

“QUICK COMMERCE IN EMERGING MARKETS: A STUDY OF SUSTAINABILITY, EFFICIENCY, AND CUSTOMER EXPERIENCE IN COIMBATORE”

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Abstract

Quick commerce (Q-commerce) has emerged as a transformative model in the retail ecosystem, particularly in emerging markets where urbanization and digital adoption are rapidly increasing. This study examines the dynamics of quick commerce in Coimbatore, focusing on three critical dimensions: sustainability, operational efficiency, and customer experience. The research explores how Q-commerce platforms are reshaping last-mile delivery, consumer expectations, and environmental concerns. Using a descriptive and analytical approach, the study highlights the challenges and opportunities associated with rapid delivery systems. The findings indicate that while Q-commerce enhances convenience and speed, it raises concerns regarding environmental sustainability and operational costs. The paper contributes to the growing literature on digital retail innovation in emerging markets.

Keywords: Quick Commerce, Sustainability, Customer Experience, Efficiency, Emerging Markets, Coimbatore

1. Introduction

The retail sector has experienced a profound transformation over the past decade, driven by rapid advancements in digital technology, increasing internet penetration, and changing consumer lifestyles. The integration of smartphones, digital payment systems, and app-based services has significantly altered the way consumers interact with markets. As a result, traditional brick-and-mortar retailing has gradually evolved into e-commerce, and more recently into quick commerce (Q-commerce), which represents the next phase of digital retail innovation. Quick commerce refers to a hyperlocal, technology-enabled delivery model that ensures products are delivered to customers within a very short time frame, typically ranging from 10 to 30 minutes. This model is built on the principles of speed, proximity, and efficiency, supported by strategically located dark stores, real-time inventory systems, and advanced logistics

networks. Unlike conventional e-commerce platforms that prioritize product variety and cost efficiency, Q-commerce focuses on immediacy and convenience, catering to time-sensitive consumer needs. In the context of emerging markets such as India, the growth of Q-commerce has been particularly remarkable. Factors such as rapid urbanization, increased disposable income, and widespread adoption of digital technologies have contributed to the expansion of this model. Cities like Coimbatore, known for their industrial development and growing urban population, have become important hubs for digital consumption. The shift in consumer behavior, especially among young and working populations, has led to a strong preference for on-demand services that save time and effort. Moreover, the COVID-19 pandemic played a crucial role in accelerating the adoption of online and quick commerce platforms. During this period, consumers increasingly relied on digital channels for essential goods, thereby strengthening trust in app-based delivery systems. Even after the pandemic, the habit of ordering groceries, personal care items, and daily essentials online has continued to grow, reinforcing the relevance of Q-commerce in everyday life. Despite its rapid expansion and growing popularity, quick commerce presents several challenges that require careful examination. One of the primary concerns is sustainability. The promise of ultra-fast delivery often results in increased delivery frequency, higher fuel consumption, and excessive packaging waste, raising questions about the environmental impact of such models. In addition, maintaining operational efficiency in Q-commerce is complex, as companies must balance speed with cost-effectiveness, workforce management, and supply chain optimization. Customer experience is another critical dimension that determines the success of Q-commerce platforms. While consumers appreciate fast delivery and convenience, their overall satisfaction is influenced by factors such as product availability, pricing, service reliability, and user-friendly interfaces. Any disruption in these aspects can affect customer trust and long-term loyalty.

2. Review of Literature

- In the context of emerging markets such as India, **KPMG India (2022)** reported that rapid urbanization, increased smartphone penetration, and digital payment adoption have significantly accelerated the growth of Q-commerce platforms. The report highlights that tier-2 cities are becoming important growth centers due to rising digital awareness and changing lifestyles.
- The evolution of quick commerce (Q-commerce) can be understood as an advanced stage of e-commerce, driven by technological innovation and changing consumer expectations. **According to Laudon and Traver (2021)**, digital commerce has progressively shifted from focusing on product variety and cost efficiency to prioritizing speed and convenience, laying the foundation for the emergence of rapid delivery models such as Q-commerce.
- In recent years, **Vakulenko, Hellstrom, and Hjort (2019)** examined the concept of hyperlocal logistics and identified it as a key enabler of rapid delivery services. The authors argue that the

integration of technology with logistics infrastructure allows firms to meet the increasing demand for instant delivery, especially in urban markets.

3. Objectives of the Study

1. To analyze the growth and adoption of quick commerce in Coimbatore
2. To assess operational efficiency in quick commerce delivery systems
3. To examine customer experience and satisfaction levels

4. Research Methodology

This study adopts a descriptive research design. Both primary and secondary data sources are utilized.

- **Primary Data:** Collected through structured questionnaires from consumers using Q-commerce services in Coimbatore
- **Secondary Data:** Sourced from journals, reports, company publications, and online databases
- **Sampling Method:** Convenience sampling
- **Sample Size:** 125 respondents
- **Tools Used:** Percentage analysis, Likert scale analysis, and simple statistical techniques

5. Quick Commerce in Coimbatore: An Overview

Coimbatore, known for its growing urban population and industrial base, has become a fertile ground for Q-commerce expansion. Several platforms operate through dark stores and micro-fulfillment centers to ensure rapid delivery. The increasing demand for groceries, personal care products, and daily essentials has contributed to the popularity of these services. The presence of tech-savvy consumers and improved digital payment systems has further accelerated adoption. However, the market is still evolving, and sustainability concerns are becoming more prominent.

6. Sustainability in Quick Commerce

Sustainability is one of the most debated aspects of quick commerce. While the model provides convenience, it often leads to:

- Increased carbon footprint due to frequent deliveries
- Excessive use of packaging materials
- Higher energy consumption in warehouses

Some companies are attempting to adopt eco-friendly practices such as electric delivery vehicles, reusable packaging, and optimized delivery routes. However, these initiatives are still at a nascent stage in emerging markets like Coimbatore.

7. Operational Efficiency

Efficiency in Q-commerce is driven by: Advanced inventory management systems, Use of AI and data analytics, Strategic placement of dark stores In Coimbatore, companies have optimized delivery routes and reduced delivery time significantly. However, maintaining efficiency comes with high operational costs, including labor expenses and infrastructure investments.

8. Customer Experience

Customer experience is a key driver of Q-commerce success. The study identifies the following factors influencing customer satisfaction:

- Delivery speed
- Product availability
- Pricing and discounts
- Ease of app usage

Most consumers in Coimbatore prefer Q-commerce for its convenience and time-saving benefits. However, occasional delays, stock shortages, and pricing concerns affect overall satisfaction.

Table 1: Demographic Profile of Respondents

Particulars	Category	Frequency	Percentage (%)
Age	Below 25	40	32%
	25–35	55	44%
	Above 35	30	24%
Gender	Male	65	52%
	Female	60	48%
Occupation	Student	35	28%
	Employee	70	56%
	Business	20	16%

Table 2: Usage Pattern of Quick Commerce

Variable	Category	Frequency	Percentage (%)
Usage Frequency	Daily	30	24%
	Weekly	65	52%
	Occasionally	30	24%
Preferred Products	Groceries	70	56%
	Personal Care	30	24%
	Others	25	20%

Table 3: Customer Experience (Likert Scale Analysis)

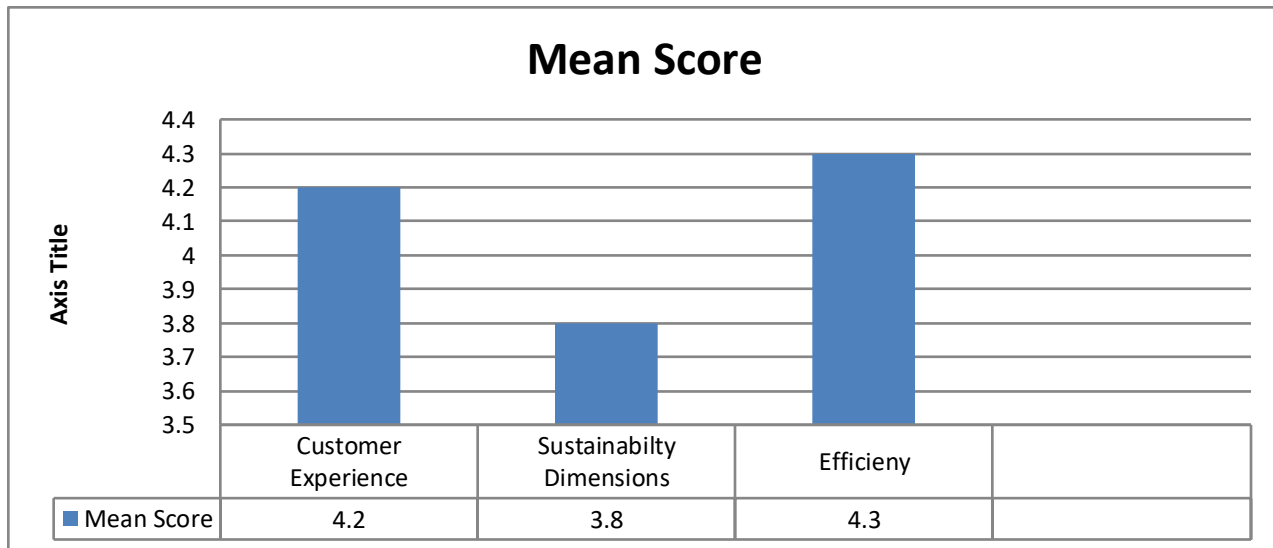
Statement	Mean Score	Interpretation
Quick delivery improves satisfaction	4.5	Highly Agree
App is easy to use	4.2	Agree
Pricing is reasonable	3.6	Moderate
Product availability is consistent	3.8	Agree
Overall satisfaction	4.3	Agree

Table 4: Sustainability Perception

Statement	Mean Score	Interpretation
Concern about environmental impact	4.1	Agree
Excess packaging is an issue	4.3	Highly Agree
Preference for eco-friendly delivery	4.4	Highly Agree
Companies follow sustainable practices	3.2	Neutral

Table 5: Operational Efficiency Analysis

Factor	Mean Score	Interpretation
Delivery speed	4.6	Excellent
Order accuracy	4.2	Good
Availability of products	3.9	Good
Delivery charges	3.5	Moderate



9. Findings of the Study

- Quick commerce is gaining rapid popularity among urban consumers
- Customers highly value speed and convenience
- Sustainability practices are limited and need improvement
- Operational efficiency is achieved but at a high cost
- Customer satisfaction is generally high but not consistent

10. Suggestions

Quick commerce firms should prioritize the adoption of green logistics practices to reduce environmental impact and ensure long-term sustainability. Investment in eco-friendly and recyclable packaging materials is essential to align with circular economy principles. Companies must enhance inventory accuracy through advanced technological systems to minimize stock-outs and improve service efficiency. The use of data-driven demand forecasting can further strengthen operational effectiveness. A balanced pricing strategy based on customer value perception is necessary to maintain loyalty while ensuring profitability. Improving last-mile delivery through route optimization can reduce costs and delivery time. Firms should also focus on enhancing customer experience by providing reliable and user-friendly digital platforms. Collaboration with local suppliers can improve supply chain responsiveness and resilience. Government support through subsidies and favorable policies can encourage the adoption of sustainable delivery practices. Overall, maintaining a balance between speed, efficiency, and sustainability is crucial for the long-term success of quick commerce.

11. Conclusion

Quick commerce has emerged as a transformative force in the retail landscape, particularly in emerging markets such as India, where digital adoption and changing consumer lifestyles are accelerating rapidly. In cities like Coimbatore, the growth of Q-commerce reflects a broader shift toward convenience-driven consumption, supported by technological advancements and evolving urban preferences. The ability of Q-commerce platforms to deliver products within minutes has significantly enhanced customer satisfaction and redefined expectations in the retail sector. However, the study highlights that this rapid growth is accompanied by several critical challenges. Sustainability concerns, including increased carbon emissions, excessive packaging waste, and higher energy consumption, pose significant risks to the environment. At the same time, maintaining operational efficiency while ensuring ultra-fast delivery involves high logistical costs, complex supply chain coordination, and workforce management issues. These factors create pressure on profitability and long-term viability. From a customer perspective, while convenience and speed remain the primary drivers of adoption, factors such as product availability, pricing, and service reliability play a crucial role in determining overall satisfaction and loyalty. Any inconsistency in these aspects can negatively impact consumer trust and retention. Therefore, Q-commerce firms must adopt a holistic approach that integrates operational excellence with customer-centric strategies.

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