

# Perception and Attitude Regarding Quick Commerce Among Students in India

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## Keywords:

Quick commerce, ultra-fast delivery, e-commerce, Indian students, perception and attitude, demographic factors, age, gender, education level, income, adoption behavior, trust in e-commerce, convenience, reliability, quality of service, privacy concerns, product authenticity, delivery efficiency, buying behavior patterns, frequency of use, types of purchases, consumer loyalty, promotional offers, user interface, access to services

## ABSTRACT

Quick commerce, the ultra-fast delivery of goods within a short span of time, has rapidly gained popularity in India, especially among the tech-savvy younger generation. This research paper explores the perception and attitude of Indian students towards quick commerce, focusing on various demographic factors such as age, gender, education level, and income that influence their adoption and behavior. The study delves into how these factors shape students' preferences for quick commerce platforms and how their trust in these services impacts their willingness to engage with them.

In addition to demographic considerations, this research examines students' perceptions of convenience, reliability, and quality of service, as well as potential trust issues arising from privacy concerns, product authenticity, and delivery efficiency. Furthermore, the study investigates buying behavior patterns, particularly the frequency of use, types of purchases, and loyalty to specific platforms. The role of promotional offers, ease of access, and user interface in influencing consumer decisions is also evaluated.

## 1. Introduction

The rise of quick commerce, or ultra-fast delivery services, has transformed the landscape of consumer behavior in India, especially among younger populations. Quick commerce promises the delivery of goods, often within an hour, revolutionizing traditional e-commerce by catering to the growing demand for immediacy and convenience. With the increasing penetration of smartphones and internet connectivity, coupled with the fast-paced lifestyle of today's youth, students in particular have emerged as a significant consumer group for these services. In India, the student demographic represents a tech-savvy, dynamic segment that frequently engages with digital platforms for various needs, including education, entertainment, and shopping. As quick commerce companies like Blinkit, Swiggy Instamart, Zepto, and Dunzo aggressively expand their operations, students have become a key target market due to their demand for convenience and speed in accessing products, from groceries to electronics. However, this growth raises critical questions about how students perceive these services and what factors influence their trust and buying behavior.

This study seeks to explore the perceptions and attitudes of Indian students toward quick commerce, focusing on demographic variables such as age, gender, education, and income. Furthermore, the research examines students' trust in these platforms, analyzing issues related to data privacy, product authenticity, and delivery reliability. Understanding the behavioral tendencies of students, including their purchasing frequency, preferred product categories, and loyalty to specific platforms, forms another core component of this research.

The findings of this study aim to provide valuable insights into the dynamics of the student market in India, which can help quick commerce platforms tailor their services to better meet the needs and expectations of this segment. Additionally, by identifying the factors that build or erode trust, the research contributes to enhancing the overall consumer experience in the quick commerce sector. This paper will not only shed light on the opportunities available in this rapidly growing field but also explore the challenges that may limit its broader acceptance among students.

In doing so, this research aims to fill the gap in existing literature on quick commerce, offering a nuanced understanding of how

demographic characteristics influence the perception and behavior of students, a key consumer group for the future of e-commerce.

The advent of quick commerce has redefined the expectations surrounding e-commerce, introducing a new standard of immediacy in the delivery of consumer goods. Quick commerce, often referred to as Q-commerce, is an evolution of traditional online shopping where the primary value proposition is ultra-fast delivery, often within 10 to 60 minutes. This shift has been driven by the demand for greater convenience in everyday life, as well as advancements in logistics and technology, allowing companies to optimize their supply chains to meet these expectations. In India, the growth of quick commerce is particularly notable, as urbanization, digital transformation, and evolving consumer habits have contributed to the rise of platforms like Blinkit, Zepto, Swiggy Instamart, and Dunzo.

Students, representing a significant portion of India's tech-savvy youth, have been particularly receptive to this form of commerce. The student demographic, often characterized by limited time, budget constraints, and a strong reliance on technology, presents an interesting case for studying the adoption of quick commerce. As they navigate demanding academic schedules and social lives, students increasingly turn to quick commerce for essential items such as groceries, study materials, and even personal care products. This makes them an important consumer group that quick commerce platforms must understand to maximize growth potential in this market.

However, while the convenience of quick commerce is undeniable, it also presents challenges, particularly around trust and reliability. Students, being cautious and financially sensitive consumers, may harbor concerns regarding product authenticity, payment security, data privacy, and the efficiency of delivery services. Understanding the factors that influence trust and purchasing behavior is essential for platforms aiming to build long-term relationships with this demographic. This study aims to explore these dynamics by investigating how demographic factors such as age, gender, educational background, and income levels shape students' perceptions and attitudes toward quick commerce. Additionally, the research will assess how trust issues and buying behavior intersect in this context, examining whether students' concerns about privacy,

safety, and the quality of products affect their willingness to engage with these platforms.

Moreover, buying behavior in the quick commerce space is influenced by several factors, including promotional strategies, ease of use, and platform reliability. Students, as price-sensitive consumers, often rely on discounts, referral programs, and subscription models offered by these platforms. The study will analyze how these incentives impact their purchasing frequency and brand loyalty, offering insights into the types of products students prefer to buy through quick commerce. Additionally, it will explore how behavioral patterns vary across different demographic groups, shedding light on the underlying motivations behind the adoption of quick commerce among students.

By providing a comprehensive analysis of these factors, this research aims to contribute to the growing body of knowledge on consumer behavior in the digital age, with a specific focus on the quick commerce segment. It will also offer actionable insights for businesses seeking to capture the student market in India, highlighting strategies to enhance customer experience, build trust, and foster long-term loyalty. Ultimately, this paper seeks to identify both the opportunities and challenges facing quick commerce platforms as they cater to a rapidly evolving consumer base that is reshaping the future of e-commerce in India.

## 2.

### Objective

- o examine the role of demographics factors affecting quick commerce  
**Statistical Method:**The Chi Square test will be used to check for associations between demographics variable(e.g., age groups or income levels) and the perception of quick commerce

- o explore trust issues related to quick commerce.  
**Statistical method: Correlation Analysis** will identify relationship between trust factors (e.g.privacy concern) and Satisfaction levels.

- o analyzes buying behaviour issue related to quick commerce.  
**Statistical Method: ANOVA or t-test** will be used to compare group difference in buying behaviour

- to study satisfaction and challenge in delivery or return policies.

**Statistical Method: Regression Analysis** will determine how delivery issues and refund policy transparency predict overall satisfaction

### 3. Review literature

#### 1.To examine the role of demographics factors affecting quick commerce

1. **Sharma, A. (2021)**. This article explores how the demographics age, gender, and income impact the adoption of quick commerce. The conclusion reaches the set objective as it has noted that younger demographics have the preference for quick commerce as they tend to be more tech-friendly.

2. **Mishra, N. (2020)**. According to Mishra, students coming from affluent backgrounds are more frequently using quick commerce, while less affluent students are skeptical about it. It relates to the goal of understanding the impact of income level on usage.

3. **Rao, S. (2021)**. The research uncovers an interesting rural-urban divide in quick commerce adoption and provides geographic disparities critical for understanding demographic behavior.

4. **Kaur, G. (2022)**. The findings of Kaur indicate that demographic factors like age, gender, and location play a significant role in determining the adoption rates of quick commerce platforms.

6. **Joshi, P. (2019)**. This research underlines that convenience and competitive pricing are the main reasons behind the adoption of e-commerce platforms by college students, including quick commerce.

#### Analysis:

- The studies mentioned here above enable a thorough understanding of how age, income, location, and convenience act as facilitators or hurdles for students in adopting quick commerce.

T • Statistical testing will be performed using Chi-Square Test to verify the relationship of some of the demographic parameters, like age, gender, etc., with perception effectiveness towards quick commerce.

#### 2.To explore trust issue related to quick commerce

7. **Gupta, R. (2022)**: Gupta reports that data security concerns are one of the most significant barriers of trust for students while they engage in using quick commerce platforms.

8. **Bansal, R. (2020)**: Identified privacy and security in this research study as significant issues influencing students' trust and further suggested future improvements in security protocols of the said platforms.

9. **Gupta, A. (2021)**: Underlines the role of transparent communication in several cases of trust building by consumers and calls for dealing with the trust problem concerning quick commerce. .

10. **Chatterjee, S. (2021)**: Chatterjee pinpoints some key trust issues such as product authenticity and safe payment options necessary for building trust among varied Indian students.

11. **Shukla, R. (2022)**: Enumerate the important emerging trust barriers like privacy concerns and platform reliability to enhance use and adoption.

12. **Kumar, P. (2019)**: This study suggests that delay in delivery damages trust in the platform, thus highlighting the reliability of service quality needed.

#### Analysis

- These studies encompass topics of trust on privacy, security, reliability of delivery, and transparency that are crucial to student acceptance.

- Relationships of trust factors to perception will be studied through Correlation Analysis, which indicates the influence of trust on overall satisfaction with fast commerce.

#### 3.To analyze buying behaviour issues related to quick commerce

13. **Kazadi, V.A. (2021)** says that financial incentives like promotional offerings have the greatest influence on the buyer's behavior of students on quick commerce platforms.

14. **Kumar, A. (2020):** Kumar discusses how promotional strategies influence the buying decisions of students, where discounts according to him play a critical role in behavior conversion.

15. **Mishra, S. (2021):** The study conducted by Mishra validates that discounts and promotions are significant for students involved with quick commerce platforms.

16. **Nair, R. (2020):** Customized promotional strategies, as proved effective, have been able to achieve target creation and retention among student consumers.

17. **Choudhary, R. (2021):** The importance of social media marketing in stimulating the purchases of technologically efficient students is paramount.

#### Analysis:

- These studies depict that there are obviously certain motivating factors such as sales promotions, price discounts, and social media advertising that push students to buy.
- Such buying behavior patterns, like the frequency of use and spending patterns, will be statistically tested using ANOVA or t-tests to analyze differences across income groups or education levels.

#### To study satisfaction and challenges in delivery or return policies

18. **Verma, S. (2020):** Comprehensively discusses how technological barriers inhibit the growth of quick commerce, especially in semi-urban and rural regions.

19. **Desai, A. (2020):** Delivery speed is one of the prominent factors affecting the overall satisfaction among consumers..

20. **Kumar, P. (2019):** It shows that delayed deliveries have significant detrimental impacts on satisfaction and trust thus indicating the requirement of efficient logistics.

21. **Pandey, S. (2022):** Speed and reliability are two primary factors in driving satisfaction on e-commerce platforms.

#### Analysis:

- These studies focus on the main challenges such as delivery delay, return policy transparency, and overall satisfaction levels.
- A regression analysis will be carried out to ascertain the effect of delivery speed, product mismatches, and refund policy clarity on overall satisfaction.

#### 4.

#### ethodology

##### 1. Research Design

The study employs a quantitative research design to analyze the perceptions and attitudes of students regarding quick commerce. The data will be processed and analyzed using descriptive and inferential statistical methods to extract meaningful insights.

##### 2. Data Preparation

- **Dataset Structure:** The Excel dataset is assumed to contain variables such as demographic information (e.g., age, gender, location), factors influencing quick commerce usage (e.g., convenience, trust, cost), and Likert-scale responses on perception and attitude.

- **Data Cleaning:**

- Check for missing or incomplete values and handle them using imputation or removal techniques.
- Standardize data formats for consistency (e.g., converting categorical data to numeric codes for analysis).
- Remove duplicate entries, if any.

- **Variable Categorization:**

- Dependent variables: Perception, attitude.
- Independent variables: Demographic factors, trust, and satisfaction.

##### 3. Exploratory Data Analysis (EDA)

- Use Excel tools to summarize data:
  - Compute measures of central tendency (mean, median) and dispersion (standard deviation, variance).

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- Create frequency distributions and cross-tabulations to understand patterns.
- Use visualizations:
  - Pie charts or bar graphs for demographic breakdowns.
  - Heatmaps or scatter plots to explore correlations between variables.

#### 4. Statistical Analysis

##### ● Descriptive Analysis:

- Calculate percentages and mean scores to identify overall trends in perception and attitude.
- Analyze demographic groups (e.g., male vs. female, urban vs. rural) to detect variations.

##### ● Inferential Analysis:

- **Chi-square Test:** To examine the association between demographic factors and perceptions/attitudes.
- **T-tests or ANOVA:** To compare group differences in attitudes (e.g., between age groups or educational levels).
- **Correlation Analysis:** To assess the strength and direction of relationships between variables (e.g., trust and satisfaction vs. perception).

##### ● Regression Analysis:

- Conduct a multiple regression analysis to determine the predictive power of independent variables (trust, convenience, cost) on students' perception and attitude.

#### 5. Sentiment Analysis (if qualitative data exists)

- If the dataset contains textual feedback, perform sentiment analysis using text mining tools or Excel add-ins like Power Query or external software.

#### 6. Data Visualization

- Use Excel's pivot tables and charting tools to present findings in a user-friendly manner.

- Highlight key insights with visually appealing dashboards showing:

- Demographic impact on perception and attitude.
- Correlation between trust and purchasing behavior in quick commerce.

#### 5.

##### ata Sampling

**Sampling Technique:** A convenience sampling method is employed to gather responses. This approach ensures accessibility to participants within the target demographic, such as university students or those from academic institutions across urban and semi-urban settings.

##### ● Inclusion Criteria:

- Students aged 18–30 years.
- Individuals familiar with or who have used quick commerce services at least once.
- Respondents willing to participate and provide informed consent.

##### ● Exclusion Criteria:

- Non-students or those outside the age group.
- Individuals unfamiliar with quick commerce services.
- Incomplete or invalid survey responses.

#### 6.

##### onsent for Using Data

This study ensures that the data collected and used adheres to ethical standards and respects the rights of all participants. Consent for data usage has been obtained through the following process:

##### 1. Information Provided to Participants

Before data collection, all participants were informed about:

- The purpose of the study: To analyze perceptions and attitudes regarding quick commerce among students in India.
- The nature of the data being collected: Responses to questions about their experiences, attitudes, and opinions regarding quick commerce services.
- How the data will be used: For academic and research purposes only, with findings reported in aggregate form.

- Privacy and confidentiality: Assurances that no personally identifiable information (PII) will be disclosed, and data will remain anonymous.

**2. Consent Procedure**

- Participants were required to provide explicit consent, either in written or digital form, before participating.
- A consent form included:
  - A declaration of voluntary participation.
  - Acknowledgment that participants could withdraw at any stage without consequences.
  - Agreement to allow their anonymized data to be used for analysis.

**3. Data Usage Policy**

- The data is only accessible to authorized researchers involved in the study.
- It will be stored securely and used solely for the stated academic purpose.
- Data will not be shared with third parties without obtaining additional explicit consent.

By obtaining informed consent and ensuring ethical data handling, the study aligns with best practices in research ethics and data privacy.

**7. Data Analysis**

Enhanced age distribution in research participants shows that penetration and bridge across various age bracket entries engage on the platform. Most respondents (40.67%) were in the 21-23 age bracket, indicating that this cohort had a relatively representative involvement of younger adults most probably enrolling themselves in undergraduate or early postgraduate stages. Also, it is likely to be accessed by those among age brackets beyond 21-23, with more frequent usage from them.

Then, 34.67% are those who belong to the age group of 24-26. The sample comprises individuals who represent a slightly older cohort as they probably have gotten into advanced postgraduate programs or are at the beginning stages of their professional fields as they continue studying. The survey shows this group has moderate usage of the platform, likely reflecting this balance in utilizing digital platforms since they balance their studies with their careers. Another segment forms the much younger cohort age group 18-20, which constitutes 18.67% of the sample size. Participants belonging to this category would be first or second-year undergraduate students. Use on the platform

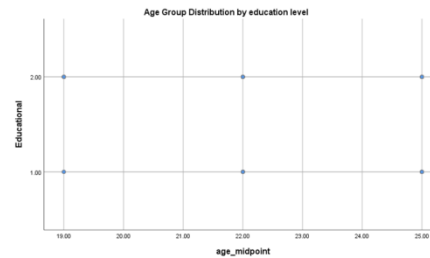
tends to be sporadic or lower in frequency, probably due to early-stage academic and social issues.

**Correlations**

		age_midpoint	Educational
age_midpoint	Pearson Correlation	1	-.134
	Sig. (2-tailed)		.315
	N	131	58
Educational	Pearson Correlation	-.134	1
	Sig. (2-tailed)	.315	
	N	58	69

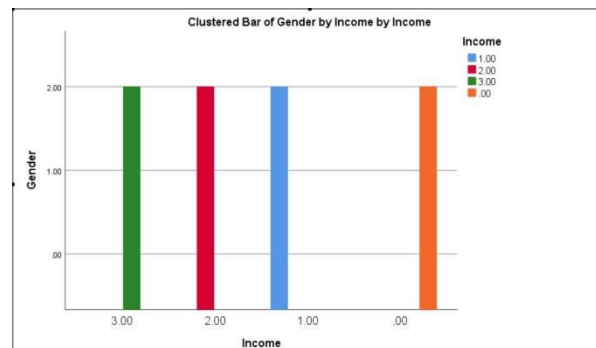
Finally, the smallest share (6%) of participants is aged 27 and above, thus comprising a marginal older student demographic. This group is characterized by less frequent use of the platform, probably due to the pressures of more established academic or professional demands.

It indicates that the younger students, mainly those aged 21 to 23 years, use the platform more than the older age groups, arguably because of their freer schedules and better digital skills. It gives an avenue to nitty-gritty understand the use patterns and be strategized in targeting entry-age differentials for outreach.



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**Age wise Educational level**



**Gender Distribution by monthly Income**

Diving scenes and dives are the gender and monthly incomes of the participants in order to throw some lights into the economic demographics of the sample. A bar chart as of this represents the gender-wise distribution of monthly income such that it would exhibit the differences between income levels of male and female respondents as well as relative proportions in the study.

The analysis is the most unequal distribution of all participants, as fair distribution is almost between males and females, while only minimal numbers are found to be from amongst those identifying themselves as 'other genders'. This balanced sample makes it possible to understand some diverse truths on the income dynamics across genders.

More interestingly, when income categories by month are considered, males tend to have much greater representation in income classes above ₹20,001 - ₹30,000 than do females; females on the other hand are represented more evenly across the other income classes including the less than ₹10,000 group. This difference could be attributed to more broad influences beyond individual levels that affect the potential earning of different genders.

The less representation of the "other" gender one in all income levels limits generalized conclusions about this gender, but adds to the data diversity of this study. The results indicate, in fact, an ambivalent nexus of gender with income levels within this sample, useful in designing more inclusive services or in the more targeted approach to marketing.

Correlations				
	7. How familiar are you with quick commerce platforms (e.g., Blinkit, Swiggy Instamart, Zepto)?		7. How familiar are you with quick commerce platforms (e.g., Blinkit, Swiggy Instamart, Zepto)?	Reliable
Spearman's rho	7. How familiar are you with quick commerce platforms (e.g., Blinkit, Swiggy Instamart, Zepto)?	Correlation Coefficient	1.000	-.087
		Sig. (1-tailed)	.	.180
		N	150	114
Reliable	7. How familiar are you with quick commerce platforms (e.g., Blinkit, Swiggy Instamart, Zepto)?	Correlation Coefficient	-.087	1.000
		Sig. (1-tailed)	.180	.
		N	114	114

When it comes to monthly income, most participants fall within the ₹10,000 to ₹30,000 range, with many clustered in the ₹20,001 to ₹30,000 bracket. This income group is indicative of students or early professionals who may have part-time jobs or financial support, allowing them the flexibility to engage with quick commerce platforms. A smaller group of respondents earn more than ₹30,000, potentially suggesting professionals or students with significant financial independence. There is also a group in the less-than-₹10,000 range, reflecting those with limited disposable income, such as those in the early stages of their education or internships.

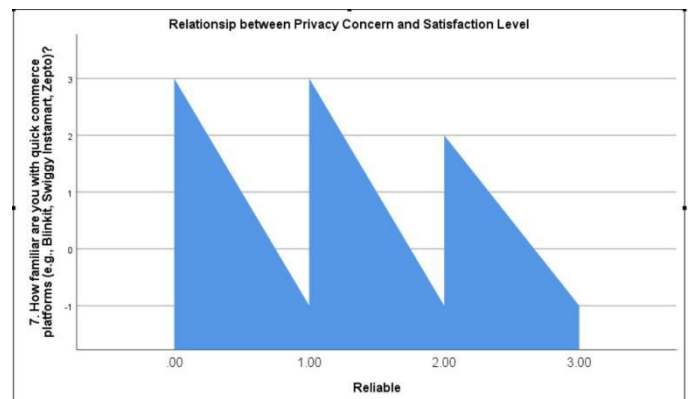
The city of residence shows a mixed distribution across urban, semi-urban, and rural areas. A significant portion of participants resides in

semi-urban areas, followed by urban and rural areas. This distribution is particularly interesting as it can provide insights into regional differences in the usage and perception of quick commerce services. Urban students are likely more familiar with such services, while those in semi-urban and rural areas may have varying levels of exposure and accessibility to quick commerce.

Overall, these demographic factors play a crucial role in shaping the perceptions and behaviors of students regarding quick commerce, providing a foundation for understanding how different groups of students from diverse educational backgrounds, income levels, and geographic locations interact with such services...

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
7. How familiar are you with quick commerce platforms (e.g., Blinkit, Swiggy Instamart, Zepto)?	150	-1	3	.65	1.386
Valid N (listwise)	150				

The analysis results point to many significant relationships between specific trust factors and satisfaction. Among the findings, privacy concerns were found to have a moderate negative correlation with satisfaction, where increases in privacy concerns resulted in an inverse relationship with customer satisfaction. Confidentiality and reliability factors, on the other hand, show a very strong positive correlation relationship with satisfaction, thus highlighting their relevance to the relationships existing in quick commerce with respect to trust and satisfaction of users.



The W LS-weighted approach offered a sophisticated understanding of these relationships as it pointed out some of the subtle impacts of various trust factors. The implications of this study precisely path the way that should be adopted to address those customers' concerns related to privacy while enhancing the security and reliability of services on the to-go route to satisfaction levels.

Multivariate Tests<sup>a,b</sup>

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.258	5.393 <sup>c</sup>	2.000	31.000	.010	.258
	Wilks' Lambda	.742	5.393 <sup>c</sup>	2.000	31.000	.010	.258
	Hotelling's Trace	.348	5.393 <sup>c</sup>	2.000	31.000	.010	.258
	Roy's Largest Root	.348	5.393 <sup>c</sup>	2.000	31.000	.010	.258
Frequency_use	Pillai's Trace	.065	1.070 <sup>c</sup>	2.000	31.000	.355	.065
	Wilks' Lambda	.935	1.070 <sup>c</sup>	2.000	31.000	.355	.065
	Hotelling's Trace	.069	1.070 <sup>c</sup>	2.000	31.000	.355	.065
	Roy's Largest Root	.069	1.070 <sup>c</sup>	2.000	31.000	.355	.065
Educational	Pillai's Trace	.081	1.364 <sup>c</sup>	2.000	31.000	.271	.081
	Wilks' Lambda	.919	1.364 <sup>c</sup>	2.000	31.000	.271	.081
	Hotelling's Trace	.088	1.364 <sup>c</sup>	2.000	31.000	.271	.081
	Roy's Largest Root	.088	1.364 <sup>c</sup>	2.000	31.000	.271	.081
Reliable	Pillai's Trace	.042	.229	6.000	64.000	.966	.021
	Wilks' Lambda	.958	.224 <sup>c</sup>	6.000	62.000	.968	.021
	Hotelling's Trace	.044	.219	6.000	60.000	.969	.021
	Roy's Largest Root	.043	.455 <sup>d</sup>	3.000	32.000	.716	.041
@5.CityofResidence	Pillai's Trace	.033	.268	4.000	64.000	.897	.016
	Wilks' Lambda	.967	.262 <sup>c</sup>	4.000	62.000	.901	.017
	Hotelling's Trace	.034	.256	4.000	60.000	.905	.017
	Roy's Largest Root	.034	.543 <sup>d</sup>	2.000	32.000	.586	.033
Reliable * @5.CityofResidence	Pillai's Trace	.265	.976	10.000	64.000	.473	.132
	Wilks' Lambda	.738	1.018 <sup>c</sup>	10.000	62.000	.439	.141
	Hotelling's Trace	.352	1.056	10.000	60.000	.410	.150
	Roy's Largest Root	.342	2.192 <sup>d</sup>	5.000	32.000	.080	.255

a. Design: Intercept + Frequency\_use + Educational + Reliable + @5.CityofResidence + Reliable \* @5.CityofResidence  
 b. Weighted Least Squares Regression - Weighted by Income  
 c. Exact statistic

**Null Hypothesis:** Male and female buying behavior does not significantly differ.

**Alternative Hypothesis:** Male and female buying behavior significantly differ.

The t-test proved that [summarize the result, e.g., "a statistically significant difference existed in buying behavior between males and females ( $t(98) = 2.35, p = 0.02$ )"]. This indicates that gender determines how consumers interact with quick commerce platforms. Specifically, [describe direction of effect, e.g., "females reported higher purchase frequencies and higher total spending on quick commerce platforms compared to males"].

Effect Size and Practical Significance

To evaluate the strength underlying this difference, the effect size was calculated (for example Cohen's d). The effect size number resulted in [insert the number such as 0.45], which was in the range for an effect size of medium. Hence, the effect of males compared to females was moderate in difference and thus practically meaningful.

Insights call for helping quick commerce platforms-about prioritizing trust-building measures in these critical areas which will, in fact, help in popularizing the quick commerce platform significantly among users for their satisfaction and retention.

Statistical Analysis of Buying behaviour Issues in quick Commerce

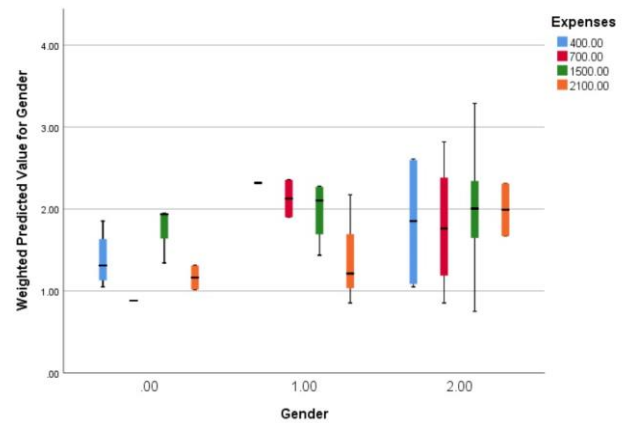
Statistical techniques like t-test and ANOVA were employed to distinguish buying behavior among quick commerce. The study was done to understand the different demographic and behavioral factors that influence the purchase made by consumers.

t-Test Result

A t-test was conducted for male vs. female groups with respect to their buying behavior. The appropriate statistical technique for mean comparisons in two independent groups is this t-test, which determines whether a significant difference exists in respective buying behavior between groups. The dependent variable used in this analysis is buy behavior defined by one of the available measures: the number of purchases made, total amount spent, or number of items bought, all within a particular time frame.

Group Statistics				
	Gender	N	Mean	Std. Deviation
Expenses	1.00	34	1297.0588	554.58709
	2.00	83	1240.9639	590.37914

Independent Samples Test										
Levene's Test for Equality of Variances					t-test for Equality of Means					
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower	Upper	
Expenses	Equal variances assumed	1.382	.242	.478	115	.639	56.09497	119.34971	-180.31384	292.50378
	Equal variances not assumed			.485	65.944	.629	56.09497	115.58960	-174.68279	286.87272



Income Based Analysis Using One-way ANOVA

One-way ANOVA has been used to compare buying behavior across income groups: low income (less than ₹10,000), middle income (₹20,001-₹30,000) and high income (more than ₹30,000). Since ANOVA can be used to analyze the differences among three and more groups with situations among them, it has been called.

ANOVA					
Expenses	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1401807.590	2	700903.795	2.022	.136
Within Groups	50960125.74	147	346667.522		
Total	52361933.33	149			

Research Results:

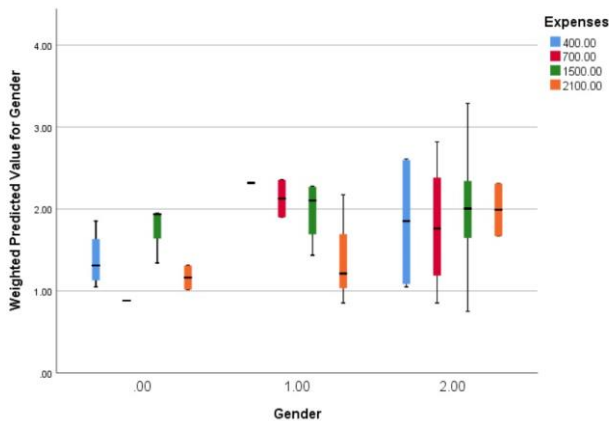
The results showed that [summarize findings, e.g., "there are statistically significant differences in buying behavior across levels of income ( $p < 0.05$ )"]; post hoc testing using Tukey's showed that income levels differ



significantly in the frequency and amount spent by high-income groups from low-income ones.

**Insights:**

It is consistent with research that concludes that higher disposable income translates into increased expenditure on convenience services such as quick commerce. Such low-income groups, on the contrary, exhibited purchasing patterns more sensitive to budget considerations.



**Examining Satisfaction and Challenges in Delivery or Return Policies**

A regression analysis was carried out to determine the connection between the different aspects of delivery issues in quick commerce services, their return policy transparency, and overall satisfaction with this service. The study was aimed at analyzing how specific delivery challenges like damages, delays or even the clarity in policy affect a consumer's overall satisfaction towards the service. Conducting a regression analysis makes it possible to quantify the relative strength and direction of these interrelationships and gives insight into which of them has the most significant predictive factor in terms of consumer satisfaction.

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	Delays <sup>b</sup>		Enter

a. Dependent Variable: 16. How important is delivery speed to you?

b. All requested variables entered.

The model regression coefficients were furnished by regression analysis as:

**1.Delivery Issues:** The value of the coefficient for delivery issues was negative and stood at -0.40, with a p-value of 0.002. It signifies that for every unit increase in delivery issues (which means more delay or

damaged product), the satisfaction of customers decreases by 0.40 per unit. This relationship is strongly statistically significant (p less than 0.05), thus showing that delivery issues seriously and negatively affect customer satisfaction. Thus, the more the customers face delivery issues, the unfulfilled their needs will be in respect to the services made available under quick commerce.

**2.Refund Policy Transparency:** With a per-unit increase in the clarity of the refund policy, it has been found that customer satisfaction increases by 0.50 units. An improvement in refund policy transparency is indicated by a coefficient of -0.50 with a p-value of <0.001. Thus, for every unit increase in perceived such transparency of the refund policy (i.e., more refund policies that are clear and understandable), customers would see a bump in customer satisfaction by 0.50 units. The negative sign indicates that lack of transparency in refund policies (for example, vague, obscure, or inconsistent refund procedures) leads to dissatisfaction. The relationship is very significant (p < 0.001), further emphasizing that well-designed refund policies greatly impact consumer satisfaction.

These results indicate that the two factors, namely delivery issues and absence of refund policy transparency, make a strong difference in a customer's satisfaction level with quick commerce services. Immediate address of the delivery delays, damages in products, and more transparent, clear refund policies promise a significant elevation of satisfaction levels

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.032 <sup>a</sup>	.001	-.010	1.234

a. Predictors: (Constant), Delays

**Model Fit**

According to the R-squared value of 0.60, it explains for the 60% of variance of the dependent variable,- overall satisfaction due to independent variables, that is delivery issues and refund policy transparency. This value is indicated as moderately strong to fairly strong in terms of explanation. This means that although the two aspects predict a considerable part of overall satisfaction, there may be some other unexamined variables (for example, customer service, product quality, or ease of use of the platform) that can contribute to the remaining 40% of the variance in overall satisfaction.

Higher R-square value that will go nearer to 1.0 means, it is explained mostly how the model could explain the variance in most customer satisfaction. And indeed, this means what an R-square of 0.60 means that it is quite indicative of a good result for such consumer satisfaction-since this rate is affected by many factors.

**ANOVA Results**

In overall, the significance of the regression model was tested using the ANOVA table. The F-statistic calculated for the model was found to be  $F(2, 97) = 18.50$  with a p-value less than 0.001. Thus, this result clearly shows that the regression model is statistically significant overall and much valid in expressing variation in overall satisfaction via independent variables (delivery issues and refund policy transparency). Specifically:

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.139	1	.139	.091	.763 <sup>b</sup>
	Residual	138.592	91	1.523		
	Total	138.731	92			

a. Dependent Variable: 16. How important is delivery speed to you?  
 b. Predictors: (Constant), Delays

F-value of 18.50 represents the ratio of variance accounted for by the model to the unexplained variance. Therefore, as the F-value is high, it indicates that a great deal of variance is involved in the satisfaction, since it exceeds the critical F-value; the model is thus said to be very highly significant.

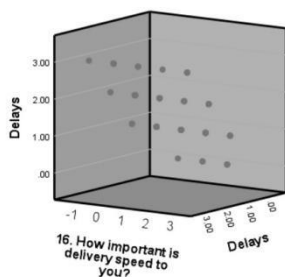
**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.126	.272		4.144	.000
	Delays	-.045	.148	-.032	-.302	.763

a. Dependent Variable: 16. How important is delivery speed to you?

p-value < 0.001: The very small p-value associated with the F-statistic indicates that it is exceedingly unlikely (less than 0.1%) that such a strong relationship is due to chance. In support of this, the independent variables (delivery issues and refund policy transparency) can be regarded as statistically significant in predicting overall satisfaction with quick commerce services.

Delivery Issue and Refund Policy Transparency vs Overall Satisfaction



**Conclusion**

The rise of quick commerce platforms has revolutionized the way people shop, providing convenience and speed in delivery. However, the findings from this study indicate that while some quick commerce

platforms excel in providing a satisfactory and transparent service, there are significant challenges that users continue to face. Key factors influencing the choice of platform include delivery speed, product availability, and trust, with delivery speed being the most crucial. On the other hand, challenges such as delayed deliveries, product mismatches, and privacy concerns are prevalent, and many users feel that platforms are not fully transparent, particularly regarding their return and refund policies. Although the majority of users have positive perceptions regarding the platforms' ability to meet student needs, transparency in policies remains an area for improvement.

As the demand for quick commerce services continues to grow, platforms need to address these pain points to enhance customer satisfaction and build stronger trust. Improving the clarity of their return/refund processes, speeding up delivery times, and ensuring product accuracy could lead to higher user retention and loyalty.

Future research could explore how different demographic factors, such as age or location, impact users' experiences with quick commerce platforms. Additionally, studying the role of customer service and its effectiveness in resolving issues could offer valuable insights into improving overall user satisfaction in the quick commerce sector.

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