



Precarity in Speed: An Empirical Study of Ten-Minute Delivery Gig Workers in Urban India

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ABSTRACT

The rapid expansion of the gig economy has transformed urban consumption patterns in India. Ten-minute delivery services, while convenient for consumers, have placed intense pressure on delivery workers. This study, based on a survey of 100 workers across three cities—Gorakhpur, Kanpur, and Varanasi—covering platforms such as Swiggy, Zomato, Blinkit, Domino's, and Zepto, examines the socio-economic and occupational challenges faced by these workers. Findings reveal excessive working hours, income instability, health risks, customer-related problems, and lack of job security. Using insights from Maslow's Hierarchy of Needs, Herzberg's Two-Factor Theory, and the sociological concept of labour precarity, the study highlights how delivery workers remain stuck in conditions of insecurity. The paper argues for urgent policy interventions and platform-level reforms to ensure fair wages, regulated working hours, and legal protections for gig workers.

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Introduction

The gig economy refers to short-term, flexible work arrangements facilitated by digital platforms. In India, this form of work has grown rapidly due to smartphone usage, internet access, and changing preferences of urban youth. As per NITI Aayog's 2022 report *India's Booming Gig and Platform Economy*, around 7.7 million workers were engaged in gig work in 2020–21, and this number is expected to rise to 23.5 million by 2029–30.

Among various forms of gig work, food and grocery delivery has expanded the most. Companies now promise deliveries within 10–15 minutes, creating new expectations of speed and efficiency. While consumers benefit, workers face multiple difficulties—traffic congestion, extreme weather, customer pressure, and health risks.

In theoretical terms, gig work offers “flexibility,” but in practice it produces precarious labour. Workers are classified as “independent contractors” but remain under strict platform control through algorithms and customer ratings. This duality makes them both “free” and highly vulnerable. By applying job satisfaction theories (Maslow, Herzberg) and sociological perspectives, this paper examines how gig workers experience work pressure in their everyday lives.

Theoretical Framework

This study is guided by three key theoretical perspectives:

1. Maslow's Hierarchy of Needs –

This model explains how human motivation moves from basic needs (physiological and safety) to higher needs (esteem and self-actualisation). For delivery workers, long working hours, road accidents, and low income show that even their basic needs remain unfulfilled. Hence, they remain stuck at the lower levels of the hierarchy.

2. Herzberg's Two-Factor Theory –

Herzberg divides job-related factors into *hygiene factors* (such as wages, job security, and working conditions) and *motivators* (such as recognition and growth opportunities). Findings from this study reveal that most dissatisfaction among delivery workers arises due to the absence of hygiene factors like fixed wages, benefits, and safe working conditions. Motivators are almost missing in gig work, making it difficult for workers to achieve job satisfaction.



3. Labour Precarity (Sociological Perspective) –

From a sociological point of view, gig workers represent “precarious labour.” Although classified as independent contractors, they remain under algorithmic control of platforms, face unstable income, and lack bargaining power. This framework helps to understand gig work not only as an economic challenge but also as a structural problem of inequality and power imbalance.

By combining these frameworks, the study provides a deeper understanding of the socio-economic challenges of ten-minute delivery workers. While Maslow and Herzberg explain the psychological and occupational dimensions of worker dissatisfaction, the concept of labour precarity highlights the structural conditions that keep workers insecure and vulnerable.

Methodology

This study is based on a descriptive research design, which is appropriate for examining patterns of work challenges among gig workers.

- Sample: 100 delivery workers from Swiggy, Zomato, Blinkit, Domino's, and Zepto across Gorakhpur, Kanpur, and Varanasi, with Kanpur Nagar as the primary analytical focus.
- Sampling Technique: Purposive sampling, focusing only on workers in 10-minute delivery services.
- Data Collection: Structured questionnaires (16 key questions) supplemented by short discussions with workers.
- Focus Areas: Employment type, working hours, income stability, job security, customer behaviour, health, and government expectations.

Delimitations: The study includes only male workers from five platforms and draws on data from Gorakhpur, Kanpur, and Varanasi, with the analysis focused primarily on Kanpur Nagar. Hence, results may not represent the entire gig economy or the experiences of female and non-binary workers.

Significance of the Study

Delivery workers are now essential to urban lifestyles, yet their struggles remain invisible. A society cannot achieve true development without recognising and addressing the hardships of such workers. This research is significant as it highlights the hidden costs of convenience. By understanding their challenges,



policymakers and platforms can design better labour protections and ensure that economic growth does not come at the cost of worker exploitation.

Review of Literature

Existing studies on gig work highlight multiple risks. Orr et al. (2022) show how time pressure and unsafe road conditions expose delivery riders in Australia to constant danger. Duke et al. (2022) reported rising injury and illness among parcel delivery drivers in the United States. Studies during the COVID-19 pandemic (Nguyen & Ho, 2022) also pointed out the central role of riders in last-mile logistics, while simultaneously revealing their job insecurity.

Perkiö et al. (2023) examined health and safety risks among Finnish delivery workers and found stress, fatigue, and lack of benefits to be major problems. In India, NITI Aayog (2022) has predicted massive growth in gig work but has also acknowledged low wages and lack of formal protections.

Most of these studies show how gig work is marked by precarity. However, few studies in India specifically analyse the 10-minute delivery model, which creates even more intense pressure. This study aims to fill that gap.

Research Gap

Previous research has discussed safety risks, injuries, and income instability of delivery workers. However, three key gaps remain:

1. Psychological and Mental Health – The stress and anxiety caused by extreme delivery pressure remain underexplored in Indian studies.
2. Gender Dimension – Female and non-binary delivery workers face unique risks such as harassment and safety concerns, which were not addressed in this study but remain crucial for future research.
3. Urban-Rural Comparison – Existing studies rarely compare experiences across city and rural settings. This distinction is important, since rural delivery workers may face longer distances and fewer orders, while urban workers deal with congestion and higher competition.

By focusing on ten-minute delivery workers in Kanpur Nagar, this study contributes to filling the gap on urban gig work under extreme time pressure.



Findings

Employment Status and Working Hours

Employment Type of Delivery Workers

74% of workers are full-time, 24% part-time, and 2% engage in other forms of employment. Herzberg's hygiene theory explains that absence of benefits contributes to dissatisfaction, while Maslow's hierarchy highlights unmet safety needs, showing structural precarity in platform-based employment.

Insight: Majority of workers rely entirely on gig work, showing the need for labour protections to enhance job stability and satisfaction.

Working Hours per Day

91% of workers report more than 12 hours daily. Long hours compromise physiological and safety needs (Maslow) and represent absent hygiene factors (Herzberg).

Insight: Regulatory interventions for reasonable working hours are needed to improve work-life balance and reduce burnout.

Job Instability and Financial Struggles

Impact of Job Instability

36% experience multiple negative effects, 28% stress/anxiety, 20% financial instability. Herzberg hygiene factors missing, Maslow's safety needs unmet.

Insight: Job insecurity drives stress and unstable livelihoods; policy reforms are essential.

Primary Reasons for Job Instability

55% cite lack of benefits, 25% absence of permanent contracts, 10% inconsistent demand, 10% high competition.

Insight: Absence of contracts and benefits makes gig work precarious; introducing minimum wage, health insurance, and long-term contracts could improve stability.



Road and Vehicle Challenges

Traffic Problems

72% report evening traffic congestion. Maslow's safety needs compromised, affecting efficiency.

Insight: Designated delivery routes could reduce congestion and improve worker safety.

Major Road Hazards

51% report potholes, 38% high-speed vehicles.

Insight: Poor infrastructure increases risk; road improvements and speed enforcement are needed.

Vehicle-Related Issues

46.9% report increased fuel consumption, 38.8% rising fuel prices.

Insight: Financial stress increases due to fuel and traffic; solutions include subsidies and traffic management.

Extreme Weather Impacts

52% delivery delays, 16% heatstroke, 12% accidents.

Insight: Weather hazards affect safety and efficiency; platforms should provide protective gear and hydration support.

Seasonal Challenges

70% rainy season, 16% summer.

Insight: Seasonal hazards reduce efficiency and safety; protective measures needed.

Health and Safety Risks

Common Illnesses

48% mental stress, 34% musculoskeletal problems, 12% fatigue/minor illnesses.

Insight: Long hours compromise physical and mental health; interventions from platforms and government needed.



Riding Risk Factors

40% multiple risks, 24% accidents, 20% body pain.

Insight: Unsafe roads and high traffic increase accident risk; policy and infrastructure improvements required.

Customer-Related Challenges

Problematic Customer Types

64% delayed order collection, 20% bad reviews, 8% extra delivery demands, 8% rude behaviour/false info.

Insight: Customer-related stress reduces efficiency; fair grievance mechanisms required.

Impacts of Customer Misconduct

38% face mental stress, salary deductions, or risk of job loss.

Insight: Worker vulnerability is high; fair investigation and protection systems needed.

Wage and Income Concerns

Common Wage Complaints

32% unstable income, 32% no overtime pay, 22% no benefits, 14% multiple issues.

Insight: Missing hygiene factors create dissatisfaction; wage regulations and benefits essential.

Income Stability

73% report stable income, mostly due to long hours; 6.5% highly unstable.

Insight: Earnings stability often comes at the cost of long hours; fair wage policies required.

Reasons for Low Income

70% restrictive company policies, 15% low delivery orders, 12% high competition, 3% lack of tips.

Insight: Company policies are the main cause of low income; reforms needed for fair pay and financial security.



Barriers to Complaints

Reasons for Not Complaining

58% fear job loss, 24% lack of communication channels, 16% multiple barriers, 2% legal protection issues.

Insight: Legal safeguards and communication channels needed to empower workers.

Expectations from Government

Government Intervention Preferences

54% minimum wage, labour protections, health insurance; 24% safety regulations; 18% stronger labour laws; 4% health insurance specifically.

Insight: Workers depend on state intervention for basic protections; legal reforms would improve safety, security, and efficiency.

Summary of Key Challenges

Low wages (70%) and long working hours (60%)

Health issues (55%) and seasonal hazards

Traffic congestion (50%)

Customer misconduct (45%)

Overall Categorisation of Gig Workers' Challenges

Categorisation of Survey Questions on Gig Workers' Challenges

Category	Key Challenges / Survey Questions
1. Structural & Economic Challenges	- Employment status - Working hours - Job instability - Wage complaints - Income stability - Reasons for low income

2. Occupational & Road Challenges	- Traffic challenges - Road hazards (potholes, high-speed vehicles, pedestrians) - Vehicle-related issues (fuel, maintenance) - Extreme weather impacts - Seasonal hardships (rainy, summer, winter) - Bike/Bicycle risks
3. Health & Safety Challenges	- Mental stress & anxiety - Muscle/bone pain - Fatigue & minor illness - Respiratory issues (pollution-related)
4. Social & Institutional Challenges	- Customer behaviour (delays, reviews, rudeness) - Customer misconduct (salary cuts, job loss risk, stress) - Barriers to complaints (fear of job loss, no channels, lack of legal protection) - Lack of social security - Job satisfaction - Expectations from government (minimum wage, labour protection, insurance)

Interpretation

The categorisation of survey findings into four dimensions—**Structural & Economic, Occupational & Road, Health & Safety, and Social & Institutional challenges**—provides a comprehensive understanding of the lived realities of gig workers. Out of the total 18 survey questions, six focus on economic precarity and unstable employment patterns, six highlight the occupational and road-related vulnerabilities of delivery work, four reveal the significant physical and mental health concerns of workers, and another six expose the role of customer behaviour, lack of grievance mechanisms, and inadequate government intervention.

This systematic grouping demonstrates that gig work is not defined by a single type of hardship but by an **intersection of economic insecurity, physical risks, health burdens, and social-institutional neglect**. Such multi-dimensional analysis not only validates workers' experiences but also strengthens the argument



that gig work is inherently precarious and requires urgent structural reforms in policy, regulation, and welfare measures.

Discussion

The findings of this study highlight the multidimensional challenges of ten-minute delivery work in India, where long working hours, unstable income, and poor infrastructure converge to create precarity. By situating these results within the theoretical frameworks of Maslow, Herzberg, and labour precarity, a clearer understanding emerges.

First, Maslow's hierarchy demonstrates that workers remain unable to satisfy even their most basic needs. Over 90% of respondents worked more than 12 hours daily, yet their earnings were often unstable and insufficient. This indicates that delivery workers remain at the lower rungs of Maslow's model, unable to progress to higher psychological or self-fulfilment needs due to constant insecurity.

Second, Herzberg's two-factor theory shows that dissatisfaction stems primarily from missing hygiene factors. Workers consistently reported unstable income, lack of overtime pay, and absence of benefits. Motivators, such as recognition or career advancement, were almost entirely absent. This explains the widespread frustration and poor job satisfaction in gig work.

Third, the sociological concept of labour precarity provides a structural explanation. Workers appear "independent" but are in fact under strict algorithmic management, exposed to traffic hazards, weather risks, and customer pressure without adequate protection. This duality—freedom in contract but control in practice—produces a paradox of independence and vulnerability.

This study contributes uniquely to existing literature by focusing on the emerging **ten-minute delivery model** in India. While previous research has examined gig work broadly, little attention has been given to the intensified pressure of ultra-fast delivery services. The evidence here shows that the demand for speed amplifies risks: extreme working hours, road hazards, and health problems become more pronounced in this accelerated form of gig labour.

Overall, the discussion demonstrates that ten-minute delivery is not merely an occupational challenge but a systemic issue. It reflects how digital platforms, in pursuit of consumer convenience, externalise risks onto workers. Unless significant reforms in wages, working hours, and legal recognition are introduced, gig workers will continue to remain trapped in a cycle of precarity.

Conclusion and Recommendations

Conclusion

This study shows that ten-minute delivery workers face constant pressure due to long working hours, low wages, road hazards, customer behaviour, and lack of legal protections. While companies present gig work as “flexible” and “independent,” the reality is that workers are caught in a cycle of precarity.

The findings reveal that more than 90% of workers work beyond 12 hours daily, yet most remain dissatisfied due to unstable income and absence of benefits. From **Maslow’s perspective**, they are unable to meet even basic physiological and safety needs. Similarly, in terms of **Herzberg’s theory**, the lack of hygiene factors—such as fair wages, contracts, and health insurance—creates dissatisfaction, while motivators are almost absent.

Sociologically, this reflects the condition of **precarious labour**: workers appear free but remain under algorithmic control, exposed to risks without protection. Their situation highlights the growing inequality in the platform economy, where companies transfer risks onto workers while avoiding responsibility.

Overall, the research makes it clear that gig work in its present form cannot ensure dignity, stability, or long-term well-being for workers unless significant reforms are introduced.

Recommendations

1. **Regulated Working Hours** – Platforms should fix maximum daily working hours, similar to other sectors, to reduce fatigue and health risks.
2. **Minimum Wage and Social Security** – The government should ensure a minimum wage policy, paid overtime, and benefits such as health insurance and accident coverage for delivery workers.
3. **Improved Infrastructure and Safety** – Better road maintenance, traffic management, and provision of safety gear (raincoats, helmets, hydration support) can reduce risks related to accidents and weather.
4. **Fair Grievance Redressal** – Platforms must set up transparent systems to verify customer complaints before penalising workers, to protect them from unfair salary cuts and job loss.
5. **Legal Protections** – Strong labour laws for gig workers are essential, including recognition of platform workers as part of the labour force rather than as “independent contractors.”



6. **Future Research** – Future studies should include female and non-binary workers to capture gendered experiences. Comparative research between urban and rural gig workers can also highlight regional differences in precarity.

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