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An Analysis of How Online Shopping Affects Consumer Purchasing Decisions, with Special Reference to Grocery Items in Coimbatore City

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ABSTRACT: In recent years, online shopping has significantly transformed consumer purchasing behavior, especially in the grocery segment. The increasing use of smartphones, internet connectivity, and digital payment systems has encouraged consumers to shift from traditional grocery shopping to online platforms. This study aims to analyze how online shopping affects consumer purchasing decisions, with particular emphasis on grocery items in Coimbatore City. The study adopts a descriptive research design and is based on primary data collected from 110 respondents using a structured questionnaire. Statistical tools such as percentage analysis, Chi-square test, and One-way ANOVA were used for data analysis. The findings reveal that convenience, price discounts, delivery reliability, and product quality play a major role in influencing online grocery purchasing decisions. Although consumers actively use online grocery platforms, satisfaction levels vary due to concerns related to freshness and delivery issues. The study highlights the growing impact of online grocery shopping on traditional purchasing behavior and provides insights for retailers to improve customer satisfaction and service quality.

KEYWORDS: Online shopping, Consumer purchasing decisions, Online grocery shopping, Consumer behaviour, Coimbatore City

I. INTRODUCTION

Online shopping has become an integral part of modern consumer life due to rapid advancements in digital technology. The growth of e-commerce platforms has changed the way consumers search for products, compare prices, and make purchase decisions. Online shopping offers convenience, time savings, access to a wide range of products, and attractive discounts, which have significantly influenced consumer behavior. Among various product categories, grocery items have gained increasing attention in online retail due to frequent purchase requirements and changing urban lifestyles.

Consumer purchasing decisions refer to the process by which individuals identify their needs, evaluate alternatives, and make choices regarding products and services. In the case of grocery items, purchasing decisions are influenced by factors such as price, quality, availability, convenience, and trust. Online grocery shopping platforms such as Amazon Fresh, BigBasket, Swiggy Instamart, and Flipkart Grocery provide consumers with doorstep delivery, flexible payment options, and digital convenience, thereby reshaping traditional grocery buying patterns. Coimbatore City, being a major industrial and educational hub in Tamil Nadu, has a diverse population with varied income levels and consumption habits. Despite the increasing popularity of online grocery shopping, consumer purchasing decisions differ based on satisfaction, trust, and perceived risks associated with online platforms. Therefore, the present study attempts to analyze how online shopping affects consumer purchasing decisions related to grocery items in Coimbatore City.



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II. PROBLEM STATEMENT

The increasing adoption of online grocery shopping platforms has significantly influenced consumer purchasing behavior. While online shopping provides convenience and time-saving benefits, consumers face challenges related to product quality, freshness, delivery delays, and trust in online platforms. In Coimbatore City, consumers increasingly rely on online grocery shopping for daily needs, but their purchasing decisions are influenced by various demographic and behavioural factors. There is a need to understand how online shopping affects consumer purchasing decisions related to grocery items and how it impacts traditional grocery shopping behaviour.

III. OBJECTIVES OF THE STUDY

1. To study the factors influencing consumer purchasing decisions in online grocery shopping.
2. To analyze consumer preferences towards online grocery shopping in Coimbatore City.
3. To examine the level of consumer satisfaction with online grocery shopping platforms.
4. To analyze the impact of online grocery shopping on traditional grocery purchasing behavior.
5. To identify problems faced by consumers while purchasing grocery items online.

IV. REVIEW OF LITERATURE

Kang et al. (2022) examined how consumers switch between different online grocery platforms based on service quality and product freshness. Similarly, **Tomar et al. (2024)** emphasized that customer satisfaction in online grocery shopping is strongly influenced by website usability, product information, and secure payment systems. **Rout (2022)** analyzed online grocery purchasing behaviour during the COVID-19 pandemic and found that health concerns and the need for contactless delivery significantly increased the adoption of online grocery platforms.

Further studies such as **Akhtar et al. (2024)** reviewed the evolution of online grocery shopping in India and identified logistics efficiency, pricing strategies, and service quality as key determinants of consumer retention. **Meister et al. (2023)** compared online and in-store grocery shopping patterns before and during the pandemic, concluding that factors such as price, freshness of products, and travel time influence consumers' choice of shopping channel. Overall, these studies collectively demonstrate that online grocery shopping has significantly transformed consumer purchasing behaviour and continues to reshape traditional grocery retail patterns.

V. RESEARCH METHODOLOGY

5.1 Research Design

The study adopts a descriptive research design to analyze consumer purchasing decisions related to online grocery shopping.

5.2 Sources of Data

The study is based on both primary and secondary data. Primary data were collected through a structured questionnaire, while secondary data were obtained from journals, articles, and websites.

5.3 Sample Size and Sampling Technique

The sample size consists of 110 respondents selected using the convenience sampling technique.

5.4 Research Instrument

A structured questionnaire was used to collect data relating to demographic details, online grocery shopping behavior, influencing factors, and satisfaction levels.

5.5 Tools for Data Analysis

The data were analyzed using:

- Percentage analysis
- Chi-square test
- One-way ANOVA



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VI. DATA ANALYSIS AND INTERPRETATION

6.1 CHI SQUARE

The Chi-Square test is used to analyze the relationship between demographic factors (such as age and gender) and online grocery shopping behavior. It helps in determining whether consumer characteristics influence purchasing frequency, satisfaction levels, and the impact of online shopping on traditional grocery buying behavior.

TABLE 6.1.1-CHI SQUARE TEST BETWEEN AGE GROUP AND OVERALL SATISFACTION

Test	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.842	12	0.797
Likelihood Ratio	7.911	12	0.792
N of Valid Cases	110		

INTERPRETATION

The Chi-Square test result shows a Pearson Chi-Square value of 7.842 with 12 degrees of freedom. The p-value is 0.797, which is greater than the standard significance level of 0.05. Since the p-value (0.797) is greater than 0.05, the null hypothesis is accepted.

6.2 ONE WAY ANOVA

In the present study titled “An Analysis of how online shopping affects consumer purchasing decisions, with a particular emphasis on grocery items in Coimbatore City,” One-Way ANOVA is used to examine whether there is a significant difference in overall satisfaction towards online grocery shopping among different age groups of consumers.

TABLE 6.2.1 One – way Anova on Relationship between Age Group and Overall Satisfaction towards Online Grocery Shopping

Source of Variation	Sum of Squares	Degrees of Freedom	F-Value	Significance (p-value)
Between Groups	—	3	1.950	0.1260

INTERPRETATION

Since the p-value (0.1260) is greater than the significance level of 0.05, the null hypothesis is accepted. This indicates that there is no statistically significant difference in overall satisfaction towards online grocery shopping among different age groups.

VII. LIMITATION OF THE STUDY

- The study is limited to consumers residing in Coimbatore City, and the findings cannot be generalized to other regions.
- The data collected is based on self-reported responses, which may be affected by personal bias or inaccurate information.
- The study is conducted within a limited time period, and changes in consumer behavior over time are not considered.
- The sample size is limited, which may not fully represent the entire population of Coimbatore City.
- The study focuses only on online grocery shopping and does not include other online retail categories.

VIII. FINDINGS AND DISCUSSION

The study reveals that online grocery shopping has a significant influence on consumer purchasing decisions in Coimbatore City. Consumers prefer online platforms mainly due to convenience and time savings. However, concerns regarding product quality and delivery reliability affect satisfaction levels. Although online grocery shopping has reduced visits to traditional stores to some extent, offline shopping remains important for fresh and immediate purchases.



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8.1 SUGGESTIONS

- Online grocery platforms should improve delivery reliability and product quality assurance.
- Clear product descriptions and freshness guarantees should be provided.
- Promotional offers should be combined with consistent service quality.
- Awareness programs can be conducted to educate consumers about efficient online grocery shopping.

IX. CONCLUSION

The study concludes that online shopping has significantly influenced consumer purchasing decisions related to grocery items in Coimbatore City. While online grocery platforms offer convenience and flexibility, improving service quality and trust is essential to enhance consumer satisfaction. The findings provide valuable insights for online retailers and contribute to academic research on consumer behavior in online grocery shopping.

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