

The Alignment Between Product Quality, Perceived Healthiness, And Purchase Intention at Fruit-Based Beverage Establishment Among Gym Goers

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Abstract

This study examined the relationships among product quality, perceived healthiness, and purchase intention toward fruit-based beverage establishments among gym-goers in Cagayan de Oro City. The study investigated how evaluative and perception-based factors shape consumption decisions in a health-oriented beverage context. A quantitative descriptive-correlational research design was employed. Data were gathered from 496 active gym-goers selected through stratified random sampling across fitness centers. A structured, self-administered questionnaire using a four-point Likert-type scale measured product quality, perceived healthiness, and purchase intention. Descriptive statistics revealed very high levels of perceived product quality, perceived healthiness, and purchase intention. However, correlation analysis indicated weak, statistically insignificant relationships between product quality and purchase intention, and between perceived healthiness and purchase intention. The findings suggest that quality and health attributes operate as baseline expectations rather than key predictors of purchase intention, with contextual factors likely shaping decisions once minimum standards are met. The study discussed maintaining quality and hygiene, enhancing transparency on nutrition, and adopting credible, value-oriented marketing strategies; future research should assess additional determinants, such as price perception, brand trust, convenience, and social influence. This study is relevant to SDG 3 (Good Health and Well-Being) by informing health-related beverage choices, and SDG 8 (Decent Work and Economic Growth) by providing insights that can support the competitiveness of fruit-based beverage establishments. Strengthening transparency and responsible marketing may improve consumer trust and contribute to more sustainable health-oriented consumption and business practices in the local food and beverage sector.

Keywords: Consumer behavior; Fruit-based beverages; Gym-goers; Perceived healthiness; Product quality; Purchase intention;

1. Introduction

Purchase intention is widely recognized as a key predictor of actual consumer behavior and is shaped by perceptions of product quality, value, and alignment with personal health and fitness goals. In health-oriented food contexts, particularly among physically active individuals, purchase decisions are increasingly influenced by perceived healthiness and functional benefits. The rapid growth of fruit-based beverage establishments positioned as healthier alternatives highlights the need to examine how product quality and perceived healthiness influence purchase intention. This study focuses on gym-goers in Cagayan de Oro City, integrating behavioral theories to explain consumption decisions and identify gaps in existing empirical evidence.

1.1 Background of the Study: Product Quality, Perceived Healthiness, and Purchase Intention among Gym-Goers

High product quality enhances purchase intention by increasing consumer satisfaction, confidence, and loyalty (Suttikun & Meeprom, 2021). Perceived healthiness further strengthens purchase intention, particularly among health-conscious individuals who value products that support well-being (García-Salirrosas et al., 2025). Fruit-based beverage establishments have emerged as lifestyle-oriented businesses offering natural, customizable drinks that appeal to wellness-focused consumers (McCartney et al., 2017). Gym-goers represent a distinct consumer group whose beverage choices are closely linked to hydration, nutrient replenishment, recovery, body composition goals, and who use gym activities to manage stress (Daños et al., 2025). Although smoothies and fruit-based beverages are widely perceived as healthy, research shows that many contain sugar and calorie levels that may undermine fitness outcomes (Muraki et al., 2013; Imamura et al., 2015). In contrast, whole fruits have demonstrated comparable or superior effectiveness in supporting endurance and recovery (Rietschier et al., 2012; Trommelen & van Loon, 2016).

1.2 Themes and Insights from Related Literature on Product Quality, Health Perceptions, and Purchase Intention

Related literature consistently identifies product quality and perceived healthiness as key determinants of purchase intention. High-quality beverages are associated with expectations of improved fitness outcomes, reinforcing consumers' willingness to buy (Suttikun & Meeprom, 2021). Fruit-based beverages are frequently marketed as healthier alternatives, which positively shapes consumer attitudes (Yun et al., 2023). However, studies highlight a gap between perceived and actual nutritional value. Gym-goers may continue purchasing fruit-based beverages based on assumed benefits rather than verified nutritional content, despite evidence of high sugar levels in some products (Muraki et al., 2013; Imamura et al., 2015; Trommelen & van Loon, 2016). Moreover, purchases are being made once quality information regarding the products is available (Ortega, 2025). These findings emphasize the mediating role of perception in shaping purchase intention.

1.3 Local, National, and Global Context of Fruit-Based Beverage Consumption among Gym-Goers

Globally and nationally, rising health consciousness has increased demand for beverages perceived as natural and functional. Locally, this trend is evident in the growing number of fruit-based beverage establishments in Cagayan de Oro City, supported by an expanding fitness culture. Despite their increasing availability, limited empirical research has examined how gym-goers within this local context evaluate product quality and perceived healthiness when forming purchase intentions.

1.4 Theoretical or Conceptual Basis Explaining Gym-Goers' Purchase Intention

This study is anchored on the Health Belief Model (HBM), the Theory of Planned Behavior (TPB), and Signaling Theory. The HBM explains gym-goers' consumption behavior in terms of perceived benefits, barriers, susceptibility, cues to action, and self-efficacy. Beliefs about recovery benefits may encourage purchase, while concerns about sugar content or price may discourage it. The Theory of Planned Behavior emphasizes attitudes toward fruit-based beverages, social norms within fitness communities, and perceived behavioral control, including accessibility and affordability. Signaling Theory explains how branding cues such as "fresh," "organic," or "detox" influence consumer perceptions, even when nutritional content may not fully support such claims. Together, these frameworks explain how product quality and perceived healthiness influence purchase intention among gym-goers.

1.5 Research Gaps and Rationale on Product Quality, Perceived Healthiness, and Purchase Intention

Although consumer behavior research extensively covers fast food, soft drinks, and sports supplements, limited attention has been given to fruit-based beverages positioned as healthy options, particularly among gym-goers. There is insufficient empirical evidence on whether gym-goers' purchase intentions are primarily influenced by actual product quality and perceived healthiness or by branding and assumptions. This study addresses this gap by examining these relationships within a localized, fitness-oriented population.

1.6 Alignment with Relevant Sustainable Development Goals (SDGs)

This study aligns with SDG 3 (Good Health and Well-Being) by examining beverage consumption choices that affect dietary quality, recovery, and fitness outcomes. It also supports SDG 8 (Decent Work and Economic Growth) by contributing insights that promote the sustainability and competitiveness of fruit-based beverage establishments within health-conscious markets.

1.7 Importance of the Study to Multidisciplinary Sustainability

The study contributes to public health sustainability by informing consumers and health advocates about factors shaping health-related beverage choices. It supports socio-economic sustainability by guiding fruit-based beverage establishments in improving product quality, transparency, and consumer trust. Additionally, it contributes to the sustainability of education and policy by providing evidence to inform nutrition education initiatives and responsible marketing practices in the food and beverage sector.

2. Material and methods

2.1 Research Design

The study employed a quantitative, descriptive-correlational research design to examine the relationships among product quality, perceived healthiness, and purchase intention among gym-goers toward fruit-based beverage establishments. This design was selected because it allows the assessment of the strength and direction of relationships among variables without manipulating them. Product quality and perceived healthiness were independent variables, and purchase intention was the dependent variable. The quantitative design enabled objective analysis of numerical data and facilitated examination of consumer behavior patterns within health-oriented beverage contexts.

2.2 Locale of the Study

The study was conducted in Cagayan de Oro City, a major urban center in Northern Mindanao, Philippines, known for its expanding fitness culture and increasing number of lifestyle-oriented businesses. The city hosts several fruit-based

beverage establishments that actively market natural and health-enhancing beverages and are frequently patronized by gym-goers. This locale was selected because it reflects a consumer environment where wellness trends strongly influence dietary and purchasing decisions, making it suitable for examining health-related purchase intentions.

2.3 Respondents of the Study

The respondents consisted of active gym-goers and health-conscious consumers who regularly purchase smoothies, fruit-based drinks, or snacks from fruit-based beverage establishments in Cagayan de Oro City. Participants were required to be at least 18 years old and active members or regular visitors of selected gyms. Only respondents present during the data collection period and willing to participate voluntarily were included. Individuals who declined participation or were unable to complete the questionnaire for personal or medical reasons were excluded. All respondents were informed of their rights, including the right to participate voluntarily and to withdraw at any time without consequences.

2.4 Sample and Sampling Procedure

The study used stratified random sampling to ensure proportional representation across seven fitness centers in Cagayan de Oro City. Each gym was treated as a separate stratum, and respondents were randomly selected within each stratum according to the gym membership distribution. This method was chosen to reduce sampling bias and increase precision by ensuring that all subgroups were adequately represented. The sample size was determined using Cochran's Sample Size Formula, which is appropriate for large populations and commonly used in social science and health-related research. Based on a total population of 2,018 gym members, a sample size of 496 respondents was determined to be statistically sufficient to represent the population with an acceptable margin of error. The final sample was proportionately allocated across the participating gyms to maintain balanced representation.

2.5 Research Instrument

Data were collected using a structured, self-administered questionnaire designed to measure three main constructs: product quality, perceived healthiness, and purchase intention toward fruit-based beverages. The instrument was divided into sections corresponding to these constructs and utilized a four-point Likert-type scale to assess respondents' perceptions and intentions. Items measuring product quality were adapted and modified from the study "Plant-Based Beverages: Consumption Habits, Perception and Knowledge on a Sample of Portuguese Citizens" and focused on freshness, cleanliness, taste, visual appeal, and consistency. Perceived healthiness items were adapted from the "Updated-Food Choice Questionnaire: Cultural Adaptation and Validation in a Spanish-Speaking Population from Mexico" to evaluate beliefs about nutritional value, safety, and health benefits. Purchase intention items were adapted from "Consumer Demand for Healthy Beverages in the Hospitality Industry: Examining Willingness to Pay a Premium, and Barriers to Purchase" and assessed willingness to buy, recommend, and continue purchasing fruit-based beverages. The questionnaire was further supported by items drawn from McCartney et al. (2017), Suttikun and Meeprom (2021), and Wang et al. (2025). Minor modifications were made to ensure clarity, cultural appropriateness, and alignment with the café and gym context. Content validation was conducted by two experts in business administration and consumer research, and their recommendations were incorporated to enhance clarity and relevance.

2.6 Data Gathering Procedure

Prior to data collection, formal permission was obtained from the management of selected gyms and fruit-based beverage establishments. Data collection schedules were coordinated to avoid disruption of gym operations. Respondents were informed of the study's purpose, assured of confidentiality, and informed of their rights before answering the questionnaire. The survey was administered directly to gym members who frequently purchased fruit-based beverages. Respondents were given sufficient time to complete the questionnaire, and researchers remained present only to clarify questions without influencing responses. Completed questionnaires were checked for completeness and consistency, and incomplete or invalid responses were excluded. All data were encoded and prepared for analysis using appropriate statistical software.

2.7 Data Analysis Techniques

Descriptive statistical tools, including mean, standard deviation, and percentage, were used to describe respondents' perceptions of product quality, perceived healthiness, and purchase intention. The mean scores were interpreted based on the four-point Likert scale. To test the hypotheses regarding the relationships between product quality and purchase intention, as well as between perceived healthiness and purchase intention, Pearson's product-moment correlation coefficient was used to assess the strength and direction of the linear relationships. All statistical analyses were conducted in Google Colaboratory to compute descriptive and inferential statistics.

2.8 Ethical Considerations

The study adhered strictly to ethical research standards. Participation was voluntary, and informed consent was obtained from all respondents. The researchers declared no conflict of interest and were not affiliated with any participating fruit-based beverage establishments. Respondent anonymity was ensured, and no personally identifiable information was collected. All data were treated with confidentiality, stored securely, and used solely for research purposes in compliance

with Republic Act No. 10173 or the Data Privacy Act of 2012. The study was reviewed and approved by the research adviser and followed the ethical guidelines of Xavier University – Ateneo de Cagayan.

3. Results and Discussion

3.1 Levels of Product Quality, Perceived Healthiness, and Purchase Intention among Gym-Goers

3.1.1 Level of Product Quality of Fruit-Based Beverages as Perceived by Gym-Goers

The findings indicate that gym-goers perceived the product quality of fruit-based beverages to be very high. The overall mean score ($M = 3.593$, $SD = 0.518$) indicates strong agreement across indicators of freshness, taste, cleanliness, consistency, use of natural ingredients, and packaging safety. Most respondents agreed that fruit-based beverage establishments consistently meet or exceed expectations for preparation quality and hygiene. These results suggest that fruit-based beverage establishments have successfully established a strong quality standard aligned with the expectations of fitness-oriented consumers. Freshness, cleanliness, and consistency emerged as central factors shaping positive perceptions of quality. This finding is consistent with Suttikun and Meeprom (2021), who emphasized that product freshness and consistency are critical drivers of favorable consumer evaluations. The uniformly high ratings indicate that product quality is perceived as a fundamental attribute rather than a differentiating factor.

3.1.2 Level of Perceived Healthiness of Fruit-Based Beverages among Gym-Goers

Respondents generally perceived fruit-based beverages as very healthy, as reflected by a high overall mean score ($M = 3.840$, $SD = 0.542$). Gym-goers viewed these beverages as healthier alternatives to soft drinks and energy drinks, believed they offered nutritional benefits, and felt confident that their consumption supported an active, healthy lifestyle. Trust in café health claims and perceptions of long-term wellness benefits were also rated highly. The findings indicate a strong association between fruit-based beverages and healthy living among gym-goers. These perceptions align with the positioning of fruit-based beverages as natural and wellness-oriented products. The results support the observations of Yun et al. (2023) and Imamura et al. (2015), who noted that consumers often perceive health-oriented products favorably despite uncertainties regarding actual nutritional composition.

3.1.3 Level of Purchase Intention toward Fruit-Based Beverages among Gym-Goers

The level of purchase intention among gym-goers was very high, with an overall mean score of 3.804 ($SD = 0.488$). Respondents expressed a strong willingness to regularly purchase fruit-based beverages, recommend them to peers, continue purchasing in the future, and choose them over less healthy alternatives. Indicators of repurchase intention and peer recommendations were particularly strong. These findings indicate that fruit-based beverage establishments enjoy strong consumer acceptance and loyalty among gym-goers. High purchase intention reflects habitual consumption patterns and positive word-of-mouth potential. This aligns with Zeithaml (1988), who emphasized that perceived value and price fairness strongly influence consumer purchase decisions. The results suggest that fruit-based beverages have been successfully positioned as dependable options within gym-goers' daily routines.

3.2 Relationship Between Product Quality and Purchase Intention among Gym-Goers

Correlation analysis revealed a weak positive relationship between product quality and purchase intention ($r = 0.055$), which was not statistically significant ($p = 0.225$). This indicates that variations in perceived product quality did not significantly affect gym-goers' purchase intentions for fruit-based beverages. The insignificant relationship suggests that product quality functions as a baseline or hygiene factor rather than a motivating determinant of purchase intention. Because gym-goers consistently rated product quality as very high, quality may be assumed rather than actively evaluated during purchasing decisions. Its absence could deter purchase, but its presence does not necessarily encourage it. This interpretation explains why high-quality ratings did not translate into a significant influence on purchase intention.

3.3 Relationship Between Perceived Healthiness and Purchase Intention among Gym-Goers

The analysis revealed a weak positive but statistically insignificant relationship between perceived healthiness and purchase intention ($r = 0.029$, $p = 0.522$). This result indicates that perceived healthiness did not significantly affect gym-goers' intention to purchase fruit-based beverages. The lack of a significant relationship suggests that expectations are saturated among health-conscious consumers. Gym-goers may already assume that fruit-based beverages are healthy, making perceived healthiness an expected attribute rather than a persuasive factor. Although respondents strongly believed in the health benefits of these beverages, uncertainty regarding sugar and calorie content may limit the influence of health perceptions on purchase decisions.

3.4 Integrated Interpretation of Product Quality, Perceived Healthiness, and Purchase Intention

Despite high mean scores for product quality, perceived healthiness, and purchase intention, correlation analyses showed that neither product quality nor perceived healthiness significantly influenced purchase intention. This indicates a disconnect between positive perceptions and their predictive power for purchasing behavior. The findings suggest that in mature, health-oriented beverage markets, quality and health attributes are viewed as baseline expectations rather than

differentiating factors. Gym-goers may base their purchasing decisions more on situational and contextual factors, such as convenience, proximity to gyms, habitual consumption, peer influence, and brand familiarity, rather than on evaluative judgments of quality or health benefits. While fruit-based beverage establishments have successfully positioned themselves as providers of high-quality, health-aligned products, sustaining purchase intention may require greater nutritional transparency and value-oriented or experiential strategies.

4. Conclusion & Recommendations

The study examined the alignment between product quality, perceived healthiness, and purchase intention toward fruit-based beverage establishments among gym-goers in Cagayan de Oro City. Findings revealed that gym-goers rated product quality and perceived healthiness at very high levels and demonstrated strong purchase intention, indicating that fruit-based beverages are well integrated into their regular consumption habits. However, the correlation analysis showed weak, statistically insignificant relationships between product quality and purchase intention, as well as between perceived healthiness and purchase intention. These results suggest that while gym-goers value quality and health attributes, such factors function as baseline expectations rather than decisive drivers of purchasing behavior. Consequently, purchase decisions appear to be influenced more by contextual and extrinsic factors once minimum standards of quality and healthiness are met.

Based on the findings, fruit-based beverage establishments are encouraged to maintain high product quality and hygiene standards while enhancing nutritional transparency, particularly regarding sugar and calorie content, to strengthen consumer trust. Attention to pricing strategies may also help address price sensitivity among health-conscious consumers. Marketers can reinforce health-oriented branding through credible, transparent messaging aligned with consumer wellness values. Future researchers are recommended to examine additional factors, such as price perception, brand trust, convenience, and social influence, and to explore broader consumer groups or employ longitudinal and experimental designs to better understand purchasing behavior in health-oriented beverage markets.

Compliance with ethical standards

This study adhered to established academic and ethical research principles, ensuring honesty, transparency, and integrity throughout data collection, analysis, and reporting. All procedures respected participant welfare and confidentiality and were conducted solely for academic research purposes.

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Conflict of interest statement

The researchers declare that they have no conflict of interest in the conduct of this study. None of the researchers is affiliated with or employed by any of the fruit-based beverage establishments included in the research.

Statement of ethical approval

The study was reviewed and approved by the research adviser and was conducted in accordance with the ethical research guidelines of Xavier University – Ateneo de Cagayan. No external ethics committee approval was sought or required for this study.

Statement of informed consent

Informed consent was obtained from all participants prior to data collection. Respondents were informed of the purpose of the study, the voluntary nature of participation, their right to withdraw at any time, and the assurance of anonymity and confidentiality in compliance with the Data Privacy Act of 2012 (Republic Act No. 10173).

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