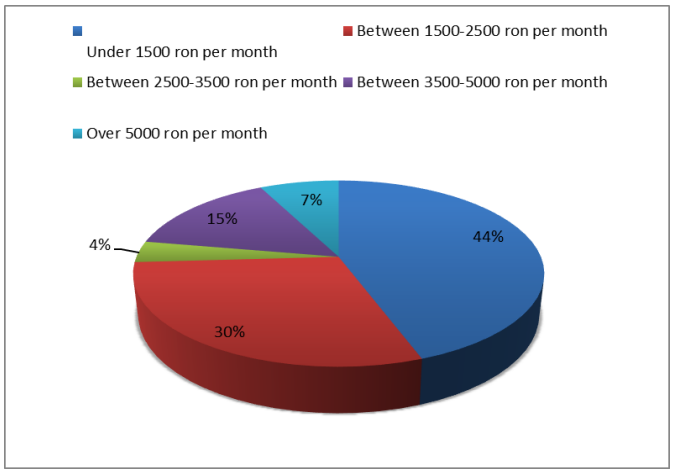

Figure 14. Monthly income of respondents

Almost half of the individuals have a monthly income below 1500 lei, 30% have a monthly income ranging from 1500 to 2500 lei, 15% have an income between 3500 and 5000 lei per month, and 7% have an income exceeding 5000 lei per month.

CONCLUSIONS

In conclusion, our study offers valuable insights into the consumption patterns and preferences surrounding plant-based milk. However, it is crucial to acknowledge certain limitations that may impact the generalizability of the findings. One significant constraint is the relatively small sample size of 50 respondents, as the study primarily focused on a specific population—students from ULST. The relatively smaller sample size may not fully represent the diversity of preferences and behaviors within the broader population.

Economic considerations, particularly the price of plant-based milk, play a role in consumer choices. The dynamic market landscape reveals a diverse array of plant-based milk options, with almond, coconut, and soy milk standing out as consumer favorites. Consumption frequencies vary, emphasizing a spectrum of preferences from occasional to daily intake. The study underscores the importance of ongoing innovation to address taste and texture concerns, essential for broadening the appeal of plant-based milk.

Future research endeavors should consider larger and more diverse samples to enhance the robustness and applicability of the findings in the dynamic landscape of plant-based and vegan alternatives to consumer products.

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