

## **Correlation Between Perceived Convenience and Adoption of Quick Commerce Services Among Consumers in Surat**

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## **Introduction:**

The rise of Quick Commerce has altered the e-commerce landscape, offering ultra-fast deliveries to customers in minutes. Contrasting traditional e-commerce models, which depend on planned deliveries, Q-commerce is designed to provide rapid customer needs through hyperlocal execution centres and augmented logistics networks (Chopra, 2021). The speedy growth of platforms like Zepto, Blinkit, Swiggy Instamart, and BigBasket indicates the increasing buyer preference for instant access to essential products, groceries, and personal care goods (Mehta & Gupta, 2022). User acceptance of Q-commerce services is influenced by numerous factors, including perceived convenience, digital payment incorporation, confidence, pricing, and brand goodwill (Rana et al., 2023). Amongst these, perceived convenience is considered an important factor of acceptance, as it lessens customer effort, improves effectiveness, and delivers a unified purchasing experience (Sharma & Verma, 2021). Studies recommend that online customers gradually prioritize ease of use, less delivery time, and simplified checkout methods when selecting digital shopping platforms (Kapoor & Singh, 2020). Q-commerce services serve to these expectations by using AI-driven logistics, last-mile delivery optimization, and real-time inventory management (Kumar et al., 2023).

One more crucial parameter promoting Q-commerce acceptance is awareness of these brand platforms and their offerings. Awareness plays a important role in online consumer behaviour, as it governs a customer's capability to discover, assess, and accept developing e-commerce platforms (Patil & Deshmukh, 2022). Study has shown that greater awareness levels lead to larger acceptance rates, as learnt customers are more likely to perceive the value of Q-commerce facilities (Tiwari et al., 2023). Though, in spite of its fast development, Q-commerce acceptance remains irregular, with many customers uninformed of its merits or cautious due to fears related to service trustworthiness, pricing models, and product quality (Bansal &

Malhotra, 2021). Understanding the connection between perceived convenience and Q-commerce adoption is vital for businesses targeting to improve customer experience and market penetration. Moreover, analysing the role of awareness in promoting acceptance behaviour can help online sellers develop targeted marketing strategies to increase their customer base (Mishra & Patel, 2023).

## **Research Objectives**

1. To observe the relationship between perceived convenience and adoption of

Quick Commerce services amongst customers in Surat.

2. To analyse the degree to which perceived convenience affects customer choices regarding Quick Commerce acceptance.

## **Literature Review**

1. **Perceived Convenience and Consumer Adoption** (Mukherjee & Malhotra, 2021)  
Mukherjee and Malhotra (2021) underlines the rising importance of convenience in e-commerce acceptance, mainly in the Q-commerce segment. Their study originates that customer stressed on factors such as rapid delivery times, comfort of payment, and instinctive app interfaces. The researchers argue that perceived convenience meaningfully effects buying decisions, as it decreases mental effort and improves the overall purchasing experience. The study also suggests that service providers should emphasis on restructuring their platforms and dipping delivery times to expand acceptance rates.
2. **Trust and Consistency in Q-commerce Services** (Kumar & Sharma, 2022) Trust is another crucial factor inducing Q-commerce acceptance. Kumar and Sharma (2022) discovered the association between trust and customer readiness to use Quick Commerce Apps. Their study shows that while convenience appeals early users, trust safeguards long-term purchaser retention. Problems such as order correctness, product superiority, and customer support play vital roles in determining consumer trust. The results propose that Q-commerce Apps should create clear policies and strong customer service mechanisms to increase customer confidence.
3. **Effect of Online Payment Incorporation on Q-commerce** (Patel & Mehta, 2023)  
Patel and Mehta (2023) observed the role of online payment systems in easing Q-commerce transactions. Their study found that all-in-one online payment incorporation meaningfully improves perceived convenience, as it streamlines the checkout procedure. The study also states that customers select Apps that offer numerous payment choices, including UPI, digital wallets, and cash-on-delivery. Their results highlight that a smooth and protected payment practice can absolutely impact customer acceptance of Q-commerce services.

4. **Behavioural Patterns in Online Shopping vs. Q-commerce** (Singh et al., 2022)  
Singh et al. (2022) linked customer behaviours in conventional e-commerce and Q-commerce Apps. The research highlights that while conventional e-commerce is regularly scheduled and price-sensitive, Q-commerce purchases are mainly thoughtless and motivated by instant requirements. The researchers concluded that customers who value speed and convenience are more motivated to accept Q-commerce services. The study advises that platforms should aim time-sensitive customers by stressing the prompt fulfilment feature of their services.
5. **Challenges and Opportunities in Q-commerce Industry** (Verma & Gupta, 2022)  
Verma and Gupta (2022) recognized key challenges and opportunities in the Q-commerce segment. Whereas convenience and speed have determined market growth, logistical limitations, high functioning expenses, and inventory management matters pose challenges. Their study advises that brands must accept ground-breaking supply chain approaches to sustain viability while continuing rapid delivery times. The study finds that Apps concentrating on hyperlocal obtaining and well-organized storeroom management are more likely to flourish in the competitive Q-commerce domain.

## **Research Methodology**

### **Research Design**

This study takes a quantitative research approach. A structured questionnaire was used to gather primary data, confirming unbiased measurement of perceived convenience and adoption pattern.

### **Sampling Method**

A non-probability convenience sampling method was used to choose respondents. This method was chosen due to its realism in reaching customers who are aware of or aggressively use Q-commerce Apps.

**Target Population:** Customers in Surat who have already used or are probable prospects of Q-commerce services.

**Sample Size:** A total of 200 respondents contributed in the research, confirming a satisfactory model for statistical analysis.

## Data Collection

Data was gathered through an online survey with an organized questionnaire. The questionnaire included:

1. Demographic Information: Age, gender, occupation, frequency of digital purchases.
2. Q-commerce Awareness: Awareness of Apss such as Zepto, Blinkit, Swiggy Instamart, BigBasket, and JioMart.
3. Perceived Convenience Measurement: Measured on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).
4. Adoption Behaviour Measurement: Frequency of Q-commerce usage, readiness to continue with these services.

### Hypothesis 1

**H<sub>0</sub>:** There is no significant correlation between perceived convenience and Quick Commerce adoption.

**H<sub>1</sub>:** There is a significant correlation between perceived convenience and Q-commerce adoption.

### Hypothesis 2

**H<sub>0</sub>:** Awareness of Quick Commerce does not affect adoption behaviour.

**H<sub>1</sub>:** Aware users adopt Quick Commerce more than unaware users.

### Data Analysis Techniques

The gathered data was analysed using SPSS and comprised the subsequent statistical techniques:

1. Descriptive Statistics: Mean, standard deviation, and frequency distributions.
2. Spearman Rank Correlation Test: To observe the association between perceived convenience and Q-commerce adoption.
3. Independent t-test: To compare adoption behaviour based on awareness levels.

### Data Analysis and Interpretation

This part demonstrates the statistical analysis directed on the gathered data. The analysis comprises descriptive statistics, Spearman correlation to test the association among perceived convenience and adoption of Quick Commerce, and an independent t-test to compare adoption scores among aware and unaware customers.

## 1. Descriptive Statistics

**Table 1: Perceived Convenience**

Statements	Mean	Std. Deviation
Quick Commerce platforms are easy to use and navigate.	4.52	0.50
Using Quick Commerce services saves my time.	4.47	0.50
I find Quick Commerce services more convenient than traditional shopping.	4.47	0.50
The payment process in Quick Commerce is quick and hassle-free.	4.52	0.50
The availability of daily services enhances the convenience of using Quick Commerce.	4.56	0.49

**Interpretation:**

- The high mean scores ranging from 4.47 to 4.56 indicate a strong positive perception of Quick Commerce convenience among consumers in Surat, with the availability of daily services being the most appreciated feature.
- The slightly lower scores for time-saving and convenience over traditional shopping suggest potential areas for improvement, while the consistent standard deviations reflect broad agreement on these convenience benefits.

**Table 2: Adoption of Quick Commerce**

Statements	Mean	Std. Deviation
I frequently use Quick Commerce services.	4.53	0.50
I am willing to continue using Quick Commerce services in the future.	4.56	0.49
I prefer Quick Commerce over traditional shopping methods.	4.53	0.50

I recommend Quick Commerce services to others.	4.53	0.50
I trust Quick Commerce platforms for my daily needs.	4.56	0.49

### Interpretation:

- The high mean scores ranging from 4.53 to 4.56 indicate a strong adoption of Quick Commerce services among consumers in Surat, with the highest ratings for willingness to continue using and trust in platforms reflecting robust retention and confidence.
- The consistent standard deviations across all statements suggest a uniform positive sentiment, though the slightly lower scores for frequency of use and preference over traditional shopping may indicate minor areas where adoption could be further encouraged.

**Table 3: Awareness Distribution**

Awareness	Frequency	Percentage
Yes	150	75%
No	50	25%

### Interpretation:

- A significant majority of respondents are aware of Quick Commerce services, indicating a strong market presence in Surat.
- However, 50 respondents remain unaware, highlighting a notable portion of the population that could be targeted through awareness campaigns to boost adoption.

### Spearman Rank Correlation Analysis

To test the relationship between perceived convenience and adoption of Q-commerce, a Spearman rank correlation test was conducted.

**Null Hypothesis (H<sub>0</sub>):** There is no significant correlation between perceived convenience and Quick Commerce adoption.

**Alternative Hypothesis (H<sub>1</sub>):** There is a significant correlation between perceived convenience and Q-commerce adoption.

**Table 4: Correlation Between Convenience and Adoption**

Variables	Spearman's $\rho$	p-value
Perceived Convenience vs. Adoption	0.685	< 0.001

**Interpretation:**

- The Spearman rank correlation coefficient of 0.685 ( $p < 0.001$ ) indicates a strong positive relationship between perceived convenience and Quick Commerce adoption, leading to the rejection of the null hypothesis and supporting the alternative hypothesis that a significant correlation exists.
- The highly significant p-value with a 200-sample size confirms the robustness of this correlation, suggesting that higher perceived convenience is a key driver of Q-commerce adoption among consumers in Surat.

**Independent T-Test Analysis**

To determine whether awareness of Q-commerce platforms influences adoption behaviour, an independent t-test was conducted.

**Null Hypothesis (H<sub>0</sub>):** Awareness of Quick Commerce does not affect adoption behaviour.

**Alternative Hypothesis (H<sub>1</sub>):** Aware users adopt Quick Commerce more than unaware users.

**Table 5: Group Comparison (Aware vs. Unaware)**

Group	N	Mean (Adoption)	Std. Deviation	t-value	p-value
Aware	150	4.57	0.33	2.72	0.007
Unaware	50	4.42	0.38		

**Interpretation:**

- The independent t-test result indicates a significant difference in adoption behaviour,



with aware users adopting Quick Commerce more than unaware users, leading to the rejection of the null hypothesis and supporting the alternative hypothesis.

- The p-value of 0.007, below the 0.05 significance level, confirms that awareness has a statistically significant positive effect on adoption, though the effect size appears moderate given the close mean values.

## Findings

The study analysed the relationship between perceived convenience and the adoption of Quick Commerce services among consumers in Surat, as well as the influence of awareness on adoption behaviour, based on a survey of 200 respondents. The important findings are as follows:

### 1. Perceived Convenience and Quick Commerce Adoption:

A Spearman rank correlation analysis discovered a strong positive correlation between perceived convenience and Q-commerce adoption ( $\rho = 0.685$ ,  $p < 0.001$ ). This shows that higher perceived convenience meaningfully drives adoption behaviour, aligning with the view that ease of use, time-saving, and seamless transactions improve consumer engagement with digital platforms (Mukherjee & Malhotra, 2021). The high mean scores for convenience factors (ranging from 4.47 to 4.56) further underscore the positive perception among respondents.

### 2. Awareness and Quick Commerce Adoption:

An independent t-test demonstrated that aware users ( $M = 4.57$ ,  $SD = 0.33$ ) exhibit significantly higher adoption rates than unaware users ( $M = 4.42$ ,  $SD = 0.38$ ), with a t-value of 2.72 ( $p = 0.007$ ). This result supports the hypothesis that awareness positively influences adoption, consistent with prior research highlighting the role of awareness in driving acceptance of e-commerce services (Patil & Deshmukh, 2022). The awareness distribution (75% aware, 25% unaware) indicates a considerable market penetration with room for growth.

### 3. Consumer Attitudes Toward Quick Commerce:

Descriptive statistics revealed strong adoption intentions, with mean scores ranging from 4.53 to 4.56 across statements such as willingness to continue using and trust in Q-commerce platforms. This suggests a mature user base with high retention potential, reinforcing the findings of Singh et al. (2022) on the appeal of Q-commerce for time-

sensitive needs.

### **Conclusion:**

The study confirms that perceived convenience and awareness are key drivers of Quick Commerce adoption in Surat. The strong positive correlation ( $\rho = 0.685$ ,  $p < 0.001$ ) underscores the importance of convenience factors like daily service availability ( $M = 4.56$ ), aligning with Sharma and Verma (2021) on the role of convenience in e-commerce growth. The significant adoption difference between aware ( $M = 4.57$ ) and unaware ( $M = 4.42$ ) users ( $t = 2.72$ ,  $p = 0.007$ ) highlights awareness's impact, supporting Tiwari et al. (2023) on its influence on adoption. With 75% awareness, Q-commerce platforms should enhance logistics and marketing strategies to boost adoption further (Kumar et al., 2023; Mishra & Patel, 2023), though the high means (4.47–4.56) suggest a potential bias toward frequent users, necessitating careful generalization across broader populations.

### **Future Research Suggestions:**

- Investigate the impact of trust and service reliability on Q-commerce adoption to understand long-term retention factors, as emphasized by Kumar and Sharma (2022).
- Explore pricing strategies and their influence on adoption, addressing barriers for price-sensitive consumers, as highlighted by Bansal and Malhotra (2021).
- Examine sustainability concerns in Q-commerce logistics to align with emerging consumer values and industry challenges, as noted by Verma and Gupta (2022).

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