

International Journal of Agriculture Extension and Social Development

Volume 9; Issue 5; May 2026; Page No. 387-389

Received: 02-03-2026
Accepted: 09-04-2026

Indexed Journal
Peer Reviewed Journal

Perception of consumers on acceptance of fresh and frozen meat in the changing socio-economic scenario

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DOI: <https://www.doi.org/10.33545/26180723.2026.v9.i5e.3600>

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Abstract

The present study was conducted to determine consumer perception and acceptance towards fresh and frozen meat under the changing socio-economic scenario. A descriptive research method was adopted for the study. A total of 250 respondents who were buyers and decision-makers for household meat purchases were selected to assess consumer perception regarding fresh and frozen meat. Factors such as preferred meat items in fresh and frozen form, perceived nutritional content, sensory characteristics, quality, shelf-life and price were evaluated among respondents. The study revealed that 59.60% of consumers preferred fresh meat, whereas 40.40% preferred frozen meat. Among frozen meat products, frozen pork was most preferred (31.20%) followed by frozen beef, mutton, chevon and poultry meat. In contrast, fresh chicken and chevon were highly preferred in fresh form. Ease of availability and ease of preparation were major factors favoring fresh meat consumption. However, higher consumer perception regarding nutritional content, sensory quality, shelf-life and price positively influenced acceptance towards frozen meat. The study concluded that consumers showed increasing receptiveness and purchase intention towards frozen meat products due to changing lifestyles and socio-economic conditions.

Keywords: Fresh meat, frozen meat, consumer perception, socio-economic factors, meat acceptance, Tamil Nadu

Introduction

Meat and meat products constitute an important component of the human diet, providing high-quality protein, essential amino acids, minerals, and vitamins required for growth, maintenance, and normal physiological functions. Traditionally, Indian consumers have shown a strong preference for freshly slaughtered meat due to perceptions of superior freshness, flavour, texture, and nutritional quality. As a result, the consumption of fresh meat remains closely associated with traditional food practices, regional preferences, and cultural dietary habits (Stadnik, 2025) [8]. However, rapid urbanization, industrialization, increased employment opportunities, changing family structures, and modernization have substantially influenced contemporary food consumption patterns. Modern consumers increasingly prefer food products that offer convenience, hygienic processing, ease of storage, and extended availability. These changing socio-economic conditions have contributed significantly to the growing demand and market expansion of frozen and processed meat products (Habib *et al.*, 2025) [5].

Frozen meat products offer several operational advantages, including an extended shelf life, simplified logistics, improved storage stability, minimized microbial spoilage and added convenience during handling and cooking. Furthermore, systematic technological advancements in industrial refrigeration systems, cold chain infrastructure, vacuum packaging and primary meat processing techniques have considerably enhanced both the physical quality and

microbiological safety of frozen meat variants (Bai *et al.*, 2023) [3].

Consumer perception of fresh and frozen meat is influenced by several factors, including nutritional quality, sensory characteristics, price, convenience, shelf life, food safety and product availability. Although fresh meat continues to dominate traditional wet markets, frozen meat products are increasingly gaining acceptance among urban consumers and dual-income households due to their convenience and ease of meal preparation (Apriantini *et al.*, 2022) [1]. The acceptance of frozen meat products is heavily mediated by consumer awareness regarding hygienic processing protocols, packaging integrity and modern preservation techniques. Consequently, understanding the shifting consumer perceptions toward fresh versus frozen meat is essential for meat processors, brand marketers, retailers and policymakers. These insights provide a baseline to refine production systems, optimize targeted marketing strategies, and build consumer confidence (Araujo *et al.*, 2022) [2]. To address this need, the present study was undertaken to systematically evaluate consumer perception and acceptance of fresh and frozen meat within a rapidly changing socio-economic landscape.

Materials and Methods

Study area

The study was conducted in selected urban and semi-urban areas with established retail meat markets in selected locations of Tamil Nadu. These regions had regular

commercial availability of both fresh and frozen meat products through wet markets, local butcher shops, supermarkets and specialized meat retail outlets.

Selection of respondents

A total of 250 respondents were selected using a random sampling method. The study population consisted of primary household buyers and decision-makers responsible for meat purchasing. Respondents from different age groups, occupations, educational backgrounds and income categories were included to ensure a representative demographic distribution.

Survey design and data collection

The study was conducted among consumers awareness pertaining to fresh and frozen meat. Data were collected by personal interview schedule using a structured pretested interview schedule. The interview schedule developed was pre-tested among 50 respondents from the non-sampling area for understanding ambiguities if any and the schedule was accordingly modified before final data collection. Six background variables and other variables were selected based on the objectives viz. consumer behavior and perception: preference for fresh or frozen meat; preferred types and cuts of frozen meat; perceptions regarding taste, texture, freshness, nutritional value and overall quality; opinions on shelf life, storage and price; the influence of convenience factors such as availability and ease of preparation and future purchasing intentions including brand preferences.

Statistical analysis

The data collected from the respondents were tabulated and analyzed using SPSS version 24.0. The statistical tools employed to determine frequencies, percentages, and comparative distributions among variables.

Results and Discussion

Consumer preference for fresh and frozen meat

The results revealed that about 59.60% respondents preferred fresh meat and the remaining 40.40% respondents preferred for frozen meat. Consumers preferred fresh meat on the basis of choice on traditional dietary practices. Traditional retail meat outlets and butcher shops continue to be the primary source of fresh meat purchases. However, the popularity of frozen meat is steadily increasing among consumers. There was a widespread perception observed that fresh meat offers superior taste, freshness and texture, making fresh meat was the preferred option for daily consumption (Sivaprasad *et al.*, 2023)^[7].

About 40.40% of respondents were preferred frozen meat that results indicate a gradual shift in consumer purchasing behavior and largely driven by increasingly demanding modern lifestyles. Greater awareness of modern meat preservation methods has also contributed to increased consumer confidence towards frozen meat. Respondents preferred frozen meat primarily appreciated its convenience, including ease of preparation, extended shelf life and year-round availability through freezer storage (Sinha and Panigrahy, 2025)^[6]. Overall, our present findings indicated that the presence of a dual market, where long-standing preferences for fresh meat coexist with a growing demand

for convenient frozen alternatives.

Table 1: Consumer perception on acceptance of fresh and frozen meat

Particulars	Frequency (n=250)	Percentage (%)*
Preference for meat type		
Fresh meat	149	59.60
Frozen meat	101	40.40
Preference for frozen meat products		
Frozen pork	78	31.20
Frozen beef	53	21.20
Frozen mutton	51	20.40
Frozen chevon	43	17.20
Frozen poultry meat	25	10.00
Factors affecting fresh meat preference		
Ease of availability	211	84.40
Ease of preparation	243	97.20
Factors affecting frozen meat preference		
Nutritional content	241	96.40
Sensory characteristics	148	59.20
Perceived quality	207	82.80
Shelf-life	187	74.80
Price	240	96.00

*Percentages were calculated based on the total number of respondents (n = 250)

Product preference for frozen meat

Results with respect to the type of frozen meat purchased, clear consumer preferences were observed among the respondents. Frozen pork was the most preferred frozen meat item, preferred by 31.20% of respondents, followed by beef (21.20%), mutton (20.40%), chevon or goat meat (17.20%) and poultry (10.00%). The higher preference for frozen pork and beef might be attributed to the perception that these meats retain their texture, flavor and overall quality more effectively during frozen storage. In contrast, consumers generally preferred to purchase poultry and chevon in fresh form. This preference was influenced by concerns that freezing and thawing may negatively affect the texture and juiciness of frozen poultry or chevon meats. Fresh poultry and goat meat are commonly perceived by consumers to offer superior tenderness and sensory quality as compared to their frozen counterparts. Overall, our present findings indicated that consumer preference for frozen meat is strongly influenced by the type of animal source, with sensory expectations, customary cooking practices and concerns regarding quality deterioration during frozen storage playing important roles in purchasing decisions. Our present results are in agreement with finding of Apriantini *et al.* (2022)^[1].

Factors influencing preference for fresh meat

Convenience and local availability emerged as the primary influencing factors for purchase of fresh meat. The most significant factor, reported by 97.20% of respondents, was ease of preparation. Consumers preferred to purchase and cook fresh meat immediately without the need for thawing, making it particularly suitable for routine daily meal preparation. Accessibility was another important factor with 84.40% of respondents indicated the easy availability of fresh meat through nearby butcher shops and traditional markets. The widespread presence of these retail outlets and butcher shops enables consumers to conveniently purchase

the quantity required for immediate consumption. Beyond convenience and accessibility, respondents strongly associated fresh meat with superior sensory qualities, including better juiciness, tenderness and a more natural flavor. Such perceptions continue to reinforce consumer preference for freshly slaughtered meat. These findings are consistent with previous studies indicating that taste and texture are among the most influential factors affecting consumer meat purchasing behavior (Garmyn, 2020) ^[4].

Factors influencing preference for frozen meat

Several practical, economic, and quality-related factors contributed to the growing acceptance of frozen meat among respondents. A substantial proportion of respondents (96.40%) indicated that modern freezing technologies help preserve the nutritional quality of meat, reflecting increasing consumer awareness that convenience does not necessarily compromise health benefits. Economic considerations also played a major role, with 96.00% of respondents reporting that frozen meat offers better financial value. The ability to purchase meat in bulk, store it for extended periods, and minimize losses due to spoilage makes frozen meat a cost-effective option for households (Sinha and Panigrahy, 2025) ^[6].

In addition, 82.80% of respondents preferred frozen meat because of their confidence in its hygiene and quality standards. Consumers associated frozen meat with safer handling practices, secure packaging, and standardized processing conditions, which contributed to greater trust in the product. The extended shelf life of frozen meat was another important advantage identified by respondents, with 74.80% indicating that it provides greater flexibility in meal planning and reduces the frequency of shopping trips. Interestingly, 59.20% of respondents perceived the flavor and tenderness of cooked frozen meat to be comparable to that of fresh meat. These findings suggest that advancements in freezing technologies, modern processing methods, and improved cold-chain distribution systems are positively influencing consumer perceptions of frozen meat products. As consumers become more informed about the safety, nutritional value and quality of frozen meat, traditional negative perceptions associated with frozen products appear to be gradually diminishing (Sun *et al.*, 2025) ^[9]. The increasing presences of large retail supermarkets with cold-chain infrastructure have significantly improved the accessibility and availability of frozen meat products. The growing acceptance of frozen meat appears to be driven by factors such as urbanization, increasingly busy lifestyles, improved availability of frozen products in retail supermarkets and greater consumer awareness regarding food safety and preservation technologies. To sustain this positive trend, the meat industry should prioritize strengthening cold-chain logistics, improving hygienic packaging and retail presentation, and implementing consumer education initiatives aimed at increasing awareness of the safety, quality and nutritional benefits of frozen meat products.

Conclusion

From these results, notable shift in consumer perceptions and purchasing behavior regarding fresh and frozen meat in response to changing lifestyles. The fresh meat continues to

be the preferred choice due to perceived superior taste and easy availability through local markets and frozen meat is steadily establishing a significant market presence. Consumers are increasingly attracted to frozen meat because of its convenience, affordability, extended shelf life and ability to retain nutritional quality.

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