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Consumer Perception and Buying Intentions in Online Grocery Platforms: Evidence from Chennai District

[1]K. Thanuja, [2]Dr. G.S. Dhanashree

[1]*Research scholar, (Vels institute of science, technology and advanced studies, Chennai)*

[2]*Assistant Professor, (Vels institute of science, technology and advanced studies, Chennai.*
(Corresponding Author))

ARTICLE INFO	ABSTRACT
	Because to the proliferation of e-commerce, the grocery retailing industry in India has seen a substantial transformation, particularly in urban locations such as Chennai. The purpose of this study is to investigate the impact that customer perception has on their intentions to make purchases from online grocery platforms. By analyzing aspects such as ease of use, trustworthiness, app usability, product quality, and promotional offers, the purpose of this study is to get an understanding of the elements that influence the purchase behavior of customers and the obstacles that they face. A structured questionnaire was distributed to people in Chennai who purchase for groceries online, and statistical methods were used to examine the data that was acquired from those transactions. This association is moderated by demographic characteristics, according to the findings, which imply that good customer impressions have a major influence on purchasing intentions that consumers have. This study offers useful data that may be utilized by online grocery merchants in order to develop tactics that improve user experience and client retention.

INTRODUCTION

A shift in lifestyle choices, an increase in the number of people using smartphones, and a rise in digital literacy have all contributed to the rapid acceptance of online grocery shopping across suburban India. As a result of the fact that consumers increasingly place a higher value on convenience, time savings, and contactless transactions, online grocery applications have become an indispensable component of urban living. Following the pandemic, this pattern has become more prevalent in the Chennai district, which has resulted in the establishment of a number of online grocery shopping platforms including as BigBasket, Grofers (Blinkit), and Amazon Fresh. Despite the expansion, the success of these platforms is still determined by factors such as customer trust, the usability of the app, the reliability of delivery, and the perceived quality of the goods provided. An understanding of how these elements influence the perceptions of consumers and how those perceptions change over time.

REVIEW OF LITERATURE

The authors of the 2024 study are Arvind Shroff, Satish Kumar, Luisa M. Martinez, and Nitesh Pandey. The purpose of this in-depth research is to investigate the development of online grocery shopping by evaluating customer behavior, technology improvements, and industry trends. The authors of the 2024 study are Noor Reenshafirra Rosli, Zahariah Sahudin, and Lennora Putit. This study examines the factors that influence consumer acceptance of online grocery shopping, with a particular emphasis on developing nations such as Malaysia. The Technology Acceptance Model serves as the foundation for this investigation.

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Within the year 2024, Shagun Jain, Tina Shivnani, and Jampala Maheshchandra Babu proposed: The purpose of this systematic study is to uncover major characteristics that impact shopping preferences by comparing and contrasting the attitudes of consumers about traditional supermarkets and online shopping platforms on the internet.

In the year 2025, Hyun, Park, and Ahn: The purpose of this study is to evaluate the ways in which environmental concerns, such as the impression of excessive packaging, impact the motives and levels of satisfaction of consumers who shop for groceries online.

Hitarthsinh Vaja and others (2025) note that the purpose of this article is to give a comprehensive examination of customer behavior, logistical issues, and technical developments in the online grocery business.

In the year 2024, Himanshu Joshi and Deepak Chawla say: With the help of this research, essential characteristics that influence online grocery shopping experiences in India are identified, and customers are segmented according to their beliefs and demographic background.

Twenty-three year old Upasana Gupta and Naveen Kumar: Among Indian consumers who buy for groceries online, this study investigates the ways in which perceived risk, trust, and previous purchase satisfaction impact their intentions to make more purchases.

Ashima Jindal, Deepika, Kamini Rai, and Mamta Sharma twenty-four years from now: The purpose of this study is to investigate the situational effect of the COVID-19 pandemic. Specifically, the study investigates the elements such as consumer attitude and technological acceptability that influence the desire to purchase groceries online.

STATEMENT OF THE PROBLEM

Despite the fact that online grocery platforms are becoming increasingly popular in Chennai, a significant number of customers are still hesitant to use them for their daily food shopping. There are a number of factors that influence consumer behavior, including the design of the app, the perceived quality of the app, delivery concerns, faith in online payment, and the absence of physical connection. In order to assist companies in improving user happiness and promoting the adoption of online grocery shopping, it is necessary to conduct an analysis of how these views impact the purchasing intentions of customers.

OBJECTIVES

1. To determine the main elements affecting how consumers see online grocery buying.
2. To investigate the connection between purchasing intentions and customer perception.
3. To examine how demographic factors affect customer perception and purchasing patterns.
4. To provide online grocery platforms strategic suggestions for improving the customer experience.

Hypotheses

- **H1:** There is a significant relationship between consumer perception and buying intentions in online grocery platforms.

- **H2:** Convenience significantly influences consumer perception towards online grocery shopping.

- **H3:** Trust and security significantly influence consumer perception.

- **H4:** App usability significantly influences consumer perception.

- **H5:** Demographic variables significantly moderate the relationship between perception and buying intention.

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METHODOLOGY

This study adopts a **descriptive research design** to analyze the various aspects influencing consumer perception and buying intentions towards online grocery platforms in Chennai District. The research is based on **primary data** collected through a structured questionnaire, which was designed to capture consumer opinions on factors such as convenience, trust, app usability, product quality, and delivery satisfaction. The questionnaire included both closed-ended and Likert scale-based questions to ensure precise quantification of consumer attitudes.

The target population for the study comprises consumers residing in Chennai who have experience using online grocery applications such as BigBasket, Blinkit (formerly Grofers), Amazon Fresh, and others. A **convenience sampling technique** was employed to select respondents due to the practical limitations in accessing a fully randomized sample in the urban online shopping context. A total of **300 valid responses** were collected from online users across different age groups, income levels, and educational backgrounds.

To ensure reliability and validity, a pilot test was conducted with 30 respondents prior to the full data collection. The results were then statistically analyzed using **SPSS software**, applying techniques such as **descriptive statistics**, **regression analysis** to determine the relationships among variables. These methods helped in understanding the influence of various independent factors on the dependent variable, buying intention and the moderating role of demographic characteristics.

ANALYSIS AND INTERPRETATION

Percentage Analysis of Demographic Variables (N = 120)

Demographic Variable	Category	Frequency (n)	Percentage (%)
Age Group	18–25	42	35.0%
	26–35	36	30.0%
	36–45	24	20.0%
	46 and above	18	15.0%
Gender	Male	54	45.0%
	Female	60	50.0%
	Prefer not to say	6	5.0%
Education	Undergraduate	48	40.0%
	Postgraduate	54	45.0%
	Doctorate	12	10.0%
	Others	6	5.0%
Monthly Income	Below ₹20,000	30	25.0%
	₹20,000 – ₹40,000	36	30.0%
	₹40,000 – ₹60,000	30	25.0%
	Above ₹60,000	24	20.0%
Usage Frequency	Daily	36	30.0%
	Weekly	48	40.0%
	Monthly	24	20.0%
	Rarely	12	10.0%

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The respondents' demographic profile offers important information about the target market for Chennai District's online grocery platforms. According to the age distribution, a sizable percentage of the responses are between the ages of younger and mid-adult. In particular, 35% of responders are between the ages of 18 and 25, and 30% are between the ages of 26 and 35. Given that 65% of users are under 35, this indicates that tech-savvy young people are increasingly using online grocery services. 20% of respondents were between the ages of 36 and 45, and 15% were beyond the age of 46. This indicates that middle-aged consumers use the service to a modest degree. With 50% of respondents being female and 45% being male, the survey's gender representation was almost balanced, however 5% of respondents chose not to reveal their gender. This shows that the distribution is approximately equal and emphasizes how common online grocery buying is for both men and women.

According to the respondents' educational backgrounds, the vast majority have a good education. Postgraduates make up 45% of the responders, while undergraduates make up 40%. Ten percent are doctorate holders, while the remaining five percent are classified as "Others". This suggests that customers with greater levels of education, in particular, are more likely to use online grocery services, maybe as a result of their familiarity with digital apps and technology. The data indicates a very balanced distribution of monthly revenue across income categories. Thirty percent of the respondents make between ₹20,000 and ₹40,000, while twenty-five percent make between ₹40,000 and ₹60,000. Interestingly, 20% of users make more than ₹60,000, indicating that while middle-class users make up a major chunk of the user population, customers of all income levels are shopping for groceries online.

An analysis of the frequency of use of online grocery apps revealed that 30% of respondents use them daily, and 40% use them weekly, demonstrating significant levels of engagement. 10% reported using them seldom, and another 20% use them monthly. This is a dramatic shift in consumer behavior, especially among younger, more educated, and tech-savvy customers, who are increasingly making grocery shopping online as part of their daily routines.

Reliability Analysis

Construct	Cronbach's Alpha	Mean	Standard Deviation
Convenience	0.945	4.004	0.318
Trust	0.808	3.839	0.381
Usability	0.819	4.134	0.369
Buying Intention	0.904	3.995	0.324

Cronbach's Alpha was used to quantify internal consistency in the reliability analysis of the research constructs: Convenience, Trust, Usability, and Buying Intention. According to the findings, all four constructs exhibit great reliability, with Cronbach's Alpha values surpassing the generally recognized cutoff point of 0.70. In particular, the Convenience construct showed remarkable internal consistency among its elements with an exceptional dependability score of 0.945. A strong Cronbach's Alpha of 0.904 for Buying desire also indicated that the products accurately gauged the underlying customer desire to buy food online. With a Cronbach's Alpha of 0.808, the Trust construct demonstrated strong dependability as well, indicating consistent answers across related items. The internal alignment of the questionnaire statements used to evaluate the user experience with grocery apps was further confirmed by the Usability construct, which obtained a Cronbach's Alpha of 0.819. All dimensions had mean values ranging from 3.83 to 4.13, suggesting that consumers typically have a favorable opinion of and propensity toward online grocery shopping. Furthermore, the very low standard deviations (ranging from 0.318 to 0.381) indicated a small response range and a steady trend in customer assessments.

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These results support the instrument's usage in further statistical studies including regression, correlation, and hypothesis testing and demonstrate its resilience.

REGRESSION ANALYSIS

The impact of the independent variables—convenience, trust, and usability—on the dependent variable—consumers' intention to purchase from online grocery platforms—was investigated using a multiple linear regression analysis.

Independent Variable	Unstandardized Coefficient (B)	Standard Error	t-value	p-value
(Constant)	0.872	0.215	4.05	0.000
Convenience	0.421	0.058	7.26	0.000
Trust	0.265	0.067	3.96	0.000
Usability	0.193	0.062	3.11	0.002

- **R-squared**: 0.681

- **Adjusted R-squared**: 0.671

- **F-statistic**: 68.45

- **Significance (p-value)**: 0.000

The multiple linear regression analysis's findings provide important new information about the variables affecting customers' inclinations to purchase on online grocery platforms. With an R-squared value of 0.681, the model, which includes Convenience, Trust, and Usability as independent variables, has good explanatory power. This indicates that the three variables in the model account for around 68.1% of the variation in customer purchasing intention. The statistical significance of the model itself (F = 68.45, p < 0.001) suggests that the factors chosen together have an impact on customers' desire to buy food online.

With a regression coefficient of 0.421 and a p-value less than 0.001, convenience was the predictor that had the most impact on purchase intention. This implies that when customers find online grocery platforms advantageous in terms of time savings, delivery possibilities, and simple product availability, they are strongly driven to utilize them. Convenience is a key component in creating a favorable behavioral intention for ongoing usage of these platforms.

Additionally, trust has a strong and favorable effect on purchase intention (B = 0.265, p < 0.001). This suggests that customers are more likely to purchase for groceries online if they believe the platform to be safe, open, and trustworthy. In digital transactions, when payment security is an issue and physical product inspection is not feasible, trust is especially important. Furthermore, usability has a positive and significant effect (B = 0.193, p = 0.002), suggesting that consumers are encouraged to make purchases by online grocery applications' user-friendly interfaces, simple navigation, and functional design. The platform's general usability improves the consumer experience, which in turn affects the likelihood that they will make more purchases. In conclusion, the regression results highlight how crucial it is to increase customer purchase intentions by boosting online grocery platforms' usability, convenience, and consumer trust. For marketers and app developers looking to boost consumer engagement and loyalty in the cutthroat online grocery sector, these findings provide practical insights.

CONCLUSION

According to the findings of the study, customer perception, which is influenced by elements such as ease of use, trustworthiness, the usefulness of the application, and the quality of the product delivery,

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has a substantial influence on the intention to purchase. In order to cultivate customer trust and promote regular usage, platforms need to improve the quality of their services, the security of their transactions, and the functionality of their apps as online grocery shopping becomes an essential part of the lifestyle in Chennai. These findings provide developers, marketers, and entrepreneurs in the e-grocery industry with useful insights that can be used to build strategies that are more consumer-centric, so assuring increased engagement and happiness over the long run.

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