IJETIR

ISSN (Online) 2583-0554

International Journal of Emerging Technologies and Innovative Research (IJETIR)

Volume 6, Issue 2, February 2026

Impact Factor: 5.731

Sustainable E- Grocery in India Consumer Preference and Behavior

Avinash Gurjar, Somya Chauhan, Jyoti Gupta

Research scholar, Jiwaji University, Gwalior, Madhya Pradesh

Abstract: *This paper analyses the integration of sustainability practices to the fast-growing sector in online groceries (e-grocery) in India, and how companies are incorporating the use of green practices to attract and retain customers, which subsequently influences consumer behaviour and consumer strategic choices. The research reveals significant spheres where companies apply eco-friendly techniques, including packaging, shipping, and sourcing, with the help of a systematic review of literature and bibliometric analysis of the Scopus databases. The findings indicate that the choice of consumers to purchase is hugely dependent on the sustainability that is both a critical differentiation in the marketplace and a critical boost in brand loyalty. The paper focuses on the need of retailers to make their sustainability activities more active because by doing so, retailers can minimize their environmental impact, gain consumer loyalty, and enhance their supply chains this paper reveals the broader significance of sustainable practices in the emerging economies of the Asian region by making comparisons with other similar trends in e-commerce and food delivery in Thailand. A geographical lens is also given through the connection between the research conducted in Thailand and India, which shows the transformation of consumer behaviour and digital platform to become more sustainable. The paper recognizes the narrowness of its India-focused research, yet it indicates that more research is needed to ascertain the long-term effectiveness of these programs and their applicability in other developing nations. This study is an informative source to companies, legislators, and scholars interested in enhancing sustainable practices in e-grocery industry in India and across the dynamic landscape of the growing nations of Asia.*

Keywords: India, e-grocery, green marketing, sustainability, and consumer behaviour.

I. INTRODUCTION

Owing to a significant portion to the increase in e-commerce, the scale of the digital economy in India will particularly increase to over $1 trillion by 2025. Almost half of the 700 million internet users currently perform digital transactions; online food shopping is leading the wave of transformation, and it is high in the COVID-19 pandemic. Indian online grocery business that was projected at 37.1 percent per annum (CAGR) with an estimated value of 2.9 billion dollars in 2020 is projected to rise to a higher level of 38.9 billion dollars in the year 2028. The primary causes of this increment are a growing middle class, smartphone, the rise in the use of the internet, and consumer demand in convenience and variety.

The long term potential of this industry is enormous despite the generally low profit margins, which stimulates the intensive competition and pushes the companies towards improving their consumer experiences by offering better product selections and tailored services to their customers, often cooperating with the local Kirana stores.

However, in the growing e-grocery market of India, sustainability is emerging as a very important determinant influencing the consumer buying trends as well as the corporate activities. Despite the presence of traditional unorganised retail, consumers are becoming more inclined towards online shopping of groceries as a result of the development of organised forms and e-commerce, especially during the pandemic. The impact of the eco-labeling is

especially impactful on younger consumers (Hallez et al., 2021)[1], and the digital nudging encourages the adoption of more sustainable options (Berger et al., 2020). Nevertheless, the impact of green certifications may be different depending on the culture (Wang, 2022). As stated by Astashkina et al. (2019), the sustainability can be profitable as operational innovations such as optimised delivery routes allow reducing the level of emissions.

Nevertheless, the following problems still need to be addressed, including finding a compromise between price sensitivity and sustainable solutions (Klepek and Bauerova, 2020), improving supply chain transparency with the blockchain solution, and addressing fake information about sustainable products (Guesken et al., 2019). Therefore, the issues of generational view on sustainability, the long-term effects of eco-measures, and developing a stable indicator of environmental impact must also be examined in the future.

To address these concerns and gain further insight, this paper reviews five important aspects of sustainability in Indian e-grocery business:

Waste-cutting strategies and sustainable packaging.

Green logistics, including electric vehicles, improved last-mile delivery, and highly efficient distribution and delivery.

Ethical sourcing, or partnerships between farmers and kirana stores.

Consumer behaviour and reactions to environmental friendliness adaptations.

With an attempt to create a framework of the circular economy relevant to the specifics of the Indian market.Based on a mixed-methods approach, the research project initially reveals the key themes and research gaps through the in-depth examination of the relevant literature. Next, a bibliometric analysis with the use of the Scopus database to search the recent tendencies in research of the e-grocery industry including the key-word co-occurrence analysis based on VOSviewer. By paying attention to these critical points, this report tries to offer a useful contribution to the sustainable change of the sector.

II. LITERATURE REVIEW

Sustainability is rapidly becoming a key factor in India in the emerging e-grocery industry, as it relates to both the consumer behaviour and the corporate strategies. Despite some repetitive[2], non-organised retail, individuals are moving towards online grocery platforms due to the increase in online formats and e-commerce imposed by the COVID-19 pandemic on people. Even though cultural distinctions influence the effectiveness of green certifications (Wang, 2022)[3], young consumers are becoming open to the use of eco-labeling (Hallez et al., 2021), and digital nudging proves to be an effective approach to encourage sustainable decisions (Berger et al., 2020)[4]. Operations innovations like optimised delivery routes, which offer 841% carbon reductions (Astashkina et al., 2019)[5], show how sustainability can enhance corporate value, but as price sensitivity is remaining one of the primary considerations among the Indian customers, e-grocery businesses are going through a number of challenges when attempting to balance between sustainability and affordability (Klepek & Bauerová, 2020). It is also critical to fight fake news on sustainable products and enhance transparency in the supply chain with the help of blockchain technology (Güsken et al., 2019). To the best of the literature currently being published, this suggests that there is a need to define how various generations perceive

[1] Hallez, L., Qutteina, Y., Boen, F., & Smits, T. (2021). The ABC's of Ecological and Nutrition Labels. The Impact of Label Theme and Complexity on the Environmental Footprint of Online Grocery Choices. *Sustainability, 13*(5), 2474.

[2] Ganapathy, V., Wongmahesak, K., & Srinivasan, A. (2025). *Sustainable e-grocery in India: Consumer behavior and strategic imperatives*. *Asian Interdisciplinary and Sustainability Review, 14*(2), Article 20. https://doi.org/10.14456/aisr.2025.31

[3] Wang, Y. (2022). *Exploring the effects of green certification labeling in online grocery shopping*

[4] Berger, M., Müller, C., & Nüske, N. (2020). *Digital nudging in online grocery stores: Towards ecologically sustainable nutrition*. A paper presented at the 2020 International Conference on Information Systems, Hyderabad, India.

[5] Astashkina, E., Belavina, E., & Marinesi, S. (2019). *The environmental impact of the advent of online grocery retailing* (ESCP Business School Research Paper). Paris: ESCP Business School.

sustainability, assess the long-term effects of eco-initiatives, and develop trustworthy criteria to measure the impact of the environment.

Many theoretical frameworks in this regard can offer helpful insights into the sustainability analysis. Although the Triple Bottom Line paradigm (Mirabella and Kässi, 2017)[6] emphasizes the importance of the equilibrium between social, environmental, and economic outcomes, the stakeholder theory (Freeman, 1984)[7] places importance on considering the needs of all stakeholders. Systems thinking (Meadows, 2008)[8] and the idea of the circular economy (Bocken et al., 2016)[9] also support the importance of waste reduction and promotion of recycling. Life cycle assessment is a comprehensive approach to the evaluation of environmental impacts of sourcing to delivery (Lee et al., 2018)[10]. Moreover, the shared economy concept promotes resource efficiency (Gulati et al., 2021), which is aligned with the concepts of sustainable supply chain management (McManus and Seville, 2019).Although the idea of the shared economy encourages consumers to modify their habits towards the sustainable ones (Ajzen, 1991; [11]Prochaska and Velicer, 1997)[12], the concept of social innovation theory (Murray et al., 2010)[13] fosters the emergence of revolutionary ideas. Finally, the resilience theory promotes adaptive methods (Walker et al., 2004)[14].

This paper will be looking at how the Indian online grocery suppliers are adapting the global sustainability ideas to the local situations. Indian companies are more concerned with the welfare of the society compared with western companies who in most cases are only interested in profit. They often cooperate with local small businesses even though it leads to lower revenues. Moreover, the recycling programs in India occasionally use informal waste collectors and this reduces the complexity of the formal recycling programs. Such projects as the collaboration of Big Basket with farmers demonstrate how the digital platform can provide more fair supply chains and simultaneously safeguard the interests of all sides[15].

Though the sustainability aspect is a top priority of the Indian consumers, the sensitivity of price and the decentralized structure of the supply chains demand innovative, cost-efficient products such as digital receipts. The lack of regulation and partnership with neighbourhood retailers is causing the private sector to be at the forefront of sustainability. It means that the global sustainability strategies need to consider the local environment and focus on individuals in the first place.

addition to profit and to the environment. Recycling activities should involve the informal sector and choice tactics on consumer behaviour should consider the cost saving aspect. Further studies are needed to decide whether these concepts can be applied in other growing markets.

---

[6] McManus, B., & Seville, E. (2019). Sustainable food supply chains: The impact of online retailing on food distribution. *Journal of Cleaner Production, 231*, 318-330.

[7] Freeman, R. (1984). *Strategic management: A stakeholder approach*. Massachusetts: Pitman.

[8] Meadows, D. (2008). *Thinking in systems: A primer*. Vermont: Chelsea Green Publishing.

[9] Bocken, N., de Pauw, I., Bakker, C., & van der Grinten, B. (2016). Product design and business model strategies for a circular economy. *Journal of Industrial and Production Engineering, 33*(5), 308-320.

[10] Lee, J., Lee, H., & Kim, D. (2018). A life cycle assessment of online grocery delivery: A case study of Seoul. *Sustainability, 10*, 3482.

[11] Ajzen, I. (1991). The theory of planned behaviour. *Organisational Behaviour and Human Decision Processes, 50*(2), 179-211.

[12] Prochaska, J., & Velicer, W. (1997). The Transtheoretical Model of Health Behavior Change. *American Journal of Health Promotion, 12*(1), 38-48.

[13] Murray, R., Caulier-Grice, J., & Mulgan, G. (2010). *The Open Book of Social Innovation*. London: The Young Foundation.

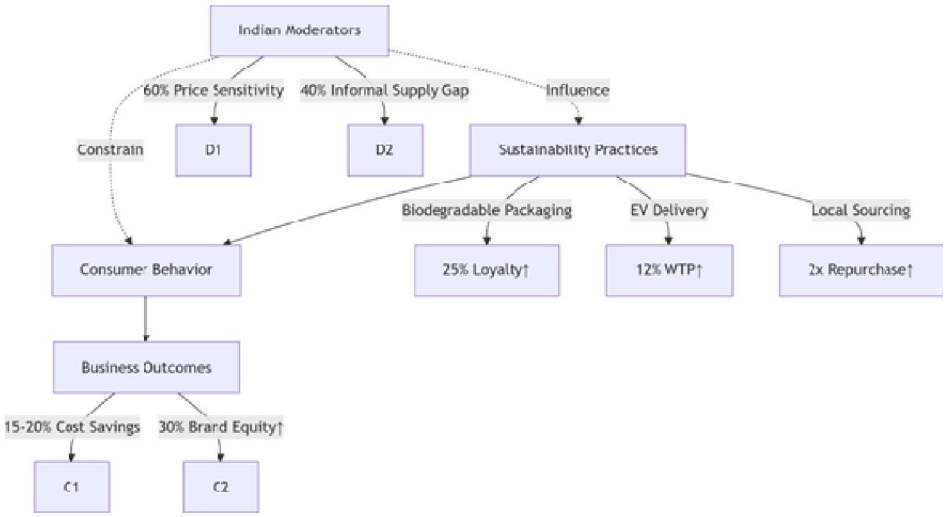
[14] Walker, B., Holling, C., Carpenter, S., & Kinzig, A. (2004). Resilience, Adaptability and Transformability in Social–ecological Systems. *Ecology and Society, 9*(2), 5.

[15] Sattva Consulting. (2019). *Impact of BigBasket's direct sourcing model on smallholder farmers in India*. British International Investment. https://www.bii.co.uk/en/news-insight/insight/articles/how-does-an-online-supermarket-in-india-impact-farmers/

IJETIR
ISSN (Online) 2583-0554
International Journal of Emerging Technologies and Innovative Research (IJETIR)
Volume 6, Issue 2, February 2026
Impact Factor: 5.731

The complexity of sustainability in online groceries is covered through the application of multi-theoretical approach to comprehend all its nuances. Figure 1 demonstrates a model, which would relate customer behaviour (loyalty, readiness to pay, repurchase intent) and company objectives (cost efficiency, brand equity, regulatory compliance) to sustainable practices (packing, distribution, sourcing). This model identifies the key links, such as the increased interest in consumers using reusable packets, the challenges of EV implementation, which emphasize the role of Circular Economy frameworks, and partnerships with farmers, which showcase the Stakeholder Theory. These connections, with their origin in behavioural theory, bring out a culture of thriftiness of the society. These interconnections require special solutions that would provide a compromise between cultural, environmental, and economic factors.

Research Result



Our bibliography search was carried out with the assistance of Scopus with a focus on English-language journal articles and conference papers published since 2000 and up to 2023. One hundred and seventy-seven documents were located with the help of the keywords related to sustainability and online grocery retail. We narrowed this down to 63 articles that specifically deal with either empirical or theoretical contributions to sustainability in the e-grocery business once we had gone through filters of relevancy and had gone through the extent of the articles. Then, we decided to perform a co-occurrence analysis using VOSviewer, considering author keywords that appeared at least five times. To ensure over 80% alignment, a normalized association strength was employed in this analysis and checked by a manual check of the content[16].

To ensure the accuracy of our results, we employed the stop-word filtering in order to remove generic phrases. There are a few limitations that we acknowledge, such as the potential of Western bias, the rejection of works that were written in any other language as well as any delay in indexing. This open-ended and methodological approach aims at increasing the replicability and places emphasis on sustainability research in grocery settings. A bibliographic study was conducted in Scopus databases. The search query s sustainability AND online retail were used to extract 63 articles. In order to conduct a Vos viewer analysis, article CSV file was acquired. The authors also conducted co-occurrence and co-authorship studies to gain more knowledge of the online grocery industry[17].

[16] Zheng, Q., Chen, J., Zhang, R., & Wang, H. (2020). What factors affect Chinese consumers' online grocery shopping? Product attributes, e-vendor characteristics and consumer perceptions. *China Agricultural Economic Review, 12*(2), 193-213.

[17] *platform in China*. Stockholm: KTH Royal Institute of Technology.

IJETIR
ISSN (Online) 2583-0554
International Journal of Emerging Technologies and Innovative Research (IJETIR)
Volume 6, Issue 2, February 2026
Impact Factor: 5.731

C0-Occurance Analysis

The analysis of author keywords in co-occurrence was conducted to identify the key themes and how they relate to each other in the body of existing literature[18]. The co-occurrence analysis can identify four clusters of related keywords that depict one or another aspect of sustainability when referring to online groceries (Table 1).

These clusters point out the following key areas:

The contribution of product design to sustainable consumption.
Growing sensitivity and awareness to the sustainable issues.
The importance of sustainable supply chain management[19].
The financial implications of the sustainability practices.
These outcomes demonstrate how complicated sustainability among the e-grocery sector is and how it is necessary to have a comprehensive approach that includes social, economic and environmental impressions[20].

Table 1 Co-occurrence Analysis

Cluster	Keywords	Inference
1	Packaging, fashion, and product returns.	Product design plays a significant role in online grocery sustainability.
2	Sustainability, benchmarking, analysis, epidemic, social media	The epidemic and social media brought sustainability issues into the limelight for the online grocery market.
3	Lifecycle, supply chain, and food supply	Sustainability is crucial for the success of the online grocery supply chain.
4	Cost, sales, pricing, and sharing.	Financial analysis of organizational practices impacts sustainability in the online grocery market.

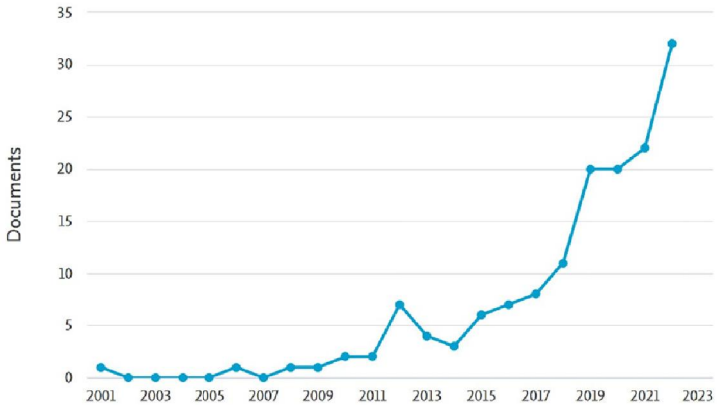
Documents by Year

The bibliographic analysis of the papers by year has revealed a consistent level of interest in the subject. This justifies the choice of subjects by the researchers and the growing popularity of academic research in the field of online food retail. It was graphically displayed as the annual releases data between 2001 and 2023 with the highest number in 2011, 2017, and 2021 (approximately 35 papers)[21]. Nonetheless, the numbers significantly decreases in 2023 to almost zero, which can be attributed to either decreased production or partial statistics. There was not much activity during the early years (e.g., 2001), but the following years (e.g., 2019) represented larger numbers, implying the growth over time despite the variations per year[22].

[18] Singhdong, P., & Weerapong, P. (2024). Scor Model Factors Affecting the Success of Food Delivery Business in Thailand. *Asian Administration and Management Review, 7*(1), 31–42.
[19] Seuring, S., & Müller, M. (2008). *From a literature review to a conceptual framework for sustainable supply chain management*. *Journal of Cleaner Production, 16*(15), 1699–1710. https://doi.org/10.1016/j.jclepro.2008.04.020
[20] Schüler, D., & Tapachai, N. (2025). Factors Affecting Online Purchase Intention Via Social Media: A Comparative Study of Young Consumers in Thailand and Germany. *Asian Administration and Management Review, 8*(1), Article 4.
[21] Paenchan, T., & Kookkaew, P. (2022). Technology Acceptance Affecting Purchase Decisions for Food Delivery by Mobile Phone Application of Consumers in Phra Nakhon Si Ayutthaya, Thailand. *PSAKU International Journal of Interdisciplinary Research, 11*(1), 16–24.
[22] Mirabella, N., & Kässi, T. (2017). Sustainable e-grocery retailing: An analysis of environmental strategies adopted by online grocery retailers. *Journal of Cleaner Production, 155*, 81-93.

IJETIR
ISSN (Online) 2583-0554
International Journal of Emerging Technologies and Innovative Research (IJETIR)
Volume 6, Issue 2, February 2026
Impact Factor: 5.731

Linear Grapgh



In respect of scholarly research papers about sustainability efforts in the online grocery business, Germany leads. This is preceded by USA, India, China and the UK. The analysis of the Scopus database offers ten documents in the pool of domain study of online groceries and sustainability. Consequently, the research topic adopted by the researchers is legitimate[23].

This was identified by the following keywords in the word cloud analysis (Figure 4) of sustainability practices of Indian enterprises. These options are delivery trucks, electric cars, paperless choice, and compostable packaging. This implies that online grocery retailers are focusing their sustainability experience in these aspects so that they can develop their market share.Also, there is a lot to explore on how to innovatively improve the sustainability footprint of the Indian online grocery ventures. These steps are expected to enhance the willingness of the consumers to repurchase groceries in such convenient shopping platforms[24].

Analysis of Word Clouds

Amazon Fresh, Big Basket and JioMart often use digital receipts and recyclable packaging. Moreover, many people are shifting towards electric automobiles. The fact that they are fast means that quick delivery companies such as Zepto (10 minutes) and Swiggy Instamart (15 minutes) do not necessarily use EVs or cooperate with local companies when operating in the online grocery sector in India[25].

Industrial e-grocery companies in India are leading the disruptive sustainability by establishing their operations to be eco-friendly. The company uses the example of Zypp Electric which, according to the agreement, will lower the carbon emission through their electric scooters as a part of a carbon-free last-mile delivery system.), a more recently founded startup that is called Karma, communicates with their customers about the opportunities to reduce costs and lessen food waste through their electric scooters. Others such as Zepto and Blinkit are trying biodegradable packaging and optimizing dark store logistics to reduce their carbon footprint and create a balance between convenience and green practices in the fast-growing quick commerce market.

[23] Kärkkäinen, T. (2015). *Gearing towards Omnichannel Grocery Retail through Business Model Innovation: Case Arina & Posti*. Doctoral Thesis, LUT University.

[24] Kanchanatanee, K. (2024). Factors Affecting the Acceptance of Artificial Intelligence in Electronic Commerce. *Asian Administration and Management Review, 7*(2), 101–108.

[25] Habib, S., & Hamadneh, N. (2021). Impact of Perceived Risk on Consumers Technology Acceptance in Online Grocery Adoption amid COVID-19 Pandemic. *Sustainability, 13*(18), 10221.

IJETIR
ISSN (Online) 2583-0554
International Journal of Emerging Technologies and Innovative Research (IJETIR)
Volume 6, Issue 2, February 2026
Impact Factor: 5.731

Discussions

The e-grocery industry in India is also undergoing the problem of sustainability whereby the demand to establish high speed delivery strategies increases the prices and pollution. The increase in the rates of consumers can be only within 5-7 percent to greener solutions, yet the problems related to the high cost of electric vehicle, absence of charging stations, and insufficient composting stations are still serious.

Reusable packages, smart routing using AI, and solar powered hubs are only a few of the new inventions that have a great potential but they still need to be scaled up. Although such legislative help as EV incentives and plastic bans is beneficial, adapting to local conditions is essential. The process of balancing the rapid service approach with the environment-friendly targets will require partnerships with local kirana businesses, graded sustainability, and tech-enhanced efficiency to generate wealth and increase the willingness to strike a compromise.

It is noteworthy that the food delivery business in Thailand has similar challenges and opportunities[26]. Just as effective and sustainable processes are necessary in the e-grocery business in India, Singhdong and Weerapong (2024) indicated that efficient management of supply chain and customer satisfaction is required of food delivery businesses in Thailand. Moreover, Paenchan and Kookkaew (2022) found out that the choice of mobile applications to purchase food and delivery in Thailand is strongly dependent on the technological adoption, which aligns with the increasing use of digital platforms in India to purchase groceries[27].

Future studies of the green Indian e-grocery industry should be carried out through Triple Bottom Line (TBL) strategy. This will involve looking at the economic, social, and environmental impacts of such programs as Blinkit biodegradable wrapping or Zypp electric delivery of electric cars. Besides benefiting the health of the people (community), the initiatives also contribute to the decrease in emissions (planet) and the more cost-effective nature (profit). Other external factors such as marketing budgets, consumer loyalty, and economic conditions (such as inflation) have to be considered as well. Surveys that address the eco-preferences (think low-emission delivery and sustainable packaging) can be explored in these aspects.

Schulter and Tapachai (25) arrived at the factor that affected their intentions to purchase products online by using social media in Thailand and provided an insight on the importance of social influence[28].

---

[26] Mangla, S. K., Luthra, S., Jakhar, S., Gandhi, S., Muduli, K., & Kumar, A. (2020). *A step to smart supply chains: Real-time monitoring using business analytics and artificial intelligence*. *Computers & Industrial Engineering, 146*, 106554. https://doi.org/10.1016/j.cie.2020.106554

[27] Elkington, J. (1997). *Cannibals with forks: The triple bottom line of 21st century business*. Capstone Publishing.

[28] Tapachai, N., & Schulter, F. (2020). *Factors influencing consumers' online purchase intention through social media: Evidence from Thailand*. *Journal of Asian Finance, Economics and Business, 7*(8), 563–573. https://doi.org/10.13106/jafeb.2020.vol7.no8.563

IJETIR
ISSN (Online) 2583-0554
International Journal of Emerging Technologies and Innovative Research (IJETIR)
Volume 6, Issue 2, February 2026
Impact Factor: 5.731

Moreover, e-grocery solutions are also marketed through digital marketing to make them sustainable. Also, Kanchanatanee (2024) explored the use of artificial intelligence (AI) in electronic commerce by focusing on the fact that AI-related solutions might help enhance the efficiency of the supply chain, reduce food waste, and optimize the routes to deliver goods in Thailand and India. This aligns with the work by Thamma et al. (2024), who examined the revolutionary effect of AI on e-commerce purchases and customer satisfaction, showing that AI can be one of the main factors that can make the e-grocery industry more sustainable and bring customer satisfaction up.

The practical measures include the use of AI to optimize the delivery routes, compostable packaging, and sustainable sourcing practices that may make a big difference. Solar-powered dark stores can reduce energy consumption significantly, but such innovations as refill stations, IoT dispensers and other partner programs can enable the reduction of costs. The studies of the international norms such as logistics of the Instacart and the renewable warehouses of Ocado could help provide some valuable and scalable information. It is also possible to strengthen customer retention.

by the policy analysis and use of green loyalty programs. It is also possible to build strong relationships with farmers and encourage organic farming and reduce emissions. The dynamic India market environment suggests that e-grocers can balance profitability, social and environmental objectives in e-grocery through the combination of TBL analysis, customer behavior, affordable technology, and international benchmarks.

III. CONCLUSION

The report identifies sustainability as a key aspect in the fast-growing online grocery market in India where companies are implementing more sustainable practices such as ethical sourcing, electric vehicle delivery, and sustainable packaging. Despite the improvement, there is a lot to be developed and coordination of companies, legislators and consumers is required.

The research paper has several novel conclusions. To begin with, it provides a comprehensive bibliometric research on sustainability in the Indian e-grocery sector that presents valuable information on key themes and research trends. Second, it highlights the importance of adapting global sustainability priorities to the local context, with the need to have solutions that are easily available, affordable, and culturally responsive. Thirdly, it demonstrates that public-private partnerships may trigger long-term innovation in the area.

Also, the findings of the study can be used beyond India, and they give valuable advice to the rest of the developing Asian economies. As an example, the research in Thailand has shown how the power of social media in online purchasing intentions is growing (Schulers and Tapachai, 2025) and how artificial intelligence can transform e-commerce (Thamma et al., 2024; Kanchanatanee, 2024). Such observations align with the need of the e-grocery industry to have innovative and sustainable solutions, with the efficiency of the supply chain, consumer preferences, and technology being key determinants. Also, the studies on the food delivery businesses in Thailand (Singhdong and Weerapong, 2024; Paenchan and Kookkaew, 2022) reflect the importance of adopting technology and effective supply chain management, which is a bigger trend of digitalisation and sustainability in the region.

The future priorities of online food companies should include investing in scalable reverse logistics systems, cooperation with local farmers and suppliers, route optimisation with the help of AI, and favoring sustainable decisions. Public awareness campaigns, incentives on green technologies and directives on specific sustainability criterion should be initiated by policy makers. Customers are able to select products that have minimal packaging, take an active part in recycling projects and patronize shops who are committed to sustainability.

To address the limitations of this study like secondary data use and focus on the Indian market future research must analyse the consumer behaviour using direct data collection, assess the effectiveness of sustainability practices in the long-term and conduct comparative studies across markets and policy interventions. Asian Interdisciplinary and Sustainability Review (e-ISSN: 3027-6535) Volume 14 Number 2 (July - December 2025).

To sum up, the sustainability of online grocery retailing does not only affect the supply chain resilience and customer retention, but also the alignment with the evolving consumer ethics. Stakeholders can collaborate in India and across the dynamic landscape of the emerging economies of Asia to bring the sector to a more sustainable and accessible future by bridging research gaps and making proactive moves.

REFERENCES

[1]. Habib, S., & Hamadneh, N. (2021). Impact of Perceived Risk on Consumers Technology Acceptance in Online Grocery Adoption amid COVID-19 Pandemic. *Sustainability, 13*(18), 10221.

[2]. Ganapathy, V., Wongmahesak, K., & Srinivasan, A. (2025). *Sustainable e-grocery in India: Consumer behavior and strategic imperatives*. *Asian Interdisciplinary and Sustainability Review, 14*(2), Article 20. https://doi.org/10.14456/aisr.2025.31

[3]. Hallez, L., Qutteina, Y., Boen, F., & Smits, T. (2021). The ABC's of Ecological and Nutrition Labels. The Impact of Label Theme and Complexity on the Environmental Footprint of Online Grocery Choices. *Sustainability, 13*(5), 2474.

[4]. Kanchanatanee, K. (2024). Factors Affecting the Acceptance of Artificial Intelligence in Electronic Commerce. *Asian Administration and Management Review, 7*(2), 101–108.

[5]. Kärkkäinen, T. (2015). *Gearing towards Omnichannel Grocery Retail through Business Model Innovation: Case Arina & Posti*. Doctoral Thesis, LUT University.

[6]. Lee, J., Lee, H., & Kim, D. (2018). A life cycle assessment of online grocery delivery: A case study of Seoul. *Sustainability, 10*, 3482.

[7]. McManus, B., & Seville, E. (2019). Sustainable food supply chains: The impact of online retailing on food distribution. *Journal of Cleaner Production, 231*, 318-330.

[8]. Meadows, D. (2008). *Thinking in systems: A primer*. Vermont: Chelsea Green Publishing.

[9]. Mirabella, N., & Kässi, T. (2017). Sustainable e-grocery retailing: An analysis of environmental strategies adopted by online grocery retailers. *Journal of Cleaner Production, 155*, 81-93.

[10]. Murray, R., Caulier-Grice, J., & Mulgan, G. (2010). *The Open Book of Social Innovation*. London: The Young Foundation.

[11]. Paenchan, T., & Kookkaew, P. (2022). Technology Acceptance Affecting Purchase Decisions for Food Delivery by Mobile Phone Application of Consumers in Phra Nakhon Si Ayutthaya, Thailand. *PSAKU International Journal of Interdisciplinary Research, 11*(1), 16–24.

[12]. Prochaska, J., & Velicer, W. (1997). The Transtheoretical Model of Health Behavior Change. *American Journal of Health Promotion, 12*(1), 38-48.

[13]. Schüler, D., & Tapachai, N. (2025). Factors Affecting Online Purchase Intention Via Social Media: A Comparative Study of Young Consumers in Thailand and Germany. *Asian Administration and Management Review, 8*(1), Article 4.

[14]. Singhdong, P., & Weerapong, P. (2024). Scor Model Factors Affecting the Success of Food Delivery Business in Thailand. *Asian Administration and Management Review, 7*(1), 31–42.

[15]. Sattva Consulting. (2019). *Impact of BigBasket's direct sourcing model on smallholder farmers in India*. British International Investment. https://www.bii.co.uk/en/news-insight/insight/articles/how-does-an-online-supermarket-in-india-impact-farmers/

[16]. Walker, B., Holling, C., Carpenter, S., & Kinzig, A. (2004). Resilience, Adaptability and Transformability in Social–ecological Systems. *Ecology and Society, 9*(2), 5.

[17]. *platform in China*. Stockholm: KTH Royal Institute of Technology.

[18]. Zheng, Q., Chen, J., Zhang, R., & Wang, H. (2020). What factors affect Chinese consumers' online grocery shopping? Product attributes, e-vendor characteristics and consumer perceptions. *China Agricultural Economic Review, 12*(2), 193-213.

[19]. Seuring, S., & Müller, M. (2008). *From a literature review to a conceptual framework for sustainable supply chain management*. *Journal of Cleaner Production, 16*(15), 1699–1710. https://doi.org/10.1016/j.jclepro.2008.04.020

[20]. Wang, Y. (2022). *Exploring the effects of green certification labeling in online grocery shopping*

[21]. Ajzen, I. (1991). The theory of planned behaviour. *Organisational Behaviour and Human Decision Processes, 50*(2), 179-211.

[22]. Astashkina, E., Belavina, E., & Marinesi, S. (2019). *The environmental impact of the advent of online grocery retailing* (ESCP Business School Research Paper). Paris: ESCP Business School.

[23]. Berger, M., Müller, C., & Nüske, N. (2020). *Digital nudging in online grocery stores: Towards ecologically sustainable nutrition*. A paper presented at the 2020 International Conference on Information Systems, Hyderabad, India.

[24]. Bocken, N., de Pauw, I., Bakker, C., & van der Grinten, B. (2016). Product design and business model strategies for a circular economy. *Journal of Industrial and Production Engineering, 33*(5), 308-320.

[25]. Freeman, R. (1984). *Strategic management: A stakeholder approach*. Massachusetts: Pitman.

[26]. Mangla, S. K., Luthra, S., Jakhar, S., Gandhi, S., Muduli, K., & Kumar, A. (2020). *A step to smart supply chains: Real-time monitoring using business analytics and artificial intelligence*. *Computers & Industrial Engineering, 146*, 106554. https://doi.org/10.1016/j.cie.2020.106554

[27]. Elkington, J. (1997). *Cannibals with forks: The triple bottom line of 21st century business*. Capstone Publishing.

[28]. Tapachai, N., & Schulter, F. (2020). *Factors influencing consumers' online purchase intention through social media: Evidence from Thailand*. *Journal of Asian Finance, Economics and Business, 7*(8), 563–573. https://doi.org/10.13106/jafeb.2020.vol7.no8.563