

A Review on Consumer Buying Behaviour Towards Rice Varieties in Urban Maharashtra with Special Reference to Pune

Snehal Sampatrao Jadhav¹, Dr. Ranjit Patil², Dr. J. S. Dhekale³

¹*Research Scholar, Dr. D. Y. Patil Agriculture and Technical University*

²*Assistant Professor, Dr. D. Y. Patil Agriculture and Technical University*

³*Assistant Professor, Dr. D. Y. Patil Agriculture and Technical University*

Abstract—The consumption of rice is one of the most vital staple food commodities in India and has become an integral part of food consumption in urban households. Rice consumer buying behavior has been transformed greatly owing to various reasons such as urbanization, change in lifestyle, higher income levels, awareness regarding health issues, and emergence of organized retail formats. Rice buyers today make purchasing decisions based on various criteria such as sensory aspects, economic aspect, social influences, demographic aspects, branding, and variety of the product. Pune, being one of the fastest-growing metro cities of the Maharashtra state, offers a dynamic environment for both branded and non-branded rice varieties. The present review paper presents various literatures relating to consumer buying behavior, varietal preference, sensory evaluation, and socioeconomic factors affecting consumer buying decisions in relation to the rice products. Various factors included in the paper include sensory, economic, social, demographic, consumer buying behavior, and varietal preference. Major ranking factors such as aroma, texture, elongation of grains, water absorption capacity, volume increase, availability, brand, and pricing have been found influencing buyer preferences of rice.

Index Terms—Consumer Behaviour, Rice Varieties, Varietal Preference, Sensory Attributes, Urban Consumers, Pune City, Rice Purchasing Behaviour

I. INTRODUCTION

Rice is a staple food for more than half of the global population and forms an essential component of Indian dietary consumption. India is among the world's largest producers and consumers of rice, with substantial regional diversity in rice cultivation and

consumption patterns. Consumer behaviour towards rice purchasing has evolved considerably due to urbanization, rising income levels, increasing education, health consciousness, and modernization of retail systems. Urban consumers are increasingly shifting from quantity-oriented purchasing to quality-oriented decision-making. Modern consumers evaluate rice using multiple parameters including aroma, texture, grain size, cooking quality, nutritional value, packaging, branding, and price. These changing preferences have resulted in increased demand for premium, branded, and specialty rice varieties.

Consumer behaviour theory explains that purchasing decisions are influenced by psychological, social, economic, and personal factors. Traditional rice varieties such as Ambemohar, Indrayani, and Kolam coexist with premium rice varieties such as Basmati and Sona Masuri in Pune markets. Studies indicate that sensory quality characteristics strongly affect consumer preference and willingness to pay for rice (Benjamin Tetteh Anang 2011).

Maharashtra, particularly Pune city, represents a rapidly growing metropolitan market characterized by diversified consumer preferences and increasing demand for premium and specialty rice varieties. Traditional rice varieties such as Ambemohar, Indrayani, and Kolam continue to coexist with premium varieties like Basmati and Sona Masuri in urban retail markets. At the same time, changing consumer awareness regarding nutrition, branding, packaging, and sustainability has further influenced rice purchasing behaviour. Therefore, the present review attempts to study and review existing literature related to consumer buying behaviour toward rice

varieties while examining the influence of sensory, economic, social, and demographic factors on rice purchasing decisions among urban consumers. The study also focuses on understanding varietal preference patterns and identifying major ranking attributes such as aroma, texture, grain elongation, water absorption, volume expansion, availability, brand, and price that influence rice selection behaviour. Furthermore, the review seeks to identify existing research gaps related to rice consumption behaviour in Pune city and urban Maharashtra. Understanding these determinants has become essential for marketers, retailers, policymakers, and rice producers in developing effective marketing strategies and promoting consumer-oriented rice products.

II. METHODOLOGY

The present study adopts a systematic literature review (SLR) approach to examine consumer buying behaviour toward rice varieties in urban Maharashtra with special reference to Pune city. The review methodology was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework to ensure a structured, transparent, and comprehensive review process. The study aimed to synthesize existing literature related to rice purchasing behaviour, varietal preference, and the determinants influencing consumer decision-making. Secondary data for the review were collected from various reputed academic databases and scholarly platforms including ResearchGate, ScienceDirect, SSRN, MDPI, SpringerLink, Google Scholar, and IOP Science. Relevant literature was identified using keywords such as “consumer buying behaviour,” “rice varietal preference,” “rice purchasing behaviour,” “urban consumers,” “sensory attributes of rice,” “branded rice,” “traditional rice varieties,” “consumer preference for rice,” “organic rice,” and “rice consumption behaviour.”

To maintain quality and relevance, only peer-reviewed journal articles, conference papers, review articles, theses, and empirical studies published between 2010 and 2025 were included in the review. Studies specifically related to rice purchasing decisions, consumer preference analysis, food buying behaviour, and sensory evaluation of rice were considered. Articles unrelated to consumer behaviour or lacking

empirical relevance were excluded from the review process.

III. RESULTS AND DISCUSSION

3.1 Sensory Attributes Influencing Rice Purchasing Behaviour

The review of literature indicates that sensory attributes are among the most significant determinants influencing consumer buying behaviour toward rice varieties (Joann Peck). Urban consumers increasingly evaluate rice based on intrinsic quality characteristics such as aroma, texture, grain appearance, taste, cooking quality, water absorption, and volume expansion (Zhongkai Zhou). Sensory evaluation studies reveal that consumers generally prefer rice varieties possessing soft texture, superior fragrance, and desirable cooking characteristics. Aromatic rice varieties such as Ambemohar and Basmati are widely preferred because of their distinctive aroma and premium sensory appeal (Sarika MATHURE).

Among the sensory variables, aroma/fragrance emerged as one of the most influential factors affecting consumer preference and willingness to pay for premium rice varieties. Texture, particularly softness and fluffiness after cooking, also significantly affects repeat purchase behaviour and consumer satisfaction. Studies further indicate that grain elongation, water absorption capacity, and volume expansion are important indicators of cooking performance and product quality, especially among urban households that prioritize convenience and consistency in food preparation.

The literature also highlights the importance of ranking attributes used by consumers during rice selection. Major ranking variables identified across studies include aroma/fragrance, texture, grain elongation, water absorption, volume expansion, availability, brand, and price. These attributes collectively shape consumer perception regarding rice quality and significantly influence varietal preference.

3.2 Economic Factors Affecting Rice Buying Behaviour

Economic factors play a crucial role in determining rice purchasing decisions, particularly among urban middle-income households. The review findings reveal that consumers frequently evaluate rice products based on price sensitivity, household income,

purchasing power, value for money, and quantity discounts. Economic conditions substantially influence both the quantity and quality of rice purchased by consumers.

Higher-income consumers generally demonstrate greater willingness to purchase premium and branded rice varieties due to perceived quality assurance, superior sensory characteristics, and brand reputation. Conversely, lower-income households tend to prioritize affordability and price stability while making purchasing decisions. The literature also suggests that price significantly influences purchase intention, brand switching behaviour, and product comparison among urban consumers (Neha Shaw). Urban consumers increasingly compare product prices across organized retail stores, supermarkets, and online grocery platforms before making purchase decisions. The growing availability of multiple rice brands has intensified consumer focus on economic value and product differentiation.

3.3 Social Factors Influencing Consumer Preference

Social factors significantly influence rice purchasing behaviour through family influence, peer groups, cultural practices, social status, and lifestyle patterns. Food consumption behaviour is deeply associated with social and cultural identity, particularly in the Indian context where rice consumption is linked with traditional dietary practices and ceremonial occasions. The review indicates that urban consumers increasingly associate premium rice brands with quality assurance, modern lifestyle, and social prestige. At the same time, traditional rice varieties such as Ambemohar and Indrayani continue to maintain cultural significance due to their association with regional cuisine and household traditions. Family preferences and cultural food habits also influence purchasing frequency and varietal selection (N Ramya and Dr. SA Mohamed Ali).

Studies further suggest that social norms and cultural values strongly affect food purchasing decisions and shape consumer attitudes toward traditional and specialty rice varieties. Social influence has become more prominent with the growth of digital media, online reviews, and social networking platforms, which increasingly shape consumer awareness and product perception.

3.4 Demographic Factors and Rice Consumption Behaviour

Demographic characteristics are important determinants of rice preference and buying behaviour among urban consumers. The review findings indicate that age, gender, education, occupation, family size, and income level significantly influence purchasing decisions and varietal preference.

Educated consumers are more likely to prefer branded, packaged, and nutritionally superior rice products due to greater awareness regarding food quality, health benefits, and food safety standards (Abdullahi Farah, A., Zainalabidin, M. and Ismail, A. L.). Younger urban consumers demonstrate greater preference for convenience-oriented food products and are more willing to experiment with premium and specialty rice varieties.

Income level also strongly influences consumer preference for premium rice varieties such as Basmati and organic rice. Larger family households tend to prioritize quantity and affordability, whereas smaller urban households often focus more on quality and convenience. Demographic studies additionally indicate that occupation and lifestyle patterns affect store preference, brand selection, and purchasing frequency.

3.5 Consumer Buying Behaviour Toward Rice Varieties

Consumer buying behaviour refers to the process through which consumers identify needs, evaluate alternatives, and make purchase decisions regarding rice varieties. The literature reveals that rice purchasing behaviour involves several dimensions including brand preference, purchase frequency, store preference, information search behaviour, purchase intention, and loyalty behaviour. Urban consumers increasingly rely on product information, packaging details, brand reputation, and previous consumption experience before purchasing rice products. Consumer attitudes, satisfaction levels, and perceived product quality significantly influence repeat purchase behaviour and customer loyalty (AZABAGAOGLU M.O., GAYTANCIOGLU O).

The expansion of organized retailing and online grocery platforms has further transformed rice purchasing behaviour by increasing consumer access to diverse rice varieties and branded products. Consumers now demonstrate greater involvement in

product comparison and quality evaluation before making purchase decisions.

3.6 Models of Consumer Behaviour

Consumer behaviour models provide a theoretical foundation for understanding how consumers make purchasing decisions regarding rice varieties. The review of literature indicates that consumer buying behaviour toward rice is a complex process influenced by psychological, social, economic, and product-related factors. Various consumer behaviour models have been applied in food purchasing studies to explain consumer decision-making patterns, preference formation, and purchase intention.

One of the most widely used models is the Engel–Kollat–Blackwell (EKB) Model, which explains consumer behaviour through stages such as problem recognition, information search, evaluation of alternatives, purchase decision, and post-purchase evaluation. In the context of rice purchasing behaviour, urban consumers first recognize the need for rice consumption, gather information regarding available varieties, compare sensory and economic attributes, and finally make purchasing decisions based on perceived value and satisfaction (Benjamin Appiah Osei, Ama Nyenkua Abenyin).

The Theory of Planned Behaviour (TPB) also plays a significant role in explaining rice purchasing decisions. According to this theory, consumer intention is influenced by attitude, subjective norms, and perceived behavioural control. Health-conscious consumers, for example, may develop positive attitudes toward organic or low glycemic index rice varieties due to increasing awareness regarding nutrition and wellness. Similarly, family influence and cultural food practices may shape subjective norms affecting rice varietal preference (Icek Ajzen).

The Fishbein Multi-Attribute Attitude Model explains that consumers evaluate products based on multiple attributes and assign different importance levels to each attribute before making purchase decisions. In rice purchasing behaviour, consumers often assess attributes such as aroma, texture, grain elongation, price, brand reputation, cooking quality, and availability before selecting a particular rice variety (Hamidah Hendrarini*, Rifan Jefri Sunarsono, Yuni Erviyanti and Teguh Soedarto).

The literature also highlights the relevance of Variety-Seeking Behaviour Theory, which suggests that

consumers tend to switch products or brands to seek novelty and satisfaction. Urban consumers increasingly experiment with different rice varieties such as Ambemohar, Basmati, Brown Rice, and Black Rice due to changing lifestyles, social influence, and increased exposure to organized retail markets (Yuan Zhang^{*}).

Additionally, Consumer Value Theory explains that consumer purchasing decisions are influenced by functional, emotional, social, and conditional values associated with products. Traditional rice varieties often provide emotional and cultural value, whereas branded rice products provide functional and social value through perceived quality assurance and brand prestige.

Overall, these consumer behaviour models collectively explain that rice purchasing decisions are multidimensional and influenced by a combination of sensory evaluation, socio-economic conditions, psychological perception, and cultural attachment. The integration of these theoretical models provides a strong conceptual base for understanding consumer buying behaviour and varietal preference toward rice in urban Maharashtra with special reference to Pune city. (Jisana T. K.)

IV. CONCLUSION

Consumer buying behaviour toward rice varieties in urban Maharashtra is increasingly influenced by sensory quality, economic considerations, social influence, demographic characteristics, and health consciousness. Urban consumers in Pune city are becoming more quality-oriented and value-conscious while selecting rice varieties.

Sensory attributes such as aroma, texture, grain elongation, water absorption, and volume expansion significantly influence varietal preference. Economic factors including price and affordability remain critical determinants, especially among middle-income households. Social and demographic variables further shape rice purchasing patterns through cultural influence, education, and lifestyle differences.

Traditional rice varieties such as Ambemohar and Indrayani continue to maintain strong market relevance despite increasing competition from branded and premium rice products. The growing demand for organic, healthy, and specialty rice varieties reflects changing urban consumption

behaviour. The review identifies significant research opportunities in consumer segmentation, behavioural modelling, and sustainable marketing strategies related to rice consumption in Pune city.

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