

A study on consumer attitude toward functional dairy foods enriched with probiotics

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World Journal of Advanced Research and Reviews, 2025, 28(02), 403-407

Publication history: Received on 23 September 2025; revised on 01 November 2025; accepted on 03 November 2025

Article DOI: <https://doi.org/10.30574/wjarr.2025.28.2.3700>

Abstract

This study examines consumer attitudes toward functional dairy foods enriched with probiotics. Using primary survey data (n = 63) and supporting literature, the paper investigates awareness, perceived benefits, trust in claims, willingness to pay, and factors influencing purchase decisions. Quantitative analysis of Likert-scale responses and demographic summaries are presented. Key findings indicate moderate awareness of probiotic dairy products, generally positive beliefs about their health benefits, and a majority willingness to pay a slightly higher price for proven benefits. Implications for producers, marketers, and policymakers are discussed.

Keywords: Probiotics; Functional Foods; Consumer Behavior; Dairy Industry; Health Perception

1. Introduction

Functional and probiotic-enriched dairy products have emerged as a rapidly expanding segment within the health-oriented food market. As consumers become increasingly aware of the relationship between diet and well-being, interest in foods that provide preventive health benefits continues to rise. Probiotics, defined as live beneficial microorganisms, are recognized for their role in maintaining gut health and aiding immune system function. Dairy serves as a suitable carrier medium for probiotics due to its ability to support microbial stability, while also offering familiarity in taste and regular consumption patterns.

Despite market growth, consumer perceptions of probiotic foods are shaped by varied levels of knowledge, cultural eating habits, sensory expectations, and exposure to promotional messaging. While many consumers believe probiotic products are healthy, fewer understand how probiotic strains differ or what constitutes effective dosage. Therefore, analyzing consumer attitudes is essential to guide producers, policymakers, and nutrition educators toward strategies that support informed and sustainable probiotic consumption.

2. Literature review

Probiotic dairy foods fall under functional foods, defined as foods offering physiological benefits beyond basic nutrition. Research suggests probiotics may enhance gut microbiota, reduce inflammation, and support immune functioning. However, outcomes depend on microbial strain, product formulation, and consumption consistency. Dairy matrices aid probiotic viability and improve consumer acceptance.

Existing research indicates that health perception, taste preference, availability, and price sensitivity shape consumer adoption of probiotic products. However, trust plays a determining role; when product claims lack clarity or scientific validation, consumer skepticism increases. Transparent labeling, verified benefits, and consistent branding are therefore critical to maintaining consumer confidence.

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3. Methodology

3.1. Data Source

Data was collected through a structured online questionnaire distributed via academic and social platforms. A total of 63 respondents participated in the survey.

3.2. Measurement Scale

Attitudinal statements were measured using a five-point Likert scale, where Strongly Agree = 5 and Strongly Disagree = 1.

3.3. Data Analysis

Descriptive statistics were used to compute frequency distributions and mean agreement scores. Visual charts were generated to represent demographic trends and attitudinal patterns.

4. Results and discussion

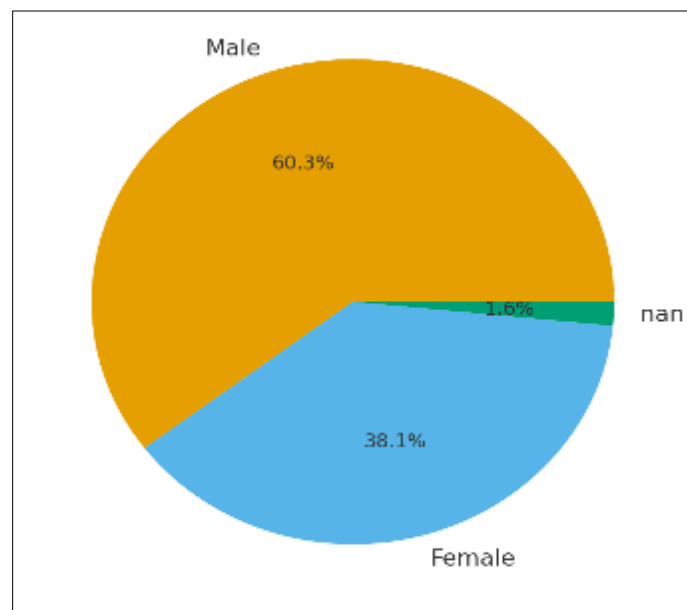


Figure 1 Gender Distribution

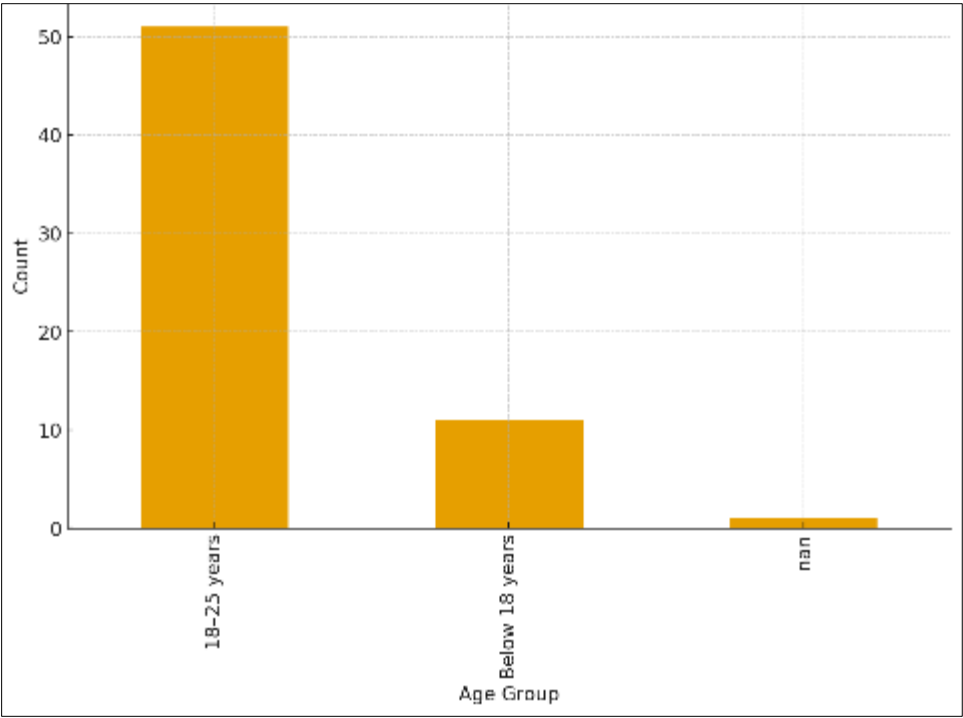


Figure 2 Age Group Distribution

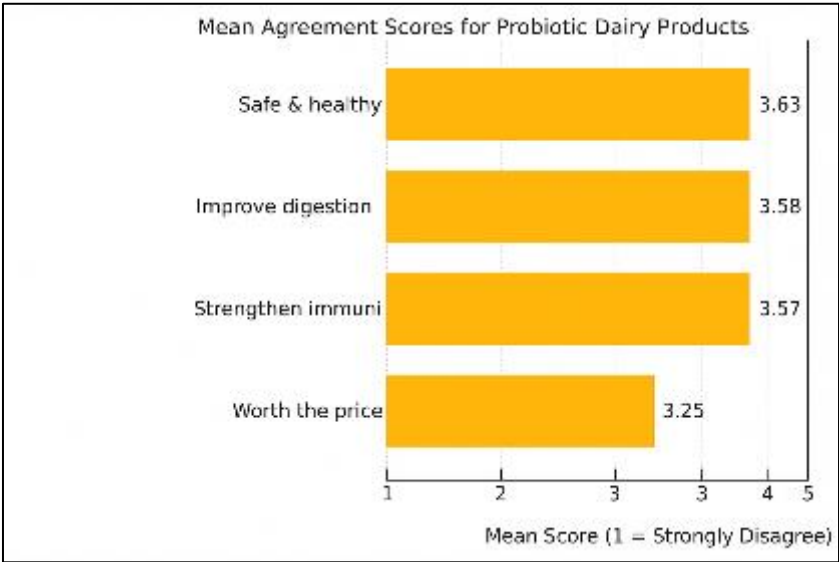


Figure 3 Mean Agreement Scores for Health-Related Perceptions (1–5 Scale)

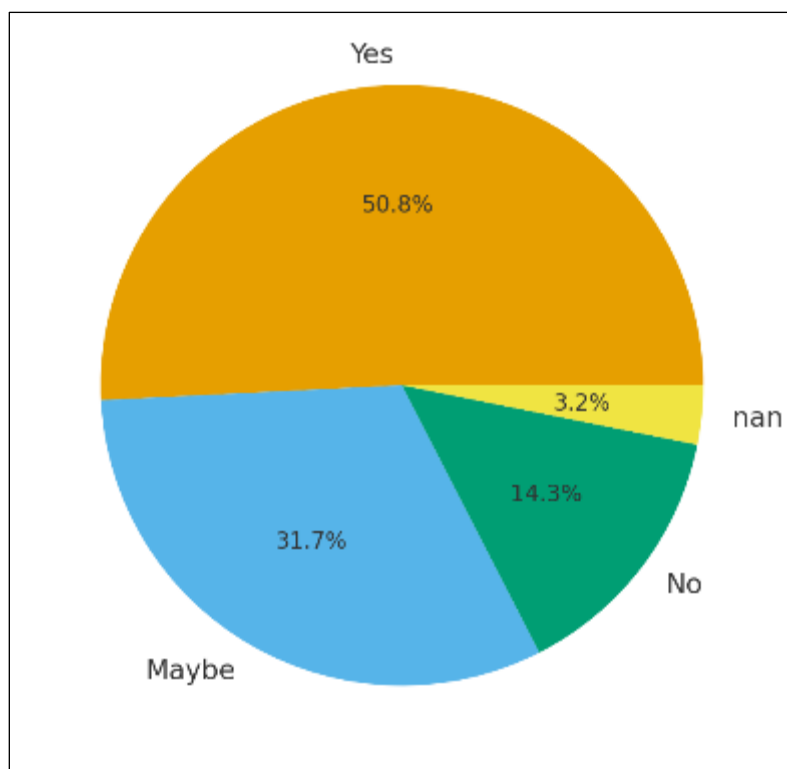


Figure 4 Willingness to Pay for Probiotic Dairy Products

The analysis indicates that consumers generally hold favorable attitudes toward probiotic dairy foods, particularly regarding digestive and immune health. However, these attitudes are shaped more by generalized wellness beliefs than by scientific understanding. Willingness to pay slightly higher prices exists, but is dependent on product credibility, consistent quality, and clear communication of verified benefits. Taste, texture, and accessibility also play meaningful roles in continued consumption.

Limitation

Although the survey was circulated among a large number of college students, only a small proportion responded, which limits the representativeness of the results. This lower response rate may introduce non-response bias, affecting the general validity of the study's conclusions.

5. Conclusion

Consumers exhibit an overall positive attitude toward probiotic dairy products; particularly recognizing benefits related to digestive comfort and immune support. The mean agreement scores suggest that while awareness exists, it is formed more from general health perception than deep scientific understanding. Willingness to pay a premium reflects a growing health-conscious consumer segment, though influenced strongly by brand trust and perceived authenticity.

For widespread adoption, manufacturers should focus on improving transparency, enhancing sensory appeal, ensuring affordability, and expanding availability. Educational outreach and verified, consistent health claims can help strengthen consumer trust. Considering the increasing emphasis on preventive healthcare, probiotic dairy products hold strong market potential moving forward.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

References

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