The Impact of Quick Commerce on Family and Social Bonds

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1. Introduction

The quick commerce industry has seen tremendous growth recently by effectively catering to diverse customer needs. Consumers are highly attracted to the experience of receiving items instantly at their doorstep. Despite this staggering growth and significant influence on consumers, only a limited number of studies have explored quick commerce. As this model began to dominate the market, many e-commerce brands, initially reluctant to change their traditional online selling approach, were compelled to embrace quick commerce to remain competitive. This study examines the growth of quick commerce startups, analyzing both the benefits and challenges of the industry. Furthermore, it provides meaningful insight into the influence quick commerce has on the socio-economic and behavioral aspects of consumers and the general public today.

2. Objectives of the Study

1. To explore the growth of Quick Commerce apps and demand for instant delivery
2. To explore the impact of Quick Commerce apps specially on family and social bonds.
3. To provide some suggestions and recommendations on the issues related to Quick Commerce apps.

3. Research Methodology

Research Design

This study adopted a Quantitative Research Design to systematically investigate the relationship between the use of quick commerce applications and their perceived impact on family and social bonds. A descriptive and correlational approach was employed to gather numerical data that would allow for the statistical analysis of usage patterns (frequency, time spent) and respondents' self-reported changes in family interaction and social engagement. The design focused on documenting existing phenomena and relationships rather than manipulating variables.

Study Setting and Population

The study targeted users of quick commerce applications (e.g., grocery delivery, instant food delivery, pharmacy delivery) within urban households, students and working professionals, who actively use these services, thus making them relevant to the research objectives.

Sample Size and Sampling Technique

A total sample size of 421 respondents was obtained. The sampling technique used was Convenience Sampling, as the research instrument (Google Questionnaire) was distributed through digital channels (social media platforms, direct messaging) to facilitate rapid data collection from easily accessible participants.

Inclusion Criteria:

Must be an active user of at least one quick commerce application.

Must be over the age of 18 years.

Must be willing and able to provide informed consent and complete the questionnaire.

Data Collection Instrument: Google Questionnaire

The primary data collection instrument was a structured questionnaire designed and hosted using Google Forms. The questionnaire was divided into five main sections:

- Usage of Quick Commerce Platforms
- Economic Impact and Buying Behaviour
- Family Roles and Social Habits
- Perceptions and Cultural Impact
- Demographics

The instrument was pilot tested on a small group of 10 respondents to ensure clarity, flow, and the reliability of the measures. Based on the pilot results, minor modifications were made to the phrasing of ambiguous questions.

Data Collection and Analysis Procedure

The link to the Google Questionnaire was disseminated over a period of one week. The distribution strategy utilized popular digital communication platforms to reach the target demographic. An introductory paragraph explaining the purpose of the research, ensuring confidentiality, and providing instructions for completion was placed at the beginning of the form. Participation was entirely voluntary, and respondents were informed that submitting the form constituted their consent. Basic results from smart sample survey through google method were used.

4. **E-commerce** vs **quick commerce**

E-commerce and **quick commerce** represent two distinct online retail models, fundamentally differentiated by speed and product focus. E-commerce refers to the broader, traditional model, which typically delivers a wide variety of products over a period of days. In contrast, **quick commerce** (or q-commerce) focuses on **ultra-fast delivery** (usually within 10-30 minutes) of

limited, essential items, primarily utilizing a network of urban "dark stores." The core difference is their priority: e-commerce emphasizes **product selection** and flexible delivery, while quick commerce prioritizes **speed** and immediate convenience for urban consumers.

Quick commerce is a retail model centered on the extremely fast online delivery of products. While it initially grew out of restaurant delivery, the concept quickly expanded into categories like groceries and medicines. The COVID-19 pandemic significantly accelerated its growth due to lockdown restrictions. However, the true leap occurred when companies like Zepto around April 2021,introduced the promise of 10-minute grocery delivery. Competitors like Blinkit, Swiggy Instamart, and Big Basket swiftly adopted this instant delivery model, moving beyond basic groceries to offer an extensive variety of items. This expansion has challenged traditional e-commerce platforms, especially since quick commerce now delivers high-value goods like the newest iPhones and PlayStations. Reflecting this surging demand, the Indian Quick Commerce market, valued at an estimated USD 3.34 billion in 2024, is projected to reach USD 9.95 billion by 2029, showing a Compound Annual Growth Rate (CAGR) of over 4.5%. This growth is driving a significant rise in quick commerce startups

The quick commerce (q-comm) sector in India is projected to reach $3.35 billion in revenue in 2024, according to Statista. This growth has fundamentally changed consumer behavior, driving a preference for instant gratification. During major festive seasons, e-commerce companies have been compelled to shorten their delivery times to compete with the speed of q-comm services.

A key difference between the two models is in purchasing habits: traditional e-commerce customers typically make larger, less frequent purchases, while quick commerce users opt for smaller, more frequent buys. This shift is prompting q-comm providers to introduce special festive deals and expand their product ranges.

The market's growth is largely attributable to changing consumer preferences, where convenience is now paramount. Quick commerce has successfully identified and filled this consumer need. As one expert stated, q-comm services now cater to virtually every consumer requirement, spanning everything from groceries and stationery to clothing and even gold during the festive period. In recent days, the development of internet paved the way for the expansion of online food services by allowing persons to search for, compare prices, and conveniently access these services. Online ordering is becoming more and more of a must-have feature in the restaurant industry. The food industry has been swept up by online ordering. Technology has had a hidden impact on the business world; it has changed the entire framework of the restaurant industry, and it will continue to do so. A technologically sophisticated online meal ordering system has drastically transformed the restaurant's culture and provided consumers all over the world with a new comfort zone. [i]

No doubt that now both Amazon and Flipkart are involved in quick commerce. Flipkart has a dedicated quick commerce service called Flipkart Minutes and Amazon offers fast delivery through Amazon Fresh.

Flipkart Minutes: Flipkart entered the quick commerce market with Flipkart Minutes, which aims to deliver products like groceries and essentials within 10 minutes in certain cities. It leverages the company's existing infrastructure to fulfill orders quickly.

Amazon Fresh and Amazon Now: Amazon's quick commerce offerings include Amazon Fresh for grocery delivery and the newer Amazon Now service, which offers 10-minute deliveries in specific areas. Both companies are actively expanding their quick commerce operations in India, recognizing the growing user base and market potential in the sector[ii]

Table -1

Feature	**Quick Commerce**	**E-commerce**
Delivery Time	Ultra-fast (10-30 minutes)	Standard (1-3 days)
Product Range	Limited, essential items (groceries, medicine)*but now sky may be the limit	Wide variety (electronics, clothes, furniture)
Fulfillment Model	Hyper-local "dark stores" or micro-fulfillment centers	Large, centralized warehouses
Customer Focus	Urban, time-sensitive customers prioritizing speed	Broad customer base prioritizing variety and price
Delivery Cost	Higher, due to rapid delivery	Lower, sometimes free, due to large volume

Rohan Mehta, CEO of FCB Kinnect and FCB/SIX India, suggests that the quick commerce sector is currently experiencing a period of simultaneous expansion. He anticipates that for the next 15 to 24 months, these quick commerce companies will continue to grow together without being in direct, fierce competition with one another. Instead, their primary focus is on challenging traditional local kirana stores as they collectively work to solidify and expand their new retail category.

Mehta further highlights the significant investment fueling this growth. In 2023, quick commerce platforms collectively spent between ₹1,000 to ₹1,200 crore on advertising. He projects that this massive ad spend will increase sharply, likely by 30% to 70% in the current fiscal year. To achieve their ambitious growth targets, these companies are aggressively investing in diverse marketing strategies, including:

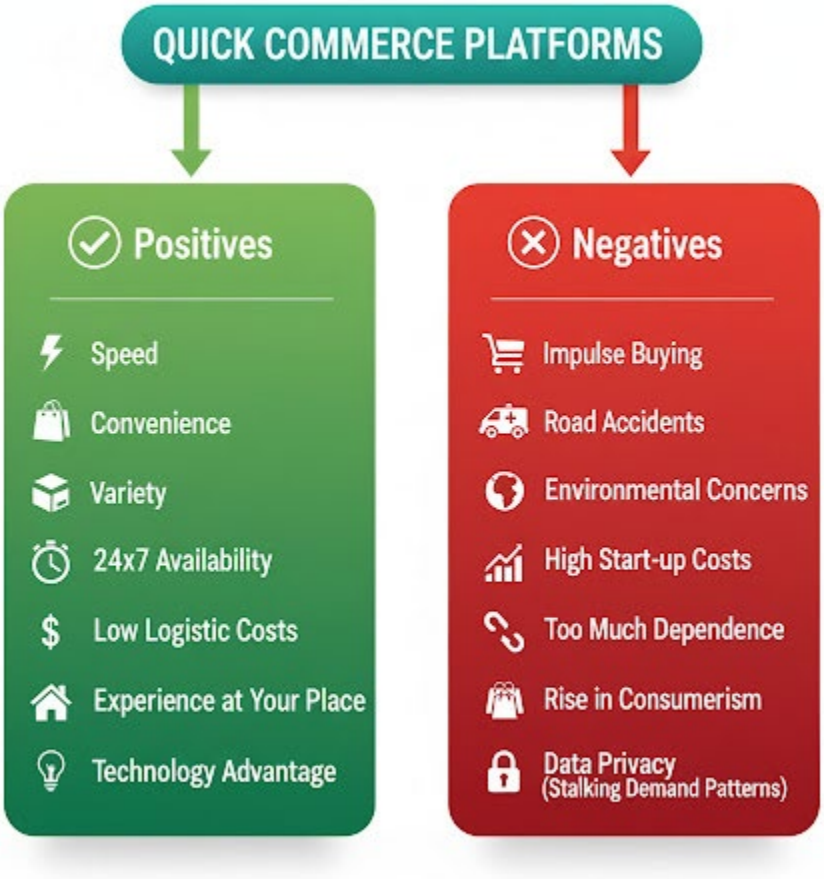
Targeted digital and Out-of-Home (OOH) campaigns.

High-profile partnerships with leading celebrities.

Special activations centered around festive seasons.

In short, these players are utilizing every available tool to aggressively capture market share

Fast delivery apps are reshaping society, bringing a mix of benefits and drawbacks across several areas as shown in diagram below:



5. **Benefits of Quick Commerce**

The quick commerce (Q-commerce) model is built around a powerful set of competitive advantages that appeal to the modern urban consumer. These benefits are primarily driven by advanced technology and hyper-local logistics.

Speed (Ultra-Fast Delivery)

This is the core Unique Selling Proposition (USP) of quick commerce. It promises and delivers goods in minutes (typically 10 to 30 minutes). This speed is achieved by using strategically located micro-warehouses (known as **dark stores**) that are placed within a 2-3 km radius of the target customer base. This drastically cuts down the last-mile delivery distance. It allows consumers to fulfill urgent, unplanned, or immediate needs (e.g., a forgotten ingredient, a specific medicine, a household item needed *now*), transforming the way people shop for essentials.

Convenience (Effortless Ordering)

Quick commerce offers unparalleled ease of purchase, enabling customers to order essentials without leaving their homes. The entire process is designed for a mobile-first, friction-free experience. User-friendly interfaces with easy navigation and few clicks to check out. Instant access eliminates the need to travel, queue, or browse extensive aisles, saving significant customer time and effort. It aligns perfectly with modern, busy urban lifestyles, making it the default option for time-poor customers.

Variety (Curated Selection for Urgent Needs)

While quick commerce inventory is smaller than a traditional supermarket, it offers a *curated* and *relevant* variety of high-demand items specifically tailored for urgent, small orders. Dark stores stock a focused range (typically 2,000 to 4,000 SKUs) of Fast-Moving Consumer Goods (FMCG), groceries, fresh produce, and essentials. This selection is optimized based on local demand patterns and real-time sales data. Consumers can rely on the platform to have the most popular and necessary items always in stock, minimizing frustration from out-of-stock situations for common products.

24x7 Availability

Many quick commerce platforms, especially in high-density urban markets, operate around the clock. Unlike brick-and-mortar stores with fixed operating hours, dark stores can be staffed to fulfill orders 24 hours a day. This flexibility is powered by their dedicated, non-public-facing nature. It provides essential access for individuals with irregular schedules or those needing urgent supplies late at night or early in the morning, which traditional retail cannot offer.

Low Logistic Costs (Hyperlocal Advantage)

While overall operational costs are high, Q-commerce achieves lower last-mile delivery costs per kilometer compared to traditional e-commerce by minimizing travel distance. Orders travel a very short distance (1-3 km) from the dark store to the customer, dramatically reducing fuel consumption and rider time per trip compared to centralized warehouse models. Advanced algorithms ensure riders take the fastest, most efficient route, minimizing time and cost spent in urban traffic. This benefit must be balanced against the high fixed costs of operating a dense network of dark stores in high-rent urban areas.

Experience at Your Place (Seamless User Journey)

Quick commerce extends the shopping experience from the screen directly to the customer's doorstep in minutes, focusing entirely on a seamless transaction. The process is entirely optimized for speed and transparency. Customers can track the rider and the Estimated Time of Arrival (ETA) instantly, providing certainty and trust. The feeling of ordering an item and seeing it arrive almost instantly creates a highly satisfying customer experience and encourages repeat business. It creates a "zero-effort" shopping ritual, transforming an everyday chore into an instant service.

Technology Advantage (AI and Automation)

The entire Q-commerce model is impossible without the extensive application of modern technology, which provides a strong competitive mode. Advanced systems monitor inventory levels across all dark stores instantly, preventing sales of out-of-stock items and ensuring rapid replenishment. AI and machine learning analyze trends, weather, local events, and historical data to accurately predict which products will be needed, preventing waste and ensuring the right stock is in the right dark store. Sophisticated software calculates the optimal path for the delivery rider in real-time, considering traffic, road closures, and multiple orders.This tech stack ensures the core promise of speed and reliability is consistently met, driving operational efficiency.

6. Concerns and Drawbacks of Quick Commerce

The concerns and drawbacks of quick commerce (Q-commerce) are significant and largely stem from the high-pressure, high-cost environment required to deliver goods at ultra-fast speeds. These issues affect businesses, consumers, and society as a whole.

Impulse Buying

Q-commerce apps are designed for frictionless, rapid transactions, which aggressively facilitates and encourages **impulse purchasing**. The instant gratification and accessibility (a few taps on a phone) reduce the time available for thoughtful decision-making, leading consumers to frequently buy items they don't immediately need or wouldn't have purchased otherwise. This drives **higher consumer expenditure** and contributes to overconsumption, which has economic implications for the consumer (budget strain) and environmental implications (increased waste). The speed of delivery is linked to consuming more unhealthy, processed foods and can contribute to obesity and other health issues. There's also a loss of the emotional connection with food when the entire process of cooking is skipped. Therefore, easy access to food can contribute to **poor nutrition** and encourage **sedentary lifestyles**.[iii]

Road Accidents (Safety Concerns for Riders)

The core business promise of ultra-fast delivery (e.g., 10-30 minutes) places intense pressure on delivery riders to complete routes quickly, often leading to unsafe practices. Riders may feel compelled to ignore traffic rules, speed, or drive recklessly to meet strict delivery deadlines and performance metrics imposed by the platform. Furthermore, long shifts and fatigue exacerbate this risk. This results in a higher incidence of **road accidents**, causing injury or death to the

riders themselves, and increasing the risk for other pedestrians and drivers in densely populated urban areas. This is a major ethical and societal drawback of the model.

Environment Concerns

The increased frequency of deliveries contributes to **environmental harm** through higher emissions and greater packaging waste. Fast delivery models can lead to more vehicles on the road with lower occupancy, resulting in higher greenhouse gas emissions, particularly from "last-mile" delivery. The growth of these services can contribute to a rise in single-use plastics and non-biodegradable packaging waste.

The logistics model of Q-commerce is inherently resource-intensive and contributes significantly to pollution and waste. The high frequency of short-distance, low-volume deliveries, often using petrol-powered scooters or bikes, increases the total carbon emissions and contributes to traffic congestion in cities. Each small, individual order requires its own packaging (bags, containers), resulting in a substantial increase in single-use plastic and cardboard waste compared to consolidating items in a single weekly grocery trip. It undermines broader sustainability efforts and increases the environmental footprint of daily commerce.

High Start-Up Costs (High Operational Costs)

Establishing a functional quick commerce network requires massive upfront capital and sustained investment, leading to financially challenging economics. High costs for acquiring and maintaining a dense network of **dark stores** in expensive, strategically located urban areas. Significant investment in fleet acquisition, rider recruitment, sophisticated AI/ML technology for routing, and inventory management systems. Companies often heavily **subsidize** delivery fees and product costs to gain market share, further escalating cash burn. This makes the business model difficult to sustain long-term and often requires continuous external funding, making profitability elusive.

Too Much Dependence (Market Concentration & Monoculture)

Consumers and, to some extent, suppliers can become overly reliant on a few large Q-commerce platforms. There is a decrease in demand for local grocery stores, and people are spending less time engaged with local shops. The sheer convenience and aggressive pricing of the dominant players can force out competition (like smaller, traditional local shops) and solidify a market concentration among a few large firms. This dependence can give the platforms undue power to dictate prices and conditions, potentially leading to increased costs for consumers later, reduced choices for customers, and a loss of local economic diversity.

Rise in Consumerism

Q-commerce not only encourages impulse buying but fundamentally changes the consumer mindset toward immediate material acquisition. It breaks down the natural friction points (travel, queuing) that typically restrain consumption, making the purchase process instantaneous and almost thoughtless. It turns buying everyday items into a form of instant entertainment or relief. It fuels a broader societal culture of **overconsumption** and instant

gratification, potentially leading to decreased personal savings and increased environmental burden from manufacturing and disposal.

Data Privacy

The Q-commerce model is entirely reliant on collecting and analyzing vast amounts of customer data to optimize its services.

Platforms track:

Order History: Detailed records of every purchase, frequency, and quantity.

Location Data: Real-time and historical location data to optimize dark store placement and delivery routes.

Behavioral Data: How consumers browse and react to different promotions.

This aggregation of highly personal data raises significant privacy concerns. If data security is compromised, it could expose sensitive consumer habits and location patterns. Furthermore, the use of this data for hyper-targeted marketing can feel intrusive.

Workforce and business impacts

Workforce Challenges: The platforms create difficult working conditions for delivery riders, who often face intense **pressure** and significant **safety risks** while on the job.

Challenges for Delivery Riders

The convenience delivered to customers often comes at a cost to the **delivery riders**, who operate under a business model known as the **gig economy**.

- **Safety Risks and Pressure:** Delivery riders often face immense pressure to meet tight deadlines to deliver quickly, which often leads them to ignore **potential risks** on the road, increasing the likelihood of accidents. They are also exposed to weather extremes and the general dangers of traffic.
- **Lack of Employment Benefits:** Because riders are typically classified as independent contractors rather than employees, they are excluded from crucial employment protections and benefits, such as:

  Minimum wage guarantees.

  Health insurance contributions.

  Paid sick leave or vacation time.

  Employer-provided social security/pension benefits.
- **Precarity and Income Volatility:** Income can be highly volatile, dependent on demand, surge pricing, and app algorithms. This creates job precarity and difficulty in financial planning. They also bear the full costs of their equipment (bike/scooter maintenance, fuel, and data plan).

Challenges to Traditional Business

- **High Commission Fees:** The most significant challenge is the high commission rates—often ranging from 15% to 30%—that apps charge per order. These fees cut deeply into the already thin profit margins of restaurants and retailers. While the apps increase sales volume, the reduced margin can make growth unsustainable.
- **Loss of Customer Data:** When customers order through an app, the business loses the direct customer relationship and valuable data (like order history, preferences, and contact information) to the platform. This makes it harder for the local business to run targeted marketing or build loyalty without relying on the app.
- **Pricing Pressure and Standardization:** Apps push for consistency and often pressure businesses to offer discounts, which can lead to price wars that small operators struggle to sustain. They can also force smaller, more unique businesses to conform to the platform's standardized processes
- **Restaurant struggles:** Restaurants, particularly smaller ones, can face challenges due to high commission fees and other charges, which reduce their profit margins.

Market concentration: Fast delivery apps fundamentally change the relationship between customers and local businesses, often creating a tough environment for smaller, independent establishments. Some apps use tactics like selective price cuts to gain market share, which can make it difficult for new businesses to enter the market. These issues highlight the trade-off between the undeniable **convenience** of fast delivery and the less visible **societal costs** borne by local entrepreneurs and the workers who make the system function.

7. The Impact of Quick Commerce on Family and Social Bonds

1. Family Bonds and Shared Activities

Quick commerce erodes traditional family bonding moments by replacing shared, external activities with individual, internal transactions. Traditional shopping for groceries (kirana shopping) or essentials was often a shared family outing or a task performed by household members together, facilitating communication and casual bonding outside the home. Q-commerce replaces this with a solitary digital transaction. The ease of instant ordering leads to "Islands of Consumption", where each family member (especially teenagers and young adults) can buy items based on immediate personal preference without consulting or coordinating with the rest of the family. This reduces the need for collective family planning and decision-making. Parents face a new challenge in balancing the convenience of instant fulfillment with the need to teach delayed gratification and patience to children whose every whim can be satisfied in minutes.

2. Emotional and Mental Connection with Family and Friends

The instant gratification model inherent in quick commerce can subtly undermine emotional connections and mental well-being. The constant availability and urgency cues ("Only 2 left!", countdown timers) exploit cognitive biases, promoting an impulsive and 'feel-and-react' model

of consumption over thoughtful, 'plan-and-execute' purchasing. Frequent engagement with instant gratification can be linked to higher impulsivity scores. Instant ordering removes the small, everyday emotional connection points where family members would discuss what to buy, compare quality, or delegate errands. This constant bypass of communication can lead to emotional distance. In urban centers, Q-commerce can become a mechanism for offsetting loneliness and alienation felt by migrants or individuals living alone. The instant fulfillment acts as a dopamine-centric reward loop, which can substitute for healthier, actual social or emotional engagement.

3. Basic Life Skills (Planning and Resourcefulness)

The "instant-fix" nature of Q-commerce can stunt the development of crucial life skills, particularly in younger generations. The guarantee of 10-minute delivery removes the necessity for meal planning, list-making, and resource management. Why plan for ingredients when you can order them instantly, a small amount at a time? This reliance weakens practical skills necessary for financial prudence and household management. By narrowing the distance between desire and fulfillment to mere minutes, Q-commerce normalizes impatience (temporal myopia). Users prioritize speed (delivery velocity) over rational economic considerations (monetary rationality), devaluing the process of waiting, searching, and managing resources efficiently. The ease of ordering and impulse-driven purchases encourages over-consumption and excess (e.g., ordering non-essential snacks frequently), making it harder for family members to distinguish between genuine needs and momentary wants.

4. Culture of Isolation and Reduced Social Interaction

Q-commerce contributes to an overall decrease in physical, community-level social engagement. Every transaction through Q-commerce is a missed opportunity for social interaction with the local community, such as the kirana store owner, vegetable vendors, or even neighbors one might encounter during a market visit. These micro-interactions are vital for maintaining neighborhood social fabric. By bringing almost everything—from groceries and medicines to gadgets and gifting items—to the doorstep instantly, the app encourages a home-centric and physically isolated lifestyle. This convenience reduces the need to leave the house, potentially fostering further isolation for urban residents.

5. Physical Movement and Activity

The ultimate convenience of Q-commerce directly reduces the need for physical activity associated with shopping and errands. The ability to order even one or two small, urgent items within minutes eliminates the need for any kind of physical movement (walking to the corner store, climbing stairs in a market, or even walking to the parking lot). This reinforcement of a sedentary lifestyle can contribute to public health issues. The substantial drop in footfall at local stores and markets, caused by Q-commerce, directly correlates with a reduction in everyday physical activity. This contributes to the overall rising challenges of lifestyle diseases.

8. **What if quick commerce services were unavailable suddenly, will the people be able to manage their lives**

As per the survey, the sudden unavailability of quick commerce (Q-commerce) apps would cause significant temporary disruption and frustration for a segment of the Indian urban population, but it would not lead to a collapse in their ability to manage their lives.

1. High Dependence, But Low Market Penetration (Overall)

The Affected Group: The most impacted group would be the urban, affluent, time-strapped consumers (e.g., young professionals, nuclear families in metro and Tier 1 cities) who have integrated Q-commerce into their daily routines for impulse buys and immediate needs (e.g., a packet of milk, late-night snacks, last-minute stationery). This group has a high reliance on the convenience, but they represent a fraction of the total population. The vast majority of India's population, particularly in Tier 2, Tier 3 cities, and rural areas, still rely on traditional shopping channels (local kirana stores, weekly markets, and longer-format e-commerce). For them, the services were never a necessity.

2. Immediate Alternatives Are Robust and Widespread

India's retail backbone is exceptionally resilient and provides immediate, non-app-dependent alternatives.

The Local Kirana Store: These are present on nearly every street corner. Before Q-commerce, many kiranas offered their own free, fast, hyperlocal delivery (often via phone call/WhatsApp) to known customers. People would immediately revert to this system.

Traditional E-commerce: Services like Amazon Fresh, BigBasket, and Flipkart still operate with next-day or same-day delivery. Consumers would shift their planned grocery and essential buying back to these platforms.

Physical Retail Supermarkets, Hypermarkets, and local vegetable/fruit vendors: These remain fully operational and are the primary source for fresh produce and bulk shopping.

Food Delivery Apps: The food delivery segment is distinct and would likely continue to function, fulfilling the need for instant ready-to-eat meals, though a subset of Q-commerce that deals with small restaurant orders might be affected.

3. Quick Commerce Solves "Impulse/Forgetfulness," Not "Survival"

Q-commerce is largely built on satisfying instant gratification and fixing mistakes (e.g., "I forgot milk for my tea," "I need a charger right now"). It is rarely the sole source of essential life-sustaining goods.

Necessity vs. Convenience: While Q-commerce is highly convenient, it is not fundamentally essential to the management of an Indian household, which is traditionally built on daily or weekly shopping cycles.

Reversion of Habits: People would quickly revert to pre-Q-commerce behaviors: planning grocery lists, making quick trips to the local shop, or simply doing without a non-essential item until the next planned trip.

The sudden disappearance of quick commerce apps would cause a jolt of inconvenience and force a rapid re-adoption of planning and physical movement for the urban demographic.

The initial days would be marked by:

Frustration and Chaos: Forgetting essential items and not having an instant fix would be annoying.

Increased Footfall and Phone Orders: Local kirana shops would see an immediate surge in foot traffic and phone/WhatsApp orders.

Return to Planning: Consumers would be forced to be more mindful of inventory and revert to weekly or bi-weekly planning for groceries, shifting demand to next-day e-commerce and physical stores. In short: Yes, people would absolutely be able to manage their lives. The challenge would be psychological—the loss of the convenience and instant gratification they have become accustomed to.

9. **Present reality with Path Ahead**

India's ultra-fast delivery sector is growing at an unprecedented pace. With the country projected to become the world's second-largest online shopping market—hosting nearly 500–600 million e-shoppers by 2030—rapid delivery has become an integral part of the modern Indian lifestyle. Consumers now expect convenience at their fingertips, and delivery platforms face the challenge of meeting that demand efficiently and sustainably. Many leading delivery firms in India are responding by making sustainability central to their operations. Zepto promotes eco-friendly practices through its 'No Bag Delivery' feature, which has already prevented the use of more than 90 million paper bags. Flipkart, the country's largest e-commerce player, aims to convert its last-mile delivery fleet entirely to electric vehicles (EVs) by 2030 and achieve net-zero emissions by 2040. The company also became free of single-use plastic packaging in its supply chain back in 2021. Zomato, one of India's biggest food delivery platforms, plans to transition completely to electric deliveries by 2030, and by late 2023, it had already onboarded around 33,000 EV-based delivery partners.

To enhance delivery efficiency while cutting emissions, these companies are rapidly expanding their networks of dark stores and micro-fulfilment centres (MFCs). These are small, strategically located storage hubs—often partially automated and not accessible to customers—that enable faster order processing and shorter delivery distances, thereby reducing carbon output.

This infrastructure is the backbone of India's instant delivery model, combining speed with lower environmental impact. According to The Economic Times, Flipkart's quick-commerce arm, Minutes, aims to open 800 dark stores by the end of 2025. Swiggy Instamart operates about

700 dark stores (as of December 2024), Zepto has reached 900 (as of January 2025), and Blinkit leads with over 1,000 such facilities across the country[iv]

India's delivery ecosystem is thus evolving towards a model where innovation, efficiency, and environmental responsibility go hand in hand—redefining convenience for a fast-changing consumer base.

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