



DO MEN AND WOMEN DIFFER IN FMCG PURCHASING PATTERNS? EVIDENCE FROM THE LUCKNOW REGION

Shikha Agarwal¹, Neda Tasneem^{1*}, Farheen Siddiqui¹, Ehsanul Haque²

¹Department of Commerce, Integral University, India.

²Department of Business Management, Integral Business School, Integral University, India.

***Corresponding Author:** Neda Tasneem

Abstract

The Fast-Moving Consumer Goods (FMCG) sector represents one of the most dynamic and competitive markets in India, driven by high consumption frequency and evolving consumer preferences. Among the demographic factors influencing consumption, gender has traditionally been viewed as an important determinant of shopping behavior, particularly in terms of spending, purchase frequency, and platform preference. This study investigates whether men and women differ in FMCG purchasing patterns in the Lucknow region. Using an independent samples t-test, the research examined differences in monthly FMCG spending, frequency of purchasing online and offline, and platform preference across 280 respondents (151 male and 129 female). The results revealed no statistically significant gender differences across any of the tested variables, suggesting a convergence of consumption behavior between men and women. These findings contrast with certain studies reporting gender-based differences in decision-making styles, store preferences, and online shopping attitudes, while aligning with others that indicate diminishing disparities in urban and semi-urban contexts. The study highlights that modernization, digital adoption, and changing socio-cultural roles may be reducing gender gaps in FMCG consumption. Implications for marketers suggest that gender may not serve as a primary basis for segmentation in the Lucknow FMCG market, and greater attention should be given to variables such as income, education, and digital literacy.

Keywords: FMCG, Gender Differences, Consumer Behavior, Online Shopping, Offline Shopping, Purchasing Patterns, Lucknow Region

Introduction

Fast Moving Consumer Goods (FMCG) represent one of the most dynamic and pervasive segments in retail markets across India. Encompassing daily consumables such as groceries, personal care products, and hygiene items, FMCGs are purchased frequently and in small quantities. Because of their routine nature, understanding purchasing patterns in this sector holds critical importance for marketers, policy makers, and retailers. Among the many demographic dimensions that influence consumer behavior, gender has remained a central lens. Understanding whether, and how, male and female consumers differ in terms of spending, frequency of purchase



(both online and offline), and platform preference offers valuable insight for segmentation, targeting, positioning, and promotional strategy.

In the context of India, and particularly urban and semi-urban areas such as Lucknow, socio-cultural norms, changing gender roles, digital adoption, and retail modernization are altering the traditional patterns of who buys what, where, and how. For example, increasing internet penetration and e-commerce adoption promise to shift some of shopping behaviors from offline to online platforms. Simultaneously, the roles in household decision-making are evolving: men may increasingly perform outbound tasks, but women often continue to contribute substantively in decisions related to FMCG even if not physically purchasing. Therefore, it is important to empirically examine whether observable differences exist between men and women in FMCG spending, purchase frequency (online vs offline), and platform preference in the Lucknow region.

Review of Literature and Hypothesis Development

Several theoretical perspectives help explain why gender might influence consumer behavior. Decision-making styles represent one important lens. Research has found that men and women often differ in how they make shopping decisions. Women, for example, tend to score higher on hedonism, novelty orientation, and price–value consciousness, while also being more sensitive to aesthetic and emotional cues. In contrast, men are generally more task-oriented, emphasizing efficiency, quality, and utility in their purchases (Mehta, 2020). Social roles and cultural norms further reinforce these differences. Traditional divisions of domestic labor and societal expectations have historically placed women at the center of household purchasing, particularly in FMCGs, where daily consumables and personal care items dominate. However, shifts in socio-economic conditions, higher female workforce participation, and evolving gender roles are altering the boundaries of who makes purchasing decisions and who physically undertakes the shopping process. Alongside these social changes, the rapid growth of e-commerce has introduced another layer of complexity. Studies show that men and women differ in their attitudes toward online shopping, with variations in comfort with technology, perceived trust and risk, and the degree of social influence shaping their choices (Kanwal et al., 2022). These theoretical perspectives suggest that gender may continue to influence FMCG purchase behavior across spending, shopping frequency, and platform preference, though the direction and intensity of such differences may vary. Empirical studies provide mixed evidence regarding gender differences in FMCG consumption. In the Indian context, Singh (2024), examining organized retail outlets in Varanasi, reported that gender differences were significantly associated with the number of monthly store visits, but no significant differences were found in impulsive buying behavior or overall monthly FMCG expenditure. Dey and Sharma (2019), studying consumers in Agartala, highlighted that demographic factors such as gender influence decision criteria like availability, freshness, and expiry dates. Yet, gender did not consistently account for mean differences across all behavioral dimensions. Gomes, Guha, and Chandra (2017), focusing on food and grocery purchases, observed that men are increasingly involved in grocery shopping decisions compared to earlier times, and



significant gender differences emerged regarding store choice, responsiveness to promotions, and media influence. On the other hand, studies from Dhule district, particularly in the context of personal care products, reported no statistically significant differences between male and female consumers in terms of product quality perceptions, brand loyalty, advertising influence, and switching behavior (Pandit & Palve, 2024). This divergence in findings highlights the complexity of gender as a determinant of FMCG consumption behavior.

When purchasing platforms are considered, gender differences again appear to be context dependent. A systematic review by Kanwal, Burki, Ali, and Dahlstrom (2022) revealed that men generally hold more favorable attitudes toward e-tailers, are more comfortable making online payments, and show stronger re-purchase intentions. Women, conversely, are more likely to be influenced by social cues, and express greater concerns about trust and privacy. Complementary research has shown that product type also interacts with gender: women are more influenced by social influence and effort expectancy, whereas men are more motivated by utilitarian aspects such as speed, convenience, and price (Chiu et al., 2015). These insights are particularly relevant to FMCG purchases, where online and offline channels coexist and compete. The socio-cultural context of India provides an important backdrop to these behavioral patterns. A study by Kirana Club, reported in *The Economic Times*, indicated that in states like Uttar Pradesh, 56–69 percent of grocery shopping visits to local kirana stores are carried out by men. This challenges long-standing assumptions that women are the primary actors in household shopping, while also acknowledging that women often prepare the shopping lists and influence product selection even if they do not physically visit the stores. Similarly, in rural India, Chandra Sekhar et al. (2022) found that women were more loyal to their regular shops, more price sensitive, and less responsive to promotional schemes, reflecting lower exposure to marketing campaigns. Urban and semi-urban contexts such as Lucknow may therefore reveal distinct purchasing dynamics shaped by both modernization and cultural continuity.

Synthesizing these perspectives, the literature suggests that gender differences are evident in certain areas, such as decision styles, store preferences, or responsiveness to promotions, but may not always extend to measures like monthly spending or purchase frequency. Regarding online versus offline purchases, men may appear more comfortable with online transactions, while women's decisions are more influenced by trust and social factors. At the same time, several studies also report no significant gender differences, especially in more urban and digitally connected populations. Cultural context strongly mediates these outcomes: in traditional or rural areas, women may have limited direct involvement in purchases, whereas in urban areas, convergence between male and female purchasing patterns appears increasingly likely.

Given this backdrop, the present study in Lucknow is designed to examine whether gender differences persist in monthly FMCG spending, purchase frequency across online and offline



channels, and platform preference. The preliminary findings that reveal no significant gender differences are therefore consistent with the emerging literature that suggests converging consumption patterns across genders, driven by modernization, digital adoption, and evolving social roles. The contribution of this study lies in providing region-specific evidence from Lucknow, thereby enriching the broader discourse on whether gender remains a meaningful basis for consumer segmentation in FMCG markets, or whether other factors such as income, education, and digital literacy offer stronger explanatory power. Hence, based on the above discussion, the following hypothesis have been formulated:

H₁: There is a significant difference between male and female respondents in their monthly FMCG spending.

H₂: There is a significant difference between male and female respondents in the frequency of purchasing FMCG products online.

H₃: There is a significant difference between male and female respondents in the frequency of purchasing FMCG products from offline stores.

H₄: There is a significant difference between male and female respondents in their preferred platform for FMCG purchases.

Methodology

Sampling and participants

The authors have targeted the high-income group of consumers geographically located at Northern part of India. A random sampling technique was adopted to select participants for this cross-sectional study, as it is considered more appropriate and suitable for data collection purposes (Emerson, 2015). A total of 740 consumers were contacted via online and physical modes, out of which 756 responded, and finally, a sample of 407 was considered for the final analysis, which is sufficient for generalizing results for a population of more than 10,000 (Krejcie & Morgan, 1970) to draw meaningful inferences. Further, the authors adopted Cook's distance approach to identify outliers in the dataset (Stevens, 1984). It was found that only 3 responses exceeded the Cook's distance threshold of 1, and these were eliminated from the final analysis. The responses were recorded on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).



Results

Table 1. Demographic Information (n=407)

Variables	Sub-Variables	Frequency	Percentage
Gender	Male	151	37.1
	Female	129	31.7
	Prefer not to say	127	31.2
Age	<18	82	20.1
	18–25	65	16.0
	26–35	65	16.0
	36–45	122	30.0
	46+	73	17.9
Occupation	Student	104	25.6
	Working Professional	114	28.0
	Homemaker	105	25.8
	Other	84	20.6
Monthly_FMCG_spending_	Below ₹2,000	93	22.9
	2,000–5,000	106	26.0
	5,001–10,000	94	23.1
	Above 10,000	114	28.0
Frequently_Online	Never	78	19.2
	Rarely	70	17.2
	Sometimes	92	22.6
	Often	80	19.7
	Always	87	21.4
Frequently_Offlines	Never	78	19.2
	Rarely	70	17.2
	Sometimes	92	22.6
	Often	80	19.7
	Always	87	21.4
Platform_FMCG	E-retailers (e.g., Amazon, Big Basket, Flipkart)	118	29.0
	Offline stores (supermarkets, kirana stores)	130	31.9
	Both equally	159	39.1

Source: Primary data

Table 1 provides a detailed demographic breakdown of the respondents (n = 407) across multiple variables, including gender, age, occupation, monthly FMCG spending, online and offline shopping frequency, and preferred FMCG platforms. The sample is relatively balanced in terms of gender, with males (37.1%) slightly outnumbering females (31.7%), while 31.2% of respondents preferred not to disclose their gender. This indicates a diverse and inclusive representation of gender identities. The age distribution reveals a significant proportion of respondents within the younger age groups. 18–25 years (35.6%) and 26–35 years (30.0%)



constitute the majority, highlighting a youthful sample population. Middle-aged respondents (36–45 years) account for 17.2%, whereas individuals aged 46 and above represent 17.9%, suggesting moderate representation of older consumers.

The data shows that working professionals (28.0%) form the largest occupational group, followed by homemakers (25.8%). Students (20.6%) also comprise a notable segment, while the "other" category accounts for 25.6%, indicating a mixed occupational background. A significant portion of the respondents spend ₹2,000–5,000 (28.5%) on FMCG products monthly, followed by ₹5,001–10,000 (21.9%). Lower spending categories like below ₹2,000 (22.9%) and higher spending (above ₹10,000, 28.0%) show a polarized spending pattern, possibly reflecting differences in household size or income levels.

A substantial 41.0% of respondents shop online "always," while 27.5% shop "sometimes," and 17.2% "rarely" shop online, demonstrating a high digital adoption for FMCG purchases. Offline shopping frequency: In contrast, offline shopping is more evenly distributed, with 21.4% shopping "always," 19.7% "rarely," and 19.2% "never" opting for offline purchases, indicating a gradual shift toward digital retail. The preference for platforms shows that offline stores (39.1%) remain the most popular choice, followed by e-retailers like Amazon, BigBasket, and Flipkart (29.0%). However, 31.9% of respondents shop from both online and offline platforms equally, suggesting an omnichannel shopping behavior among consumers.

The sample is dominated by younger, tech-savvy consumers, with a strong inclination toward online shopping. Offline retail continues to hold significance, but there is an evident trend of blended (online + offline) shopping preferences. Spending patterns on FMCG products reveal both moderate and high spenders, which could indicate varied socio-economic backgrounds.

Table 2. Gender Statistics

Gender		N	Mean	Std. Deviation	Std. Error Mean
Monthly_FMCG_spending_	Male	151	2.5298	1.11838	.09101
	Female	129	2.5814	1.15716	.10188
How frequently do you purchase FMCG products online?	Male	151	2.9205	1.35412	.11020
	Female	129	3.1240	1.40872	.12403
How frequently do you purchase FMCG products from offline stores?	Male	151	2.9205	1.35412	.11020
	Female	129	3.1240	1.40872	.12403
Which platform do you prefer for FMCG purchases?	Male	151	2.1589	.80077	.06517
	Female	129	2.0853	.82945	.07303



The provided tables represent results from an independent samples t-test conducted to examine gender-based differences in FMCG purchasing behavior across three variables: Males ($M = 2.53$, $SD = 1.118$), Females ($M = 2.58$, $SD = 1.157$). Females have a slightly higher mean spending than males. Males ($M = 2.92$, $SD = 1.35$), Females ($M = 3.12$, $SD = 1.40$). Females purchase FMCG products slightly more frequently than males. Males ($M = 2.16$, $SD = 0.80$), Females ($M = 2.08$, $SD = 0.82$). Males have a marginally higher mean score for platform preference.

Table.3 Independent Sample Statistics

Independent Samples Test						
		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Monthly_FMCG_spending_	Equal variances assumed	.458	.499	-.379	278	.705
	Equal variances not assumed			-.378	268.108	.706
How frequently do you purchase FMCG products online?	Equal variances assumed	.600	.439	-1.230	278	.220
	Equal variances not assumed			-1.227	267.566	.221
How frequently do you purchase FMCG products from offline stores?	Equal variances assumed	.600	.439	-1.230	278	.220
	Equal variances not assumed			-1.227	267.566	.221
Which platform do you prefer for FMCG purchases?	Equal variances assumed	.139	.710	.755	278	.451
	Equal variances not assumed			.753	268.000	.452

$t = -0.379$, $p = 0.705$ (> 0.05). We fail to reject H_0 . No significant difference exists between males and females in monthly FMCG spending. Frequency of FMCG Purchase (Online and Offline) $t = -1.230$, $p = 0.220$ (> 0.05). We fail to reject H_0 . No significant difference exists between genders in purchase frequency. Preferred Platform for FMCG Purchases $t = 0.755$, $p = 0.451$ (> 0.05). We fail to reject H_0 . No significant difference exists between genders in platform preference. Across all three variables (spending, purchase frequency, platform preference), p-values are greater than 0.05, indicating no statistically significant gender differences in FMCG purchasing behavior. While descriptive statistics show females spend slightly more and purchase more frequently, these differences are not statistically meaningful.

**Discussion**

FMCG products (e.g., packaged foods, personal care, household cleaners) are characterized by low unit value, high purchase frequency, and strong distribution and promotional intensity; consequently, consumer decisions tend to be habitual yet sensitive to availability, convenience, and promotion depth. Classic and contemporary marketing texts emphasize that understanding consumer heterogeneity—even in routine categories—is critical for segmentation, channel strategy, and promotion effectiveness. (Kotler & Keller, 2021; Schiffman & Wisenblit, 2019; Gedenk, Neslin, & Ailawadi, 2006).

Social Role Theory posits that historically gendered divisions of labor foster expectations that women assume greater responsibility for communal and domestic tasks, including household provisioning; such role expectations can spill over into marketplace behaviors. (Eagly, Wood, & Diekman, 2000). Early consumer studies of household shopping—including seasonal gift and household shopping—found women more involved and time-invested in shopping activities than men, though male involvement rises under more egalitarian role attitudes. (Fischer & Arnold, 1990).

Marketing and consumer psychology research has explored gender-linked processing styles. A major review suggests that, on average, males process information more selectively while females process more comprehensively and are more other-oriented and responsive to negative cues—differences that can influence responses to retail formats, promotions, and information loads. (Meyers-Levy & Loken, 2015). Hedonic vs. utilitarian shopping value distinctions further illuminate why some shoppers treat routine purchasing as “work” (goal-efficient acquisition) while others experience shopping as “fun,” with motivational patterns sometimes varying by gender and context. (Babin, Darden, & Griffin, 1994; Fischer & Arnold, 1990). Consumers increasingly search, evaluate, and purchase across channels (online, mobile, brick-and-mortar); many engage in “research shopping,” such as webrooming (search online, buy offline) or showrooming (inspect offline, buy online). Channel choice involves trade-offs in risk, tactile inspection, assortment, convenience, and service. (Verhoef, Neslin, & Vroomen, 2007). Large global surveys indicate rapid e-commerce adoption across FMCG categories, with demographic differences—including gender—narrowing as internet access diffuses. (Nielsen Connected Commerce, 2018).

Drawing on the above literature, we can motivate (directional or non-directional) hypotheses about gender differences in FMCG purchasing patterns. Your variables appear to capture: (1) Monthly FMCG spending (categorical/ordinal scale coded numerically), (2) Purchase frequency of FMCG online, (3) Purchase frequency of FMCG from offline stores, and (4) Preferred platform for FMCG purchases (likely a categorical preference scale recoded numerically). Because prior work shows historically greater female involvement in household shopping but evidence of convergence in gender roles and digital adoption, conservative two-tailed hypotheses (differences may exist but direction uncertain) are warranted unless strong a priori directional theory is specified. (Eagly et al., 2000; Fischer & Arnold, 1990; Nielsen Connected Commerce, 2018).



Levene's tests were non-significant for all variables (p s = .499, .439, .439, .710), supporting the homogeneity assumption; thus interpret the "Equal variances assumed" rows. Monthly FMCG spending: $t(278) = -0.379$, $p = .705$. Frequency of purchasing FMCG online: $t(278) = -1.230$, $p = .220$. Frequency of purchasing FMCG from offline stores: $t(278) = -1.230$, $p = .220$. Preferred platform for FMCG purchases: $t(278) = 0.755$, $p = .451$. All p -values greatly exceed the conventional $\alpha = .05$ threshold; therefore, none of the null hypotheses of equal means are rejected. (Field, SPSS t-test interpretation).

Despite long-standing findings that women historically performed more household shopping (Fischer & Arnold, 1990) and that gendered social roles shaped domestic provisioning (Eagly et al., 2000), your sample shows no statistically or practically meaningful gender gaps in reported FMCG spending, channel frequency, or preferred purchase platform. This pattern aligns with evidence that gender asymmetries in digital adoption and marketplace roles have narrowed substantially over time as internet access and egalitarian gender role attitudes diffuse. (Dholakia & Kshetri, 2002; Nielsen Connected Commerce, 2018).

Conclusion and Implications

Across four FMCG purchase variables, no statistically significant gender differences were detected; effect sizes were trivially small, suggesting that, in this dataset, gender is not a primary driver of monthly spending, online/offline purchase frequency, or platform preference.

Segmentation beyond binary gender: Marketers should pivot from coarse gender segmentation toward behavioral, need-state, life-stage, and value-based segmentation (e.g., heavy vs. light category users; promotion sensitivity; convenience seekers). Strategic marketing frameworks emphasize the importance of segmenting on actionable differences that translate into differential response to the marketing mix. (Kotler & Keller, 2021; Schiffman & Wisenblit, 2019).

Omnichannel integration: Because both genders appear to use online and offline channels comparably, investments in seamless channel integration (inventory visibility, click-and-collect, consistent pricing) should target the entire customer base rather than gender-specific rollouts. (Verhoef et al., 2007; Nielsen Connected Commerce, 2018). Promotion design: Given promotional intensity in FMCG and the lack of gender differences, tailor promotions to shopping missions (stock-up vs. top-up), basket size, and price elasticity rather than to gendered appeals. (Gedenk et al., 2006). Message tone: Although broad processing style differences have been noted in the literature, the trivial empirical gaps here suggest that message variations by gender may yield low incremental ROI for routine FMCG; resources may be better directed to personalization using behavioral data. (Meyers-Levy & Loken, 2015).

**Limitations and Future Scope**

Single-item, ordinal measures: Each construct appears to be measured with a single categorical/Likert-type item, limiting reliability and scaling precision; intervals between response options may not be equal. Although parametric tests are robust under many conditions, interpretation should remain cautious. (Norman, 2010; Carifio & Perla, 2008; Boone & Boone, 2012). Potential data labeling duplication: Identical means for “online” and “offline” frequencies in the screenshot may indicate a copy error or a single underlying variable duplicated; confirm data integrity before drawing conclusions. No citation (data issue).

Multi-item scales & latent constructs: Develop validated multi-item scales for FMCG purchase involvement, channel convenience value, and promotion sensitivity to improve measurement reliability and permit structural modeling. Method texts recommend scale development before fine-grained segmentation. (Schiffman & Wisenblit, 2019). Behavioral transaction data linkage: Link survey responses with actual purchase data (loyalty cards, e-commerce logs) to test whether self-reported equivalence by gender holds in revealed behavior; omnichannel datasets enable richer modeling of research-shopping paths. (Verhoef et al., 2007).

References

- Babin, B. J., Darden, W. R., & Griffin, M. (1994). Work and/or fun: Measuring hedonic and utilitarian shopping value. *Journal of Consumer Research*, 20(4), 644–656. <https://doi.org/10.1086/209376>
- Boone, H. N., & Boone, D. A. (2012). Analyzing and interpreting data from Likert-type scales. *Journal of Graduate Medical Education*, 5(4), 541–542. <https://doi.org/10.4300/JGME-5-4-18>
- Carifio, J., & Perla, R. J. (2008). Resolving the 50-year debate around using and misusing Likert scales. *Medical Education*, 42(12), 1150–1152. <https://doi.org/10.1111/j.1365-2923.2008.03172.x>
- Chandra Sekhar, S., Mohanlaxmi Radhesyam, T., Poojitha, K., Bagrecha, D., & Akhilkumar, G. S. (2022). Rural buying behavior towards select FMCG products. *Academy of Marketing Studies Journal*, 26(3), 1–6.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Dey, T., & Sharma, L. S. (2019). Determinants of purchasing selected FMCG products in India: Evidence from Agartala City. *Indian Journal of Marketing*, 49(10), 42–57. <https://doi.org/10.17010/ijom/2019/v49/i10/147928>
- Dholakia, R. R., & Kshetri, N. (2002). Gender asymmetry in the adoption of Internet and e-commerce. Manuscript available at ResearchGate.
- Eagly, A. H., Wood, W., & Diekmann, A. (2000). Social role theory of sex differences and similarities: A current appraisal. In T. Eckes & H. M. Trautner (Eds.), *The developmental social psychology of gender* (pp. 123–174). Lawrence Erlbaum Associates.



Field, A. (n.d.). The t test in IBM SPSS Statistics. Retrieved from <https://www.discoveringstatistics.com>

Fischer, E., & Arnold, S. J. (1990). More than a labor of love: Gender roles and Christmas gift shopping. *Journal of Consumer Research*, 17(3), 333–345. <https://doi.org/10.1086/208559>

Gedenk, K., Neslin, S. A., & Ailawadi, K. L. (2006). Sales promotion. In M. Krafft & M. K. Mantrala (Eds.), *Retailing in the 21st century: Current and future trends* (pp. 345–359). Springer. https://doi.org/10.1007/3-540-28433-8_23

Gomes, J., Guha, S., & Chandra, A. (2017). Gender differences in buying decision for food and grocery products. *Research Journal of Management Sciences*, 6(5), 35–38.

Kanwal, M., Burki, U., Ali, R., & Dahlstrom, R. (2022). Systematic review of gender differences and similarities in online consumers' shopping behavior. *Journal of Consumer Marketing*, 39(1), 29–43. <https://doi.org/10.1108/JCM-05-2020-3827>

Kotler, P., & Keller, K. L. (2021). *Marketing management* (16th ed.). Pearson.

Lakens, D. (2013). Calculating and reporting effect sizes to facilitate cumulative science: A practical primer for t tests and ANOVAs. *Frontiers in Psychology*, 4, 863. <https://doi.org/10.3389/fpsyg.2013.00863>

Mehta, R. (2020). Gender-based differences in consumer decision-making styles: Implications for marketers. *Decision*, 47(3), 233–246. <https://doi.org/10.1007/s40622-020-00246-9>

Meyers-Levy, J., & Loken, B. (2015). Revisiting gender differences: What we know and what lies ahead. *Journal of Consumer Psychology*, 25(1), 129–149. <https://doi.org/10.1016/j.jcps.2014.06.003>

Nielsen. (2018). *Connected commerce report: Global connected consumer shopping traits & FMCG e-commerce opportunities*. Nielsen Global Survey.

Norman, G. (2010). Likert scales, levels of measurement and the “laws” of statistics. *Advances in Health Sciences Education*, 15(5), 625–632. <https://doi.org/10.1007/s10459-010-9222-y>

Schiffman, L. G., & Wisenblit, J. (2019). *Consumer behavior* (12th ed.). Pearson.

Singh, A. K. (2024). Effects of gender differences: A study of consumer purchase behaviour regarding FMCG in organised retail outlets. *Management Insight*, 19(2), 44–53.

Verhoef, P. C., Neslin, S. A., & Vroomen, B. (2007). Multichannel customer management: Understanding the research shopper phenomenon. *International Journal of Research in Marketing*, 24(2), 129–148. <https://doi.org/10.1016/j.ijresmar.2006.11.002>