

Cost Dynamics and Sustainability in India's Gig Economy: A Multi-Stakeholder Analysis of Platform Profitability and Worker Welfare

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Abstract—India's gig economy has expanded rapidly across mobility, delivery, logistics, and digital freelancing platforms. While these platforms promise flexibility and income opportunities, they also introduce structural vulnerabilities for workers and business partners. This study evaluates how leading gig-economy firms manage cost structures while addressing worker sustainability. A mixed-methods approach integrates secondary analysis of financial reports of Zomato, Blinkit, Uber, Rapido, Delhivery, Ekart, Fiverr and ONDC, along with primary survey data from 40 gig workers and 10 restaurant partners in Pune.

Findings reveal pronounced disparities: workers rely heavily on gig income, yet many lack basic social protection and face algorithmic pressures. Restaurants gain visibility but remain burdened by high commissions. Although platforms demonstrate strong revenue trajectories, profitability is often achieved through cost externalisation. The study proposes a multi-stakeholder sustainability framework focusing on portable benefits, graded commissions, algorithmic transparency, and improved regulatory governance. The paper highlights the urgent need for integrated reforms to ensure long-term sustainability and equitable value distribution in India's digital labour ecosystem.

Index Terms—Gig work, platform economics, cost dynamics, labour precarity, algorithmic management, sustainability models

I. Introduction

Digital platforms have reshaped India's service delivery ecosystem by enabling task-based, flexible labour arrangements. Food-delivery aggregators, ride-hailing companies, logistics networks, and freelance marketplaces provide modular earning opportunities, especially to youth and migrants. This growth is driven by smartphone penetration, urban consumption patterns, and low entry barriers.

India currently hosts an estimated **7.7 million gig workers**, projected to reach **23.5 million by 2029–30**, marking one of the world's fastest expansions. Despite this momentum, gig work is characterised by income volatility, high self-funded operating costs, and limited formal protections. Understanding the cost architecture of platforms and its implications for worker welfare is essential for ensuring sustainable digital labour markets. This study investigates these dimensions through a multi-stakeholder lens, evaluating workers, restaurant partners, and platform firms.

II. Review of Literature

Existing literature positions gig work as an outcome of platform capitalism, marked by flexibility alongside increasing precarity. Indian studies highlight legislative gaps, limited enforcement of the Social Security Code (2020), and the ambiguous legal status of platform workers. Global research identifies algorithmic performance management, rating-based dependency, venture-capital-driven scaling, and risk shifting from firms to contractors.

Scholars also highlight concerns related to resource dependency, information asymmetry, free-riding in shared labour pools, and environmental externalities of last-mile logistics. However, limited work integrates **cost efficiency**, **worker sustainability**, and **platform profitability** within a single analytical framework—an important gap this study addresses.

III. Research Objectives

1. To analyse direct and indirect cost components across selected gig platforms in India.
2. To examine operational constraints and sector-specific opportunities.
3. To assess worker participation patterns, income stability, and sustainability indicators.
4. To evaluate the incorporation of environmental, economic, and social sustainability measures within platform business models.

IV. Research Methodology

A **mixed-methods design** was adopted.

Primary Data

- **40 gig workers** (food delivery, mobility, logistics, freelancing)
- **10 restaurant partners**
- Data collected through structured questionnaires in Pune

Secondary Data

- Financial statements of Zomato, Blinkit, Uber, Rapido, Delhivery, Ekart, Fiverr, ONDC
- Industry and policy reports

Sampling was carried out using **stratified random sampling** to ensure representation across platform categories. Triangulation strengthened reliability and reduced self-reporting bias.

V. Results and Data Analysis

I. Worker-Level Analysis

Demographic and Economic Findings

- Majority aged 18–45
- 67.5% rely on gig income as their primary livelihood
- 65% work full-time
- Average monthly earnings ≈ ₹22,500
- Cab and food-delivery workers form the largest occupational groups

Table 1 Satisfaction, Cost Pressures and Social Protection

Indicator	Percentage (%)	Interpretation
Commissions considered unfair	52.5	Perception of inequitable value distribution
No social security coverage	47.5	High vulnerability
Ratings influence earnings	74.2	Strong algorithmic dependency
Income volatility	High	Unpredictable daily income
Benefits availability	Low	Structural gap in social protection

Ride-hailing workers earn relatively more but show the highest dissatisfaction due to commission deductions and fuel costs. Freelancers report autonomy but inconsistent workloads. Workers generally perceive gig work as beneficial short-term but unsustainable long-term.

II. Worker-Level Analysis

Table 2 Restaurant Partner Insights

Indicator	Percentage (%)	Interpretation
Improved revenue through platform visibility	60	Enhanced market access
Commission structures unsustainable	70	Long-term profitability concerns
Need for transparency	Very high	Demand for predictable settlements

Restaurants appreciate increased reach yet remain concerned about high commissions, delayed settlements, and lack of bargaining power.

III. Financial Analysis of Major Platforms

Table 3 Financial Analysis of Major Platforms

Platform	Trend	Observation
Zomato / Blinkit	Rising revenue	Profitability achieved; operational costs remain significant
Uber India	Revenue growth	Substantial reduction in net losses
Rapido	Growth in orders & GTV	Losses narrowing due to cost discipline
Delhivery	Revenue expansion	High depreciation due to capital intensity
Fiverr (India)	Growing profitability	India among fastest-expanding freelancer hubs

Across platforms, cost pressures arise from customer acquisition, delivery logistics, partner incentives, and infrastructure costs. Sustainability investments are increasing, but adoption varies across sectors.

VI. Statistical Analysis and Hypothesis Testing

Table 4 Platform Financial Indicators

Indicator	Mean Growth (%)	SD (%)	Interpretation
Revenue Growth	28	9	Strong but uneven
Reduction in Net Losses	17	6	Moderate consistency
Order Volume Expansion	22	11	High sectoral variance

Table 5 Correlation Between Financial Performance and Sustainability

Variable Pair	Statistical Test	Correlation (r ²)	Interpretation
Revenue vs Sustainability Score	Spearman Rank	0.771	Strong positive correlation
Profit vs Sustainability Score	Spearman Rank	0.257	Weak correlation

Revenue growth significantly aligns with sustainability adoption, whereas profit margins are not yet driven by sustainability measures—indicating early-phase integration.

VII. Conclusion

1. India's gig economy is at a transformative juncture. Platforms are scaling rapidly and moving toward operational efficiency; however, worker-level vulnerabilities persist. Without structural reforms, the ecosystem risks widening inequalities and creating unstable labour markets. Sustainable growth requires integrating financial, social, and environmental considerations into platform governance.
2. Findings reveal a structural imbalance in India's gig-economy value chain. Platforms increasingly optimise operations but frequently externalise risks to workers through high commissions, self-funded operating expenses, and algorithmic controls. Workers lack basic protections such as insurance, paid leave, and retirement benefits.
3. Restaurant partners face parallel challenges, with heightened dependence on platforms and rising commission burdens. While platforms demonstrate rapid revenue expansion, the social and labour dimensions of sustainability lag behind financial performance.
4. The study underscores the need for **tripartite intervention**—involving policymakers, platforms, and worker collectives—to ensure equitable and sustainable digital labour markets.

VIII. Recommendations:

For Policymakers

1. Implement **portable social-security benefits** (insurance, pensions, sick leave).
2. Formalise **minimum earning guarantees** aligned with local living costs.
3. Introduce **algorithmic accountability frameworks** and dispute-resolution mechanisms.

For Platforms

1. Adopt **graded commission structures** based on partner size and order density.
2. Reduce dependency on **rating-based penalties**.
3. Provide **fuel subsidies, EV leasing, and maintenance support**.
4. Ensure predictable and timely settlement cycles.

For Workers

1. Encourage **collective bargaining associations** and digital unions.
2. Promote financial-planning literacy and savings behaviour.
3. Advocate for representation in discussions on platform policies.

IX. Scope for Future Research

1. Longitudinal tracking of worker income trajectories
2. Environmental assessment of last-mile delivery systems
3. Comparative policy analysis across global gig labour frameworks
4. Economic impact of electric-vehicle adoption in gig mobility sectors

X. Limitations

1. Primary data restricted to Pune; cross-city comparisons are needed.
2. Platform policies evolve rapidly, affecting temporal generalisability.
3. Worker responses may reflect short-term incentives and platform variations.

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