Project Dissertation Report

A Study on Consumer Buying behavior towards Online Grocery Shopping

Submitted By

Reetika Goel

2k22/DMBA/99

Under the Guidance of

Dr Abhinav Chaudhary

Assistant Professor

DELHI SCHOOL OF MANAGEMENT

Delhi Technological University

Bawana Road Delhi 110042

Certificate

This is to certify that Reetika Goel, 2K22/DMBA/99 has submitted the Major research project report titled 'A Study on Consumer Buying behavior towards online grocery shopping' in partial fulfillment of the requirements for the award of the degree of Master of Business Administration (MBA) from Delhi School of Management, Delhi Technological University, New Delhi during the academic year 2023-24.

Dr Abhinav Chaudhary

Assistant Professor

Declaration

I, Reetika Goel student of Delhi School of Management, Delhi Technological University hereby declare that the project entitled 'A Study on Consumer Buying behavior towards online grocery shopping' under the supervision of Dr Abhinav Chaudhary, submitted in partial fulfillment of the requirements for the award of the degree of Master of Business Administration (MBA) is the original work conducted by me. I also confirm that neither I nor any other person has submitted this project report to any other institution or university for any other degree or diploma. I further declare that the information collected from various sources has been duly acknowledged in this project.

Reetika Goel

2K22/DMBA/99

Acknowledgement

Working on this project has been motivating, thrilling, and demanding at times, but it was truly a learning experience. First and foremost, I would want to express my heartfelt gratitude to my institution Delhi School of Management, Delhi Technological University, for giving me this opportunity to work on this project. I would also like to express my gratitude to H.O.D of our college, Dr. Saurabh Agrawal who has always inspired us and motivated us to excel in our project.

I want to thank my mentor, DR. Abhinav Chaudhary for his constant support and guidance at each step of my internship and for backing me up wherever necessary. Last but not the least my heartfelt gratitude goes out to my parents, who have always been a source of inspiration and unwavering support for me. I would want to dedicate this work to my parents, without whom I would not have been able to complete this missing

Reetika Goel

2K22/DMBA/99

Abstract

Consumer behavior has an important influence on online shopping. Increased Internet penetration in the younger Indian population offers a customer base to online retailers. Understanding the determinants of buying behavior of Indian buyers and the link between these factors and different types of online shoppers can help firms to improve their marketing strategies and convert potential buyers to customers. This study seeks to assess customer perceptions of online grocery shopping, find the determinants that encourage a person to order groceries online, and the behavior. The researcher employed both primary and secondary data through descriptive and quantitative research methodology. Many factors impact consumer preferences such as likes, dislikes, motivations, and dispositions. These preferences and needs affect customer buying behavior.

In the last decade, customer behavior has significantly changed due to the influence of digital technologies that created disruption with their fostering e-commerce. In general, e-commerce has become a new platform that provides new, more effective, efficient, and customer-centric opportunities for the exchange of goods and services. Therefore, for the development of relevant marketing strategies in the digital and physical retail sphere, it is essential to understand the impact of these technologies on customer preferences. For example, in the case of this study, some target respondents may tend to use online grocery shopping but not rely on it entirely. This factor is considerable influenced by demographic factors, as well as the perceived quality of products, ease of return and instant replacement, and timely delivery that also impact the use of online grocery shopping. The lack of detailed specifications for farm produce that are perceived via associated sample images also influenced the use of online grocery shopping. Finally, the factor of user-friendliness of e-Grocers' websites and mobile.

Data for this project was collected from primary sources through surveys of 206 respondents via Google forms distributed by email and social media, and secondary sources through research papers and articles. The main findings reveal that the majority of respondents prefer online grocery shopping for its convenience and time-saving benefits. Demographic factors such as age, income, occupation, and education significantly impact their decision.

However, consumers face drawbacks such as the risk of incorrect product evaluation and concerns about the freshness of perishable items like fruits and vegetables. In India, reluctance towards online grocery shopping persists due to various reasons, including product delivery issues, the inability to feel the product, frauds during online transaction, delivery charges, stringent return policies and inability to bargain.

Table of Contents

List of table and figures

CHAPTER 1
INTRODUCTION

1.1 Background

Advancements in information technology, the increase of high-speed internet, increase in mobile users, busy lifestyles, and a preference for convenience have all fueled the rise of online shopping. Gone are the days when e-commerce was solely associated with electronic gadgets; there's been a significant shift in consumer behavior towards purchasing groceries and other everyday items online.

In today's busy world, online shopping offers a convenient solution for busy individuals. Although consumers still frequent physical stores, many find online shopping more convenient. The ease of online shopping is particularly appreciated by busy individuals who value the time-saving aspect, as modern lifestyles often leave little time for traditional shopping trips.

The Emergence of E-commerce in India and the industry trend

The emergence of internet accessibility has catalyzed the growth of online trade in India, offering consumers a vast digital marketplace covering everything from books to fashion wear. Flipkart has emerged as a trusted platform meeting the evolving demands of Indian consumers amidst this e-commerce boom.

Continuous technological advancements and evolving consumer behaviors are reshaping the e-commerce landscape. Convenience, transparency, and personalization are becoming key drivers transforming the online buying and selling experience.

India E-Commerce Market Analysis

Several factors contribute to the expansion of the Indian e-commerce sector, including rapid urbanization, the rising accessibility of the internet, and the widespread utilization of devices such as smartphones and laptops. Government initiatives, such as permitting 100% FDI in B2B e-commerce and regulations favoring the sector's growth.

The Digital India initiative aims to propel India toward achieving a trillion-dollar online economy by 2025, fostering the growth of e-commerce platforms like ONDC, which receive government support. Forecasts suggest a substantial increase in online retail penetration and the number of internet buyers in India by 2024 and 2025, respectively.

The outbreak of the COVID-19 pandemic and subsequent lockdowns served as a pivotal moment for e-commerce in India, generating unprecedented demand and attracting new participants to digital platforms. The convenience of online shopping became even more apparent during the pandemic, leading to heightened adoption and positioning the ecommerce sector as one of the beneficiaries of the pandemic.

The Indian e-commerce market, valued at USD 88.6 billion in 2022, is forecasted to achieve a CAGR of 19.6%% from 2023 to 2030.

India E-commerce Market
Size, by Application, 2020 - 2030 (USD Billion)

GRAND VIEW RESEARCH

$56.2B
$71.6B

2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030

● Automotive ● Beauty & Personal Care ● Books & Stationery ● Consumer Electronics
● Home Application ● Clothing & Footwear ● Sports & Leisure ● Others

19.6%
India Market CAGR,
2023 - 2030

Source:
www.grandviewresearch.com
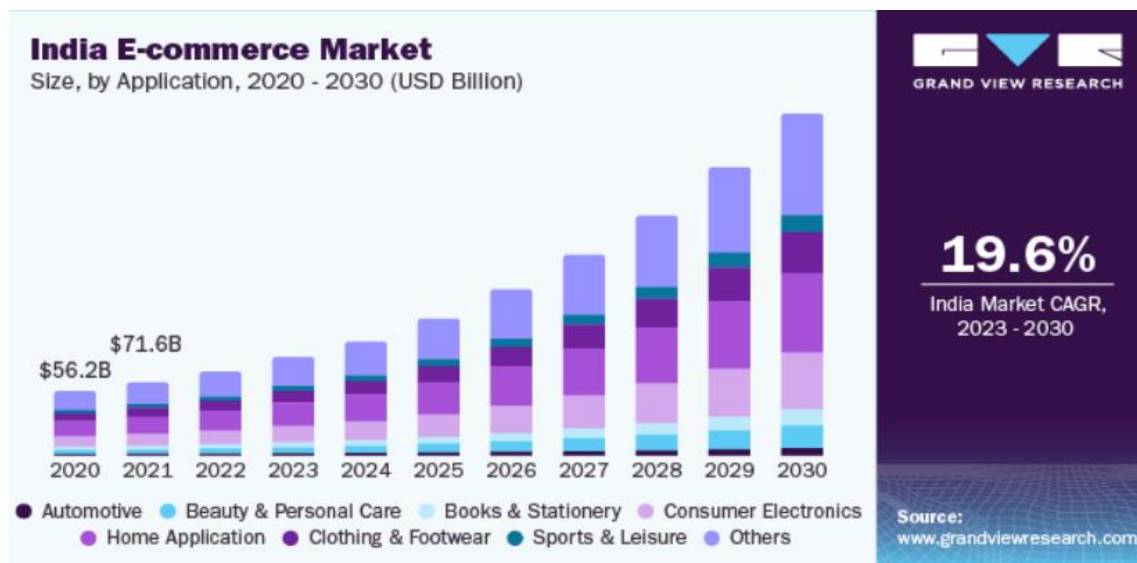
Figure 1.1

Key Trends

Artificial intelligence

AI stands poised to transform the landscape of e-commerce, empowering businesses to customize customer experiences, refine recommendation systems, and streamline operations through automation. The integration of AI-driven chatbots and virtual assistants will elevate customer service standards by providing real-time support.

Social Commerce:
An emerging trend known as social commerce leverages the influence of social media platforms to drive sales and enhance brand visibility. Platforms like Facebook, Instagram, and WhatsApp are evolving into dynamic marketplaces where users can seamlessly discover, share, and purchase products. The ability to engage directly with customers, receive immediate feedback, and collaborate with influencers positions

social commerce as a game-changing force.

Sustainable practices

The importance of sustainable shopping is on the rise in e-commerce, with consumers increasingly valuing eco-friendly products and transparent sourcing practices. E-commerce platforms can facilitate this shift by offering sustainable product options, providing transparent information, and promoting responsible consumption practices.

E-commerce will continue to optimize logistics operations, aiming to reduce delivery times and minimize carbon emissions. This optimization will lead to increased sales of Indian-made products, empowering small businesses and showcasing cultural heritage on a global scale.

These e-commerce trends are poised to shape the industry in the years to come. Moreover, personalized shopping experiences and advanced data analytics will play pivotal roles in understanding consumer preferences and enhancing overall customer satisfaction.

Emergence of E-Grocery shopping

The rise of e-grocery shopping marks a significant shift in consumer behavior. While people can endure challenges with clothing or technology, the necessity of proper food sustains a constant demand for groceries. Traditionally, local kirana stores or supermarkets met this need, but technological advancements and urbanization have spurred the emergence of online grocery stores. These startups offer the convenience of home delivery, sparing customers the hassle of long queues at checkout counters. Initially concentrated in metro and Tier-I cities, online grocery stores are gradually expanding into Tier II cities as incomes rise and urbanization spreads.

As internet access and demand for budget smartphones increase, online retailing gained traction in India. Companies like Bigbasket and Grofers pioneered competitive pricing and reliable doorstep delivery, leading to a surge in online grocery shopping that disrupted traditional retail. The introduction of online payment systems further revolutionized the e-commerce landscape, with technology, efficient logistics management, and substantial investments driving its growth.

Quick commerce is rapidly gaining popularity in the e-grocery sector. This model promises delivery within 10-30 minutes of ordering, triggering behavioral changes among consumers. Many who once relied on nearby kirana stores for daily essentials now turn to quick commerce services. Regular use of quick commerce has ingrained a habit of convenience-driven purchasing decisions among consumers. Particularly

beneficial for busy professionals, quick commerce eliminates the need for advance grocery planning, allowing them to order anytime and receive their items within minutes.

The Q-Commerce Industry in India is estimated to reach approximately USD 3.34 billion by 2024 and is expected to surge to USD 9.95 billion by 2029. This expansion is estimated to achieve a CAGR crossing 4.5% from 2024 to 2029.

Figure 1.2

Competitive landscape

The major players in India are
- BlinkIt
- Instamart
- BigBaket
- Zepto
- Dunzo

According to projections by the Boston Consulting Group (BCG), Blinkit held the top position in the market, commanding a 33 percent share, followed by Swiggy Instamart; 32 percent. Meanwhile, Zepto reported a significant increase in its market share within the quick-commerce sector, rising from approximately 13 percent in Mar2022 to about 24 percent by March 2023.

Figure1.3

Figure 1.4

1. Zepto

Zepto launched its services in 2021, targeting groceries, toiletries, household essentials, and baby care products within 10 minutes. Their deliveries typically take around 8 minutes and 40 seconds to complete. Currently, Zepto operates in cities including Bangalore, Mumbai, Delhi, Chennai, Hyderabad, and Pune.

Their Approaches
- With a network of 100 micro-warehouses capable of processing 2,500 orders daily, Zepto ensures deliveries within 10 minutes, addressing challenges like traffic congestion, final reach, and a substantial volume of orders.
- The Zepto App offers exceptional customer service with functionalities including live order tracking, swift pickups, cashless payments, digital wallet integration, estimated arrival time notifications, as well as SMS confirmations for pickups and deliveries.
- Through their distribution model alone, Zepto has achieved a valuation of $10 billion and generated millions of dollars. Their weekly delivery volumes are experiencing a remarkable annual growth rate of 200%.

Strengths:

- Despite facing well-funded competitors, Zepto maintains a leading market share in various cities.
- Zepto has achieved strong brand recognition by offering differentiated services,specifically ensuring grocery deliveries within 10 minutes.
- The leadership team at Zepto possesses extensive experience in the retail sector.

However, there are key risks to consider:

- Zepto's geographic presence is limited, particularly in North and East Indian cities.
- The lack of synergy opportunities from complementary businesses such as food delivery or scheduled grocery services could pose a challenge.
- Zepto faces the constant threat of acquisition attempts by larger e-commerce players.
- Supply-side disruptions, including product shortages and potential rider strikes, may impact operations.
- The competitive landscape remains highly intense, presenting ongoing challenges for Zepto.

2. BlinkIt

Formerly known as Grofers, the company has rebranded as Blinkit with the aim of providing consumer products within a delivery window of 10–20 minutes. The consolidation of Blinkit with Zomato has resulted in significant synergies in both technology infrastructure and supply chain operations. This partnership has also allowed Zomato to drive traffic from its food delivery app to the Blinkit platform. Moreover, it has provided Blinkit's management with the freedom to focus entirely on category expansion without being constrained by financial limitations. By positioning itself as a lifestyle platform rather than just a grocery delivery service, Blinkit has differentiated itself in the market, attracting substantial traffic and enhancing customer loyalty. The covered cities include Agra, Ahmedabad, Bengaluru, Hyderabad, Jaipur, Kolkata, Mohali, Chandigarh, Chennai, Delhi-NCR, Mumbai, Pune, and Uttar Pradesh-NCR. Their tactics are:

- Presently, over a million individuals engage in shopping activities on Blinkit every week, with an average weekly retention rate of approximately 50%, indicating a high rate of returning customers.

- To mitigate the risk of inventory shortages, Blinkit operates 250 micro-warehouses and collaborates with neighborhood kiranas to cover each serviced area effectively.
- Blinkit has established profitable partnerships with 14,000–15,000 distinct partners for delivery.

Strengths

- Dominant market share in Delhi NCR and its surrounding regions.
- Access to a substantial captive audience of 60 million annual transacting customers through Zomato's food delivery segment.
- A seasoned leadership team with extensive experience in the hyper-local delivery sector.
- Strong financial standing.

Key risks

- Limited geographical coverage, particularly in cities located in West and South India.
- Potential disruptions in the supply chain, including product shortages and instances of rider strikes.
- Intense competition in the market.

3. Dunzo Daily

Dunzo Daily, a grocery delivery provider operating in India, offers prompt deliveries of various items including groceries, food, me, pet supplies, health and wellness products, gifts, bike rides, pick and drop services, as well as laundry delivery, typically within 35 to 40 minutes. The service is available in cities such as Gurgaon, Pune, Mumbai, Chennai, Hyderabad, Bangalore, Delhi

Their strategies include:

- Introducing artificial intelligence into their platform to precisely forecast demand, streamline supply chain activities and enhance inventory management.
- Developing the "Dunzo Delivery Partner App" to efficiently track delivery personnel and allocate orders.
- Integrating GPS real-time location tracking into their application, enabling customers to monitor delivery progress for enhanced satisfaction.

- Providing popular and convenient online payment options.
- Utilizing push notifications to convey new promotions, special offers, payment confirmations, loyalty incentives, delivery status updates, etc.
- Prioritizing the collection of reviews and ratings from customers.
- Achieving a remarkable 40x growth in 2020–21, with a strong focus on optimizing the supply chain and delivering exceptional customer experiences. They currently fulfill 2 million orders per month.

Challenges and Opportunities:
While Dunzo's extensive range of services is a strength, it also poses logistical challenges. The company has opportunities to deepen its integration with local businesses and enhance its technological platform to maintain its competitive advantage.

4. Swiggy Instamart

Employing a smooth business model, Swiggy Instamart commenced operations in August 2020 with the objective of delivering groceries to customers in 18 cities within a 45-minute timeframe. Presently, they fulfill approximately 1 million orders per week, catering to cities such as Bangalore, Delhi-NCR, Mumbai, Hyderabad, Chennai, and Pune.

Their strategies include:

- Leveraging local stores, eateries, technology, easy payment systems, and delivery services as key assets.
- Partnering with Fast Dispatch Logistics for last-mile delivery services and utilizing Hero Lectro Cargo (HLC) electric bicycles for order transportation. They also utilize concealed marketplaces managed by third-party sellers to facilitate rapid deliveries.
- Offering customers multiple payment options on the Swiggy app and online payment.
- Providing exceptional customer service features such as chat/call support, automatic location detection, live order tracking, and coupon options on their app.

Their integrated app approach facilitates cross-selling: Since its inception, Swiggy has seamlessly integrated Instamart into its main app, ensuring effective cross-selling to its existing food delivery customer base. This integration helps Instamart maintain a lower cost of customer acquisition compared to competitors. Consequently, Instamart has developed its own loyal customer base, which further benefits Swiggy's other services.

5. BigBasket

Similar to other companies focusing on rapid commerce, Bigbasket is has a network of "dark stores" and advanced technology to ensure swift deliveries.
Cities Covered: The company extends its services to over 40 cities, including Delhi NCR, Bangalore, Surat, Patna, Chandigarh, Jaipur, Hyderabad, Indore, Mumbai, Pune, Chennai, among others.

Their strategies include:

- The BigBasket app offers users a range of services such as multiple payment options, order scheduling, a streamlined three-step checkout process, access to coupons/discounts, BB Star membership benefits, and updates via email and push notifications regarding order status.
- To procure goods, they utilize warehouses and collaborate with independent kirana shops across various cities, ensuring prompt delivery of fresh supplies to customers.
- Additionally, for marketing and revenue generation purposes, they have introduced supermarket products under their private brands.

Comparison of Quick Commerce Grocery Delivery in India

Analyzing Blinkit, Zepto, Instamart (Swiggy), Bigbasket, and Dunzo based on key parameters to assess their competitive advantages:

Delivery Speed:
- Zepto & Blinkit: Strive for ultra-fast delivery within 10 minutes, although actual delivery times may range between 10-25 minutes depending on the location.
- Swiggy Instamart: Aims for comparable speeds to Zepto and Blinkit.

Figure 1.5

Product Selection:

- Bigbasket: Has the broadest range of products, covering fresh produce, household goods ,pantry essentials, and personal care.
- JioMart: Provides a similarly extensive selection thanks to the vast Reliance Retail network.
- Blinkit, Zepto, Swiggy Instamart, Dunzo: Concentrate on everyday necessities and frequently purchased items, offering a narrower range compared to Bigbasket.

Pricing & Discounts:

- Bigbasket: Offers competitive pricing and frequently runs promotions to provide discounts.
- JioMart: Known for offering some of the deepest discounts, leveraging Reliance's significant purchasing power.
- Blinkit & Zepto: Provide moderate discounts (typically around 10-11% off MRP) to incentivize quick commerce transactions.
- Swiggy Instamart & Dunzo: Offer discounts in similar range to Blinkit & Zepto.

Brand Equity Score: Offers & Discounts

Source: Clootrack
Note: This analysis is formulated using 57K customer
reviews of leading quick commerce platforms in India
on Apple App Store and Google Play Store

Inc 42

Figure 1.6

Delivery Charges:

- JioMart: Provides free delivery for all orders.
- Bigbasket: Offers free delivery for orders above a minimum value; otherwise, charges apply.
- Blinkit, Zepto, Instamart, Dunzo: Typically impose delivery fees (approximately Rs 35), although they may offer free delivery for new customers or on orders above a specified value.

Availability
Zepto and Blinkit may have a more restricted presence compared to well-established players like Bigbasket, Dunzo, and Swiggy Instamart.

Inventory Management:
Quick commerce models (Blinkit, Zepto, Instamart, Dunzo) rely on strategically positioned dark stores to facilitate swift delivery, affecting their capacity to have a wide range of products.

Profitability:
All these companies are presently investing significant funds to acquire customers and expand their reach.
The long-term profitability of quick commerce models remains uncertain.

Exhibit 28. No. of app downloads (mn)

Exhibit 26. Active users trend (mn)

Source: Data.ai, JM Financial. Note: Above figures are cumulative of Android and ios users.
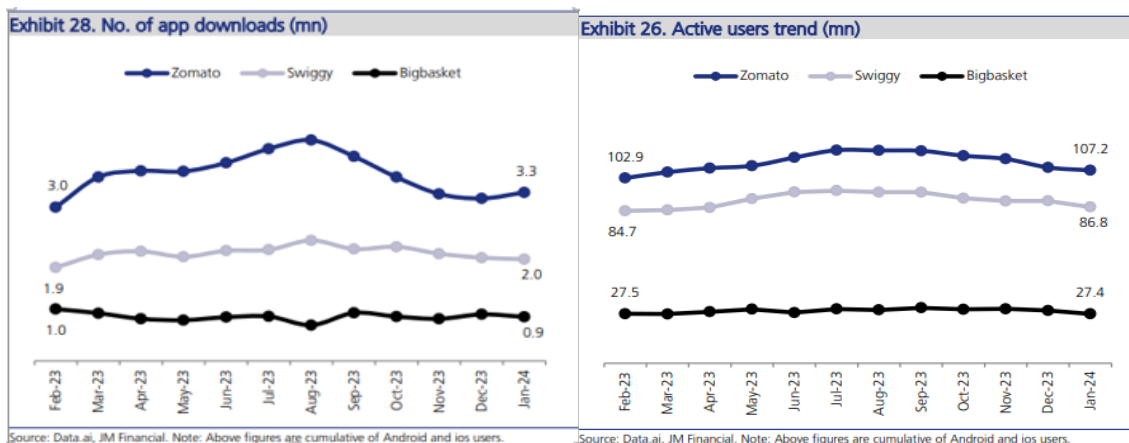
Figure 1.7

Key Risks

- Dark store turnover: Identifying the optimal location for dark stores involves navigating various factors, and mishandling this process can result in high turnover rates.

- Currently a Metro/Tier 1 city trend: Quick commerce (QC) platforms are predominantly concentrated in Metro and Tier 1 cities. Zomato noted in its 3QF24 shareholder letter that 90% of Blinkit's Gross Order Value (GOV) comes from the top 8 cities. Similarly, Zepto operates solely in the top 10-11 cities. As these platforms expand into lower-tier cities, they may encounter challenges related to lower population density, smaller order sizes, and reduced ordering frequency per customer.

- High Customer Acquisition Cost (CAC) in new cities: As QC primarily operates in Tier 1 cities, aggressive expansion into lower-tier cities may necessitate substantial spending on customer acquisition and retention. Additionally, platforms may need to subsidize last-mile delivery and packaging costs, further inflating their acquisition expenses.

- Evolving category/assortment/SKU mix: QC platforms are still fine-tuning their category, assortment, and SKU mix for dark stores, which could impact product margins in the short term.

- Inefficient backend supply chains: Given that QC essentially operates as a retail business, it is susceptible to operational challenges across the value chain.

- High inventory shrinkage: QC players experience inventory losses due to factors such as spoilage, liquidation, and pilferage, resulting in additional costs. In certain cases, these losses can account for up to 20% of total inventory in specific fresh categories such as fruits and vegetables, dairy, and instant foods.

- Packaging expenses: Some QC players currently allocate 1-2% of their Average Order Value (AOV) towards packaging. Inability to pass these costs onto customers could negatively impact profitability.
- Kirana store partnerships with B2B wholesale grocery platforms: Various B2B wholesale platforms like Jiomart (B2B), Udaan, Jumbotail, and Shopkirana are collaborating with local kirana store owners to digitize their procurement processes and expand their customer reach. Such partnerships enable kirana stores to mitigate some of the disadvantages in their existing business models and better compete with QC players.

1.2 Problem Statement

To Determine Factors Influencing Consumer Attitude towards Online Grocery Shopping in Delhi region.

1.3 Objectives of the study

- To study the influence of consumers' demographic characteristics on their attitude towards online grocery shopping.
- To understand the factors affecting their choice during shopping
- To know how discounts and offers and wide variety affects their preference.
- To understand what factor demotivates them in inline shopping.
- To understand their overall satisfaction level of customers

1.4 Scope of the study

The research focuses on consumer perceptions, drawing its sample from students to gauge their views on quick commerce. Its aims include identifying factors driving online shopping choices, pinpointing website features that entice users to make purchases, assessing the benefits of online grocery shopping, and analyzing the factors influencing such purchases. However, the study acknowledges limitations due to its relatively small sample size, which may affect its ability to fully represent the broader population.

CHAPTER 2
LITERATURE REVIEW

Attitude, as defined by *Shahad Khan (2012)*, consists of nature, conduct, thought, temperament, and behavior, exerting an influence on purchasing decisions. *Lars Perner (2010)* further characterizes consumer attitude as a blend of emotions, beliefs, and behavioral intentions directed towards objects within the marketing sphere. *Noel (2009)* underscores attitude as a powerful means of accessing consumer mentality and thought processes, applicable to individuals, entities, or issues. It is forged through practical experience and learning, as emphasized by *Kotler and Keller (2009),* thereby wielding a considerable sway over buying behavior and, by extension, the success or failure of businesses.

Morgnosky and Cude (2000) conducted a seminal study at The University of Georgia Athens, USA, exploring consumer behavior towards online grocery shopping. Their findings, derived from a sample of 244 US consumers, elucidate the significant demographic and online shopping variables that underpin reasons for shopping online, willingness to purchase groceries digitally, and the temporal distribution of shopping efforts between online platforms and physical stores. Their study underscores the pervasive concerns surrounding internet security and privacy, resonating strongly with both novice and seasoned internet users.

Brown et al. (2003) challenge the prevailing belief that convenience is the primary motivator for internet shoppers in their study at the University of Queensland, Australia. Contrary to this assumption, they reveal that factors such as prior purchase history, product type, gender, emerge as the predominant influencers of buying intentions.

In France, *Coupey et al. (2009)* investigate consumers' perceptions of "hypermarket" and "cybermarket" formats, discerning a distinct advantage attributed to online grocery shopping in terms of product variety, convenience and pricing. However, they caution against potential drawbacks, such as the risk of receiving subpar quality products, which could undermine the positive aspects of digital grocery shopping. *Hand et al. (2008)* corroborate the significance of situational factors in driving online grocery shopping behaviors in their study at Kingston University Business School, UK, highlighting life events like childbirth or health-related issues as catalysts for digital grocery purchases.

Noor et al. (2011) scrutinize the impact of time usage on Malaysian consumer preferences for online grocery services at Universiti Teknologi MARA, Malaysia. Their findings underscore the pervasive perception of time scarcity among respondents, challenging the notion of ample time availability for online grocery browsing and purchasing processes.

Mattila's (2013) study at Laurea University of Applied Sciences, Espoo, Finland, unveils consumers' appreciation for various facets of e-grocery shopping, including product diversity, brand familiarity, temporal and spatial flexibility, time efficiency, and overall convenience. Additionally, a survey of literature on grocery e-tailing, conducted by *KEh&Shieh (2001),* elucidates the nuanced profile of online grocery consumers, highlighting their appeal to time-pressed, elderly, and infirm demographics. However, challenges persist in replicating certain offline shopping traits, such as impulse buying and sensory experiences, in the digital realm.

The theoretical foundations guiding technology adoption, particularly in online grocery shopping, have been extensively examined like Unified theory of acceptance and technology (UTAUT), offer valuable insights into consumers' tendencies to adopt various technologies and systems. These frameworks are essential for understanding the complex interplay between technology adoption and consumer behavior in the digital age.

In online grocery shopping research, Theory of reasoned action and technology is often the primary theoretical framework utilized, as evidenced by studies such as *Slade et al. (2015).* TAM typically includes usefulness, ease of use, attitude towards understanding adopted behavior. However, *Vennkatesh et al. (2000)* expanded TAM by introducing additional variables like social influence and cognitive instrumental processes, addressing some of its limitations. Despite its popularity, TAM has been criticized for overlooking individual characteristics, leading to the exclusion of certain technologies (*Agarwal and Prasad, 1999*)

To overcome these limitations, *Venkatesh et al. (2003)* proposed UTAUT, emphasizing individual psychology and behavioral sciences in technology adoption. Scholars like *Lu et al. (2005)* emphasized considering variables such as customization and social influence alongside perceived usefulness and ease of use. Additionally, *Lee (2005)* stressed the importance of trust in determining customer intentions in online grocery shopping, while *Lin and Wang (2006)* highlighted the relationship between perceived value, trust, satisfaction, and loyalty in mobile commerce.

Amoroso et al. (2009) expanded the TAM model by including variables like perceived risk, trust, website, quality and satisfaction. Similarly, *Kuo, Wu, and Deng (2009)* demonstrated the influence of perceived risk, trust, satisfaction, loyalty.

Despite its potential, online grocery retailers face operational challenges, resulting in a niche market with low profit margins compared to other industries. Challenges such as supply chain disruptions, exemplified by the Covid-19 pandemic, exacerbate issues like stockouts and logistical constraints (*Jhaveri & Anantharaman, 2016; Meshram, 2020*).

CHAPTER 3
RESEARCH METHODOLOGY

Research design: Descriptive Research Design
When researchers aim to portray the attributes of a phenomenon or group, they opt for descriptive research. This method delves into providing detailed insights into the essential traits and details of the subject group or setting, answering inquiries such as what, who, how, when, and where. The primary goal of descriptive research is to unveil existing data or characteristics within the designated population. Essentially, descriptive research endeavors to elucidate phenomena along with the underlying motivations and hypotheses driving particular behaviors.

Area of study: Delhi city

Data Collection Sources:The data for this study were sourced from both primary and secondary outlets to fulfill the research objectives.

Primary Data: Primary data was gathered through a survey method employing questionnaires.

Secondary Data: Secondary data were sourced from a variety of outlets including company websites, journals, news articles, and research papers.

Data Collection Instrument: In alignment with the study's nature, primary data were collected utilizing questionnaires/surveys.

Sample Size: A total of 206 respondents participated in the study, drawn from students and working class residing in the Delhi, India. Participants were required to have a mobile phone and an internet connection.

Questionnaire Structure
The questionnaire was structured with organized and transparent questions designed to extract fundamental data effortlessly from respondents. This approach facilitated data analysis.

Types of questions asked:
Multiple-choice questions offer respondents various response options, from which they select one. The advantage of this format lies in its easy categorization and swift response from participants.

Likert Scale Analysis
The Likert scale is a tool to analyses the attitude , opinions. The Likert scale provides researchers and survey designers with quantitative data that can be analyzed statistically, offering insights into the distribution of attitudes or opinions within a population. It's commonly used in fields such as psychology, sociology, education, and market research to measure attitudes, perceptions, and preferences.

Analysis Tools

For analysis, Excel and PSPP were employed. Excel facilitated data cleaning, while PSPP was used for analysis tests. The data underwent primary analysis, initially visualized using various pie charts and basic MS Excel. Descriptive and non-parametric tests were then applied to comprehend the data. Internet surveys, primarily consisting of closed-ended questions, were conducted to ascertain consumer needs for grocery products within e-commerce, identify challenges faced by consumers in the current system and assess customer expectations from e- commerce platforms.

CHAPTER 4
DATA ANALYSIS

4.1 Descriptive Analysis

Gender

		Frequency	Percent	Valid Percent-	Cumulative Percent
Valid	Male	113	54.9%	54.9%	54.9%
	Female	93	45.1%	45.1%	100.0%
Total		206	100.0%		

Table 4.1 Gender
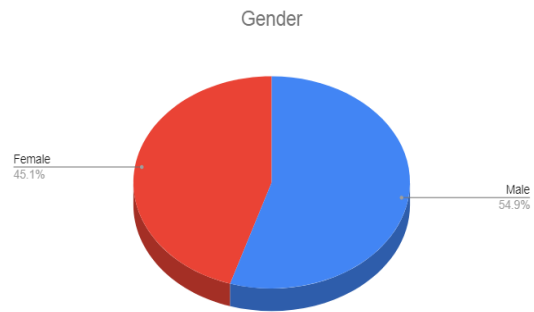
Figure 4.1 Gender

In the above figure 54.9% are male and 45.1% are female

Age

		Frequency	Percent	Valid Percent-	Cumulative Percent
Valid	Below 18	31	15.0%	15.0%	15.0%
	18-25	51	24.8%	24.8%	39.8%
	26-40	82	39.8%	39.8%	79.6%
	41-50	21	10.2%	10.2%	89.8%
	Above 50	21	10.2%	10.2%	100.0%
Total		206	100.0%		

Table 4.2 Age
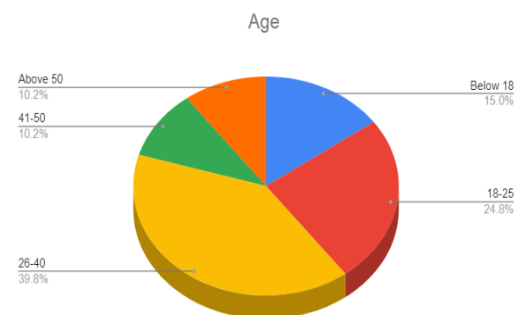
Figure 4.2 Age

The table above indicates that 15% of participants are under 18 years old, 24.8% fall within the 18-25 age group, and 39.8%   are aged between 26 and 40. Additionally, 10.2% are aged 41-50, and 10.2% are above 50 years old. Notably, the majority of respondents (94.3%) are within the 26-40 age range.

Qualification

		Frequency	Percent	Valid Percent-	Cumulative Percent
Valid	High School	31	15.0%	15.0%	15.0%
	Bachelor's degree	51	24.8%	24.8%	39.8%
	Master's degree	104	50.5%	50.5%	90.3%
	Doctorate	20	9.7%	9.7%	100.0%
Total		206	100.0%		

Table 4.3 Qualification
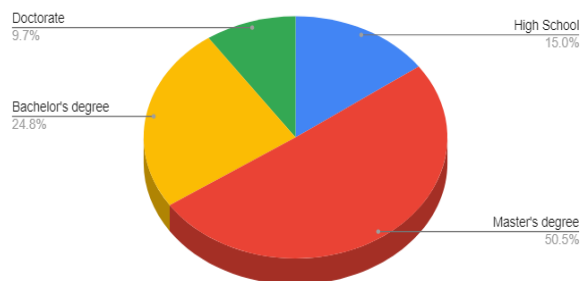
Figure 4.3 Qualification

The figure above shows 9.7% of respondents are doing PhD, 15% are in high school, and 24.5% are doing bachelor's degree and 50.5% are doing post graduation.

Occupation

		Frequency	Percent	Valid Percent-	Cumulative Percent
Valid	Student	102	49.5%	49.5%	49.5%
	Home maker	41	19.9%	19.9%	69.4%
	Employed	21	10.2%	10.2%	79.6%
	Business	42	20.4%	20.4%	100.0%
Total		206	100.0%		

Table 4.4 Occupation
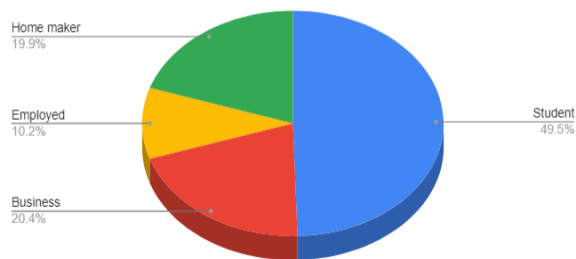
Figure 4.4 Occupation

Of the respondents, 49.5% are students, 10.2% are employed, 19.9% are homemakers, and 20.4% are involved in business activities. A significant proportion, approximately 73.6%, are students.

Annual family income

		Frequency	Percent	Valid Percent-	Cumulative Percent
Valid	Below 5 lakhs	31	15.0%	15.0%	15.0%
	Between 5 lakhs -10 lakhs	60	29.1%	29.1%	44.2%
	Above 10 lakhs	115	55.8%	55.8%	100.0%
Total		206	100.0%		

Table 4.5 Annual Family income
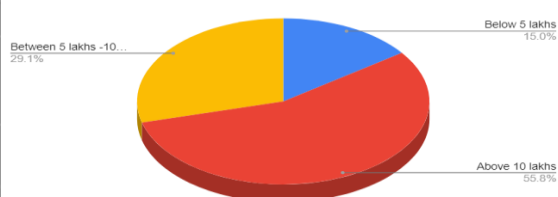
Figure 4.5 annual family income

The table above illustrates that 15% of respondents have an income below lakhs, 29.1% earn between 5 lakhs and 10 lakhs, and 55.8% earn above 10 lakhs annually. Specifically, approximately 55.8% report an annual family income exceeding 10 lakhs.

Marital status

		Frequency	Percent	Valid Percent-	Cumulative Percent
Valid	Married	83	40.3%	40.3%	40.3%
	Unmarried	123	59.7%	59.7%	100.0%
Total		206	100.0%		

Table 4.6 Marital status

Figure 4.6 Marital status

In the above table 40.3% are married and the majority 59.7% are unmarried (single, divorced, never married)

Buying behavior

Table 4.7 Frequency of purchase of groceries   Figure 4.7 Frequency of purchase of groceries

How_often_do_you_shop_for_groceries_online

		Frequency	Percent	Valid Percent-	Cumulative Percent
Valid	Rarely	62	30.1%	30.1%	30.1%
	Sometimes	113	54.9%	54.9%	85.0%
	Often	20	9.7%	9.7%	94.7%
	Frequently	11	5.3%	5.3%	100.0%
Total		206	100.0%		
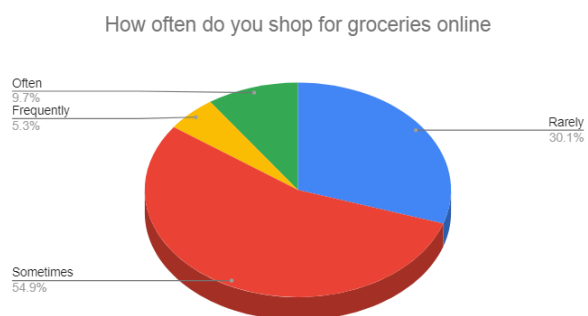
In the given table, the frequency of purchase of groceries are 30.1% who purchase rarely, 54.9% purchase sometimes, 9.7% respondents purchase often. 5.3%% purchase groceries from apps frequently. The majority (54.9%) shows that people purchase groceries from online sometimes.

If_yes_do_you_think_your_purchase_of_grocery_online_

		Frequency	Percent	Valid Percent-	Cumulative Percent
Valid	Yes, I frequently purchase grocery online after covid 19	124	60.2%	60.2%	60.2%
	Can't say	82	39.8%	39.8%	100.0%
Total		206	100.0%		

Do you think your purchase of grocery online increased after covid 19

60.2% respondents agree that they purchased more from online grocery apps after covid 19

Table 4.8 spending in online grocery shopping

Figure 4.8 spending in online grocery shopping

How_much_do_you_usually_spend_in_online_grocery_shopping

		Frequency	Percent	Valid Percent-	Cumulative Percent
Valid	below 500	32	15.5%	15.5%	15.5%
	500-1000	82	39.8%	39.8%	55.3%
	1000-5000	81	39.3%	39.3%	94.7%
	above 5000	11	5.3%	5.3%	100.0%
Total		206	100.0%		

How much do you usually spend in online grocery shopping
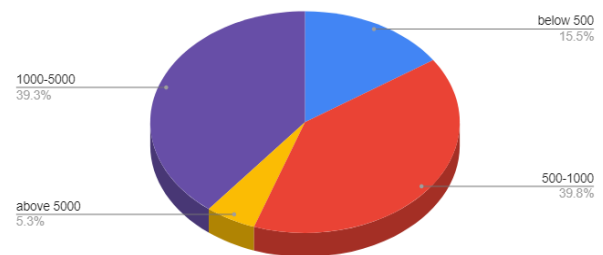
In the given table, 15.5% respondents spend below 500, 39.8% spend between 500-1000, 39.3% spend between 1000-5000, and 5.35 spend above 5000 in one time purchase from online grocery apps. Majority respondents spend about 500 to 5000 Rs while purchasing from online stores in one go.

Table 4.9: Payment mode

Figure 4.9: Payment mode

How_do_you_make_your_payments_for_online_shopping

		Frequency	Percent	Valid Percent-	Cumulative Percent
Valid	Cash on Delivery	84	40.8%	40.8%	40.8%
	Credit card/-Debit card	21	10.2%	10.2%	51.0%
	Mobile wallets	101	49.0%	49.0%	100.0%
Total		206	100.0%		
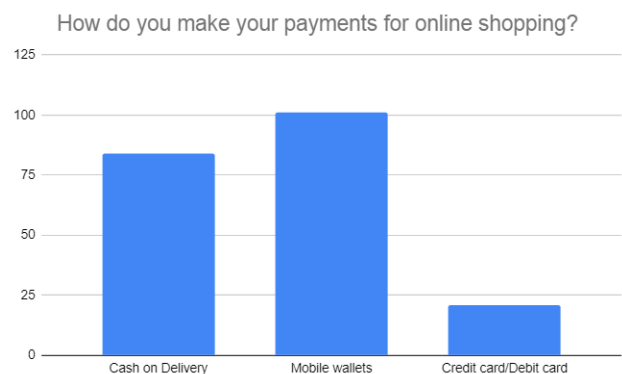
How do you make your payments for online shopping?

Majority respondents around 49% use mobile wallets while making payment for online frocery shopping.

Table 4.10: Choice of grocery app

Figure 4.10: Choice of grocery app

From_where_do_you_order_groceries_online

		Frequency	Percent	Valid Percent-	Cumulative Percent
Valid	Big Basket	32	15.5%	15.5%	15.5%
	Zepto	33	16.0%	16.0%	31.6%
	Blinkit	64	31.1%	31.1%	62.6%
	Jiomart	57	27.7%	27.7%	90.3%
	Instamart	10	4.9%	4.9%	95.1%
	Amazon Pantry	10	4.9%	4.9%	100.0%
Total		206	100.0%		

From where do you order groceries online

Respondents prefer Blinkit mostly 31.1% followed by Jiomart 27.7%.

Table 4.11: Items purchased from grocery apps

Figure 4.11: Items purchased from grocery apps

Which_items_do_you_shop_for_using_online_grocery_App

		Frequency	Percent	Valid Percent-	Cumulative Percent
Valid	Biscuits/-Namkeen	11	5.3%	5.3%	5.3%
	Daily use items (Salt/-Sugar/Pulses/-Flour)	22	10.7%	10.7%	16.0%
	Fruits and Vegetables	10	4.9%	4.9%	20.9%
	Packed Food(Noodles/-Juices/Ready to eat)	122	59.2%	59.2%	80.1%
	Milk and other Dairy Products	31	15.0%	15.0%	95.1%
	Personal care products	10	4.9%	4.9%	100.0%
Total		206	100.0%		

Which items do you shop for using online grocery Apps
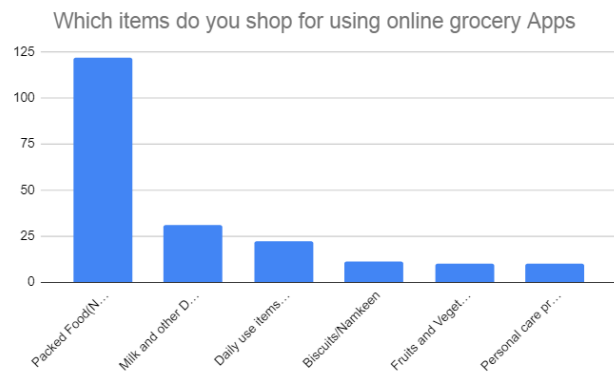
Respondents prefer purchasing packed food (59.2%% over other items from online grocery apps.

Figure 4.12 Reason of shopping
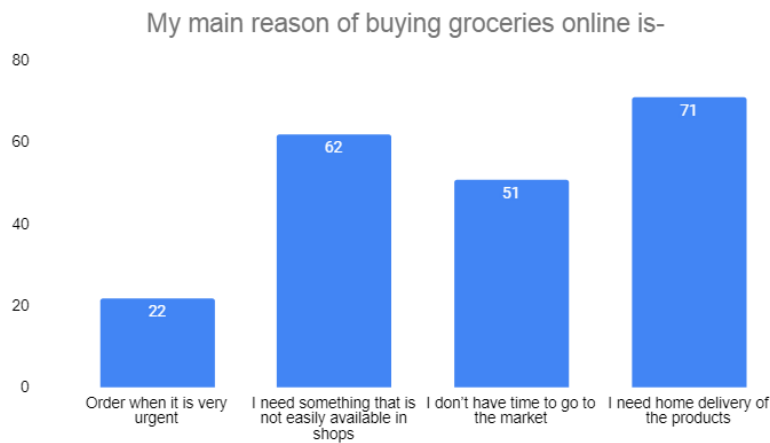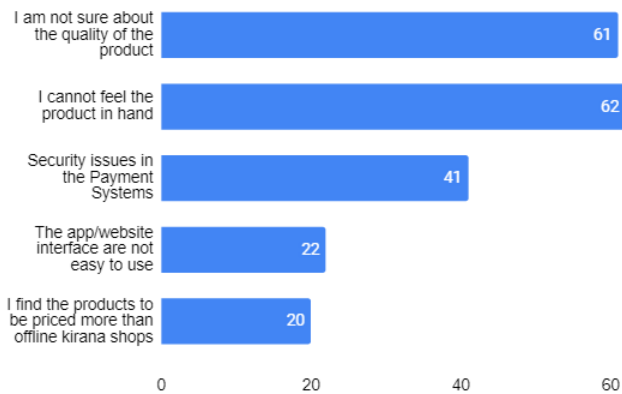
Respondents order online majorly because they need home delivery or a product which is not easily available in shops

Figure 4.13 Reason of not shopping

Respondents are majorly apprehensive about the quality issues and lack of satisfaction because the product can't be touched in online grocery shopping.

I_prefer_shopping_groceries_online

		Frequency	Percent	Valid Percent-	Cumulative Percent
Valid	Disagree	62	30.1%	30.1%	30.1%
	Neither agree nor disagree	61	29.6%	29.6%	59.7%
	Agree	83	40.3%	40.3%	100.0%
Total		206	100.0%		
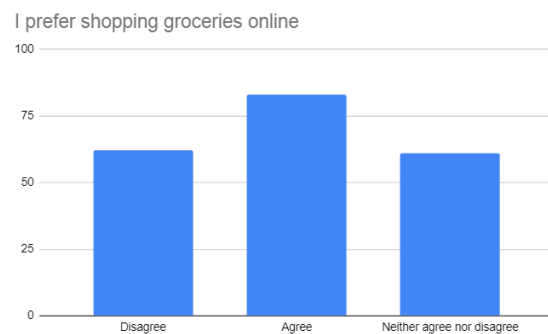
Table 4.12: Preference for online grocery shopping

Figure 4.14 Preference

40.3% respondents prefer shopping groceries from apps.
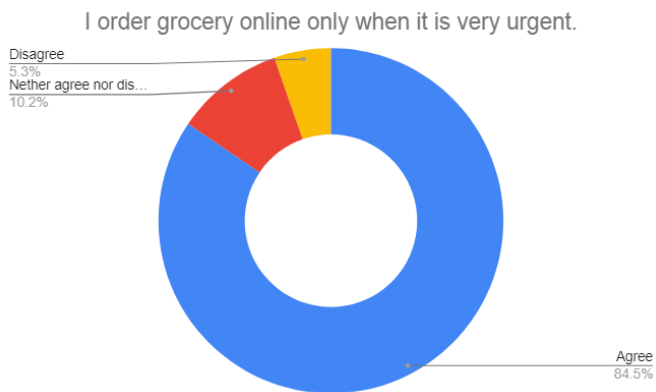
Figure 4.15 Urgent need

Interpretation: Most of the respondents order from online grocery stores only when they need something urgently.

Factors affecting preference of respondents

Figure 4.16 Convenience

80.6% of the respondents find online grocery shopping convenient and time saving. While 5% disagree and 14.6% are neutral in their opinion
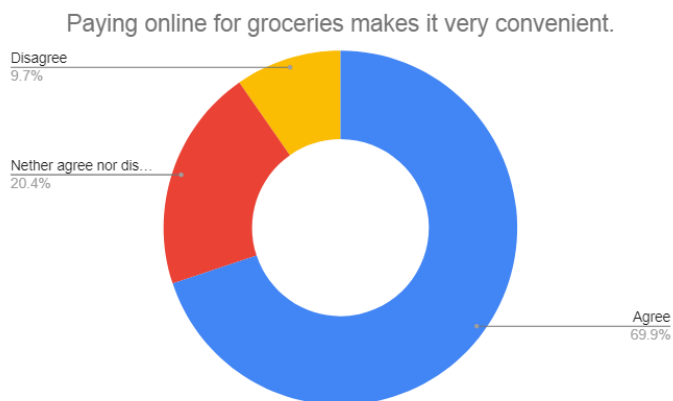
Figure 4.16 Online payment

69.9% of respondents find paying online for groceries convenient. While 9.7% disagree and 20.4% are neutral in their opinion.

Ordering groceries online is an easy process

Disagree
15.0%

Nether agree nor dis...
19.9%
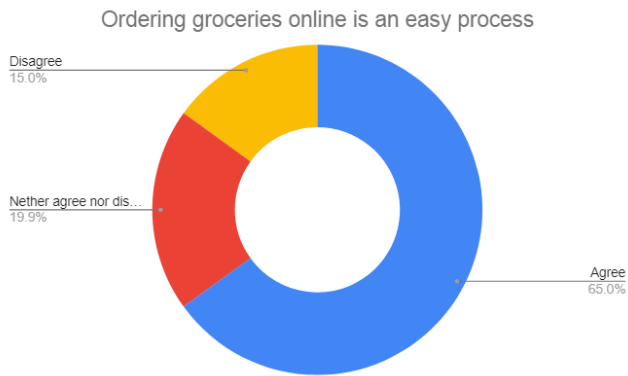
Agree
65.0%

Figure 4.17 Easy process

65% of respondents find ordering groceries online as an easy process. While 15% disagree and 19.9% are neutral in their opinion.

Online grocery stores provide huge variety of products

Nether agree nor dis...
9.7%

Agree
90.3%
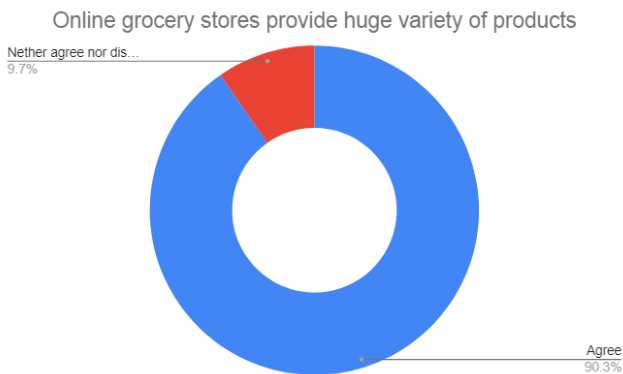
Figure 4.18 Huge variety

90.3% of respondents find huge variety on grocery apps. While 9.7% are neutral in their opinion.
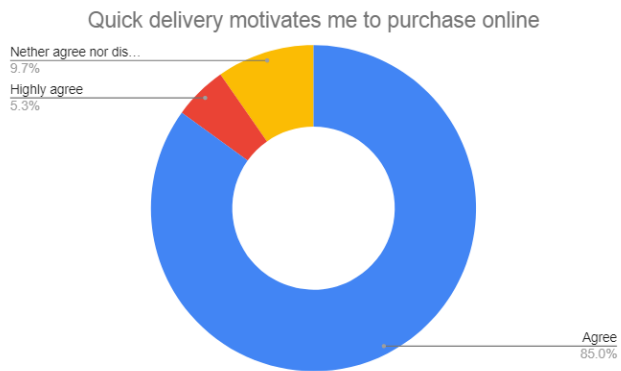
Figure 4.19 Quick delivery

85% of respondents find quick delivery as a motivating factor for online grocery purchasing. While 9.7% are neutral in their opinion

Figure 4.20 Discounts

84.5% of respondents find discounts and offers as a motivating factor for online grocery shopping. While and 10.2% are neutral in their opinion
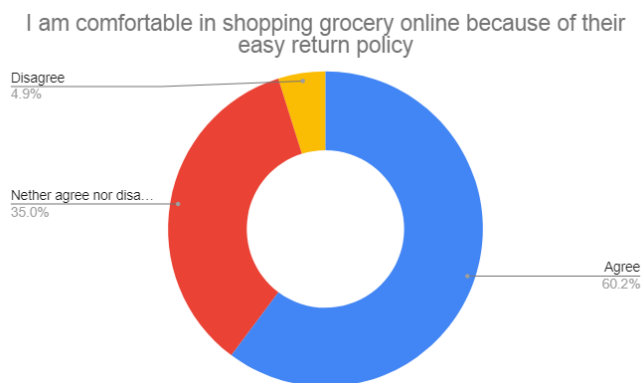
Figure 4.21 Easy return

Easy return policies of grocery apps motivates 60.2% of respondents. While 4.9%5 disagree and 35% are neutral in their opinion.
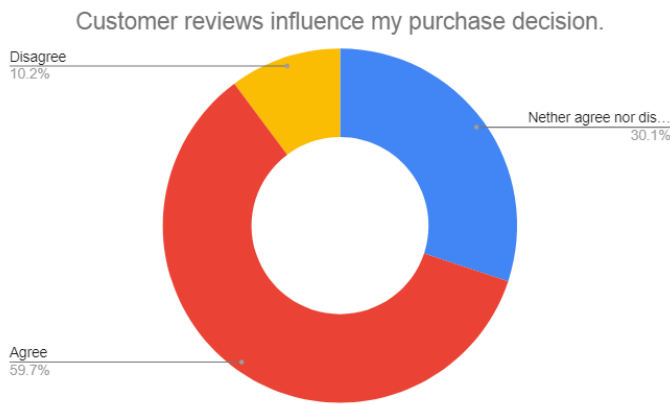
Figure 4.22 Customer reviews

59.7% of respondents find customer reviews influencing their decision making. While 10.2% disagree and 30.1% are neutral in their opinion.

Customer Experience

Figure 4.23 Recommendation to friends
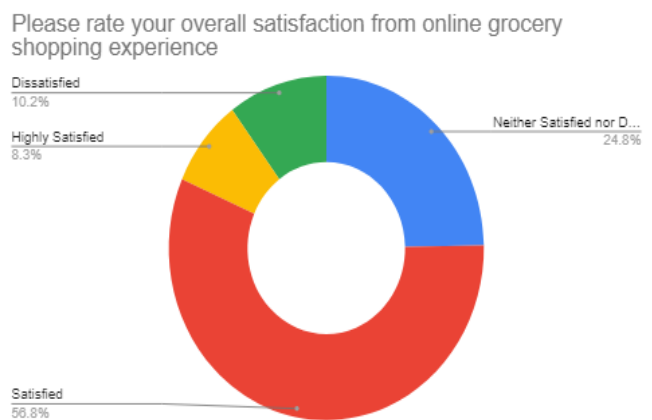
Figure 4.24 Experience

In the figure given 5.3% will highly recommend online grocery shopping to others, 45.1 agree to recommend while 4.9% disagree and 44.7% are neutral in their opinion.
While in Figure 4.24 majority are satisfied by their online grocery shopping experience.

3.2 Hypothesis testing

1. To find out relationship of preference for online grocery shopping and Gender of a respondent
H0: Gender has no significant relationship with preference for online grocery shopping.
H1: Gender has significant relationship with preference for online grocery shopping.

Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Gender × I_prefer_shoppi	206	100.0%	0	.0%	206	100.0%

Gender × I_prefer_shopping_groceries_online

			I_prefer_shopping_groceries_online			
			Disagree	Neither agree nor disagree	Agree	Total
Gender	Male	Count	42	40	31	113
		Row %	37.2%	35.4%	27.4%	100.0%
		Column %	67.7%	65.6%	37.3%	54.9%
		Total %	20.4%	19.4%	15.0%	54.9%
	Female	Count	20	21	52	93
		Row %	21.5%	22.6%	55.9%	100.0%
		Column %	32.3%	34.4%	62.7%	45.1%
		Total %	9.7%	10.2%	25.2%	45.1%
Total		Count	62	61	83	206
		Row %	30.1%	29.6%	40.3%	100.0%
		Column %	100.0%	100.0%	100.0%	100.0%
		Total %	30.1%	29.6%	40.3%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Sig. (2-tailed)
Pearson Chi-Square	17.26	2	.000
Likelihood Ratio	17.42	2	.000
Linear-by-Linear Association	14.26	1	.000
N of Valid Cases	206		

Table 4.13 Gender and preference

According to the test results, the chi square test statistic value is 17.26 with a significance level (p-value) of p=.000. As the p-value is less than the significance alpha value=.05, there is enough evidence to reject H0 and accept H1.
Therefore gender has a significant relationship with preference for online grocery shopping.

2. To find out the relationship of preference for online shopping and age of the respondent.

H0: Age has no significant relationship with preference for online grocery shopping.

H1: Age has significant relationship with preference for online grocery shopping.

Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Age × I_prefer_shoppi	206	100.0%	0	.0%	206	100.0%

Age × I_prefer_shopping_groceries_online

			I_prefer_shopping_groceries_online			
			Disagree	Neither agree nor disagree	Agree	Total
Age	Below 18	Count	11	10	10	31
		Row %	35.5%	32.3%	32.3%	100.0%
		Column %	17.7%	16.4%	12.0%	15.0%
		Total %	5.3%	4.9%	4.9%	15.0%
	18-25	Count	10	20	21	51
		Row %	19.6%	39.2%	41.2%	100.0%
		Column %	16.1%	32.8%	25.3%	24.8%
		Total %	4.9%	9.7%	10.2%	24.8%
	26-40	Count	10	31	41	82
		Row %	12.2%	37.8%	50.0%	100.0%
		Column %	16.1%	50.8%	49.4%	39.8%
		Total %	4.9%	15.0%	19.9%	39.8%
	41-50	Count	10	0	11	21
		Row %	47.6%	.0%	52.4%	100.0%
		Column %	16.1%	.0%	13.3%	10.2%
		Total %	4.9%	.0%	5.3%	10.2%
	Above 50	Count	21	0	0	21
		Row %	100.0%	.0%	.0%	100.0%
		Column %	33.9%	.0%	.0%	10.2%
		Total %	10.2%	.0%	.0%	10.2%
Total		Count	62	61	83	206
		Row %	30.1%	29.6%	40.3%	100.0%
		Column %	100.0%	100.0%	100.0%	100.0%
		Total %	30.1%	29.6%	40.3%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Sig. (2-tailed)
Pearson Chi-Square	74.74	8	.000
Likelihood Ratio	84.63	8	.000
Linear-by-Linear Association	10.80	1	.001
N of Valid Cases	206		

Table 4.14 Age and preference

According to the test results, the chi square test statistic value is 74.74 with a significance level (p-value) of p=.000. As the p-value is less than the significance alpha value=.05, there is enough evidence to reject H0 and accept H1.

Therefore age has a significant relationship with preference for online grocery shopping.

3. To find out the relationship of preference for online shopping and qualification of the respondent.

H0: Qualification has no significant relationship with preference for online grocery shopping.

H1: Qualification has significant relationship with preference for online grocery shopping.

Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Qualification × I_prefer_shoppi	206	100.0%	0	.0%	206	100.0%

Qualification × I_prefer_shopping_groceries_online

			I_prefer_shopping_groceries_online			
			Disagree	Neither agree nor disagree	Agree	Total
Qualification	High School	Count	11	10	10	31
		Row %	35.5%	32.3%	32.3%	100.0%
		Column %	17.7%	16.4%	12.0%	15.0%
		Total %	5.3%	4.9%	4.9%	15.0%
	Bachelor's degree	Count	21	20	10	51
		Row %	41.2%	39.2%	19.6%	100.0%
		Column %	33.9%	32.8%	12.0%	24.8%
		Total %	10.2%	9.7%	4.9%	24.8%
	Master's degree	Count	30	21	53	104
		Row %	28.8%	20.2%	51.0%	100.0%
		Column %	48.4%	34.4%	63.9%	50.5%
		Total %	14.6%	10.2%	25.7%	50.5%
	Doctorate	Count	0	10	10	20
		Row %	.0%	50.0%	50.0%	100.0%
		Column %	.0%	16.4%	12.0%	9.7%
		Total %	.0%	4.9%	4.9%	9.7%
Total		Count	62	61	83	206
		Row %	30.1%	29.6%	40.3%	100.0%
		Column %	100.0%	100.0%	100.0%	100.0%
		Total %	30.1%	29.6%	40.3%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Sig. (2-tailed)
Pearson Chi-Square	25.36	6	.000
Likelihood Ratio	31.95	6	.000
Linear-by-Linear Association	9.89	1	.002
N of Valid Cases	206		

Table 4.15 Qualification and preference

According to the test results, the chi square test statistic value is 25.36 with a significance level (p-value) of p=.000. As the p-value is less than the significance alpha value=.05, there is enough evidence to reject H0 and accept H1.

Therefore qualification has a significant relationship with preference for online grocery

shopping.

4. To find out the relationship of preference for online shopping and occupation of the respondent.

H0: Occupation has no significant relationship with preference for online grocery shopping.

H1: Occupation has significant relationship with preference for online grocery shopping.

Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Occupation × I_prefer_shoppi	206	100.0%	0	.0%	206	100.0%

Occupation × I_prefer_shopping_groceries_online

			I_prefer_shopping_groceries_online			
			Disagree	Neither agree nor disagree	Agree	Total
Occupation	Student	Count	21	40	41	102
		Row %	20.6%	39.2%	40.2%	100.0%
		Column %	33.9%	65.6%	49.4%	49.5%
		Total %	10.2%	19.4%	19.9%	49.5%
	Home maker	Count	10	21	10	41
		Row %	24.4%	51.2%	24.4%	100.0%
		Column %	16.1%	34.4%	12.0%	19.9%
		Total %	4.9%	10.2%	4.9%	19.9%
	Employed	Count	0	0	21	21
		Row %	.0%	.0%	100.0%	100.0%
		Column %	.0%	.0%	25.3%	10.2%
		Total %	.0%	.0%	10.2%	10.2%
	Business	Count	31	0	11	42
		Row %	73.8%	.0%	26.2%	100.0%
		Column %	50.0%	.0%	13.3%	20.4%
		Total %	15.0%	.0%	5.3%	20.4%
Total		Count	62	61	83	206
		Row %	30.1%	29.6%	40.3%	100.0%
		Column %	100.0%	100.0%	100.0%	100.0%
		Total %	30.1%	29.6%	40.3%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Sig. (2-tailed)
Pearson Chi-Square	88.02	6	.000
Likelihood Ratio	99.42	6	.000
Linear-by-Linear Association	6.25	1	.012
N of Valid Cases	206		

Table 4.16 Occupation and preference

According to the test results, the chi square test statistic value is 88.02 with a significance level (p-value) of p=.000. As the p-value is less than the significance alpha value=.05, there is enough evidence to reject H0 and accept H1.

Therefore occupation has a significant relationship with preference for online grocery shopping.

5. To find out the relationship of preference for online shopping and marital status of the respondent.

H0: Marital status has no significant relationship with preference for online grocery shopping.

H1: Marital status has significant relationship with preference for online grocery shopping.

Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Marital status × I_prefer_shoppi	206	100.0%	0	.0%	206	100.0%

Marital status × I_prefer_shopping_groceries_online

			I_prefer_shopping_groceries_online			
			Disagree	Neither agree nor disagree	Agree	Total
Marital status	Married	Count	41	21	21	83
		Row %	49.4%	25.3%	25.3%	100.0%
		Column %	66.1%	34.4%	25.3%	40.3%
		Total %	19.9%	10.2%	10.2%	40.3%
	Unmarried	Count	21	40	62	123
		Row %	17.1%	32.5%	50.4%	100.0%
		Column %	33.9%	65.6%	74.7%	59.7%
		Total %	10.2%	19.4%	30.1%	59.7%
Total		Count	62	61	83	206
		Row %	30.1%	29.6%	40.3%	100.0%
		Column %	100.0%	100.0%	100.0%	100.0%
		Total %	30.1%	29.6%	40.3%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Sig. (2-tailed)
Pearson Chi-Square	25.83	2	.000
Likelihood Ratio	25.94	2	.000
Linear-by-Linear Association	23.45	1	.000
N of Valid Cases	206		

Table 4.17 Marital status and preference

According to the test results, the chi square test statistic value is 25.83 with a significance level (p-value) of p=.000. As the p-value is less than the significance alpha value=.05, there is enough evidence to reject H0 and accept H1.

Therefore marital status has a significant relationship with preference for online grocery shopping.

6. To find out the relationship of preference for online shopping and annual family income of the respondent.

H0: Annual family income has no significant relationship with frequency of online grocery shopping.

H1: Annual family income has significant relationship with frequency of online grocery shopping.

Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Annual family income × How_often_do_	206	100.0%	0	.0%	206	100.0%

Annual family income × How_often_do_you_shop_for_groceries_online

			How_often_do_you_shop_for_groceries_online				
			Rarely	Sometimes	Often	Frequently	Total
Annual family income	Below 5 lakhs	Count	21	0	10	0	31
		Row %	67.7%	.0%	32.3%	.0%	100.0%
		Column %	33.9%	.0%	50.0%	.0%	15.0%
		Total %	10.2%	.0%	4.9%	.0%	15.0%
	Between 5 lakhs -10 lakhs	Count	20	30	10	0	60
		Row %	33.3%	50.0%	16.7%	.0%	100.0%
		Column %	32.3%	26.5%	50.0%	.0%	29.1%
		Total %	9.7%	14.6%	4.9%	.0%	29.1%
	Above 10 lakhs	Count	21	83	0	11	115
		Row %	18.3%	72.2%	.0%	9.6%	100.0%
		Column %	33.9%	73.5%	.0%	100.0%	55.8%
		Total %	10.2%	40.3%	.0%	5.3%	55.8%
Total		Count	62	113	20	11	206
		Row %	30.1%	54.9%	9.7%	5.3%	100.0%
		Column %	100.0%	100.0%	100.0%	100.0%	100.0%
		Total %	30.1%	54.9%	9.7%	5.3%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Sig. (2-tailed)
Pearson Chi-Square	82.81	6	.000
Likelihood Ratio	104.81	6	.000
Linear-by-Linear Association	6.01	1	.014
N of Valid Cases	206		

Table 4.18 Annual family income

According to the test results, the chi square test statistic value is 82.81 with a significance level (p-value) of p=.000. As the p-value is less than the significance alpha value=.05, there is enough evidence to reject H0 and accept H1.

Therefore annual family income has a significant relationship with preference for online grocery shopping.

Correlation Analysis

Correlation and regression analyses are interrelated, as they both investigate relationships between variables. The correlation coefficient measures the linear relationship between 2 variables ranging ranging from +1 to-1. A correlation of +1 denotes a perfect positive relationship, while -1 suggests a perfect negative relationship, indicating that the variables align precisely on a straight line. In our analysis, we've utilized Spearman rank correlation to assess relationships in ordinal data.

1. Convenience and satisfaction
H0: Convenience has no significant relationship with Satisfaction from online grocery shopping
H1: Convenience has significant relationship with Satisfaction from online grocery shopping

Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Convenience × Experience	206	100.0%	0	.0%	206	100.0%

Symmetric Measures

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Ordinal by Ordinal	Spearman Correlation	.61	.05	11.11	.000
Interval by Interval	Pearson's R	.61	.05	10.96	.000
N of Valid Cases		206			

Table 4.19 Convenience and satisfaction

We observe that Convenience and satisfaction have a Spearman rank correlation coefficient of .61, suggesting a strong positive linear relationship between these two variables. Furthermore, the level of significance (.000) is below .05, indicating statistical significance. Therefore we reject the null hypothesis and accept the alternative hypothesis.

2. Online payment and satisfaction
H0: Online payment has no significant relationship with Satisfaction from online grocery shopping
H1: Online payment has significant relationship with Satisfaction from online grocery shopping

Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Online payment × Experience	206	100.0%	0	.0%	206	100.0%

Symmetric Measures

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Ordinal by Ordinal	Spearman Correlation	.67	.05	12.79	.000
Interval by Interval	Pearson's R	.67	.04	12.97	.000
N of Valid Cases		206			

Table 4.20 Online payment and satisfaction

We observe that online payment and satisfaction have a Spearman rank correlation coefficient of .67, suggesting a strong positive linear relationship between these two variables. Furthermore, the level of significance (.000) is below .05, indicating statistical significance. Therefore we reject the null hypothesis and accept the alternative hypothesis.

3. Easy process and satisfaction
H0: Perceived ease in ordering online has no significant relationship with Satisfaction from online grocery shopping
H1: Perceived ease in ordering online has significant relationship with Satisfaction from online grocery shopping

Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Easy process × Experience	206	100.0%	0	.0%	206	100.0%

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Ordinal by Ordinal	Spearman Correlation	.64	.05	11.89	.000
Interval by Interval	Pearson's R	.72	.04	14.67	.000
N of Valid Cases		206			

Table 4.21 Easy process and satisfaction

We observe that Perceived ease and satisfaction have a Spearman rank correlation coefficient of .64, suggesting a strong positive linear relationship between these two variables. Furthermore, the level of significance (.000) is below .05, indicating statistical significance. Therefore we reject the null hypothesis and accept the alternative hypothesis.

4. Availability of huge variety and satisfaction
H0: Availability of huge variety has no significant relationship with Satisfaction from online grocery shopping
H1: Availability of huge variety has significant relationship with Satisfaction from online grocery shopping

Symmetric Measures

Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Variety × Experience	206	100.0%	0	.0%	206	100.0%

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Ordinal by Ordinal	Spearman Correlation	.46	.05	7.39	.000
Interval by Interval	Pearson's R	.48	.06	7.78	.000
N of Valid Cases		206			

Table 4.22 Huge variety and satisfaction

We observe that Wide variety and satisfaction have a Spearman rank correlation coefficient of .46, suggesting a positive linear relationship between these two variables. Furthermore, the level of significance (.000) is below .05, indicating statistical significance. Therefore we reject the null hypothesis and accept the alternative hypothesis.

5. Quick delivery and satisfaction

H0: Quick delivery of grocery has no significant relationship with Satisfaction from online grocery shopping

H1: Quick delivery of grocery has significant relationship with Satisfaction from online grocery shopping

Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Quick delivery × Experience	206	100.0%	0	.0%	206	100.0%

Symmetric Measures

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Ordinal by Ordinal	Spearman Correlation	.44	.05	7.07	.000
Interval by Interval	Pearson's R	.45	.05	7.18	.000
N of Valid Cases		206			

Table 4.23 Quick delivery and satisfaction

We observe that quick delivery and satisfaction have a Spearman rank correlation coefficient of .44, suggesting a positive linear relationship between these two variables. Furthermore, the level of significance (.000) is below .05, indicating statistical significance. Therefore we reject the null hypothesis and accept the alternative hypothesis.

5. Discounts and satisfaction

H0: Discounts has no significant relationship with Satisfaction from online grocery shopping

H1: Discounts has no significant relationship with Satisfaction from online grocery shopping

Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Discounts × Experience	206	100.0%	0	.0%	206	100.0%

Symmetric Measures

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Ordinal by Ordinal	Spearman Correlation	.37	.04	5.61	.000
Interval by Interval	Pearson's R	.29	.03	4.38	.000
N of Valid Cases		206			

Table 4.24 Discounts and satisfaction

We observe that Discounts and satisfaction have a Spearman rank correlation coefficient of .37, suggesting a positive linear relationship between these two variables. Furthermore, the level of significance (.000) is below .05, indicating statistical significance. Therefore we reject the null hypothesis and accept the alternative hypothesis.

6. Easy return and satisfaction

H0: Easy return has no significant relationship with Satisfaction from online grocery shopping

H1: Easy return has no significant relationship with Satisfaction from online grocery shopping

Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Easy return × Experience	206	100.0%	0	.0%	206	100.0%

Symmetric Measures

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Ordinal by Ordinal	Spearman Correlation	.54	.05	9.24	.000
Interval by Interval	Pearson's R	.61	.05	10.95	.000
N of Valid Cases		206			

Table 4.25 Easy return and satisfaction

We observe that easy return and satisfaction have a Spearman rank correlation coefficient of .54, suggesting a strong positive linear relationship between these two variables. Furthermore, the level of significance (.000) is below .05, indicating statistical significance. Therefore we reject the null hypothesis and accept the alternative hypothesis.

FINDINGS AND SUGGESTIONS

4.2 Findings

- The preference and frequency of purchase from online grocery apps differs across various demographic variables- age, qualification, gender, occupation, marital status.
- 60.2% respondents agree that they purchased more from online grocery apps after covid 19
- Delivery time is an important factor that customer expects. Online payment option make the shopping experience easy. . Majority respondents around 49% use mobile wallets while making payment for online grocery shopping.
- 90.3% of respondents find huge variety on grocery apps. While 9.7% are neutral in their opinion.
- 85% of respondents find quick delivery as a motivating factor for online grocery purchasing. While 9.7% are neutral in their opinion.
- 84.5% of respondents find discounts and offers as a motivating factor for online grocery shopping. While and 10.2% are neutral in their opinion.
- Easy return policies of grocery apps motivates 60.2% of respondents. While 4.9%5 disagree and 35% are neutral in their opinion.
- 59.7% of respondents find customer reviews influencing their decision making. While 10.2% disagree and 30.1% are neutral in their opinion.
- 5.3% will highly recommend online grocery shopping to others, 45.1 agree to recommend while 4.9% disagree and 44.7% are neutral in their opinion.
- Variety of products, brands and competitive brands encourage buyers.
- Respondents are majorly apprehensive about the quality issues and lack of satisfaction because the product can't be touched in online grocery shopping. Therefore free samples and easy returns and exchange can mitigate this fear.

4.3 Suggestions

- Innovative Solutions for Last-Mile Logistics-Top app development companies can create custom-built mobile applications equipped with advanced features to optimize last-mile delivery logistics. These apps can incorporate real-time tracking, route optimization algorithms, and geolocation services to enhance delivery efficiency and accuracy. By leveraging technologies like GPS, AI, and machine learning, app developers can empower Quick Commerce platforms to overcome logistical challenges and streamline the delivery process.

- Robust Quality Control Measures-The app development companies can design mobile applications with built-in quality control features to ensure the freshness and integrity of perishable goods during transit. These features may include temperature monitoring sensors, barcode scanning capabilities, and automated alerts for deviations from quality standards. By integrating quality control measures directly into the app interface, developers enable Quick Commerce platforms to uphold product quality and customer satisfaction effectively.

- Scalable and Flexible Technology Solutions-Top e-commerce app development companies specialize in creating solutions so that it can to the changing needs of Quick Commerce platforms. Whether it's handling fluctuating order volumes, expanding delivery networks, or integrating new functionalities, developers can design apps that are agile and responsive to changing market dynamics. By building robust backend systems and APIs, app development companies empower Quick Commerce platforms. Which help it to scale their operations seamlessly and accommodate growing demand.

- Enhanced User Experience-App development companies can prioritize user experience design, creating intuitive and user-friendly interfaces that enhance the overall customer journey. By conducting user research, prototyping, and usability

testing, developers ensure that Quick Commerce apps are easy to navigate, visually appealing, and accessible across different devices and platforms. A well-designed app not only improves customer satisfaction but also encourages repeat usage and brand loyalty.

- Continuous Innovation and Optimization- App development companies foster a culture of continuous innovation and optimization. It constantly seeks ways to improve and enhance Quick Commerce apps. Through iterative development cycles, A/B testing, and feedback mechanisms, developers iterate on features, refine functionalities, and address pain points to deliver a superior user experience. By staying abreast of emerging technologies and industry trends, app development companies enable Quick Commerce platforms to stay competitive and future-proof their offerings.

- Online retailers should focus on optimizing website elements such as layout, features, communication, privacy, and security to establish trust among consumers and improve their purchasing intentions.

- Many individuals perceive online products to be costly due to shipping fees, unlike physical stores where such charges are absent. Hence, companies should consider offering free delivery for online purchases to attract more customers.

- Providing salesperson support is essential, especially for Indian consumers who prefer inspecting products before buying. Sales representatives can offer various services, demonstrate product usage, and assist customers in maximizing their purchases.

- Online stores tend to prioritize marketing towards female demographics, neglecting the potential of male customers. Companies should develop strategies to attract male customers and balance their marketing efforts accordingly.

- Understanding that online shopping decisions are influenced by emotions and relationships, similar to offline shopping, highlights the importance of researching consumer sentiments and interactions in the online retail environment.

- Establishing a legal framework to combat online fraud is crucial, along with promptly addressing and resolving customer complaints related to online shopping experiences.

- Enhancing customer satisfaction entails analyzing their buying behaviors and offering personalized deals tailored to their preferences, thereby increasing their overall satisfaction level.

4.4 Limitations:

- Since data collection relied on online surveys via Google Forms, direct interaction with respondents was not possible.
- The responses from the respondents may be biased and prejudiced.
- The sample size of 206 may not adequately represent the entire population,
- Given the rapidly evolving nature of e-commerce, the findings of this study may have a limited lifespan and might not remain applicable over an extended period as consumer behavior is also changing rapidly.

CHAPTER 5
CONCLUSION

Understanding consumer behavior is crucial across all industries. Year by year, we're witnessing the emergence of new business models tailored to evolving consumer preferences, particularly in the online sphere. This shift is driven by the evolving patterns of our daily lives. The future of India's online grocery sector appears promising, despite challenges, as current players adapt and innovate to capitalize on significant earning opportunities. Online shopping for food and groceries is still in its early stages but is rapidly expanding. The recent lockdowns have significantly boosted online grocery sales in India, highlighting its potential. However, one major challenge faced by the industry is maintaining slim profit margins. The pandemic has accelerated the adoption of online grocery shopping and instilled confidence in consumers. While this marks a significant milestone for the industry, further analysis of Indian consumer behavior post-pandemic is necessary. With over 400 million mobile users, exponential growth is anticipated, with smartphones revolutionizing shopping habits by providing access anytime, anywhere. Despite uncertainties, the future of online grocery shopping in India seems secure, driven by factors like convenience, smartphone penetration, and user-friendly platforms.

The main objective of this study is to explore factors influencing customer satisfaction in online grocery shopping. A literature review was conducted to develop hypotheses regarding the relationship between behavior and satisfaction. Additionally, demographic factors such as gender, age, education, and income were analyzed. The study found that consumers base their online grocery purchases on factors like discounts, product variety, free delivery, website usability, and cash on delivery options. Demographic variables like gender and age were not found to significantly impact customer satisfaction factors. However, customers expressed a desire for improved website usability to make online grocery shopping more appealing compared to traditional methods. Quality concerns and the inability to physically inspect products were common reservations among respondents. Those willing to shop online cited factors such as convenience, variety, discounts, time-saving, and avoidance of crowds as compelling reasons. Consumer confidence in online grocery shopping increases with perceived control over transactions, knowledge, and ease of use. Awareness campaigns are essential to inform consumers about available online grocery platforms, while discounts and offers can attract new users. Timely delivery options and a variety of payment methods, including online wallets and cash on delivery, are important considerations. Furthermore, the integration of AI technologies can enhance the overall customer experience through personalization.

CHAPTER 6
REFERENCES

- Galante, N., López, E. G., & Monroe, S. (2013). The future of online grocery in europe. Perspect. Retail Consum. Goods. 1: 22-31.

- Vaknin, S. (2013). „AmazonFresh vs. supermarket: A hands-on shopping test". Retrieved from https://www.cnet.com/news/amazonfresh-vs-supermarket-a-hands-on-shopping-test/ on 9 October 2016.

- Corbitt, B. J., Thanasankit, T., & Yi, H. (2003). Trust and e-commerce: a study of consumer perceptions. Electronic Commerce Research and Applications. 2(3): 203-215.

- Wang, Y. D., & Emurian, H. H. (2005). An overview of online trust: concepts, elements, and implications. Computers in Human Behavior. 21(1): 105-125.

- Ranadive, A. (2015). An Empirical Study on the Online Grocery Shopping Intentions of Consumers in Vadodara City. International Journal of Management and Social Sciences Research. 4(3): 8-14.

- Comegys, C., Hannula, M., & Vaisanen, J. (2006). Finnish and US online shopping behavior among university students: The five stage buying decision process. Journal of targeting measurement and analysis for marketing, 14 (4), 336-356.

- Devaraj, S., Fan, M., & Kohli, R. (2006). Examination of online channel preference: using the H, S., & Hsu. (2008). developing an index for online customer satisfaction: Adaptation of amercian Customer Satisfaction Index. Expert System with Applications, 34, 3033-3042.

- Harn, P., & Adeline, C. (2008). Web navigation behaviour of Malaysians in relation to online purchasing. International journal of business and society, 9 (1), 77-102.

- Hausman, A. V., & Siekpe, J. S. (2009). The effect of web interface features on consumer online purchase intentions. Journal of business research, 62, 5-13.

- Jarvelainen, J. (2007). Online purchase intentions: An empirical testing of a multiple-theory model. Journal of organizational computing and electronic commerce, 17 (1), 53-74.

- Jiang, P., Jones, D. B., & Javie, S. (2008). How third party certification programs relate to consumer trust in online transactions: An exploratory study. Psychology & Marketing, 25 (9), 839-858.

Annexure

Questionnaire

A study on consumer buying behavior towards online grocery shopping

Q1 Gender

Male

Female

Others

Q2 Age

Below 18

18-25

26-40

41-50

Above 50

Q3 Qualification

High school

Bachelor's degree

Master's degree

Doctorate

Q4 Occupation

Student

Self employed

Home maker

Employed

Business

Q5 Annual Family income

Below 5 lakhs

Between 5-10 lakhs

Above 10 lakhs

Q6 Marital status*

Married

Unmarried

Q7 Do you think your purchase of grocery online increased after covid 19

Yes, I frequently purchase grocery online after covid 19

No, I used to order frequently before covid

Can't say

Q8 How often do you shop for groceries online

Frequently

Often

Sometimes

Rarely

Never

Q9 How much do you usually spend in online grocery shopping

below 500

500-1000

1000-5000

above 5000

Q10 How do you make your payments for online shopping?

Cash on delivery

Credit and debit cards

Mobile wallets

Internet Banking

Q11 From where do you order groceries online

Big Basket

Zepto

Blinkit

Jiomart

Instamart

Amazon Pantry

Other:

Q12 Which items do you shop for using online grocery Apps

Q13 How far are grocery shops or hypermarkets from your house

Q14 My main reason of buying groceries online is-

Q15 This factor demotivates me to buy online grocery

Q16 I prefer shopping groceries online

Q17 It is convenient and time saving in shopping groceries online

Q18 Paying online for groceries makes it very convenient.

Q19 Ordering groceries online is an easy process

Q20 Online grocery stores provide huge variety of products

Q21 Quick delivery motivates me to purchase online

Q22 Discounts and offers motivate me to purchase online

Q23 I am comfortable in shopping grocery online because of their easy return policy

Q24 Customer reviews influence my purchase decision.

Q25 I will recommend online grocery shopping to my friends and family

Q26 Please rate your overall satisfaction from online grocery shopping experience

PAPER NAME

Reetika 2k22dmba99 draft (2).docx

WORD COUNT

7915 Words

CHARACTER COUNT

48544 Characters

PAGE COUNT

46 Pages

FILE SIZE

2.1MB

SUBMISSION DATE

May 24, 2024 11:55 AM GMT+5:30

REPORT DATE

May 24, 2024 11:56 AM GMT+5:30

● **4% Overall Similarity**

The combined total of all matches, including overlapping sources, for each database.

- 1% Internet database
- Crossref database
- 3% Submitted Works database

- 0% Publications database
- Crossref Posted Content database

● **Excluded from Similarity Report**

- Bibliographic material
- Small Matches (Less then 10 words)

● **4% Overall Similarity**

Top sources found in the following databases:

- 1% Internet database
- Crossref database
- 3% Submitted Works database

- 0% Publications database
- Crossref Posted Content database

TOP SOURCES

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

1	**archive.org** Internet	1%
2	**University of Sydney on 2015-06-05** Submitted works	<1%
3	**University of Nicosia on 2023-07-02** Submitted works	<1%
4	**Quest International University Perak on 2021-03-06** Submitted works	<1%
5	**tandfonline.com** Internet	<1%
6	**Indian School of Business on 2024-01-21** Submitted works	<1%
7	**Postgraduate Schools - Limkokwing University of Creative Technology ...** Submitted works	<1%
8	**Durban University of Technology on 2023-10-29** Submitted works	<1%

9 Northern Consortium UK on 2007-07-19
Submitted works

<1%

10 Universiti Teknologi MARA on 2021-02-15
Submitted works

<1%

11 coursehero.com
Internet

<1%