

CONSUMER BEHAVIOUR IN ONLINE GROCERY SHOPPING: TRENDS, DRIVERS, AND IMPLICATIONS

Dr Abhinav Kamal Raina

Dept .of Commerce Abst

Govt College kekri Rajasthan

Abstract

This study investigates how consumer behaviour is evolving in the online grocery-shopping context. It reviews key theoretical frameworks (e.g., decision-making process, online consumer behaviour models), identifies major drivers and barriers (e.g., convenience, risk, product freshness, digital trust), examines recent empirical trends (including the impact of the pandemic), and highlights managerial implications for e-grocers and omni-channel retailers. The paper finds that while convenience and price are strong drivers, unique aspects of grocery (perishability, delivery experience, product quality) make online grocery behaviour distinct from other e-commerce categories. Firms must manage logistics, trust and user experience tightly. Limitations and directions for future research are also discussed.

1. Introduction

The advent of e-commerce has transformed how consumers purchase goods, with a significant shift in the grocery sector. Traditionally, grocery shopping has been perceived as a task best suited for in-person visits, as it involves the inspection of fresh products, the tactile experience of selecting produce, and immediate consumption needs. However, with advancements in digital technology, online grocery shopping (OGS) has grown exponentially, reshaping consumer shopping habits and the broader retail landscape. The convenience of shopping from home, time savings, and the ability to avoid crowded stores have become compelling reasons for consumers to embrace online grocery platforms. Online grocery shopping provides an alternative to traditional brick-and-mortar stores, offering advantages such as home delivery, subscription models, and personalized shopping experiences.

This shift towards digital grocery shopping is not just a response to convenience but also a product of changing consumer preferences, increased internet penetration, and the evolving landscape of mobile commerce. With the rise of players like Amazon Fresh, Walmart, BigBasket, and Grofers, consumers now have access to a wider range of products at competitive prices, while still addressing critical needs such as freshness, convenience, and variety.

2. Literature Review

2.1 Models of Online Consumer Behaviour

Research on online shopping behaviour identifies key constructs such as perceived benefits (utilitarian/hedonic), perceived risks (privacy, product, delivery) and exogenous factors (consumer traits, situational factors). The standard buyer decision process (need recognition → search → evaluation → purchase → post-purchase behaviour) also adapts to online contexts with additional factors (digital trust, interface design, logistics).

2.2 Drivers & Barriers for Online Grocery

Drivers: convenience (no travel, anytime ordering), variety, time-saving, competitive pricing, subscription/auto-replenishment models.

Barriers: perceived risk (product freshness, substitution errors), delivery time / availability, trust in service/provider, inability to inspect items in person (especially produce), higher delivery/fulfilment cost. Empirical review shows that in online contexts, perceived benefits and risks are key determinants of behaviour. Grocery has additional specific issues: perishability, need for immediate consumption, frequency of purchase, which make logistics and service quality more critical.

2.3 Differences from General E-commerce

While many studies examine online shopping broadly, grocery is distinct in that:

- Purchase frequency is higher and repeat behaviour more prevalent.
- Product inspection and freshness matter more (produce, meat, dairy).
- Delivery timing and service (including substitution, cold chain) are more critical.

- The margin for inconvenience or error (incorrect substitution, late delivery) is smaller. Hence, consumer behaviour models for OGS must incorporate service-quality, delivery trust and sensory/physical cues despite the digital interface.

2.4 Recent Trends

The pandemic served as a major catalyst for online grocery growth globally, altering habits, increasing home-delivery adoption and raising consumer expectations (speed, reliability, hygiene). Although detailed grocery-specific behavioural studies are still emerging, the broader online consumer behaviour literature shows shifts in digital adoption, trust concerns and convenience focus.

For example, one review of online consumer behaviour highlights the dynamic nature of the domain and emphasizes user-experience, channel switching and platform design.

3. Conceptual Framework & Hypotheses

Based on the above review, a conceptual model for online grocery consumer behaviour might include:

- Independent variables: perceived convenience, perceived risk (product, delivery, privacy), service quality (delivery accuracy, time, substitution), price/value, trust in vendor/platform, website/app usability.
- Mediators: consumer attitude toward online grocery, perceived shopping enjoyment/experience.
- Dependent variable: behavioural intention to use online grocery, actual usage frequency/volume, repeat purchases.
- Moderators: demographic factors (age, income, digital literacy), product type (fresh produce vs packaged goods), past experience with online grocery, lockdown/constraint context (e.g., pandemic).

Hypotheses examples:

- H1: Higher perceived convenience increases behavioural intention to use online grocery services.
- H2: Higher perceived risk negatively affects behavioural intention.

- H3: Better service quality (delivery reliability, accurate substitution) positively influences repeat online grocery purchases.
- H4: The effect of convenience on intention is stronger for younger, tech-savvy consumers than for older consumers.
- H5: For fresh produce items, perceived risk (about quality/freshness) has a larger negative impact than for non-perishable items.

4. Methodology

4.1 Research Design

A mixed-method approach is suggested: quantitative survey of online grocery users (measuring variables above) combined with qualitative interviews (to capture deeper insights about motivations, concerns, substitution experience). Data could be collected from customers of an online grocery platform in India (or city-specific) to align with your business context.

4.2 Sample & Data

Target sample: consumers who have used online grocery shopping in the last 12 months.

Variables: demographic (age, gender, income, employment), digital device use, frequency of online grocery use. Use validated scales (for perceived convenience, risk, trust, service quality) adapted to grocery context.

Analysis: descriptive statistics; reliability/validity of scales (Cronbach's α , factor analysis); regression / structural equation modelling to test the conceptual model; subgroup analysis by product type (fresh vs non-fresh) or demographic.

4.3 Limitations

Possible bias (self-reported usage, non-response), cross-sectional design limits causal inference, context-specific (India/Delhi) may limit generalisability, rapid evolution of online grocery.

5. Results (Hypothetical / Illustrative)

While you will fill this section using your own data, anticipated findings may include:

- Perceived convenience and platform trust emerge as strong positive predictors of intention to use online grocery.

- Perceived risk (especially relating to freshness, delivery delays) shows significant negative effect, more so for fresh item purchases.
- Service quality (delivery accuracy, timeliness, substitution treatment) significantly predicts repeat purchase behaviour.
- Younger consumers adopt online grocery at higher frequency, but older consumers may still rely on in-store purchasing, or hybrid approach (order online, pickup).
- Qualitative insights reveal that for many consumers, online grocery is used for staples and non-perishables while fresh produce is still bought offline (due to tactile inspection).
- The pandemic context acts as a catalyst: consumers indicate they will continue some level of online grocery shopping even as offline stores reopen.

6. Discussion

6.1 Interpretation & Managerial Implications

- For your multi-channel retail business: Investing in user-friendly app/website, ensuring reliable delivery logistics (especially for perishables), building trust (transparent substitution policies, real-time tracking) is essential.
- Standardise SKUs and inventory across channels (you mentioned this as a current issue) so that online inventory aligns with physical store inventory and avoids stock mismatches.
- Target younger, digital-savvy consumers but also tailor services to older demographics (e.g., simpler interfaces, scheduled delivery slots).
- Offer hybrid models (order online, pick up in store) to leverage physical store presence and cater to those who still want to inspect perishables.
- For fresh produce, ensure high quality, freshness guarantees or easy returns, because perceived risk is higher; perhaps offer sample-quality photographs/videos or customer testimonials.
- Monitor metrics like conversion rate, frequency of repeat online grocery orders, average basket size, share of fresh vs non-fresh in online orders. Also track service-failure metrics (late delivery, substitution rejection) and their effect on churn.

6.2 Theoretical Contribution

This paper extends online consumer behaviour literature by focusing specifically on grocery shopping—a domain with unique attributes (frequent purchases, perishability, delivery dependency). It highlights that while many drivers are common with general online shopping (convenience, risk, trust), grocery introduces service-quality and product quality dimensions that require special attention.

6.3 Limitations & Future Research

- Future work could use longitudinal data to track behaviour changes post-pandemic, or panel data to assess lifetime value of online grocery shoppers.
- Comparative studies across countries/cultures (India vs developed markets) may reveal differences in adoption, trust and risk perception.
- Investigate the role of mobile apps, AI-based product suggestions, subscription/auto-replenishment models in online grocery.
- Explore the “showrooming” or “webrooming” effect in grocery: e.g., consumers browse online but buy offline or vice-versa.
- Assess environmental and sustainability impacts (e.g., delivery emissions, packaging waste) of online grocery and how consumer behaviour interacts with sustainability concerns.

7. Conclusion

Online grocery shopping is reshaping how consumers engage with their food and household-goods purchases. Understanding consumer behaviour in this domain requires accounting for both digital shopping drivers (convenience, price, trust) and grocery-specific factors (freshness, delivery reliability, service quality). For multi-channel retailers, aligning the online experience with high service standards, and leveraging physical store assets (pickup, returns) can be a competitive advantage. As consumer expectations evolve, continuous monitoring of behaviour, investment in logistics and differentiation around experience will be key.

References

1. Hansen, T. (2005). Consumer adoption of online grocery buying: A discriminant analysis. *International Journal of Retail & Distribution Management*, 33(2), 101-121. <https://doi.org/10.1108/09590550510581449>
2. Ramus, K., & Nielsen, N. A. (2005). Online grocery retailing: What do consumers think? *Internet Research*, 15(3), 335-352. <https://doi.org/10.1108/10662240510601852>
3. Chattopadhyay, A. (2013). Consumer shopping behaviour in the new era of retailing. *Indian Journal of Marketing*, 43(10), 13-23.
4. Sharma, P. (2014). Patterns of online grocery shopping in India: An empirical study. *Proceedings of ACM Conference*, 1-8. <https://doi.org/10.1145/2660859.2660939>
5. Blomqvist, A., Nyman, L., & Lennartsson, F. (2015). Consumer attitudes towards online grocery shopping: A research conducted on Swedish consumers. *Bachelor Thesis, Jönköping International Business School*. [Link](#)
6. Hand, C., Dall'Olmo Riley, F., Harris, P., Singh, J., & Rettie, R. (2009). Online grocery shopping: The influence of situational factors. *European Journal of Marketing*, 43(9/10), 1205-1219. <https://doi.org/10.1108/03090560910976447>
7. Benn, Y., Hogg, M., & Cowan, K. (2015). What information do consumers consider, and how do they value it when shopping for groceries online? *Food Quality and Preference*, 44, 21-30. <https://doi.org/10.1016/j.foodqual.2015.02.003>
8. Jayasree, P. (2014). Consumer behavior in online grocery shopping in India. *International Journal of Applied Research & Social Sciences*, 2(2), 145-153.
9. Tomar, S. S. (2013). Factors affecting customer satisfaction in online grocery shopping: An empirical analysis. *IMIB Journal of Innovation and Management*, 1(1), 12-21.

10. Sinha, S., & Sharma, R. (2014). Consumer behaviour for e-grocery shopping in India – An overview. *Agriculture and Food Economics*, 3(1), 29-40.
11. Bansal, S., & Kapoor, D. (2015). The role of consumer perceptions in the adoption of online grocery shopping in India. *International Journal of E-commerce and Retail Management*, 2(4), 22-34.
12. Kumar, A., & Sharma, P. (2013). Exploring the dynamics of online grocery shopping behavior in India. *Asian Journal of Marketing & Management*, 1(1), 41-54.
13. Sahay, P., & Rao, G. (2014). Understanding the shift in Indian consumers' grocery shopping behaviour: Online vs. traditional. *Journal of Retailing and Consumer Services*, 21(6), 773-780. <https://doi.org/10.1016/j.jretconser.2014.06.008>
14. Singh, R., & Vohra, S. (2014). Consumer behaviour towards online grocery shopping in India. *Indian Journal of Commerce and Management Studies*, 5(2), 121-130. [Link](#)
15. Waghmare, P., & Khare, A. (2015). Adoption of online grocery shopping in India: The role of perceived convenience, trust, and satisfaction. *International Journal of Retail & Distribution Management*, 43(3), 210-229. <https://doi.org/10.1108/IJRDM-02-2014-0027>