



# A Study on the Impact of Quick Commerce in Traditional and E-Commerce Businesses with Special Reference to Coimbatore District

Ms Mithuna R<sup>1</sup>, Bharath Vignesh L<sup>2</sup>

<sup>1</sup>Assistant Professor, Department of Commerce, Rathinam College of Arts and Science, Coimbatore-21  
M. Com CA, Department of Commerce, Rathinam College of Arts and Science, Coimbatore-21

**Abstract:** Quick Commerce (Q-Commerce), defined as the ultra-fast delivery of goods within 10 to 30 minutes of order placement, has emerged as a disruptive force reshaping the global retail landscape. In India, platforms such as Blinkit, Zepto, and Swiggy Instamart have expanded rapidly in urban and semi-urban markets, fundamentally altering consumer expectations around speed, convenience, and accessibility. This study investigates the impact of Q-Commerce on traditional brick-and-mortar retailers and conventional e-commerce platforms, with special reference to Coimbatore District, Tamil Nadu. Adopting a descriptive research design and a mixed-method approach, primary data were collected from 150 consumers and 50 retailers using structured questionnaires and retailer interview schedules. Cluster sampling was employed to ensure geographical representation across urban, semi-urban, and rural segments. Statistical tools including Percentage Analysis, Weighted Average Mean, Chi-Square Test, ANOVA, and Pearson's Correlation Coefficient were applied for data analysis. The findings reveal that Q-Commerce has achieved deep consumer adoption driven primarily by delivery speed and convenience, causing significant declines in customer footfall, daily sales volumes, and profit margins among traditional kirana stores. A strong positive correlation ( $r = +0.864$ ) was established between footfall decline and revenue erosion. While Q-Commerce and conventional e-commerce exhibit a largely complementary relationship through consumer behavioural segmentation, measurable competitive pressure on conventional platforms is intensifying. The study concludes with evidence-based recommendations for retailers, e-commerce operators, policymakers, and regulators to navigate the transformative and enduring impact of Q-Commerce on the Indian retail ecosystem.

**Keywords:** Quick Commerce, Traditional Retail, E-Commerce, Consumer Behaviour, Kirana Stores, Retail Disruption

## I. Introduction

The global retail landscape is undergoing a seismic transformation driven by the emergence of Quick Commerce (Q-Commerce), a business model that promises delivery of essential goods within 10 to 30 minutes of placing an order. This revolutionary concept has redefined consumer expectations around speed and convenience, fundamentally disrupting two well-established pillars of the commercial world: traditional brick-and-mortar retail and conventional e-commerce. Q-Commerce operates through strategically located dark stores, which are small micro-fulfilment centres placed within dense urban neighbourhoods, existing solely to fulfil online orders at unprecedented speed. Companies such as Blinkit and Zepto in India, Getir in Turkey, and GoPuff in the United States have pioneered this model, collectively attracting billions of dollars in venture capital and transforming urban consumer access to everyday necessities.



The growth trajectory of Q-Commerce has been extraordinary. The global market, valued at approximately USD 25 billion in 2021, is projected to surpass USD 72 billion by 2025, expanding at a compound annual growth rate exceeding 20%. The COVID-19 pandemic played a pivotal role in accelerating this growth, as lockdowns and movement restrictions compelled millions of consumers to rely on on-demand delivery services for the first time, with many retaining the behaviour long after restrictions were lifted. For traditional retailers, particularly small kirana stores that form the backbone of India's retail economy, Q-Commerce poses a direct threat by neutralising their core competitive advantage of proximity. Simultaneously, established e-commerce players have been compelled to rethink their logistics and pricing strategies to remain competitive in an increasingly speed-driven marketplace. This study examines the impact of Q-Commerce on traditional retail and e-commerce businesses in Coimbatore District to generate empirical, evidence-based insights for all retail stakeholders.

## **II. Statement of The Problem**

The retail industry is undergoing significant transformation with the rapid rise of Q-Commerce, which has fundamentally altered consumer expectations around speed and convenience, particularly among urban populations in the post-pandemic era. Traditional retailers, especially small kirana stores that form the backbone of India's retail economy, are losing customers to Q-Commerce platforms that offer faster delivery, better discounts, and seamless digital experiences that small shop owners cannot easily replicate. Simultaneously, established e-commerce players who built their models around 24-to-48-hour deliveries are being forced to rethink their entire logistics and pricing strategies to remain relevant. Despite the growing severity of this disruption, a significant gap exists in empirical research that simultaneously examines the impact of Q-Commerce on both retail segments, particularly from the perspective of Indian consumers and local retailers. This study therefore seeks to investigate the extent to which Q-Commerce is affecting the customer base, sales performance, and competitive positioning of traditional retail stores and conventional e-commerce businesses in Coimbatore District.

## **III. Objectives of The Study**

- To examine consumer awareness, usage, and key factors influencing the adoption of Q-Commerce.
- To assess the impact of Q-Commerce on traditional retail in terms of footfall, sales, and profitability.
- To analyse the effect of Q-Commerce on conventional e-commerce and consumer switching behaviour.
- To evaluate the future potential of Q-Commerce in shaping the retail market of Coimbatore District.

## **IV. Research Methodology**

The study adopts a descriptive research design, aiming to describe and analyse the current impact of Q-Commerce on traditional retail and e-commerce businesses based on the perceptions and experiences of consumers and retailers. A mixed-method approach is employed, integrating quantitative data collected



through a 5-point Likert scale structured questionnaire with qualitative insights drawn from retailer interviews and secondary sources. Cluster Sampling was employed, wherein the study area was geographically divided into distinct clusters including residential zones, commercial localities, and mixed-use urban neighbourhoods, from which clusters were randomly selected and all eligible respondents within those clusters surveyed.

The total sample size comprises 200 respondents: 150 consumers drawn from diverse demographic groups including students, salaried employees, business persons, professionals, and homemakers, and 50 retailers including kirana store owners, supermarket managers, and franchise operators. The study covers urban, semi-urban, and rural areas to ensure broad and representative coverage of respondents with varying levels of exposure to Q-Commerce platforms. Primary data were collected directly from consumers and retailers through structured questionnaires, while secondary data were sourced from academic journals, industry reports, company websites, and market research publications. Data were analysed using Percentage Analysis, Weighted Average Mean, Chi-Square Test, ANOVA, and Pearson's Correlation Coefficient ( $r$ ), enabling robust examination of relationships between key variables.

## **V. Scope of The Study**

The study covers the impact of Q-Commerce on both traditional brick-and-mortar retailers and conventional e-commerce platforms in Coimbatore District. It encompasses the perceptions and experiences of 150 consumers and 50 retailers across urban, semi-urban, and rural areas, covering major Q-Commerce platforms such as Blinkit, Zepto, Swiggy Instamart, and Dunzo, alongside e-commerce players including Amazon India and Flipkart. The study examines key dimensions of consumer behaviour including awareness, usage frequency, platform preference, and switching behaviour, while also assessing changes in retailer footfall, sales volume, profit margins, and price competition. The study further provides insights into the future trajectory of Q-Commerce in Coimbatore and its implications for retailers, e-commerce businesses, investors, and policymakers.

## **VI. Review of Literature**

Sharma and Gupta [1] found that delivery speed, product availability, and ease of app navigation are the three most significant factors driving Q-Commerce adoption among urban consumers in India, with younger consumers aged 18 to 35 identified as the most active users. Patel and Singh [2] documented a significant decline in customer footfall and daily sales volumes among kirana retailers in urban Maharashtra directly attributable to Q-Commerce penetration. Kumar and Reddy [3] established that consumers tend to use Q-Commerce for urgent and low-value purchases while preferring conventional e-commerce for planned and high-value transactions, highlighting a behavioural segmentation strategy.



Mehta and Joshi [4] concluded that Q-Commerce has fundamentally altered consumer expectations around delivery timelines, forcing major e-commerce platforms to invest heavily in rapid delivery infrastructure. Verma and Chauhan [5] identified that the strategic placement of dark stores within a 2-to-3-kilometre radius of high-density residential areas is the single most critical operational factor in achieving 10-to-30-minute delivery commitments. Iyer and Krishnamurthy [8] found that convenience and time-saving are rated as the most valued attributes of Q-Commerce grocery services, particularly among working professionals and dual-income households in South Indian cities including Chennai.

Balasubramanian and Sundaram [10] identified limited digital literacy, lack of smartphone proficiency, and insufficient financial resources as the primary barriers preventing traditional kirana retailers in Tamil Nadu from transitioning to digital or hybrid retail models, strongly recommending government-led digital training programmes. Nair and Pillai [7] established that COVID-19 lockdowns significantly increased first-time Q-Commerce usage, with a large proportion of new users retaining the behaviour post-pandemic, constituting a permanent structural shift. Fernandez and D'Souza [28] found that perceived reliability of delivery promises, product authenticity assurance, and data privacy concerns are the most significant trust-related barriers to Q-Commerce adoption in tier-2 cities such as Coimbatore, recommending localized trust-building strategies.

Krishnan and Balaji [23] observed that while delivery speed satisfaction is uniformly high among Q-Commerce users in Chennai, consumer dissatisfaction with product substitutions, occasional stockouts, and limited product variety remains a recurring concern. Anand and Srivastava [34] projected that escalating operational costs, funding pressures, and the need for economies of scale are driving Q-Commerce market consolidation, with the surviving platforms likely to permanently reshape Indian retail in the coming decade. The research gap identified across the literature is the absence of studies that simultaneously analyse Q-Commerce's impact on both traditional retail and e-commerce within a single integrated framework applicable to the Coimbatore District context.

## **VII. Results**

The study collected and analysed data from 150 consumers and 50 retailers across Coimbatore District. Among consumer respondents, 62% fell within the 21-to-30-year age group, confirming younger urban consumers as the primary Q-Commerce adopters. A significant majority (74%) of consumers reported being fully aware of 10-to-30-minute delivery services offered by platforms such as Blinkit and Zepto. Weighted Average Mean (WM) scores for Section B (Awareness and Usage) ranged from 3.72 to 4.38, indicating strong agreement that Q-Commerce apps are more convenient than traditional stores (WM = 4.38) and that delivery speed significantly influences platform choice (WM = 4.21).



Chi-Square analysis confirmed a statistically significant association between age group and frequency of Q-Commerce usage ( $\chi^2 = 18.43$ ,  $df = 8$ ,  $p < 0.05$ ), establishing that younger and higher-income consumers are disproportionately higher-frequency Q-Commerce users. ANOVA results indicated significant differences in Q-Commerce usage frequency across urban, semi-urban, and rural consumer groups ( $F = 14.72$ ,  $p < 0.001$ ), with urban consumers exhibiting markedly higher adoption rates. Among retailers, 84% reported a decline in customer footfall, 78% reported reduced daily sales volumes, and 72% reported compressed profit margins attributed to Q-Commerce competition. Pearson's Correlation analysis established a very strong positive correlation ( $r = +0.864$ ,  $p < 0.01$ ) between the degree of footfall decline and the magnitude of revenue erosion among traditional retailers, confirming that reduced consumer visits translate directly and proportionally into financial losses.

Regarding conventional e-commerce, Weighted Average Mean analysis of Section D confirmed strong consumer preference for Q-Commerce for urgent purchases ( $WM = 4.19$ ) while conventional e-commerce was preferred for bulk and comparison-driven transactions ( $WM = 4.02$ ). Consumer switching behaviour analysis revealed that delivery speed ( $WM = 4.31$ ) and pricing discounts ( $WM = 4.09$ ) are the strongest determinants of platform switching, while return policies ( $WM = 3.74$ ) and loyalty programmes ( $WM = 3.82$ ) exert moderate influence. A near-universal consumer expectation that Q-Commerce will dominate the future retail market was evidenced by a high weighted mean score of 4.44 on the future dominance perception statement, supported by strong retailer concurrence ( $WM = 4.29$  for the perception of Q-Commerce as a major competitive threat).

## VIII. Discussion

The findings reveal a retail ecosystem in profound transformation in Coimbatore District, consistent with national trends. Deep Q-Commerce adoption among younger urban consumers confirms the structural, non-cyclical nature of this shift, as delivery speed has become the primary reference standard for retail convenience. The very strong correlation between footfall decline and revenue erosion ( $r = +0.864$ ) quantifies Q-Commerce disruption with empirical precision, translating reduced consumer visits directly into the financial precarity of kirana stores operating on already thin margins.

Notably, Q-Commerce and conventional e-commerce occupy largely complementary rather than purely competitive positions. Consumers have developed a rational segmentation strategy, reserving Q-Commerce for urgent, low-value purchases while retaining e-commerce for planned, high-value, comparison-driven transactions. This suggests Q-Commerce is expanding the total addressable market of digital retail rather than merely cannibalising existing demand, though measurable competitive pressure on e-commerce is building. The ANOVA-confirmed urban-rural disparity in adoption indicates that while disruption is



currently concentrated in urban Coimbatore, the semi-urban expansion trajectory demands proactive responses from retailers and regulators alike.

Finally, retailer concerns around the inability to match venture-capital-subsidised Q-Commerce pricing underscore the structural asymmetry between incumbent small retailers and well-funded digital platforms. The near-universal expectation that Q-Commerce will consolidate its dominant market position signals that adaptive strategies are an urgent imperative, not a future consideration.

### **IX. Implications to Society**

The rapid growth of Q-Commerce carries far-reaching societal implications extending well beyond the commercial transaction. The displacement of traditional kirana stores threatens not only livelihoods but also neighbourhood social fabric, as kirana stores have historically served community functions including informal credit provision and social bonding that digital platforms cannot replicate. For millions of low-income urban households, the kirana store represents an informal financial safety net, and its displacement by prepaid digital platforms risks eroding consumption-smoothing mechanisms for the urban poor, with direct implications for food security.

Q-Commerce's gig economy labour model raises serious questions of social equity, as delivery partners operate without formal employment protections, creating vulnerabilities in earnings stability, accident coverage, and long-term social security. Simultaneously, the environmental costs of high-frequency, single-item deliveries, including carbon emissions, packaging waste, and urban traffic congestion, represent externalities the current business model does not adequately internalise. While Q-Commerce has generated new employment for delivery partners and dark store workers, this employment is often more precarious than the stable retail livelihoods it displaces, warranting ongoing policy monitoring.

Policymakers must develop comprehensive frameworks that capture Q-Commerce's social benefits while equitably distributing its costs through digital skilling programmes for small retailers, social security mandates for gig workers, and environmental compliance requirements for platforms.

### **X. Conclusion**

This study has undertaken a comprehensive empirical investigation into the impact of Quick Commerce on traditional retail and e-commerce businesses in Coimbatore District, India. The evidence is unequivocal: Q-Commerce has achieved deep and habitual adoption among urban consumers, causing measurable and severe financial disruption to traditional kirana stores while creating a largely complementary but increasingly competitive dynamic with conventional e-commerce platforms. The statistically confirmed relationships between Q-Commerce adoption and traditional retail decline, quantified through Chi-Square, ANOVA,



Weighted Average Mean, and Pearson's Correlation analyses, provide a robust empirical foundation for understanding the magnitude and directionality of this disruption in the Indian retail context. For traditional retailers, the findings demand urgent adaptive strategies including digital adoption, cooperative retail formation, and engagement with the Government's Open Network for Digital Commerce (ONDC).

For conventional e-commerce platforms, investment in rapid delivery infrastructure and service differentiation through product depth and superior return policies offer the most viable competitive responses. For policymakers, the study highlights the imperative of developing a dedicated regulatory framework for Q-Commerce covering food safety standards for dark stores, gig worker social security, anti-competitive pricing surveillance, and equitable taxation to level the competitive playing field. Q-Commerce is not merely a commercial phenomenon but a social, economic, and environmental force whose full implications extend across employment, financial inclusion, urban planning, and environmental sustainability. Navigating this transformation wisely, ensuring that its benefits are broadly shared and its costs are fairly distributed, represents the defining retail policy challenge for Coimbatore District and for India in the decade ahead.

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