Effectiveness of Technological Advancements on Customer Loyalty in Online Grocery Shopping: A Comprehensive Review

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Abstract:

Purpose

The purpose of the study is to determine whether the adoption of online grocery shopping depends on technological advancements and how new technologies are perceived in the grocery retailing industry. It offers a fresh look at how new technology and Innovations are playing a key role in the adoption of Online grocery shopping. It also looks at how customers behave when repurchasing, though we can understand the loyalty towards online grocery shopping.

Originality

The article conducts a systematic review of the literature on the role of technology and customer loyalty in influencing the adoption of online grocery shopping. It takes a total of 33 empirical and review studies and identifies the key variables of new technology Innovation In the adoption and loyalty towards online grocery shopping.

Findings & Practical Implications

Online marketers could use the study's findings to create more imaginative and user-friendly websites and applications. That would make it easy for the customers to surf, navigate, and be attractive. It is also helpful to online grocery customers in repurchasing and loyalty towards grocery apps/websites.

Social Implications

Customers' grocery purchasing habits have shifted to online because it reduces the hassle in terms of store crowds and queuing during payment, reduces the efforts in traveling, walking, parking, waiting, and carrying products, and saves time for the customers. Also, the use of new technologies in grocery retailing is currently undergoing rapid change to enhance the Environmental sustainability and overall customer shopping experience.

Key Words: Online grocery shopping, Loyalty towards online grocery, Technology Adoption, Repurchase intention, App/Website Design, Digital payments

Introduction:

The rise in e-tailing in general and e-grocery purchasing, in particular, is being driven by the rapid expansion in internet and smartphone consumption. "India is the fastest-growing economy in the world and adapting to all types of technology over time. Online e-commerce is the best example showcasing the usage of the Internet in the country, like electrical gadgets, Users are interested in purchasing grocery items, fresh vegetables, fruits, and other grocery products online using the internet. Online Shopping apps help people to order grocery products online using mobile apps anywhere. The ordered product gets to be delivered doorstep to the desired address. The shopping app also offers various payment options for a user to make the payout. The whole process is time-saving, stress-free, and easy to use (Subhash Datta et al., 2023)"

India is expected to have 660 million internet users by 2023, up from 480 million in 2019. As a result, the percentage of people using the Internet is projected to increase from 40% in 2019 to 55% in 2023, adding to India's e-grocery buying base. "The Indian online grocery market size reached US$ 6.8 Billion in 2022. Looking forward, IMARC Group expects the market to reach US$ 37.0 Billion by 2028, exhibiting a growth rate (CAGR) of 31.3% during 2023-2028 (Subhash Datta et al., 2023).

The rapid expansion of internet penetration and smartphone usage, increasing urbanization and busy lifestyles of consumers, outbreak of COVID-19 pandemic, wide availability of products on e-commerce platforms, and competitive pricing are some of the major factors propelling the market." Indians consider groceries to be a necessary purchase, and they spend over half of their earnings on groceries (Kurniasari & Riyadi, 2021). The retail shopping paradigm is currently being impacted by changes in the internet's rapid expansion and implementation of new technologies. With the help of mobile apps and websites, the Internet simplifies human life, from booking to shopping. Groceries are necessary for humans to function on a daily basis. Over the years, online grocery shopping in India 2022 has been a rapidly growing business. Most people find finding a grocery list and standing in line for billing in a supermarket to be tedious (Kaur & Kumar Shukla, 2016).

The Top 10 Applications & Websites in India for Online Grocery Shopping:

These are the Top 10 Apps for Instant Grocery Delivery:

1. Big Basket
2. Grofers Now Blinkit
3. Dunzo
4. Zepto
5. InstaMart
6. Flipkart Grocery
7. Amazon Fresh
8. Jio Mart
9. D-Mart Online
10. Nature's Basket

Source: Top 10 Online Grocery Shopping App & Website in India 2022 - Smarther

Review Literature:

Online Grocery Shopping Adoption

Customers' purchasing habits have evolved in light of globalization and the internationalization of trade. Pressure to raise the level of innovation and service quality in retail has resulted from this. Better customer relationship management through customer databases is how retailers aim to gain a competitive edge in an increasingly globalized market. They also aim to become more competitive through mergers and acquisitions. Organizational systems and processes, the majority of those that are related to the handling of information and data management, have shifted in response to this move toward focusing on its customer's retail (Farooqi & Dusia, 2011).

Customers in retail today must deal with new technologies like electronic shelf labels, portable touch scanners, and self-checkout options. In addition, there are innovations related to online shopping (Bhavani et al., 2014)**.**

Both online and retail shopping benefit greatly from technology and its widespread adoption. Behavior that facilitates or encourages (supports) the use of technology as opposed to impeding or demeaning (resists) its use is considered to be supportive of it (Jun & Jaafar, 2011)**.**

In terms of technology, it's critical to successfully implement technology support for online grocery shopping. E-grocery fails on the market due to inadequate control over physical and information flows, ineffective logistics, and inefficient operations on the part of the company. Setting up technology and website design to meet the needs and preferences of customers is crucial. The quality of a website's design, particularly in terms of accessibility, ease of use, loading speed, and attractiveness of the content, greatly influences how customers behave (Habib & Hamadneh, 2021).

Technological Advancement and Innovation in grocery App/website:

The goal of the other paper is to find the best user interface for a web page by focusing on website design. When deciding which customer segments to target with marketing tools, the research also offers helpful information. Both traditional store companies and businesses that exclusively conduct business online (e-tail) provide the OGS service (hybrid companies). To satisfy customers, hybrid businesses must efficiently manage all of their sales channels, including their website, traditional store, and call center. Consumers, particularly those in generation Y, prefer online sources of information to traditional media (Kaur & Kumar Shukla, 2016)**.**

So, for marketers from hybrid companies these days, multichannel customer management is an emerging strategic area of decision-making. Major marketing decisions are considered as those that involve efficient design, implementation, and evaluation of channels to increase customer value through efficient customer acquisition and development (Jensen et al., 2021). Customers' online grocery shopping behavior is of particular interest to researchers. For example, choosing a brand online is essentially the same as what customers typically do in physical stores (Sivanesan & Monisha, 2017).

On the other hand, online grocery stores typically offer delicious, locally produced food, which appeals to consumers who wish to support their neighborhood and local businesses. The Interface and capabilities of online technology contribute to the differences in consumer behavior between traditional and online shopping environments. For instance, the web interface dramatically reduced the amount of time needed to shop for groceries (Akhtar & Farooqi, 2022). With the ongoing growth of online grocery shopping, consumer behavior has gradually changed in terms of basket composition by product category in response to the special occasions and difficulties presented by OGS. For example, despite the myth that consumers are afraid to shop for fresh products online, online shoppers spend more money on fresh goods than offline ones (Pauzi et al., 2017)

Indian Online Grocery Market Report Overview:

The online grocery market in India was worth $6.8 billion in 2022, up from $2.9 billion in 2020. Between 2023 and 2028, we forecast the Indian online grocery market to grow at a CAGR of 31.3%. People are searching for more convenient and customizable online grocery shopping platforms instead of going to their local vendors due to their busy lifestyles and increasing disposable income. The inclination towards internet grocery product delivery became more apparent because of technological advances and also after the COVID-19 pandemic (Brüggemann & Olbrich, 2022).

Customers are shifting their focus to online grocery shopping due to social distancing standards as it is a safer and more convenient option. The Indian online grocery market is currently dominated by South India, although the market is segmented into four regions: North, East, West and South India. **(grandviewresearch.com/industry-analysis/india-online-grocery-market)**

South India online grocery market size, by product type, 2017 - 2028 (USD Million)
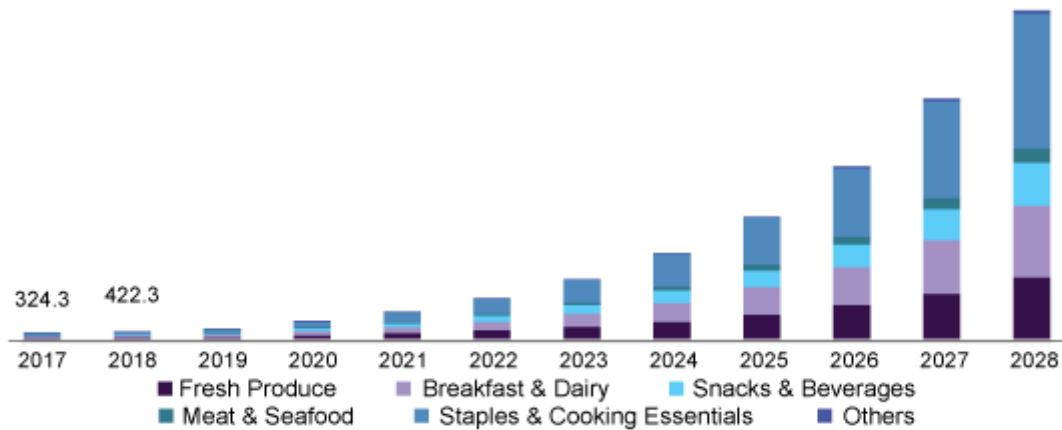
Source: www.grandviewresearch.com

Source: Grandviewresearch.com

With a 63.8% market share in 2020, the online segment led the market and is predicted to grow at the fastest CAGR over the course of the forecast period. The increasing inclination towards online payments is the reason for the growth of this particular segment. In January 2020, PPRO reported that card payments accounted for the majority of online purchases made in India. Among Indian internet shoppers, bank transfers, pay later, UPI, wallet payments, and Net banking were less common methods of payment (Singh & Srivastava, 2022). However, it is now easier and more convenient to buy groceries online since there are a variety of payment options, including Pay Later, net banking, credit cards, and UPI. **(grandviewresearch.com/industry-analysis/india-online-grocery-market)**

India online grocery market share, by payment method, 2020 (%)

- Online
- Offline (Cash on Delivery)
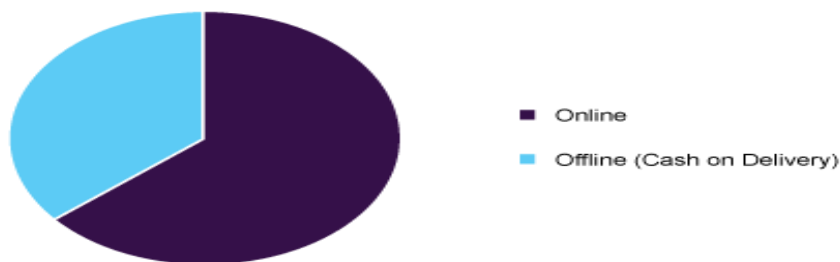
Source: www.grandviewresearch.com

Source: Grandviewresearch.com

The interface and capabilities of internet technology are undoubtedly the reason behind the differences in consumer behavior between online and traditional shopping environments. For instance, the amount of time needed to shop for groceries was greatly reduced by the web interface (Habib & Hamadneh, 2021). With the ongoing growth of online grocery shopping, consumers' behavior has gradually changed in terms of the makeup of their baskets by product category in response to the special opportunities and difficulties presented by online grocery shopping. For example, despite the widespread belief that consumers are afraid to buy fresh products online, online shoppers spend more money on fresh goods than offline shoppers (Prasad & Raghu, 2018).

The rapid growth of the internet and the application of new technologies to enhance the overall customer shopping experience is currently impacting the retail shopping format, leading to pressure to change established business strategies.

Mobile phones Since the first iPhone arrived on our doorsteps in 2007, there has been a significant increase in the accessibility of the internet. No matter where they are, consumers can quickly and easily access technology thanks to smartphones. Mobile commerce sales rose from $982 billion in 2018 to $2.2 trillion in 2023 so there's no sign of it slowing down **(Statista Market Insights July 2023).**
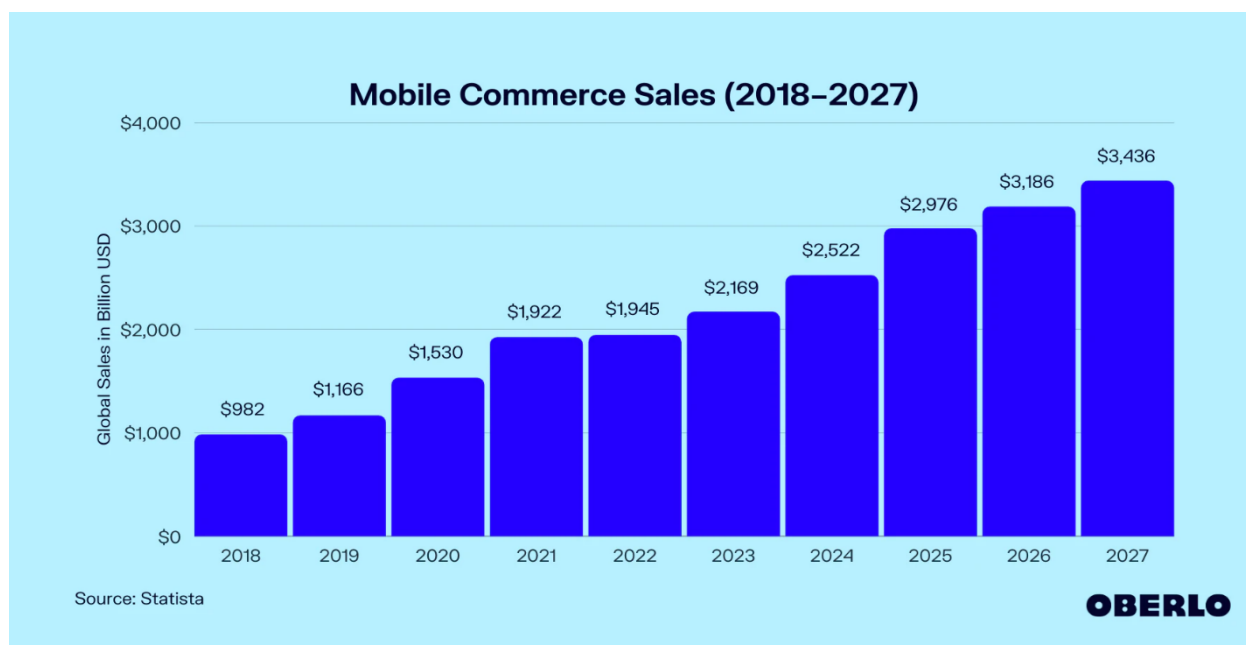
Source: Statista Market Insights July 2023

Recent trends and new technological Innovations in OGS:

In recent years, the online grocery shopping landscape has been rapidly evolving, with several technological advancements and innovative approaches improving the overall shopping experience. Let's explore some of these key areas:

❖ **Chatbot integration using artificial intelligence (AI) and machine learning (ML):** AI and ML algorithms examine user behavior and preferences to offer tailored recommendations. Additionally, it maximizes inventory control by forecasting demand and cutting down on waste. Artificial intelligence (AI)-powered chatbots provide real-time support, addressing customer questions, locating products, making suggestions, and assisting them throughout the purchasing process, all of which enhance the interaction between the customer and the merchant (Askar, 2020).

❖ **Developing Accessible Apps and Websites with Creative Design:** Creative website design is a crucial component of grocery shopping online. Responsive design ensures that customers can browse products, add items to their carts, and complete transactions on any device. Ordinally user-friendly interface and easy to use navigation enhances the entire shopping experience of groceries through responsive apps/websites (Geluk et al., 2018).

❖ **User experience and user interface design:** It ensures that customers can easily browse products, add items to their cart, and check out. Product photos, detailed product descriptions, and user reviews all contribute to an enjoyable shopping experience.

❖ **Application:** Using mobile apps to buy groceries is becoming more and more common. Features like voice search, barcode scanning, and personalized recommendations make shopping easier and more enjoyable for customers who are constantly on the go (Abou-Zeid, 2021).

❖ **The concept of virtual shopping carts:** Websites are virtual shopping carts, which let users select and save items in a virtual cart, check it out before completing a purchase, and check out with just a few clicks. Additionally, they give sellers the data they need to fulfill their customers' orders (Askar, 2020).

❖ **Personalization:** Advanced algorithms look at user preferences and previous purchases to make customized product recommendations. This personalization of the shopping experience can lead to higher levels of customer satisfaction and loyalty (Annadate & Mude, 2020).

❖ **Logistics and Supply Chain Management:** To reduce stockouts and ensure timely delivery, it is imperative to have smart warehousing, accurate demand forecasting, and efficient inventory management. Supply chain optimization can be achieved through the combined use of the Internet of Things devices and data analytics (Bauerova, 2019).

❖ **Environmental sustainability:** Certain platforms are focusing on highlighting eco-friendly packaging, reducing food waste, and supporting local producers in response to consumers' increasing preferences for sustainable practices (Geluk et al., 2018).

❖ **Social Media Shopping:** Integration with social media platforms allows users to find products through posts, stories, or advertisements. Direct links of the products over social media like Instagram, Facebook, YouTube, Snap Chat, etc. make shopping easy (Republic, 2017).

❖ **Reviews And Feedback:** The ratings and reviews that customers leave may not only assist other shoppers in making an informed choice during their shopping experience, but they may also provide the platform with useful information to aid in its development in the future. Through those customers had more confidence, tangibility, and trust (Mohammed Athar Ali et al., 2023).

❖ **Digital Payment, Wallet Payment, and Pay Later Services:** An essential component of the online shopping experience is having safe and easy payment options. Fast and easy transactions are guaranteed by digital payment platforms, Pay Later, and mobile wallets, which boost the online shopping experience (Askar, 2020).

Customer Loyalty Towards Online Grocery Shopping:

Consumer loyalty and retention have significantly changed as a result of technology's integration into the online grocery shopping experience. This change is typified by the utilization of a wide range of digital tools, platforms, and strategies that enhance customer convenience, personalization, and engagement. We will explore the complex effects of technology on consumer loyalty and retention in the online grocery shopping industry in this in-depth talk.

❖ **Loyalty Programs and Rewards:** "Businesses with loyalty programs are 88% more profitable on average as compared to their competitors who do not," per the retail survey conducted by Deloitte. It takes time to turn a new customer into a devoted following. Customer loyalty programs should be taken into consideration for this reason. Loyal consumers also tend to tell their family and friends about their positive experiences and spend more money on brands they like. A relatively new marketing tactic called "word by mouth" has gained traction because it works better at drawing in new clients than it does at promoting your business (Singh & Srivastava, 2022). To encourage recurring purchases, online grocery retailers frequently provide rewards, points, cashback, and special discounts. Customers can track their loyalty points and redeem rewards more easily with the help of mobile apps and websites, which fosters a feeling of value and community.

❖ **Advance Technology in E-Grocery Apps/web:** Technological advancements have accelerated over the last ten years, changing how consumers shop for groceries online. The shopping experience has been completely transformed by the advent of user-friendly mobile applications and responsive websites, which enable customers to browse a vast selection of products, place orders, and schedule deliveries at times that work best for them (Klepek & Bauerová, 2020).

❖ **Convenience and Accessibility:** The unmatched convenience provided by technology is one of the main factors influencing consumer loyalty and retention when it comes to online grocery shopping. Customers no longer need to physically visit a brick-and-mortar store to create shopping lists, browse product categories, and finish their purchases with a few taps on their smartphones or clicks on their computers (Hand et al., 2009). The purchase process is made easier by the integration of features like personalized recommendations, fast reorder options, and saved shopping lists, which improves the overall customer experience (Sreeram et al., 2017).

❖ **Utilization of personal data and personalization**: Online grocery retailers can now gather and analyze customer data to offer highly customized shopping experiences, all thanks to technology. Retailers can use past purchase history, preferences, and browsing behavior to tailor promotions, discounts, and product recommendations to

individual customers. Customers who receive this level of personalization are not only happier but they are also encouraged to make more purchases, which ultimately fosters loyalty (Martínez-lópez & Gázquez-abad, 2018).

❖ **Importance of social proof and reviews:** Technology has facilitated the sharing of customer experiences through social media platforms, online reviews, and ratings. Loyal customers who have already made wise purchases are more likely to do so again because positive reviews and recommendations from other customers can have a significant influence on what potential buyers decide to buy (Bauerová et al., 2023).

❖ **Data Security:** Since sensitive data is exchanged during online transactions, maintaining strong cybersecurity defenses and adhering to data protection laws are essential to earning over customers (Mortimer et al., 2016).

All of the above innovations of technology play a key role in the adoption of online grocery shopping and motivates the customer's loyalty towards Shopping groceries online.

Limitation of the Study:

There may be some limitations that should be acknowledged. Some potential limitations are as follows:

1. **Generalization:** The findings of the review may be interpreted according to a specific set of research findings or sources of information, limiting the generalizability of the findings to a broader sample or different circumstances.

2. **Temporally limitations and Geographical Bias:** Because technology and customer habits in the online grocery shopping space are rapidly changing, the evidence may be somewhat time sensitive. The evaluation might not accurately represent the area's latest advancements or changes. The investigation's studies may be biased toward particular geographical areas, restricting the implications to a broad audience worldwide.

3. **Publication Bias and Methodological Variation:** Publication bias can be introduced into the review as a result of the availability and inclusion of published studies. The synthesis and comparison of studies included in the review can be challenging due to variations in research methodologies, measurement tools, and data collection strategies.

4. **Innovation Dynamics and Customer Diversification:** It can be challenging to incorporate the most recent innovations or technologies that could have an impact on the adoption of online grocery shopping due to the rapid pace of technological advancements that cross the scope of the review. Diverse customer segments including age groups, socioeconomic status, and cultural background may not be fully taken into account in the review.

Challenges and Issues:

Even though technology has changed the way people buy groceries online, there are still problems that need to be solved. Concerns about privacy, data security, and potential technical issues can affect customer loyalty and trust. Retailers need to think carefully about implementing strong cybersecurity protocols and providing timely customer service to allay these fears.

These are some of the primary obstacles to the adoption and loyalty towards shopping for groceries online.

1. **Trust and Security:** Concerns about trust and safety have also played a significant role in the evolution of online grocery shopping. Consumers are concerned about the safety of their personal and financial information, as well as the authenticity of products. Strong cybersecurity protections, transparent data handling practices, and counterfeit prevention systems need to be established to boost trust.

2. **Timely Delivery:** Delivery times must be accurate and timely to guarantee customer satisfaction. Unavailability of delivery slots, traffic jams, and infrastructure problems can aggravate customers and reduce their overall experience.

3. **Quality and Intangibility:** The physical and sensory components of traditional shopping, which are challenging for online platforms to duplicate, represent another significant barrier. Purchasing decisions are influenced by the physical aspects of products, especially in the case of perishable and produced goods.

Discussion and Conclusion:

In short, technology and online grocery shopping have drastically changed the way consumers communicate with merchants and make decisions about what to buy. Because technology can provide convenience, customization, and engagement, customer loyalty and retention have increased dramatically. Online grocery retailers need to keep up with the latest technological advancements and never stop innovating to stay ahead of the competition and deliver a distinctive shopping experience that entices customers to shop again and again.

Online grocery shopping has resulted in a change in the way people buy groceries, which saves them time, and the hassle of navigating crowded stores and long payment lines, and requires less effort while driving, walking, parking, and carrying items. In addition, a lot is changing rapidly in the grocery retailing industry when it comes to the application of new technologies to enhance customer satisfaction and environmental sustainability.

Technology adoption and online grocery shopping are both beset by many complex and diverse obstacles. Convenience, usability, and simplicity of use are factors that influence consumer adoption decisions; However, barriers such as doubts about product quality, problems with delivery, and trust issues can prevent widespread adoption. The online grocery industry has the potential to revolutionize how consumers meet their grocery needs and encourage greater adoption by using emerging technologies and solving these issues.

References:

1. Abou-Zeid, G. (2021). *Adoption and Use of E-Grocery Shopping in the Context of the COVID-19 Pandemic: Implications for Transport Systems and Beyond*. https://doi.org/10.15760/etd.7658

2. Akhtar, M. A., & Farooqi, R. (2022). 1. Online Consumer's Purchasing Behavior Towards E-Grocery Shopping- A Critical Review. *Journal of M. P. Institute of Social Science Research*, *27*(10), 63–69. https://www.researchgate.net/publication/369014050

3. Annadate, P., & Mude, G. (2020). Online Grocery Industry in India : Identifying Key Themes and Future Directions through a Literature Review. *4th International Conference on Marketing, Technology & Society*, *123*, 1–4.

4. Askar. (2020). *Factors Influencing Consumer'S Intention Towards Online Grocery Shopping in the United Arab Emirates*. *January*, 1–239. https://doi.org/10.13140/RG.2.2.11100.82562

5. Bauerova, R. (2019). Online grocery shopping acceptance: The impact on the perception of new technologies and loyalty in retailing. *Central European Business Review*, *8*(3), 18–34. https://doi.org/10.18267/j.cebr.216

6. Bauerová, R., Starzyczná, H., & Zapletalová, Š. (2023). Who are online grocery shoppers? *E a M: Ekonomie a Management*, *26*(1), 186–205. https://doi.org/10.15240/TUL/001/2023-1-011

7. Bhavani, G., Kumar, A., & Mehta, A. (2014). *International Journal of Management Research and Review*. *4*(1), 316–334. http://www.ijmrr.com/admin/upload_data/journal_NaserMohammadoghli___8sep13mrr.pdf

8. Brüggemann, P., & Olbrich, R. (2022). The impact of COVID-19 pandemic restrictions on offline and online grocery shopping: New normal or old habits? *Electronic Commerce Research*, *0123456789*. https://doi.org/10.1007/s10660-022-09658-1

9. Farooqi, R., & Dusia, D. K. (2011). A Comparative Study of Crm and E-Crm Technologies. *Indian Journal of Computer Science and Engineering*, *2*(4), 624–627. http://royalroads.summon.serialssolutions.com/link/0/eLvHCXMwY2BQME1MBk22pSYaJZkD6_Pk1DQjg2R jQ8Mky5Q0C0MT0L5hxAUkSKW5myiDm5triLOHLmhlWHwB5LiFeNAByGAB2FKx-ORUQ8NEsyQjA7MkSxOLFBPTlGSL1BSTxERg6zfNNNnEUIyBBdh5ThVnYCkpKgVSTEYG4kA7xBk4Ii w9XEwcfXwhXC4YVy9RnIHZWM

10. Geluk, J., Studies, C., Management, S., Verhees, F., & Fischer, A. (2018). *Online grocery shopping: Which products do consumer segments prefer to buy in an online supermarket*. 38.

11. Habib, S., & Hamadneh, N. N. (2021). Impact of perceived risk on consumers technology acceptance in online grocery adoption amid covid-19 pandemic. *Sustainability (Switzerland)*, *13*(18), 1–15. https://doi.org/10.3390/su131810221

12. Hand, C., Riley, F. D. O., Harris, P., Singh, J., & Rettie, R. (2009). Online grocery shopping: The influence of

situational factors. *European Journal of Marketing*, *43*(9), 1205–1219. https://doi.org/10.1108/03090560910976447

13. Jensen, K. L., Yenerall, J., Chen, X., & Yu, T. E. (2021). US Consumers' Online Shopping Behaviors and Intentions during and after the COVID-19 Pandemic. *Journal of Agricultural and Applied Economics*, *53*(3), 416–434. https://doi.org/10.1017/aae.2021.15

14. Jun, G., & Jaafar, N. I. (2011). A Study on Consumers' Attitude towards Online Shopping in China. *International Journal of Business and Social Science*, *2*(22), 122–132.

15. Kaur, H. K., & Kumar Shukla, R. (2016). *International Journal of Multidisciplinary Approach and Studies Consumer's Attitude towards Online Grocery Shopping In Delhi City Demonetisation: A review on the changing scenario of Digital Payments View project Research View project*. June. https://www.researchgate.net/publication/303922240

16. Klepek, M., & Bauerová, R. (2020). Why do retail customers hesitate for shopping grocery online? *Technological and Economic Development of Economy*, *26*(6), 1444–1462. https://doi.org/10.3846/tede.2020.13970

17. Kurniasari, F., & Riyadi, W. T. (2021). Determinants of Indonesian E-Grocery Shopping Behavior After Covid-19 Pandemic Using the Technology Acceptance Model Approach. *UIJRT | United International Journal for Research & Technology |*, *03*(01), 2582–6832. www.redseer.com,

18. Martínez-lópez, F. J., & Gázquez-abad, J. C. (2018). Advances in National Brand and Private Label Marketing (2018, Springer International Publi.pdf. *Springer Proceedings in Business and Economics*, 169.

19. Mohammed Athar Ali, Wadood Alam, Serajul Haque, & Affan Akhtar. (2023). Impact And Significance of CRM in Rural Banking -A Comprehensive Study. *AMA, Agricultural Mechanization in Asia, Africa and Latin America*, *54*(02), 12035–12044.

20. Mortimer, G., Fazal e Hasan, S., Andrews, L., & Martin, J. (2016). Online grocery shopping: the impact of shopping frequency on perceived risk. *International Review of Retail, Distribution and Consumer Research*, *26*(2), 202–223. https://doi.org/10.1080/09593969.2015.1130737

21. Pauzi, S. F. F., Thoo, A. C., Tan, L. C., Muharam, F. M., & Talib, N. A. (2017). Factors Influencing Consumers Intention for Online Grocery Shopping - A Proposed Framework. *IOP Conference Series: Materials Science and Engineering*, *215*(1). https://doi.org/10.1088/1757-899X/215/1/012013

22. Prasad, C. J., & Raghu, Y. (2018). *Determinant Attributes of Online Grocery Shopping In India - An Empirical Analysis*. *20*(2), 18–31. https://doi.org/10.9790/487X-2002051831

23. Republic, C. (2017). *CUSTOMERS ́ PERSPECTI VE OF NEW TECHNOLOGIES IN GROCERY RETAILING*. 17–26.

24. Singh, A. K., & Srivastava, S. (2022). Consumer perception towards online grocery store. *Eduzone: International Peer Reviewed/Refereed Multidisciplinary Journal*, *11*(1), 33–39.

25. Sivanesan, I. R., & Monisha, I. C. (2017). Comparative Study on Factors Influencing Online and Offline Shopping (With Special Reference to Kanyakumari District of Tamil Nadu). *International Journal of Research in Management & Business Studies*, *4*(3), 26–34. www.ijrmbs.com

26. Sreeram, A., Kesharwani, A., & Desai, S. (2017). Factors affecting satisfaction and loyalty in online grocery shopping: an integrated model. *Journal of Indian Business Research*, *9*(2), 107–132. https://doi.org/10.1108/JIBR-01-2016-0001

27. Subhash Datta, Prerna Jain, & Prashant Verma. (2023). Grocery Retail in India: Current Status and Future Scenarios. *ORMS Today*.

28. https://www.forbes.com/sites/kevinrozario/2021/07/13/e-commerce-in-india-set-to-reach-120-billion-in-2025-says-report/?sh=1857cba24611

29. India Online Grocery Market Size Report, 2021-2028 (grandviewresearch.com)

30. Indian Online Grocery Market Size, Share, Report 2023-28 (imarcgroup.com)