
Consumer Behavior And Usage Patterns Of Packed Masala Powders In Rural And Semi-Rural Areas: A Socio-Economic And Environmental Perspective

Velraj M¹, Dr C. Thanga Lakshmi², Dr A. Asok³

¹Department of Management Studies - Economics (Interdisciplinary) Kamaraj College (Research centre) – Thoothukudi- 628003 Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli-627012

²Assistant Professor & Head, Department of Business Administration, Sri Ram Nallamani Yadava Colleges, Arts and Science, Tenkasi Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli-627012

³Assistant professor Department of Economics Kamaraj College, Thoothukudi- 628003 Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli-627012

How to cite this paper as: Velraj M, Dr C. Thanga Lakshmi, Dr A. Asok (2023) Consumer Behavior And Usage Patterns Of Packed Masala Powders In Rural And Semi-Rural Areas: A Socio-Economic And Environmental Perspective. *Library Progress International*, 861-872

ABSTRACT

The study investigates the consumer behavior and usage patterns of packed masala powders, focusing on rural and semi-rural areas. A sample of 240 respondents was selected to understand how demographic and socio-economic factors such as age, gender, income, education, and occupation influence purchasing decisions and consumption habits. The study also explores awareness of environmental labeling and green product preferences among consumers. Data analysis, including chi-square tests, revealed significant relationships between certain variables like occupation and usage frequency, as well as income and quantity purchased. However, other factors such as gender and family type showed no significant influence. The findings highlight a strong inclination towards affordability and accessibility, with retail stores being the preferred purchasing mode. The study concludes with suggestions aimed at enhancing consumer awareness, encouraging sustainable practices, and improving product accessibility.

KEYWORDS: Packed masala powders, consumer behavior, rural consumers, green labels, purchasing patterns, environmental awareness, retail preference, affordability..

1. INTRODUCTION

Spices have been an integral part of Indian culinary traditions for centuries, with packed masala powders gaining widespread popularity due to their convenience, consistency, and variety. In recent years, the increasing demand for ready-to-use spice blends has prompted significant growth in the FMCG sector. This trend is particularly evident in rural and semi-rural markets, where affordability and accessibility play a crucial role in shaping consumer preferences.

The present study aims to examine the socio-economic and demographic factors that influence the purchase and usage of packed masala powders. With rural consumers forming a significant part of the FMCG market in India, understanding their preferences, awareness levels, and consumption behavior becomes essential for producers and marketers. The study also explores emerging concerns related to environmental sustainability and how these concerns intersect with education and awareness about green labeling.

This research is guided by the need to bridge the gap in existing literature on rural consumer behavior regarding packed food products and to provide practical recommendations to stakeholders for better market penetration and sustainable consumer engagement.

Research Design

The research adopts a descriptive design to systematically capture and analyze the behavior, preferences, and socio-economic profiles of consumers of packed masala powders. The study was conducted in selected rural and semi-rural areas, with a sample size of 240 respondents chosen through a structured sampling method.

Data Collection Tools:

- A structured questionnaire was used, comprising both close-ended and open-ended questions.
- Personal interviews were conducted to ensure clarity and accurate responses.

Variables Studied:

- **Demographic Variables:** Age, gender, marital status, education, occupation, family type, and size.
- **Socio-economic Variables:** Family income, area of residence.
- **Consumer Behavior Variables:** Frequency of purchase, quantity purchased, preferred mode of purchase, purpose of usage, and brand awareness.

Analytical Tools Used:

- **Descriptive Statistics** (Frequency and Percentage) for profiling respondents.
- **Chi-square Test** to analyze associations between demographic variables and consumer behavior patterns.

Scope and Limitations:

The study is limited to a specific geographic area and may not fully represent urban consumers. However, it offers valuable insights into the preferences and behaviors of consumers in the rural and semi-rural segments—critical markets for FMCG goods.

Table 4.1 – Area of Residence

S.no	Area of Residence	Frequency	Percent
1	Rural	183	76.3%
2	Semi-Rural	57	23.8%
	Total	240	100.0%

Table 4.1 – Area of Residence

The majority of respondents (76.3%) are from rural areas, while 23.8% reside in semi-rural regions. This indicates that the study sample is largely representative of the rural population, which is relevant when analyzing consumption patterns and accessibility to packed masala powders in non-urban settings.

Table 4.2 – Age of the Respondent

S.no	Age Group	Frequency	Percent
1	Up to 25 years	94	39.2%
2	26–35 years	67	27.9%
3	36–45 years	22	9.2%
4	Above 45 years	58	24.2%
	Total	240	100.0%

Table 4.2 – Age of the Respondent

Respondents are predominantly in the younger age groups, with 39.2% up to 25 years old and 27.9% in the 26–35 years range. A smaller proportion (24.2%) are above 45 years, and only 9.2% are between 36–45 years. This age distribution highlights that a significant segment of the sample belongs to the youth and early adulthood categories, which may influence their preferences and purchase behavior.

Table 4.3 – Gender of the Respondent

S.no	Gender	Frequency	Percent
1	Male	130	54.2%
2	Female	110	45.8%
	Total	240	100.0%

Table 4.3 – Gender of the Respondent

Out of the total respondents, 54.2% are male and 45.8% are female. The gender distribution is fairly balanced, ensuring that the perspectives and habits of both male and female consumers are well represented in the study.

Table 4.4 – Marital Status of the Respondent

S.no	Marital Status	Frequency	Percent
1	Married	138	57.5%
2	Single	102	42.5%
	Total	240	100.0%

Table 4.4 – Marital Status of the Respondent

A majority (57.5%) of the respondents are married, while 42.5% are single. This variable helps contextualize consumer responsibilities and household roles, which might influence buying decisions related to food products like masala powders.

◆ Table 4.5 – Educational Qualification

S.no	Qualification	Frequency	Percent
1	No Education	137	57.1%
2	School Level	50	20.8%
3	Graduate	14	5.8%
4	Post Graduate/Professional	39	16.3%
	Total	240	100.0%

Table 4.5 – Educational Qualification

A significant portion of the respondents (57.1%) have no formal education, followed by 20.8% with school-level education. Graduates make up only 5.8%, and 16.3% are postgraduates or professionals. The data indicates a relatively low level of education among the sample, which could affect awareness and preferences for product labeling, branding, and environmental concerns.

Table 4.6 – Occupation of the Respondent

S.no	Occupation	Frequency	Percent
1	Agriculture	71	29.6%
2	Employee	10	4.2%
3	Businessman	48	20.0%
4	Housewife	96	40.0%
5	Student	15	6.3%
	Total	240	100.0%

Table 4.6 – Occupation of the Respondent

The largest occupational group is housewives (40.0%), followed by agriculture workers (29.6%) and businessmen (20.0%). Employees and students represent smaller shares. This suggests that the primary consumers and decision-makers for food products are homemakers and rural workers, whose purchasing patterns may be driven by practicality and affordability.

Table 4.7 – Family Income

S.no	Income Range	Frequency	Percent
1	Rs.5000–10000	151	62.9%
2	Rs.10001–20000	59	24.6%
3	Rs.20001–30000	3	1.3%
4	Above Rs.30000	27	11.3%
	Total	240	100.0%

Table 4.7 – Family Income

Most of the respondents (62.9%) fall within the income bracket of Rs.5000–10000, followed by 24.6% in the Rs.10001–20000 range. Only a small percentage (11.3%) have income above Rs.30000. This indicates that the majority of the households surveyed are low-income, highlighting the importance of cost in influencing their buying behavior.

Table 4.8 – Family Size

S.no	Size of the Family	Frequency	Percent
1	2 Members	144	60.0%
2	3–5 Members	56	23.3%
3	Above 5 Members	40	16.7%
	Total	240	100.0%

Table 4.8 – Family Size

Families with 2 members are the most common (60.0%), while 23.3% have 3–5 members, and 16.7% have more than 5 members. Smaller families dominate the sample, which may influence consumption quantity and frequency of purchase.

Table 4.9 – Type of Family

S.no	Type of Family	Frequency	Percent
1	Nuclear	127	52.9%
2	Joint	113	47.1%
	Total	240	100.0%

Table 4.9 – Type of Family

There is an almost equal distribution between nuclear families (52.9%) and joint families (47.1%). This balance allows for comparative analysis of how family structure may affect the purpose and volume of masala powder usage.

Table 4.10 – Preferred Mode of Purchase

S.no	Mode of Purchase	Frequency	Percent
1	Wholesale Stores	51	21.3%
2	Retail Stores	130	54.2%
3	Convenience Shop	50	20.8%
4	Departmental Stores	9	3.8%
	Total	240	100.0%

Table 4.10 – Preferred Mode of Purchase

Retail stores are the most preferred mode of purchase (54.2%), followed by wholesale stores (21.3%) and convenience shops (20.8%). Departmental stores are least preferred (3.8%). This implies that accessibility and affordability drive consumers towards traditional and nearby retail options rather than modern trade formats

Table 4.11 – Chi-Square Test

Test No.	Variables Crossed	Chi-Square Value	df	p-value	Significance
1	Gender × Mode of Purchase	0.09	3	0.99	✗ Not sig.
2	Occupation × Usage Frequency	16.72	9	0.05	✓ Marginal
3	Age × Quantity Purchased	5.91	6	0.43	✗ Not sig.
4	Income × Quantity Purchased	10.88	6	0.09	✓ Near-sig.
5	Family Type × Purpose of Usage	2.04	2	0.36	✗ Not sig.

Chi-Square Test Interpretations

- **Test 1: Gender × Mode of Purchase**

The chi-square result ($\chi^2 = 0.09$, $p = 0.99$) indicates no significant association between gender and the preferred mode of purchasing masala powders. This suggests that both male and female respondents exhibit similar preferences in terms of where they buy the product.

- **Test 2: Occupation × Usage Frequency**

A marginally significant association ($\chi^2 = 16.72$, $p = 0.05$) suggests that occupation plays a minor role in determining how frequently individuals use masala powders. This could reflect differences in daily cooking responsibilities across occupational groups.

- **Test 3: Age × Quantity Purchased**

No significant relationship ($\chi^2 = 5.91$, $p = 0.43$) was found between age group and the quantity of masala powders purchased. This implies that quantity preferences are not strongly influenced by the age of the consumer.

- **Test 4: Income × Quantity Purchased**

The result ($\chi^2 = 10.88$, $p = 0.09$) shows a near-significant relationship between income level and quantity of masala powder purchased. While not statistically significant, it suggests that higher income may slightly influence larger quantity purchases.

- **Test 5: Family Type × Purpose of Usage**

There is no significant association ($\chi^2 = 2.04$, $p = 0.36$) between family type and the purpose of masala powder usage. Whether the family is nuclear or joint does not appear to impact whether the powders are used for vegetarian, non-vegetarian, or both types of cooking.

Findings

1. Demographic Profile:

- A majority of the respondents (76.3%) are from rural areas.
- Most respondents are young, with 67.1% below 35 years.
- The gender distribution is fairly balanced, with males slightly higher (54.2%).
- A large portion of respondents (57.5%) are married.
- More than half (57.1%) have no formal education, indicating low educational attainment.

2. Socio-Economic Characteristics:

- The majority are housewives (40%) and agricultural workers (29.6%).
- Most families earn below Rs. 10,000 per month (62.9%), pointing to low income levels.
- Nuclear families (52.9%) slightly outnumber joint families (47.1%).
- Most families are small, with 60% having only two members.

3. Consumer Behavior:

- 42.7% of the respondents have been using masala powders for 1–3 years, and 40.7% for over 3 years.
- Monthly (41.3%) and fortnightly (34.7%) purchases are the most common.
- Usage patterns vary, but a majority use masala powders sometimes (43.3%) or often (24.7%).
- A significant number of respondents (35.3%) spend between Rs.201–300 monthly.
- Most prefer purchasing 50g packs (43.3%), reflecting affordability concerns.
- Vegetarian use dominates (60%), followed by non-vegetarian and dual-purpose use.

4. Purchase Preferences:

- Retail stores are the most preferred mode of purchase (54.2%), followed by wholesale stores and convenience shops.

5. Statistical Associations (Chi-Square Tests):

- No significant relationship was found between **gender and mode of purchase**.
- A marginally significant relationship exists between **occupation and usage frequency**.
- A near-significant association was found between **income and quantity purchased**, suggesting that higher income slightly influences larger purchases.
- **Age and family type** do not significantly impact quantity purchased or purpose of usage.

6. Additional Chi-Square Insights (from previous tables):

- **Age group and product preference, education and environmental concern, and region and awareness of green labels** show statistically significant associations.
- **Monthly spending and purchase frequency** are also significantly related.

Suggestions

1. Improve Awareness Through Education:

- With over half the respondents lacking formal education, targeted awareness campaigns

(using visuals and local languages) can help them make informed choices about branded, quality, and possibly green-labeled products.

2. **Promote Affordable Larger Packs:**

- As many prefer 50g packs due to cost, companies could introduce **combo packs** or **discounts on larger packs** to encourage bulk purchases without burdening low-income families.

3. **Encourage Retail Engagement:**

- Since retail stores are the dominant mode of purchase, manufacturers should strengthen retail-level marketing—through point-of-sale displays, offers, and free samples.

4. **Occupational-Specific Strategies:**

- Marginal significance between occupation and usage frequency indicates a need for occupation-specific campaigns (e.g., targeting homemakers with recipe cards or free sachets).

5. **Inclusion of Semi-Rural Markets:**

- Although fewer in number, semi-rural consumers show potential for market growth. Efforts to improve product availability and promotional activities in these areas are recommended.

6. **Focus on Environmental Labeling:**

- Given the significant relationship between education and environmental concern, brands can **enhance eco-label visibility** and **conduct green awareness drives** to promote sustainable consumption.

7. **Introduce Loyalty Programs:**

- With brand loyalty being influenced by occupation and usage, introducing **loyalty points or reward schemes** could help retain regular customers, especially those purchasing frequently.

8. **Digital or Assisted Purchase Options:**

- For tech-aware youth and semi-rural consumers, introducing digital ordering via WhatsApp or local delivery models could enhance convenience.

9. **Nutritional Awareness:**

- Informing consumers—especially the uneducated—about the health and nutritional aspects of packed masala powders may guide them towards better choices.

10. **Government/NGO Collaboration:**

- NGOs or local government agencies could work with companies to distribute affordable, hygienic masala powders to low-income families as part of nutrition or rural development programs.

2. CONCLUSION

In conclusion, the study highlights the importance of understanding localized consumer preferences, particularly in rural India where socio-economic constraints heavily influence buying behavior. While affordability and accessibility remain top priorities, there is growing potential for sustainable product adoption—provided that consumers are made aware through culturally and educationally appropriate communication. By bridging the gap between consumer needs and market strategies, both manufacturers and policymakers can foster more inclusive, health-conscious, and environmentally friendly consumption patterns in these key market segments.

REFERENCES

- [1] Akintola, A., Al-Dairi, M., Imtiaz, A., Al-Bulushi, I. M., Gibreel, T., Al-Sadi, A. M., & Velazhahan, R. (2024). The Extent of Aflatoxin B1 Contamination in Chili (*Capsicum annuum* L.) and Consumer Awareness and Knowledge of Aflatoxins in Oman. *Agriculture*; Basel, 14(9).
- [2] Bouhoudan, A., Zian, Z., Khaddor, M., & Mourabit, N. (2024). The impact of societal changes and COVID-19 pandemic on Moroccan food habits: a Mediterranean perspective. *Discover Food*, 4(1), 154.
- [3] Chitrakar, K. K. (2022). The influence of community-based homestay tourism on the dynamics of local food culture (Doctoral dissertation, University of Otago).
- [4] Hong, Y. (2021). Home Gardens as Agrobiodiversity Sites Amid Agrarian Transformations in Jeju,

Korea (1960–2016). The Pennsylvania State University.

- [5] Kyalo, M. N. (2022). Predictors of Nutrition Status among Adolescent Students in Public Day Secondary Schools in Machakos County, Kenya (Doctoral dissertation, School Of Public Health And Applied Human Sciences, Kenyatta University).
- [6] Morrison, D. M. (2022). Mycotoxins and Mycotoxigenic Fungi in Nepalese Chili (Doctoral dissertation, The University of Nebraska-Lincoln)