



AUTONOMY, ALGORITHMIC CONTROL, AND SOCIAL SECURITY: THE LIVED EXPERIENCE OF URBAN INDIA'S GIG WORKERS

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Abstract: Platform work has grown fast in India, and with it a new kind of employment: short, app-driven jobs in delivery, ride-hailing and logistics. Young people take these jobs for the flexibility and the income opportunities. What happens afterwards is less clear. Are the jobs secure? Who protects the workers? What does a day of chasing orders do to health and family time? This paper tries to answer these questions with a survey of 60 platform workers. Most of them depend fully or largely on gig earnings. They choose their own hours, yet they also report shaky income, no formal contract, little or no health insurance or retirement cover, long days, stress about ratings and not much job security. Our results argue for better labour policy, wider social-security coverage and working conditions that let gig workers earn a living and still have a life outside work.

Keywords: Gig Economy, Platform Work, Job Satisfaction, Social Security, Occupational Challenges.

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1. INTRODUCTION

Smartphones are cheap, internet access is widespread and businesses now run on apps. Together these changes have reshaped labour markets and given rise to the gig economy. Gig work means short, flexible jobs paid by the task. A worker picks up an order through an app, and what he or she earns depends on completed tasks, customer ratings or measured performance. The ILO (2021) defines digital platform work in much the same way, as short-term or task-based activity coordinated through online platforms. The World Economic Forum (2020) describes the gig economy as a market for flexible, independent work made possible by digital technology. Indian law has its own definition: under the Code on Social Security, 2020, a gig worker is a person who works and earns outside a traditional employer–employee relationship.

Delivery, ride-hailing, logistics and e-commerce support platforms have multiplied worldwide, and gig jobs have followed. Urbanisation, digital payments, new consumer habits and a growing appetite for flexible work all played a part. Entry is easy and hours are flexible, which makes gig work a ready way to start earning (NITI Aayog, 2022; World Economic Forum, 2020).

India is one of the bigger markets for this kind of work. It has a large young workforce and its digital infrastructure keeps improving. NITI Aayog (2022) put the number of gig workers at about 7.7 million in 2020-21 and expects 23.5 million by 2029-30, nearly 4.1 per cent of the workforce. The jobs span transport, food delivery, groceries, e-commerce, logistics and digital commerce. Growth, however, has a downside. Wages are low and income is irregular. The job also brings daily pressures: ratings, delivery targets, difficult customers, reliance on the app, traffic, health risks and uncertainty about what work will be available next. Added to this, many workers know little about the social protection schemes meant for them, or cannot get access to them, and so carry more economic and health risk than they should (Berg et al., 2018; ILO, 2021).

2. REVIEW OF LITERATURE

The fast growth of the gig economy has drawn a lot of scholarly attention, mainly because of what it means for job creation, labour-market flexibility and worker welfare. The literature generally agrees that digital platforms have opened up new ways to earn income while exposing workers to social, economic and

occupational risks. Wood et al. (2019) found that gig work offers flexibility and autonomy, yet workers often face irregular earnings, algorithmic control, long hours, income insecurity and little bargaining power. They also showed that customer ratings and platform algorithms strongly affect how much workers earn and how much work they get.

Institutional reports tell a similar story. The World Economic Forum (2020) and the International Labour Organization (2021) both note that platforms have reshaped labour markets by creating flexible work in many sectors. They also point out that platform workers usually have no formal contract, little social security, weak occupational safety and limited legal protection, and they recommend extending labour rights and building broader social protection so that gig work can meet decent-work standards.

For India, NITI Aayog (2022) described the rapid growth of the gig and platform economy and projected that the number of gig workers would rise substantially over the next decade. It called for policy action on skills, financial inclusion, social security and worker welfare to keep that growth sustainable.

Table 1: Review of Literature on Gig Economy and Gig Workers

<i>Author(s) & Year</i>	<i>Research Methodology</i>	<i>Objective of the Study</i>	<i>Main Findings</i>
Wood et al. (2019)	Empirical study based on qualitative/primary evidence from digital platform workers; analysis of workers' experiences with platform-mediated employment.	To examine the working conditions, autonomy, flexibility, and control mechanisms experienced by digital gig workers.	Gig work gives flexibility and autonomy, but workers deal with irregular earnings, income insecurity, long hours, algorithmic control and little bargaining power. Ratings and algorithms strongly shape earnings and access to work.
World Economic Forum (2020)	Institutional/secondary research based on analysis of labour-market trends, digital platforms, and employment patterns.	To examine how digital platforms are transforming employment and labour markets and identify policy implications.	Platforms create new, flexible jobs, but workers often lack formal contracts, social protection, occupational safety and adequate labour rights.
International Labour Organization (2021)	International institutional review based on secondary data, labour-market evidence, and policy analysis.	To assess the changing nature of work through digital labour platforms and examine the working conditions and protection of platform workers.	Platform work has widened employment opportunities, but raises concerns about income security, social protection, working conditions, employment status and labour rights. The ILO called for suitable regulation and social protection.

<i>Author(s) & Year</i>	<i>Research Methodology</i>	<i>Objective of the Study</i>	<i>Main Findings</i>
NITI Aayog (2022)	Secondary-data-based policy and statistical analysis of India's gig and platform economy.	To assess the size, growth potential, employment contribution, and policy requirements of India's gig and platform economy.	India's gig economy is growing fast and has considerable job potential. The report stressed skills, financial inclusion, social security and worker welfare for sustainable growth.
Pant & Majumder (2022)	Conceptual/secondary research focusing on human resource and employment-related dimensions of the gig economy.	To examine the employment opportunities and human-resource challenges associated with the growing gig economy.	The gig economy is now an important source of jobs, but workers have weak welfare provisions, few opportunities for skill development and no structured employment benefits.
Choudhary & Shireshi (2022)	Empirical/secondary analysis of the socio-economic and employment conditions of gig workers in India.	To examine the legal, employment, and institutional challenges faced by gig workers in the platform economy.	Gig workers have inadequate legal protection and insecure employment, face algorithmic management and receive insufficient welfare measures. The study called for stronger institutional mechanisms to protect workers.
Nair (2023)	Empirical study examining the economic and occupational conditions of platform workers.	To investigate income security, occupational risks, and bargaining relationships between gig workers and digital platforms.	Income stability is falling for gig workers, occupational risks are rising and bargaining power is unequal in their dealings with platforms.
Jafar et al. (2024)	Empirical/analytical study based on evidence concerning gig and platform workers.	To examine the opportunities and vulnerabilities associated with gig employment, particularly flexibility, social security, and labour rights.	Gig work offers flexibility and jobs, but informal arrangements, limited social-security access and weak labour rights leave workers vulnerable.

Source: Author's Compilations

Pant and Majumder (2022) make a related point: the gig economy has become an important source of employment, but it brings human-resource problems of its own, including weak welfare provision, a need for skill development and no structured employment benefits.

More recent empirical work looks closely at workers' socio-economic and occupational conditions. Choudhary and Shireshi (2022) found that gig workers in India lack adequate legal protection, are subject to algorithmic

management, face insecure employment and have no comprehensive welfare cover. Nair (2023) reported falling income stability, rising occupational risks and unequal bargaining power between platform workers and platforms. Jafar et al. (2024) observed that, although gig work gives flexibility and job opportunities, informal arrangements, limited access to social security and weak labour rights keep workers vulnerable. Taken together, these studies suggest that institutional and policy support has not kept pace with the growth of the sector.

Even so, few studies in India use primary survey data to look at workers' socio-economic profile, working conditions, social protection, occupational well-being and job satisfaction together. Most rely on secondary information or concentrate on conceptual, legal and policy questions. This study tries to fill that gap with a primary survey of 60 gig workers, examining their socio-economic conditions and the main occupational challenges they face. We hope the evidence will help in shaping inclusive labour policy and stronger welfare measures for gig workers in India.

3. DATA AND RESEARCH METHODOLOGY

The study uses both primary and secondary data. Primary data came directly from gig workers through a structured questionnaire covering socio-economic characteristics, employment conditions, income and earnings, working conditions, social protection, job satisfaction and the problems workers face. Secondary data came from books, journals, research articles, government reports, policy documents and official publications on the gig economy and platform work.

The sample consists of 60 gig workers from India, drawn from several kinds of platform work: food and grocery delivery, ride-hailing, e-commerce and other digital platform occupations. We collected responses from workers who were available and willing to take part, and they described their socio-economic conditions, working environment and the challenges they encounter.

3.1. Research Methodology

The study follows a descriptive and analytical design. The descriptive part covers the socio-economic profile and employment conditions of the workers; the analytical part identifies the main challenges they face. Responses were

coded, classified and tabulated, then analysed using frequency distributions, percentage analysis, descriptive statistics and cross-tabulation. Tables and charts present the results.

4. RESULTS AND DISCUSSION

The results below come from the empirical analysis of the survey data.

Table 2: Working Conditions of Respondents

Variable	Category	Percentage (%)
Duration of Gig Work	Less than 1 year	58
	Between 1–3 years	24
	More than 3 years	18
Reliance on Platform Income	Fully	62
	Moderately	35
	Not at all	3
Technical Issues	Yes	72
	No	28
Time/Target Issue	Yes	53
	No	42
	Maybe	5
Employer Behaviour	Very Good	38
	Good	33
	Moderate	25
	Not Good	2
	Very Bad	2
Lunch Time	Yes	35
	No	60
	Sometimes	5

Source: Compiled by Authors based on Primary Data.

Table 2 sets out the working conditions of the respondents.

Most respondents are newcomers. Fifty-eight per cent had been doing gig work for under a year, 24 per cent for one to three years, and only 18 per cent for longer. Dependence on the platform is heavy: 62 per cent rely fully on gig earnings, another 35 per cent rely on them partly, and just 3 per cent do not rely on them at all. For a clear majority, then, gig work is the main source of income.

The day-to-day conditions are demanding. Technical problems such as app glitches and poor connectivity affected 72 per cent of respondents. Time

and target pressure was reported by 53 per cent (42 per cent did not feel it and 5 per cent were unsure), so deadlines and performance targets seem to come with the job. Rest is hard to come by: only 35 per cent have a fixed lunch or rest time, 60 per cent have none and 5 per cent get one now and then. Employers, on the other hand, were rated well. Thirty-eight per cent called their behaviour very good, 33 per cent good and 25 per cent moderate, with a small minority unhappy. The picture is mixed: workers lean on platform income and put up with technical trouble and pressure, but they do not think badly of their employers.

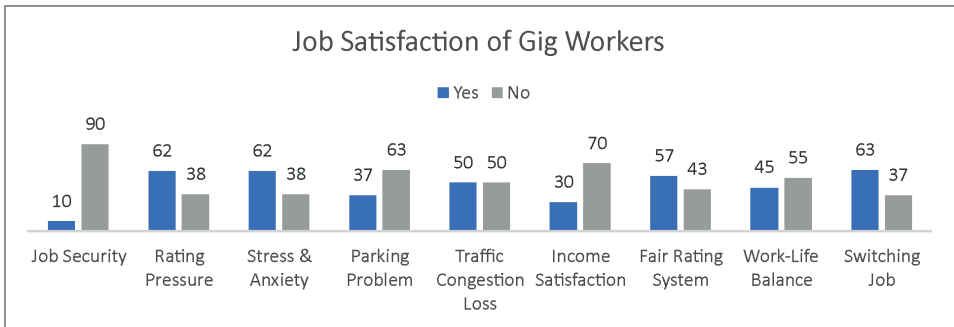


Figure 1: Job Satisfaction of Respondents

Source: Primary Survey

Figure 1 shows how respondents rated their job satisfaction and work experience.

Job security is the weakest point. Only 10 per cent of respondents felt secure in their work; 90 per cent did not. Pressure from the rating system affected 62 per cent, in line with what Wood et al. (2019) found, and the same share reported stress and anxiety, which fits the strain of target-driven app work. Traffic was a further problem: half the respondents (50 per cent) said it cost them income, a reminder that earnings depend on conditions the platform does not control.

Income and balance also suffer. Seventy per cent were dissatisfied with their income and 30 per cent were satisfied, a result that echoes Berg et al. (2018) and the ILO (2021). Fifty-five per cent could not keep a healthy balance between work and personal life, and 63 per cent said they would be willing to switch jobs, while 37 per cent wanted to stay. Taken together, insecure income,

stress, rating pressure, weak job security and poor work–life balance stand out as the main problems.

Table 3: Social Protection Measures of Respondents

Variable	Yes	No
Security System Knowledge	38	62
Access to Social Welfare Schemes	62	38
Health Insurance	43	57
Accident Compensation	53	47
Satisfaction with Salary	25	75
Awareness of Government Schemes	33	67
Existence of Union	22	78

Source: Compiled by Authors based on Primary Data.

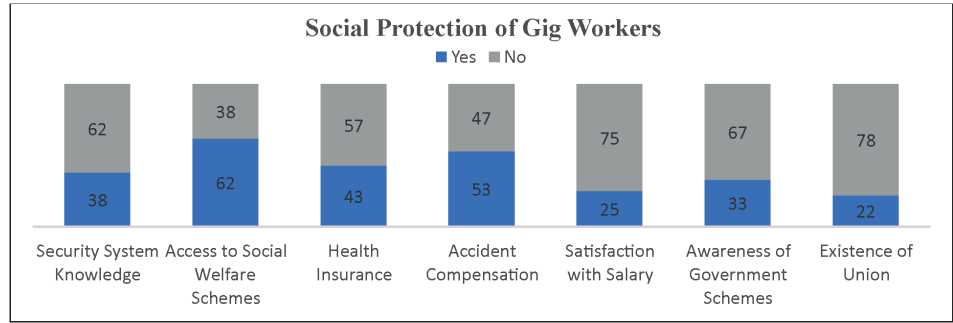


Figure 2: Social Protection Measures of Gig Workers

Source: Primary Survey

Figure 2 shows the extent of social protection available to the workers.

Awareness of social-security provisions is low, with only 38% of respondents familiar with them and 62% not. Where workers did get welfare information, it mostly came from platform companies (62%) and far less from government sources (17%), which suggests little direct contact with government welfare mechanisms. Cover for the family is also thin: 20% reported coverage for dependents and 78% reported none.

Health insurance reaches 43% of respondents; 57% have none. Accident compensation does somewhat better, with 53% receiving support and 47% not. Satisfaction with salary is low (25% satisfied, 75% dissatisfied), and awareness of government welfare schemes is weak, with 33% aware and 67%

unaware. Support from the company in slack periods is rare: 10% received any and 65% received none.

Workers also have almost no collective voice. Only 22% reported a worker union, whereas 78% said there was none, and 70% reported health problems linked to gig work. These results point to gaps in social-security coverage, awareness of welfare schemes, income security, representation and occupational health protection, and they call for stronger institutional and policy support.

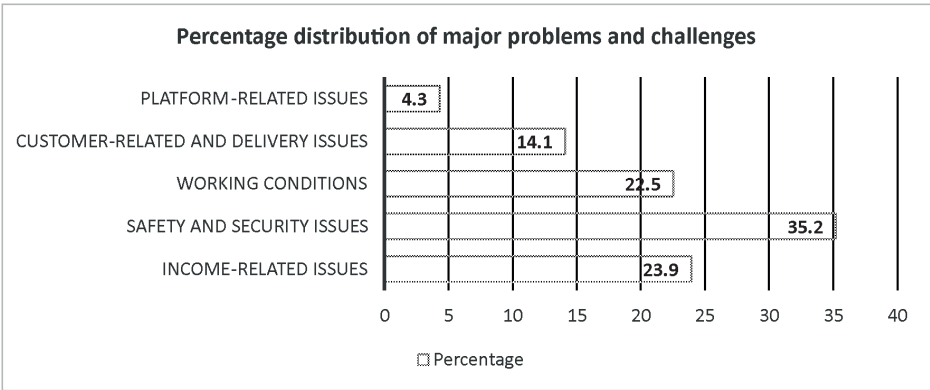


Figure 3: Major Problems and Challenges faced by Gig workers

Source: Content Analysis based on Primary survey

Figure 3 groups the problems workers reported. Safety and security issues account for the largest share (35.2 per cent), followed by income-related issues (23.9 per cent), working conditions (22.5 per cent), customer-related and delivery issues (14.1 per cent) and platform-related issues (4.3 per cent). Taken together, the findings show that gig workers still have limited social protection: they know little about it, have little insurance, few family safeguards, little institutional support and a weak collective voice. Welfare and protection mechanisms need to be strengthened.

5. CONCLUSION AND POLICY IMPLICATIONS

This study concludes that gig work has become a significant source of jobs and income in India, and workers value the flexibility and the freedom to set their own hours. However, freedom comes at a price. Workers reported unstable income, limited job security, no formal contract, thin social security,

long hours, stress and algorithmic control, and these weigh on their financial security and job satisfaction. The Code on Social Security, 2020 does recognise gig and platform workers, but few welfare and social-security measures have actually been put in place. We therefore call for minimum earnings, comprehensive social protection, occupational safety, transparent platform algorithms, workable grievance redressal and chances to build skills. If India's gig economy is to be inclusive, equitable and sustainable, stronger institutional and labour protection is a precondition.

5.1. Policy Implications

The findings suggest several steps that could improve the conditions and welfare of gig workers in India.

- Health and accident insurance, pensions, disability assistance and life insurance should reach gig workers, and the Code on Social Security, 2020 needs to be implemented properly for that to happen.
- Regular awareness and digital-literacy drives would help workers learn about e-Shram, insurance schemes, pensions and similar programmes.
- Platforms should provide health check-ups, safety equipment, emergency medical support and mental-health counselling.
- Minimum earnings guarantees, transparent incentive rules and timely payment would reduce income insecurity; workers should also be compensated for waiting time and cancelled orders.
- A clear legal framework should set out the rights and duties of workers and platforms, and protect workers against discrimination and arbitrary termination.
- Gig-worker associations and unions should be encouraged, so that workers can bargain together and raise their concerns.
- Training in digital, financial and occupational skills would improve employability and long-term income.
- Better connectivity, more reliable platforms and stronger digital infrastructure would cut the technical disruptions that eat into earnings.

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