

Original Article

Trends in Organic Fresh Milk Consumption for Children- A Case Study of Consumers in Vietnam

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Abstract: *In the context of increasing demand for organic fresh milk for children, this research focuses on investigating and evaluating consumer trends in this sector. Using desk research and sociological survey methods, our goal is to identify the characteristics of organic fresh milk consumers and gain more understanding of their consumption trends. The results show that Vietnamese consumers tend to choose domestically sourced milk, use these products mainly spontaneously, not according to a fixed portion of the day, and pay attention to the benefits and nutritional values of organic fresh milk. The popular place to buy organic fresh milk for Vietnamese users at supermarkets and grocery stores. By collecting data from consumers in Vietnam, this research is expected to provide valuable information about the organic fresh milk market for children in Vietnam.*

Keywords: *Trends, Consumption, Organic Fresh Milk, Children, Consumers, Vietnam.*

I. INTRODUCTION

In today's era, as awareness of health and quality of life continues to rise, choosing organic fresh milk products becomes increasingly popular and prioritized, especially among families with children. This trend is not only a simple lifestyle change but also a reflection of an awareness of the benefits and value of using organic products. Organic fresh milk is considered clean, safe, and more nutritious than regular milk, as it does not contain harmful additives, hormones, or harmful pesticides. Particularly for children, exposure to natural products free from toxic chemicals may support comprehensive physical and intellectual development.

Originating from Europe and the US, the Organic trend (balanced, healthy, and nature-oriented lifestyle, as well as preference for organic products and rejection of chemicals) has become common in Asian countries (VFA, 2017). The trend of consuming organic products is rapidly increasing, especially in high-living standard cities in Vietnam such as Hanoi, Ho Chi Minh City, Da Nang, etc. Organic fresh milk products have separate standards and processes and offer numerous health benefits. Organic fresh milk is gradually becoming a sought-after source for many consumers, focusing on children. In this study, children are defined as those under 16 years old (National Assembly, 2016), and consumers of organic milk products for children include grandparents, parents, and siblings within the family.

In Vietnam, this product line is relatively new but quickly gaining customer trust, making Vietnam one of the largest market scales in the region, with the fastest growth rate in the organic milk market for children (Mordor Intelligence, 2023). On the other hand, Vietnamese consumers are concerned about the harmful effects of conventional milk products on children's health. The rate of malnutrition (stunting/underweight) in children under 5 nationwide is 19.6% (below 20%), which is classified as average by the World Health Organization (National Nutrition Survey, 2021). In this context, researching the trend of using organic fresh milk for children among Vietnamese consumers is necessary. To have a deeper understanding of urban residents' consumption behavior along with their requirements and desires for organic fresh milk products, this study will provide in-depth and reliable insights from direct consumer data.

This research not only helps manufacturers and businesses in the organic fresh milk industry understand the market and target consumers better but also provides governments and related organizations with a comprehensive perspective of consumption needs and trends. As a result, appropriate support policies and measures can be formulated, ensuring a healthy business environment and protecting consumer rights.

II. THEORETICAL BASIS

A) Some Related Concepts:

Organic fresh milk is a widely recognized concept in today's organic food market. Produced from cows raised using organic methods, organic fresh milk offers many health and environmental benefits compared to conventional milk.



Organic fresh milk is a type of milk produced from cows raised according to organic principles. This includes providing organic feed, not using growth hormones and harmful pesticides, as well as creating natural and comfortable living conditions for the cows. The production process of organic fresh milk also adheres to high standards of environmental protection and sustainable development (Ministry of Science and Technology, 2018).

The organic food production standard is considered the highest quality standard in the world today because the production process follows extremely strict regulations. Organic fresh milk products, in particular, and organic products in general, must be certified organic by the USDA (United States Department of Agriculture) or the European Union Soil Association. USDA Organic certification is not a one-time event but is monitored annually through a USDA-accredited organization, including unannounced or announced inspections at production sites. If, for any reason, an organic product violates USDA organic regulations, legal enforcement is carried out, including financial penalties, suspension, or revocation of organic certification. All certified organic products are clearly labeled and displayed on the product with the certification stamp.

In Vietnam, the national standard TCVN 11041-7:2018 on organic agriculture dedicates Part 7 to regulations on Organic milk. This standard specifies requirements for organic dairy cattle farming, milk collection, storage, and processing (Ministry of Science and Technology, 2018).

In fact, there are two types of organic fresh milk: organic raw milk and organic milk products. Organic raw milk is obtained from one or more milkings from the udder of organic livestock, not supplemented or depleted of milk components, not having been treated at temperatures exceeding 40°C, or other equivalent processing methods intended for consumption in liquid form or further processing. Organic milk products are obtained from the processing of organic raw fresh milk as described above. However, these may include food additives and other ingredients required for processing.

Considering the origin of milk, consumers have two options: “Imported organic fresh milk” and “Domestically produced organic fresh milk.”

B) Characteristics of Organic Fresh Milk for Children

Organic fresh milk has stricter standards; hence, it tends to have better quality and higher cost compared to regular fresh milk.

a. Stricter Standards

The organic food production standard is considered the highest quality standard in the world today because the production process follows extremely strict regulations. Compiled from organic standards of the USDA (United States Department of Agriculture), organic standards of the European Union (European Union, 2021), Part 7 of the national standard TCVN 11041-7:2018 on organic agriculture to label organic fresh milk, all processes of cattle care and raw milk production must strictly adhere to the following:

- No use of growth hormones for cattle: The main difference between organic fresh milk and regular fresh milk is that the cattle are raised and cared for in a completely natural way, saying no to growth hormones. This ensures that the milk obtained is “pure” and safest for consumer health.
- No residues of antibiotics: All cattle are grazed on organic pasture, naturally grown, without pesticide intervention. Therefore, organic fresh milk does not contain any chemicals or antibiotics that may pose risks to people’s health.
- No use of pesticides or chemical fertilizers: Cattle feed and water sources must meet strict standards such as no pesticides, no chemical fertilizers, and genetically modified organisms. Soil fertilizers must also be manure and green manure.

b. Better Product Quality

With three strict standards for living environment, care process, cattle breeding, with ensured food sources, the quality of organic fresh milk is higher in aspects: no growth hormones or harmful pesticides, no residual antibiotics, no genetic modification, no preservatives, and completely natural nutritional value. These are environmentally friendly products. On the other hand, dairy companies apply technology to facilitate highly transparent traceability. Each can of Organic product only has a unique “birth certificate” which is a unique QR code. By scanning the QR code at the bottom of the product box, consumers can completely trust the source of 100% ORGANIC milk ingredients, production time, and European Organic certification verification certificate” (VDA, 2019).

Due to the requirement for a natural cattle farming environment, according to the analysis of Lactalis Group (a large dairy production group in France), organic farms, including organic dairy farms, are often greatly affected by the weather.

c. Usually Higher Prices

As organic cattle farming is more costly, the resulting product, organic fresh milk, is more expensive than regular fresh milk (Nicola M. Shadbolt. et al., (2005). Dairy businesses investing in organic farms require large funds, requiring meticulousness, and strictness in every smallest step (Grzegorz Grodkowski et al., 2023). In organic farms, livestock is freely grazed, and with open barn systems, cows are completely free to graze on pasture or playgrounds when weather conditions are favorable (Brown, A., 2022). The cattle's feed also requires 100% organic grass varieties as cattle feed is imported and carefully selected for strong immunity, not attacked by pests and diseases and naturally good development; absolutely no use of chemicals, synthetic pesticides, synthetic fertilizers, food additives, and other supporting, stimulating substances; no use of genetically modified substances (Richard F. Nehring et al., 2021).

Vietnam belongs to the tropical monsoon climate zone, with high humidity and many types of diseases. For many years, Vietnamese farmers have been accustomed to using various types of plant protection drugs, so the environment is affected (Tran, P., 2020). All processes of land reclamation, construction, and control, from grass in farms to selecting cattle breeds, require much effort. New technologies and processes must be updated according to European organic standards. These requirements lead to increased production costs and higher prices for organic fresh milk compared to regular fresh milk.

C) Trends in the consumption of organic fresh milk for children

a. Benefits of organic fresh milk for children

In European and American countries, the trend of using organic food, including organic fresh milk, has been increasingly popular in recent years due to its clear benefits for consumers' health. Organic milk has strict requirements throughout the entire production process, from livestock farming to milk collection, preservation, and processing. As a result, organic fresh milk products, after processing and distribution, meet international "organic" cleanliness standards, being very "natural" and safe, with a pure and delicious taste.

Organic fresh milk contains high levels of Omega-3, which is an essential fatty acid for development and physical improvement. Additionally, organic fresh milk is rich in antioxidants that help slow down the aging process and improve visual acuity.

The development of organic fresh milk not only marks a change in consumer lifestyles and product choices but also signifies a positive sign in creating a sustainable production and consumption environment that is harmonious with nature. For families with children, organic fresh milk is not only a safe and nutritious choice but also an expression of love and concern for their kids' comprehensive health and development. Common benefits include:

- (i) Health benefits group
 - Good for the brain, digestive system, nervous system, respiratory system, and cardiovascular system
 - Promote height growth
 - Enhance health recovery (when recovering from illness, for underweight children, slow growth...)
 - Boost immunity
- (ii) Prevention of some harmful factors to the body
 - Prevent early puberty
 - Help prevent allergy risks

b. Content about measuring organic fresh milk products' consumption trends for children:

With the aforementioned benefits and consumers' concern for the health and development of children, consumer trend measurement content includes:

- Trends in usage time and frequency: This study investigates consumer opinions on the time and frequency of using organic fresh milk.
- Evaluation of consumer opinions participating in the survey on the benefits of organic fresh milk (based on the two benefit groups analyzed above).
- What factors influence users' choices? Consumer behavior theory and studies on factors influencing organic product decisions (Nguyen., NT, & Trang., LT, 2020) and organic beverage products (Trung., DB, 2022) indicate that factors impacting user choices often include:

(i) *Product quality*. Product quality is the foremost factor influencing consumer purchasing decisions. Organic milk is produced from sources free of antibiotics, growth hormones, and chemicals, improving children's health and comprehensive development. Products with clear origins and certified quality from reputable agencies such as USDA and EU Organic are often preferred. Some domestic milk brands like Vinamilk Organic and TH True Milk Organic are all highly rated for quality.

(ii) *Price*. Consumers often compare prices among different brands before making decisions. Products with reasonable prices that can be suitable for consumers' budgets are often considered more appealing. According to the IMARC group (2024), as living standards rise, consumers are willing to pay high prices for high-quality and nutritious milk products. Companies are responding by introducing fortified milk, organic milk products, and functional milk products to meet the specific health needs of individuals.

(iii) *Other factors*, including the company's sales promotion program and consumer psychological factors due to concerns about health and children's development, also influence consumer decisions to choose organic milk. The increasing popularity of "clean" milk products due to consumers' growing awareness of sustainability is stimulating the market (IMARC group, 2024).

- *During usage, what concerns do consumers have?* Consumers are concerned about organic milk's nutritional effectiveness, preservation differences, and additives (Unicef, 2019).

III. RESEARCH METHODS

To understand the trend of consuming organic fresh milk for children among consumers in Vietnam, the research team used two main research methods:

- **Desk research:** Reviewing documents published on various media platforms about organic fresh milk, organic standards, organic milk certification worldwide (USDA Organic certification, EU Organic certification from the Soil Association), and the national standard TCVN 11041-7:2018 on organic agriculture in Vietnam. The research team explored issues related to nutritional needs, the benefits of organic fresh milk in general, and health benefits for children in particular.

With the topic of "trends in consuming organic fresh milk for children among Vietnamese consumers," children in this study are individuals under 16 years old (according to the Law on Children 2016); consumers of organic milk products for children include grandparents, parents, and older siblings in the family. The research team explored documents about Vietnamese consumers' concerns about health and children's development.

- **Sociological survey:** Using a research method to study trends in consuming organic fresh milk for children among Vietnamese consumers through surveys via Google Forms. The data collection method was based on two approaches: the convenient sampling method and the "snowball" method - finding the next subject based on suggestions or proposals from participating subjects. The survey was constructed on Google Drive, with a pilot interview of 5 consumers who had used organic fresh milk for children. Interview questions laid a foundation and helped improve the survey questionnaire are: What are parents' concerns about their children's health and development? What factors influence parents' decision to buy organic fresh milk for their children? What are parents' concerns when using organic fresh milk for children?

After completing the questionnaire, the research team sent the survey's link <https://forms.gle/Hr14TWKMn5uhfo6C9> to consumers through social media channels such as Zalo, email, and Facebook. The total number of collected responses was 378 survey forms. Among them, 231 consumers (61.1%) who admitted using organic milk for their children continued answering questions about trends in using organic fresh milk for children. Therefore, data from these 231 users were synthesized, calculated, and reflected in tables; then analyzed using Excel software; followed by a discussion and demonstration of research issues.

In addition, for questions about "factors influencing the use of organic fresh milk" and "Factors you are concerned about when purchasing and using organic fresh milk for children", the author team designed answers using the Likert scale of 5. When assessing the level of influence of factors, the average values of the scales will be calculated. The team determined the distance value and the average value of each factor and identified the average score level that falls within which range.

Distance value = (Maximum - Minimum) / n = (5-1)/5 = 0.8

Evaluation thresholds based on average values:

+ 1.00 - 1.80: Strongly disagree

+ 1.81 - 2.60: Disagree

+ 2.61 - 3.40: Neutral

+ 3.41 - 4.20: Agree

+ 4.21 - 5.00: Strongly agree

IV. RESEARCH RESULTS

A) Overview of the dairy industry in Vietnam

Currently, the Vietnamese dairy market is witnessing significant developments due to high consumption demand and intense competition among businesses (gmp.com.vn, 2024). Nowadays, Vietnam has about more than 200 businesses operating in the production and trading of dairy products, including 40 manufacturing enterprises. These businesses encompass large,

medium, and small companies, alongside the presence of many well-known international companies (vietnam.vn, 2024). Regarding market share, domestic enterprises hold approximately 75%, while foreign enterprises account for around 25% (researchandmarkets.com, 2022).

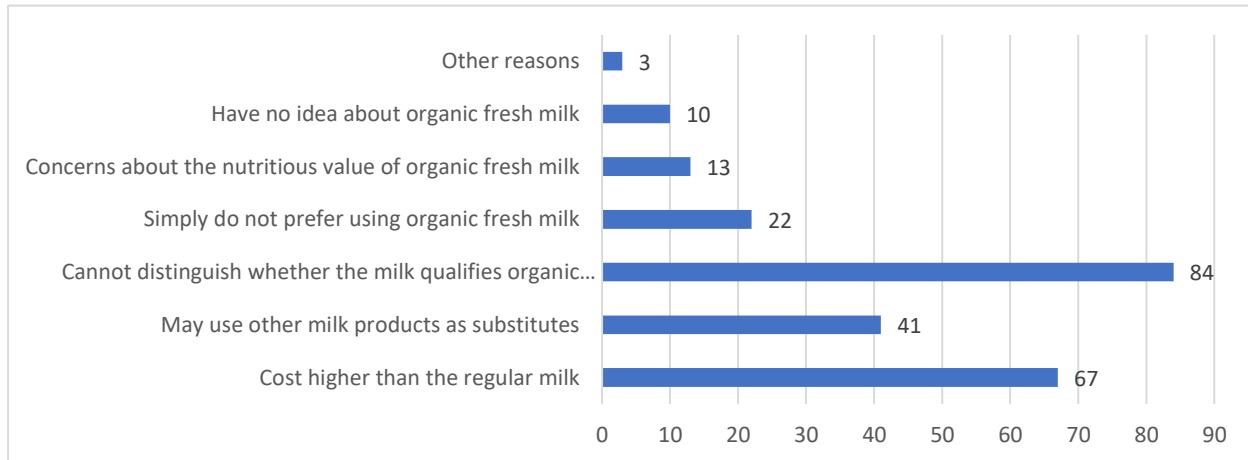
The total revenue of the Vietnamese dairy industry has increased significantly in recent years. Specifically, revenue from the dairy sector nearly doubled from \$4.4 billion in 2017 to \$8.4 billion in 2021, contributing substantially to the national economy (researchandmarkets.com, 2022). The current dairy market in Vietnam is dominated by a few large companies, with Vinamilk leading the market. According to recent data, Vinamilk constitutes about 43% of the market share, followed by TH True Milk with approximately 9-10%, and Moc Chau Milk with about 4-5% (vnbusiness.vn, 2024). In 2023, Vinamilk recorded a total revenue of about 63,380 billion VND, equivalent to approximately \$2.7 billion, with domestic revenue increasing by 3% and export revenue increasing by 5.1% (researchandmarkets.com, 2022). Apart from these three major companies, other companies such as IDP and Hanoimilk also participate in the market, although their market share is much smaller compared to Vinamilk. Competition in the dairy industry witnesses a constant increase, with businesses investing heavily in advertising and product improvement to attract consumers.

The Vietnamese dairy industry is also adopting technology and digital transformation in production and management processes. Technology helps dairy businesses optimize production processes, improve product quality, and reduce operating costs. As a result, according to IFCN (2023), milk production has been steadily increasing annually, and global milk demand is expected to rise to 1,168 million tons by 2030. The average milk consumption per capita in Vietnam is projected to increase by about 40%, from 28 liters in 2021 to 40 liters per year by 2030 (researchandmarkets.com, 2022). This is quite an impressive figure compared to the average consumption in Southeast Asia, which is 18 liters per person per year and serves as an important indicator for the future development of the Vietnamese dairy industry. According to a report by the IMARC group, the Vietnamese dairy market is expected to have a Compound Annual Growth rate (CAGR) of 9.4% from 2024 to 2032 (IMARC group, 2024).

B) Description of survey participants

Out of the 378 survey responses collected, 231 consumers (equivalent to 61.1%) chose organic fresh milk, while 147 consumers (equivalent to 38.9%) chose not to use organic fresh milk. The reasons for not using organic fresh milk among these 147 consumers are illustrated in the Figure below:

Figure 1: Reasons for not using organic fresh milk



Source: Researchteam survey results

The results in Figure 1 indicate that the majority of non-organic kinds of milk users (84 people) were unsure if the milk satisfied organic standards. Additionally, 67 people did not choose organic milk because it is more expensive than regular milk. Therefore, the primary reasons for not choosing organic fresh milk for children are based on quality and price. The reason “Can use other dairy products as a substitute” received 41 votes. Other reasons received fewer votes, including: “Simply do not like using organic fresh milk” with 22 votes, “Concerns about the nutritious value of organic fresh milk” with 13 votes, “Have no idea about organic fresh milk” with 10 votes and 3 votes for “Other reasons.”

A detailed description about the characteristics of the 231 survey participants who buy organic fresh milk for children (who will continue to answer questions about usage trends) is presented in Table 1.

Table 1: Statistics depict the survey’s participants

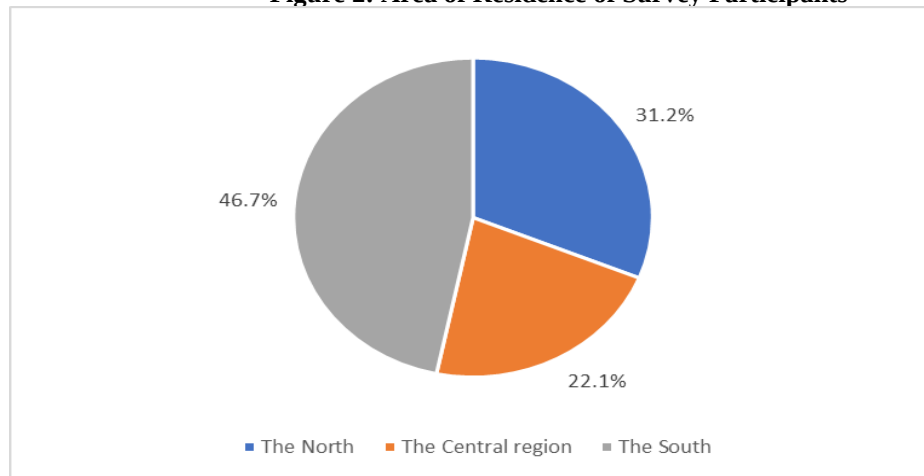
Gender	Number of participants	Percentage (%)	Age group	Number of participants	Percentage (%)
Male	107	46,40	Under 16 years old	15	6,5
Female	120	51,80	From 16 – under 30 years old	60	26,0
Prefer not to specify	4	1,80	From 30 – under 45 years old	96	41,6
Total	231	100	From 45 – 60 years old	36	15,6
			Above 60 years old	24	10,4
			Total	231	100

Source: Research team survey results

Regarding the gender of the survey participants, 120 people (51.8%) are female, 107 people (46.4%) are male, and 4 people (1.8%) prefer not to specify. Concerning the age of the survey participants, 6.5% are under 16 years old, 26.0% are from 16 to under 30 years old, 41.6% are from 30 to under 45 years old, 15.6% are from 45 to 60 years old, and 10.4% are over 60 years old. Therefore, the majority of consumers participating in the survey are between 16 and under 45 years old.

Regarding the area of residence, since the authors live and work in the South and North of Vietnam, most of the consumers participating in the survey (46.7%) are from the South; 31.2% are from the North, and the remaining 22.1% are from the central region.

Figure 2: Area of Residence of Survey Participants



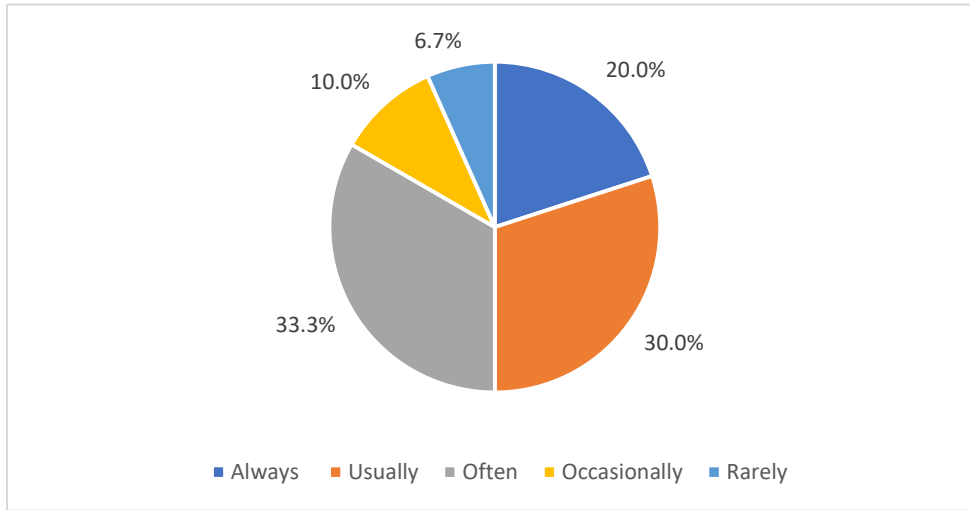
Source: Research team survey results

C) The survey results

According to the survey results, 108 respondents (46.7%) started using organic fresh milk for children more than a year ago, while 123 respondents (53.3%) have only started using it for a year or less.

Regarding the frequency of using organic fresh milk for children, the responses were categorized into five levels: always, usually, often, occasionally, and rarely. The responses were as follows: 20% always, 30% usually, 33.3% often, 10% occasionally, and 6.7% rarely. Details on the frequency of use are illustrated in Figure 3:

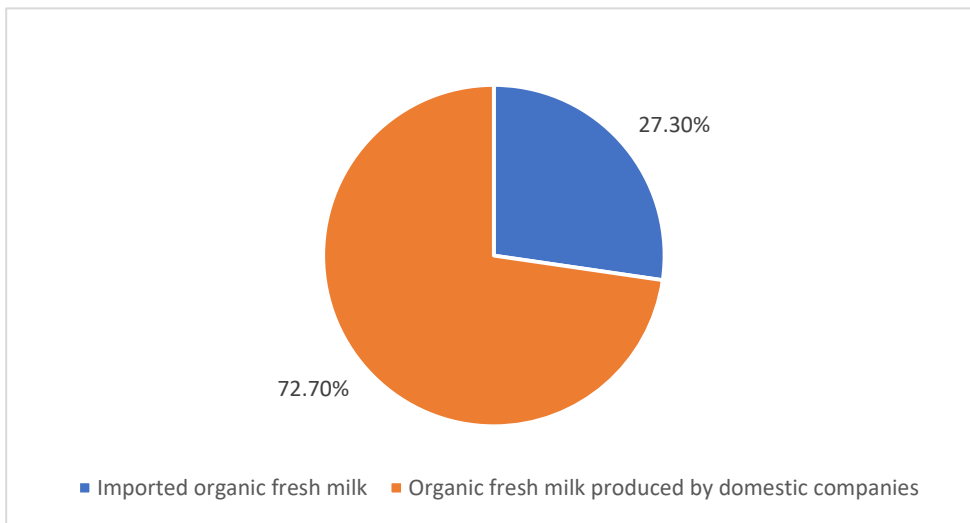
Figure 3: The frequency of using organic fresh milk for children



Source: Research team survey results

Regarding the selected types of organic fresh milk, the survey also recorded that 72.7% of consumers prefer domestic organic fresh milk products, and 27.3% of consumers prefer imported organic fresh milk (as shown in Figure 4).

Figure 4: Selected types of organic milk

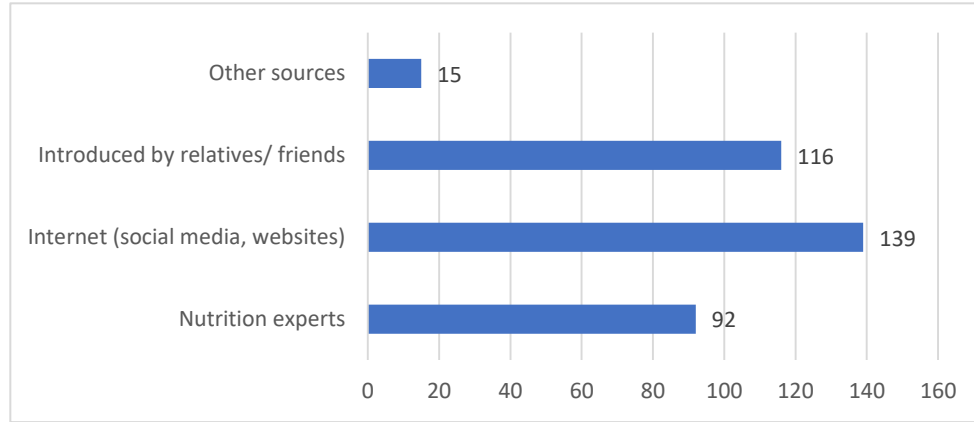


Source: Research team survey results

Regarding the usage of organic fresh milk, 146 respondents (63.3%) use it randomly according to their needs, while 85 respondents (36.7%) use fixed portions every day. Common demands include post-illness recovery, health issues, and weak immune systems (26.7%); consumption when the child exhibits abnormal signs (overweight or underweight) (16.7%); and alternating usage with other types of milk (20%).

The sources through which Vietnamese consumers learn about organic fresh milk, including official brand websites, the internet, friends or relatives, and other sources, are represented in Figure 5.

Figure 5: The sources from which Vietnamese consumers acquire information about organic fresh milk

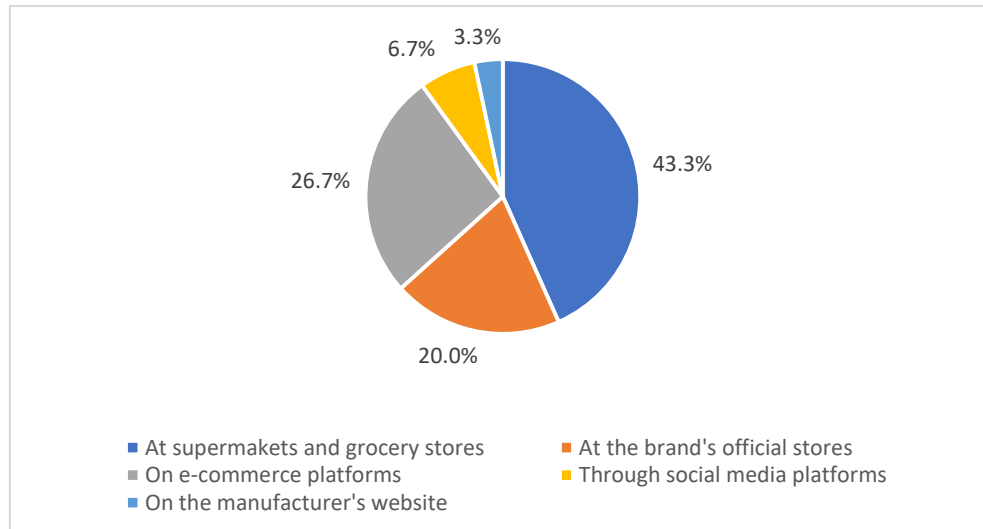


Source: Research team survey results

Accordingly, the sources for obtaining information about organic milk are as follows: “Internet” (including social media and websites) with 139 votes, “From relatives/ friends” with 116 votes, “Nutrition experts” with 92 votes, and “other sources” with 15 votes. The results show that promoting products, social media, and word-of-mouth through friends or relatives are very effective. Additionally, nutrition experts are also a source that many people are interested in. There were 15 votes for other answers, including “not researching” and “based on personal experience.”

The reliable places to buy organic fresh milk, according to the survey participants, are reflected in Figure 6.

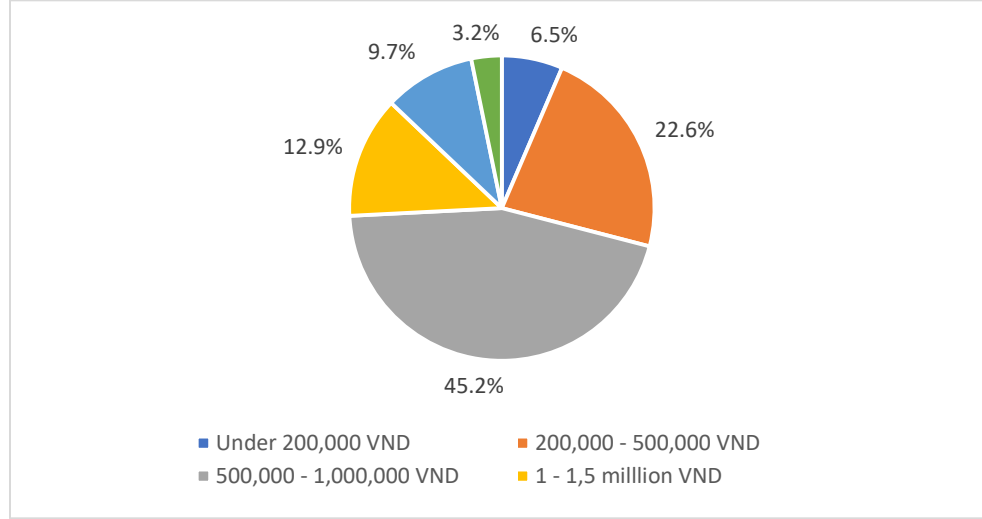
Figure 6: Places to buy organic fresh milk of survey participants



Source: Research team survey results

Among other options, the most reputable places for buying organic fresh milk chosen by Vietnamese consumers are supermarkets and grocery stores (43.3%). Following this, 26.7% of consumers purchase on e-commerce platforms. Among the 62 votes for e-commerce platforms, the two most popular shopping channels are TikTokshop and Shopee. Another trusted place is brand official stores (46 votes, accounting for 20%). The remaining two shopping channels are social media (6.67%) and the manufacturer’s websites (3.3%).

One quality of organic fresh milk is that it must follow strict guidelines, starting from milk ingredients to the production process. This increases manufacturing costs and product prices. Therefore, one major concern of consumers is the price. The survey also gathered how much money consumers spend monthly on organic fresh milk for children, as shown in Figure 7.

Figure 7: The average monthly amount you spend on using organic fresh milk for children.

Source: Research team survey results

Figure 7 shows that 15 voters (6.5%) spend less than 200,000 VND, and 52 voters (22.6%) spend between 200,000 and 500,000 VND. The most common interval is spending 500,000 to 1 million VND with 104 votes (45.2%) 30 voters (12.9%) spend 1 million to 1.5 million VND, and 22 voters (9.7%) spend 1.5 to 2 million VND. The least chosen interval is spending over 2 million VND with 7 votes (3.2%).

Understanding the factors determining the use and purchase of organic fresh milk becomes more essential for dairy businesses. The survey examined the main factors influencing Vietnamese consumers' use of organic fresh milk. The questions were rated on a Likert scale as described in the research methodology. The results, according to the average scores, are as follows:

Table 2: User evaluation of the factors influencing the use of organic fresh milk for children

Factor	Average score	Assessment threshold
Personal preference	3,8	Agree
Benefits of organic fresh milk	4,1	Agree
Recommendations from friends and relatives	3,7	Agree
Recommendations from nutrition experts	3,5	Agree
Influence from media and marketing activities	3,4	Neutral

Source: Research team survey results

The results show that the factor with the highest level of agreement is the “benefits of organic fresh milk”, with a score of 4.1. “Personal preference” and “recommendations from friends and relatives” have average scores of 3.8 and 3.7, respectively, indicating a high level of agreement among survey participants. The two factors, “influenced by nutrition experts” and “influenced by communication, marketing”, have average scores of 3.5 and 3.4, respectively.

When consuming organic fresh milk, consumers are concerned about price, origin, nutritious value, and customer service. The survey results on consumers' opinions on these factors are shown in Table 3.

Table 3: Aspects that consumers are concerned about when using organic fresh milk products for children

Aspect	Average score	Assessment threshold
Price	3,9	Agree
Origin	4,4	Strongly agree
Nutritious value	4,3	Strongly agree
Brand	4,3	Strongly agree
Customer service	3,6	Agree

Source: Research team survey results

Accordingly, surveyees are most concerned about the “origin” of the milk, including the sources of milk ingredients and the observation of strict requirements in dairy farming. The two aspects, “nutritious value” and “brand”, are equally important to users (4.3). The price (3.9) ranks fourth, and the customer service (3.6) ranks fifth among the aspects mentioned in the survey.

V. DISCUSSION AND RECOMMENDATIONS

From the results of the survey and data related to the trend of organic fresh milk for children of Vietnamese consumers, which were collected from articles and documents in the media, it can be observed that some results of the study agree with the hypotheses given earlier, including:

- Vietnamese consumers are increasingly concerned about the quality and nutritious value of milk products, especially those with high standards and strict production processes, such as organic milk for children. The nutritional status of children in Vietnam shows significant issues: the national stunting rate is 19.6%, which is considered average according to WHO classifications; the rate of overweight/obesity is rapidly increasing across all age groups in both urban and rural areas. Overweight/obesity is particularly high among school-aged children at 19%. This has led to a rise in metabolic disorders and non-communicable diseases among adults. These issues are closely related to diet and lifestyle (Ministry of Health, 2022). Consequently, there is a growing interest in organic milk products' quality and nutritious value compared to regular milk and other nutritious beverages.

- The market for organic fresh milk for children is promoted by rising awareness among consumers to limit children's exposure to harmful chemicals used in conventional food production and the perception of the benefits of organic products. *With the rise in disposable incomes, parents can compensate for homemade food with organic branded children's food, posing a significant promoting factor in both developed and developing countries in the forecast period* (Mordor Intelligence, 2023).

- Domestic organic fresh milk is preferred over imported organic fresh milk due to price and consumer trust in large brands like Vinamilk and TH True Milk. In early 2017, Vietnam had the first organic dairy farm following European standards. Before long, organic fresh milk products under the Vinamilk brand were produced directly from the brand's farms. Some large dairy companies in Vietnam, such as TH True Milk Corporation and Vietnam Dairy Products Joint Stock Company, have pioneered investments in the Organic Ecosystem from dairy farms to factories, technology development, and R&D (Hào., LTT, 2022).

- The primary channel through which consumers access organic milk products is the internet (including social media and websites), and recommendations from friends and family. Overall, it is widely agreed that social media are effective in reaching consumers about organic fresh milk. Media provides information, builds trust, and encourages consumer purchasing behavior toward organic products (Trung., DB, 2022). Online media channels introduce consumers to strict European Organic standards, ensuring quality and purity for organic nutritional sources.

The product's benefits are the main factors influencing the trend of purchasing organic fresh milk for children. Organic milk helps the body avoid the accumulation of harmful artificial chemicals, which are the source of potentially dangerous diseases later in life (natural-food.asia.com, 2021). In addition, other factors, such as personal preferences toward the general trend of consuming organic products, also play a role. Consumers are concerned about health and environmental issues, thus increasing the trend of choosing organic food products (Nam., NK, 2015; Tuyết., Đ.T., et al., 2024). Furthermore, the influence of friends, family, and nutrition experts also significantly impacts consumer decisions.

- Besides the benefit factor, price is a concern for consumers in purchasing organic fresh milk for children. Products with strict standards and high safety require consumers to incur higher costs compared to regular products (Thich., NV, 2022). The amount spent monthly on organic fresh milk is commonly below 1 million VND (specifically, 45.2% spend between 500,000 to 1,000,000 VND/month, and 22.6% spend between 200,000 to 500,000 VND/month). This result is compatible with the predominant choice of consumers for domestically sourced organic fresh milk. The main reason is the increased awareness of nutrition and health among the population (Ministry of Health, 2016). Furthermore, the improvement in income and living standards also enables Vietnamese consumers to afford higher-quality milk products.

Moreover, some survey results indicate additional insights into consumer trends regarding organic fresh milk for children:

- Vietnamese consumers are increasingly inclined towards improved milk products and focus on strengthening health.
- Despite the increasing popularity of online shopping trends, survey participants still prioritize purchasing organic fresh milk at stores and supermarkets.

- When using organic fresh milk for children, alongside the benefits, consumers also consider issues such as high prices, uncertain origins, or unpleasant taste.
- Concerns about the harmful aspects of conventional milk products on health and fear of contaminated food have long-term impacts on consumer demand.
- Vietnamese tend to prioritize choosing the best products for children, especially caring about height and weight improvement, and boosting immunity for children. According to the results of the nationwide nutrition survey released in 2021, the height of Vietnamese people has changed. In the group of 18-year-old males, the average height reached 168.1 cm (in 2020), an increase of 3.7 cm compared to 2010; for females, it was 156.2 cm (in 2020), a 1.4 cm increase compared to 2010. However, it is still much lower than the world's average height.
- Regarding the socio-economic characteristics of regions in Vietnam, in the North, the strong presence of traditional dairy farms and the increasing urban population boost demand for both basic and premium milk products. In the Central region, the combination of rural and urban areas and the focus on tourism development create a diverse and evolving market. Southern Vietnam, especially Ho Chi Minh City, is the most dynamic milk market, driven by a large, affluent consumer base and a high concentration of supermarkets, hypermarkets, and convenience stores (IMARC group, 2024).

Based on the research results, the research team has some discussions and suggestions for organic milk producers and suppliers as follows:

Firstly, organic fresh milk producers need to enhance market research. The shift from quantity to quality consumption habits, along with the growing retail sector, helps individuals easily access a variety of milk products, thus driving the nationwide market. From a governmental perspective, aiming to reduce disease burdens and enhance the stature, health, physical strength, and intelligence of Vietnamese people, the Government has approved the “National Nutrition Strategy for the 2021 - 2030 period and vision to 2045”. By 2030, the average height of 18-year-old youth is expected to increase by 2 - 2.5 cm for males and 1.5 - 2 cm for females compared to 2020. The rates of low malnutrition and stunted growth in children under 5 are projected to decrease to below 17% by 2025 and below 15% by 2030. Government agencies setting targets and favorable initiatives to promote milk consumption for its nutritional value, along with the increasing demand for protein-rich supplements, are driving the market in Vietnam. Additionally, the rising number of health-conscious individuals also plays a significant role in further growth.

Secondly, organic milk producers, especially domestic enterprises, need to focus on developing products that meet the diverse requirements of children regarding safety, quality, and individualization according to corresponding product lines catering to needs such as height growth, immune enhancement, early puberty reduction, etc. Adapting taste preferences and ingredient quality to fit customer demands is essential.

Thirdly, for organic fresh milk products, there is a trend of predominantly purchasing from supermarkets, convenience stores, and specialized retailers, including stores specializing in organic milk and food and milk brands' retail. This traditional distribution channel enables users to compare information and prices of different milk types more easily than online purchases. Therefore, developing traditional distribution channels, emphasizing milk quality, and providing information on strict organic milk production processes is crucial.

Moreover, the increasing presence of online stores is a notable trend, with e-commerce platforms like Lazada, Tiki, and Shopee expanding their grocery services to include various milk products, meeting the demands for home delivery and convenient online shopping. This diversifies the distribution network, ensuring that organic fresh milk products can reach a wider consumer base across Vietnam.

Fourthly, stemming from the differences in Vietnamese people's consumption habits and needs across the three regions, North, Central, and South, milk companies need to develop organic fresh milk market strategies tailored to each region. For instance, the tourism focus in the Central region lays the groundwork for milk companies to meet the demand for high-quality milk products in hotel services and food services.

Fifthly, intensifying communication to promote green living and environmentally friendly practices, prioritizing safe milk types, completely natural ingredients, without residual plant protection substances, and not using preservatives. To reach a diverse customer base, digital marketing combined with highlighting information about the origin and production process of milk in traditional stores is necessary.

Lastly, while conventional milk products are diverse in types and flavors, organic milk products are mostly plain. Therefore, businesses need to focus on diversifying organic milk product lines, offering a wide range of choices to consumers. This aligns with the trend of consumers preferring unique and diverse flavored milk products; thus, the company should research and add new flavors, such as green tea, black tea, fruits, etc., to diversify customer choices.

VI. CONCLUSION

Through analyzing the factors measuring the trend of consuming organic milk for children among Vietnamese consumers, demand for these products may witness an increasing trend in the future. Product quality, strict production processes, benefits of organic fresh milk for children, and price are the main factors influencing consumers' purchasing decisions. Despite some concerns about nutritional efficacy, food safety, and environmental impact, the benefits of organic milk are still highly regarded. To maintain and develop the market, manufacturers need to continue improving technology, enhancing product and service quality, as well as strengthening communication, providing clear information, and supporting consumers in using the products.

However, considering the scope of the survey, the article did not fully reflect the trends in consuming organic milk for children across different brands domestically and internationally. Furthermore, the article did not compare the correlation between income levels and milk consumption. One of the primary concerns in the new period is the significant differences in nutritional status among regions, especially between urban and rural areas, ethnic minority areas, and mountainous regions. According to data from the nutrition monitoring system in 2019, ethnic minorities and the mountainous still have the highest rates of malnutrition compared to the national average. Nationwide, there are still seven provinces with malnutrition rates above 30%, which is very high according to WHO classification in 2018 (Ministry of Health, 2022). Thus, there are differences in achievement indicators by region that the article did not focus on analyzing. Therefore, further studies could approach this by conducting behavioral studies, using quantitative research models, or limiting the scope of research to a specific locality to fully assess the market trends and target consumer groups for organic milk for children.

VII. REFERENCES

- [1] Ministry of Science and Technology. (2018). National Standard TCVN 11041-6:2018 on Organic Agriculture.
- [2] Ministry of Health, (2016). Nutrition demands - Recommendations for Vietnamese People. Medical Publishing House, 2016.
- [3] Ministry of Health, (2021). Report on the Results of the National Nutrition Survey 2019-2020.
- [4] Ministry of Health. (2022). Decision No. 1294/QĐ-BYT dated May 19, 2022.
- [5] Decision to promulgate an action plan for the implementation of the National Strategy on Nutrition until 2025
- [6] Brown, A. (2022). Animal welfare in organic farming. *Journal of Sustainable Agriculture*, 50(1), 85-92.
- [7] European Union. (2021). Organic production and labeling of organic products. *Official Journal of the European Union*, 14, 33-46.
- [8] IFCN, (2023). IFCN dairy report 2023.
- [9] IMARC group, (2024). Vietnam Dairy Market Report by Product. Report ID: SR112024A19837.
- [10] Gmp.com.vn, (2024). Vietnam Dairy Market Research 2024.
- [11] Grzegorz Grodkowski, et al, (2023). Organic Milk Production and Dairy Farming Constraints and Prospects under the Laws of the European Union. 2023 May; 13(9): 1457. Published online 2023 Apr 25. doi: 10.3390/ani13091457
- [12] Hào., LTT (2022). Vietnam's dairy industry in the context of integration: Opportunities and challenges. Vietnam National Agriculture University.
- [13] Mordor Intelligence. (2023). Analysis of the organic food market share for children - trends & growth forecasts (2023 - 2028).
- [14] Nam., NK, (2015). Intention to consume organic food among young consumers: The role of trust. *Journal of Science and Technology*, Da Nang University, No. 8(93), ISSN 1859-1531.
- [15] Natural-food.asia.com. (2021). Why organic fresh milk? <https://natural-food.asia/vi/vi-sao-phai-la-sua-tuoi-organic/>
- [16] Nicola M. Shadbolt. Et al, (2005). Organic dairy farming: cost of production and profitability. *AFBM Journal* volume 2 number 2: 136-145
- [17] Nguyen, N.T., & Trang, L.T. (2020). Factors affecting intention to purchase organic food among customers in Ho Chi Minh City. *Journal of Science*, Ho Chi Minh City Open University, 16(1), 160-172.
- [18] National Assembly, (2016). Law No. 102/2016/QH13- dated April 5, 2016, Children's Law.
- [19] Researchandmarkets.com. (2022). Research Report on Vietnam's Dairy Industry 2022-2031.
- [20] Richard F. Nehring et al, (2021). The Economics and Productivity of Organic versus Conventional US Dairy Farms. *Journal of Agricultural and Applied Economics*, Volume 53, Issue 1, February 2021, pp. 134 – 152. DOI: <https://doi.org/10.1017/aae.2020.34>
- [21] Thich., NV, (2022). Factors influencing consumers' willingness to pay for safe food in Ho Chi Minh City. *Journal of Economics and Banking of Asia*, No. 192 (2022), ISSN 2615-9813.
- [22] Tran, P. (2020). Agricultural practices and climate impact in Vietnam. *Environmental Studies Review*, 29(2), 200-215.
- [23] Trung., D.B., (2022). Factors influencing the decision to use organic beverage products in Ho Chi Minh City. *HIUJS*, special issue, pp. 503–511, December 2022.
- [24] Tuyet., Đ.T., et al, (2024). Research on consumers' intention to purchase organic food: The regulatory role of trust. *Proceedings of the National Scientific Conference: Circular Economy – Sustainable Economy – Green Marketing in Ho Chi Minh City*.
- [25] VDA. (2019). European standard Organic Infant Formula in Vietnam - Vinamilk affirms new standards of quality.
- [26] Vietnam.vn, (2024). Trends in milk consumption in Vietnam. <https://www.vietnam.vn/xu-huong-tieu-dung-sua-tai-viet-nam/>
- [27] VFA. (2017). Organic – Origin of green living from a glass of organic milk.
- [28] Vnbusiness.vn, (2024). Dairy market with many fluctuations, Vinamilk still holds the highest position in many major product lines. <https://vnbusiness.vn/tieu-dung/thi-truong-sua-nhieu-bien-dong-vinamilk-van-giu-vi-tri-so-1-trong-nhieu-nganh-hang-lon-1084440.html>
- [29] Unicef, (2019). The State of the World's Children 2019 Report - Children, Food, and Nutrition: Growing Well in a Changing World.