

## Introduction

Quick commerce platforms like Zepto, Blinkit, and Swiggy Instamart have made instant deliveries the norm. But while they've mastered speed, trust, quality control, and financial stability for workers remain unresolved challenges.

Consumers frequently receive counterfeit cosmetics, expired medicines, and low-quality electronics, eroding trust in the platform. Additionally, pre-packaged grocery deliveries often contain poor-quality items, leading to high refund rates. On the workforce side, gig workers who power these platforms often face cash flow issues, as they are paid weekly but require funds daily for expenses such as fuel and maintenance.

A fintech-driven solution can address these gaps: blockchain-based product verification to eliminate counterfeits, AI-powered freshness tracking for groceries, and instant micro-credit for gig workers. This approach builds trust, improves efficiency, and enhances financial security across the quick commerce ecosystem.

## Problem Statement

The three major challenges facing quick commerce platforms today are:

1. **Counterfeit and Tampered Products:** The lack of a standardized product verification system allows fake or expired goods to enter the supply chain, damaging consumer trust and increasing refund rates.
2. **Poor Grocery Quality Control:** Since groceries are packed in opaque bags at dark stores, neither warehouse staff nor delivery agents can verify freshness before the items reach customers, resulting in complaints and product wastage.
3. **Cash Flow Issues for Gig Workers:** Delivery partners often struggle with day-to-day expenses such as fuel and bike maintenance, as they receive lump-sum payments weekly rather than having access to their earnings when needed.

## Proposed Solution

An AI-powered blockchain authentication system combined with freshness verification for groceries and a micro-credit facility for gig workers can collectively improve trust, quality control, and financial accessibility.

- 1. AI-Powered Product Authentication System -** To tackle counterfeit goods, a blockchain-based authentication system can be integrated into quick commerce platforms. Each product batch will have a unique QR code, allowing customers to verify product authenticity and track its supply chain history.

- a. Implementation -**

- i. Each product receives a unique digital identity stored on a blockchain ledger, ensuring transparency from the manufacturer to the customer.
- ii. Customers scan a QR code via the platform's app to check sourcing details, expiry dates, and potential tampering alerts.
- iii. An AI-powered image detection system allows customers and delivery agents to upload pictures of the product packaging, automatically flagging inconsistencies or damages.
- iv. If a counterfeit issue is detected, the system triggers automated refunds and seller blacklisting, reducing manual customer service intervention.

- b. Impact -**

- i. Enhances consumer trust and transparency in product sourcing.
- ii. Reduces refund claims due to counterfeit products, improving platform profitability.
- iii. Creates a new revenue stream for quick commerce platforms, as sellers can pay for product verification badges to improve credibility.

- 2. AI-Based Freshness Verification for Groceries -** To prevent customers from receiving poor-quality groceries, an AI-powered freshness verification system will be introduced.

- a. Implementation -**

- i. Transparent packaging for fresh groceries will allow warehouse staff and delivery partners to perform a visual inspection before dispatching items.
- ii. Customers can upload images of poor-quality groceries, and an AI model will assess spoilage indicators such as discoloration and mold.
- iii. The platform can automatically issue refunds for verified complaints while tracking seller quality scores.
- iv. Vendors with repeated quality complaints will be flagged, reducing the circulation of substandard products.

**b. Impact -**

- i. Reduces refund rates and grocery wastage, increasing operational efficiency.
- ii. Enhances customer satisfaction and trust by ensuring better quality control.
- iii. Encourages vendors to maintain high-quality produce, as repeated complaints will affect their platform ranking.

3. **AI-Powered Micro-Credit for Gig Workers -** To provide financial stability to delivery workers, a BNPL-style micro-credit system will be introduced, offering short-term credit for essential expenses such as fuel and bike maintenance.

**a. Implementation -**

- i. AI-based risk assessment models will analyze delivery history, reliability, and earnings consistency to offer personalized borrowing limits.
- ii. Riders can withdraw a portion of their expected earnings instantly instead of waiting for a weekly payout.
- iii. Repayments will be auto-deducted from their next payout, ensuring low-risk lending for platforms.

**b. Impact -**

- i. Provides gig workers with instant liquidity for daily expenses without reliance on payday loans.
- ii. Increases delivery partner retention, reducing attrition rates.
- iii. Strengthens financial inclusion by offering a sustainable credit model tailored to the gig economy.

## Why does this work?

1. **Financial automation:** AI-driven refunds and micro-credit ensure seamless, efficient financial transactions, with a low risk factor.
2. **Trust and fraud prevention:** The authentication system eliminates counterfeit products, strengthening consumer confidence in digital transactions.
3. **Scalable embedded finance opportunity:** The micro-credit feature introduces a fintech-driven revenue stream for quick commerce platforms while supporting gig economy workers.

## Conclusion

Quick commerce platforms have successfully solved the problem of delivery speed but continue to struggle with trust, quality control, and financial accessibility. By integrating AI-powered blockchain authentication, freshness verification, and embedded financial tools for gig workers, platforms can enhance customer trust, improve operational efficiency, and support financial inclusion, ensuring a secure and financially sustainable ecosystem.

### A document written for Branch International

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