

PLATFORM EMPLOYMENT

ROLE IN THE LABOUR MARKET AND PROBLEMS
OF PLATFORM WORKERS' LABOUR REGULATION

Dhanya MB



V.V. Giri National
Labour Institute

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Role in the Labour Market and Problems of Platform Workers' Labour Regulation

Report carried out under the aegis of the
BRICS Network of Labour Research Institutes 2024

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PREFACE

V. V. Giri National Labour Institute represents India in the BRICS Network of Labour Research Institutes. This international network includes University of Fort Hare, Republic of South Africa, National Labour Market Observatory of the Ministry of Labour of Brazil, Brazil; All-Russia Research Institute for Labour of the Ministry of Labour and Social Protection of the Russian Federation; and Chinese Academy of Labour and Social Security, China.

One of the primary objectives of the BRICS network is to conduct research studies on contemporary labour issues and offer policy inputs to promote strong, sustainable, and inclusive growth. One of the shared concerns across BRICS nations is platform employment. BRICS countries have a common position on platform employment, ensuring adequate social security coverage for workers across different contractual arrangements, including non-standard forms of employment, supporting the mobility of workers, and complementing effective and efficient contributory social insurance schemes with non-contributory schemes (BRICS, 2017, para. 16).

Under Russia's Presidency in 2024, the member states renewed their focus on platform employment. In response, BRICS Network of Labour Research Institutes had recently conducted a joint research study titled 'Platform Employment: Role in the Labour Market and Problems of Platform Workers' Labour Regulation'. This research report examines the legal status of platform employment at the country level, including their rights and obligations. The report analyses statistical trends and emerging risks associated with platformisation and discusses the trends in the development of platform employment at the country level. Further, the report also investigates the socio-economic profile of the platform workers and their dynamics through field surveys conducted across four metro cities (Hyderabad, Mumbai, Kolkata and Delhi) in India and concludes with summaries of the discussions. I am confident that this report will be a valuable resource for both policymakers and researchers in the field.

Dr. Arvind
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Chapter 1

Introduction

1.1 Background

The social and economic mode of organisation of work is a dynamic phenomenon, with a history marked by important shifts. From the traditional Taylorist model to the Fordist era, each phase of work organization has brought its own set of pros and cons, and policy challenges. Around the world, governments have occasionally responded to these changes by adjusting to meet the demands of evolving work models. Today, we find a similar large-scale historical change in the organisation of work and the labour market through the infusion of digital technology and the subsequent ‘Platformization’ of work models. Digitalisation has become the key driver for accelerating growth and transforming jobs, from the introduction of e-commerce to the development of platforms. It has not just transformed the economy but has become integral to the social fabric, the World Economic Forum (WEF) has estimated that in this decade (2020 onwards), 70% of the new value in the economy will be created over ‘digitally enabled platform business models’(World Bank, 2023). This shows that technology has not only modernised the economy but has also become a critical part of society. In the same parlance, WEF in 2023 estimated there will be 73 million global digital jobs, which will grow to 92 million by 2030, it includes a variety of blue and white-collar jobs such as accountants, technicians, IT professionals, customer service, media professionals, etc. (WEF, 2024). WEF’s definition of ‘digital jobs’ is broad and encompasses all types of work which can be done either through digitally enabled offices or freelance, gig as well as platform work.

In recent years, scholars and policymakers have explored these developments through various lenses and have identified four broad themes that inform current engagement with the phenomenon of gig and platform economy. The platform is being seen as ‘entrepreneurial incubators’, ‘digital cages’, ‘accelerants of precarity’ and ‘chameleons adapting to the environment’, broadly speaking all the opportunities and challenges of platformization can be understood with these four themes. For Vallas & Schor (2020), ‘Platform Revolution’ is the driving force behind the entrepreneurial push today; the majority of the startup companies which have become unicorns in the past few years have a digital platform dimension associated with them. While this is a positive fact, the large-scale transformation of organised formal work life into an ‘on-demand contingent workforce’ and their subsequent instability is a critical challenge.



The ‘gig and platform economy’ refers to a labour market characterised by the prevalence of short-term contracts or freelance work as opposed to organised traditional permanent jobs. Workers in this context are often referred to as “gig and platform workers” and typically work on a flexible basis, often using online platforms or apps to find and perform work. This type of work includes a variety of tasks spread across different sectors of the economy. It is primarily the service sector and some specific work of industrial and agricultural sectors that are going through a process of ‘digitalisation’, ‘platformization’ and ‘gigification’ worldwide. The increasing digitalisation of work, i.e. ‘infusion of digital skills’ in almost every type of job (Muro & Liu, 2023), has posed new challenges for the formalisation of work and employment. The digitisation of work is aided by a concurrent phenomenon of ‘gigification of work’, i.e. breaking down of formal, organised, long-term work into small task-based jobs done on a demand basis leading to the rise of ‘gig economy’ (Istrate, E et al, 2017). Unlike traditional industrial or office-based jobs which could be easily classified as formal or informal depending on the nature of work, labour laws, and remuneration practices, ‘gig work’ in a broad sense is both quasi-formal and informal. This type of work includes tasks such as driving for ride-sharing services, delivering food, freelance writing, graphic design, tutoring and many other types of temporary or project-based work. The phenomenon of gig work is not new in the sense that it has always been a part of society where different types of work are performed in a loose-end manner to earn a living.

The current digitalisation process has industrialised gig work through ‘platform technology’ at a large scale, especially in consumer-based urban service industries. This process has also unfolded simultaneously in other sectors such as IT, banking & finance with differing scales. The impact of the COVID-19 pandemic was especially severe in ‘emerging economies, where income losses caused by the pandemic revealed and worsened some pre-existing economic fragilities’ (World Bank Group, 2023). As a result, the informalisation of the world economy and ‘Gigification of work’ and subsequent ‘Platformization’ has increased manifold. While it offers flexibility and opportunities for entrepreneurship, it also raises questions about job security, benefits, and the overall changing nature of work relationships in the modern economy (Onoriode 2025). Hence, the global expansion of gig work and platforms has transformed labour markets worldwide.

Theoretically speaking, the essence of the platform economy is to reduce ‘transaction costs’ and increase the ‘efficiency’ of markets by providing a technologically mediated micro foundation to the overall work operations (Oranburg & Palagashvili, 2021). From the side of the business, it is intended to reduce the ‘turnover costs’ and from the side of workers, it intends to reduce ‘opportunity costs’ associated with information asymmetries. The information asymmetries that may exist across markets can be overcome through integrated system designs of platforms, a research argues that it is



done by an integration of information channels of heterogeneous business processes with different platforms such that cost advantage and optimum utilisation can be achieved through ‘network effects’ (Julien B et al., 2021). An advantage for workers is the ‘multi-homing’ benefits that they accrue while joining the platforms by being part of several platforms simultaneously, at the same time hence allowing them flexibility. It has been observed worldwide that internet platforms serve as intermediaries who can monopolise upon the existing asymmetries towards undue benefits and advantages (Jullien & Wilfried, 2020). The expansion of digital labour platforms over the past few years can be attributed to two major factors; the availability of venture capital funds to provide an investment ecosystem for platforms. Secondly, the ability to collect and utilise massive amounts of user data, while a valuable asset for platforms, as it becomes the basis for developing new products through the use of algorithms (Italian G20 Presidency, 2021). The working condition of gig and platform workers continues to be plagued by large-scale precarity and the absence of any social security net. The challenge therefore is to identify the gaps and place plausible regulatory and policy measures that can ensure better working conditions and social security to platform workers.

1.2 Global Rise of Platform Employment: History and Present

Leading upto the second world war the term ‘gig work’ was informally used for the short term employment of describe typists, stenographers and drivers in the United States (US). Until this point gig was an exceptional phenomenon referring to work performed outside of ‘standard employment relationships’ (Stanford, 2017). With increasing disintegration and global expansion of supply chains, outsourcing of business processes and intensification of franchising, post-war ‘standard employment relationship’ model of jobs started getting replaced with more ‘precarious and contingent employment relationships’ (ibid). Within this milieu, the advent of digital platform technology played a disruptive role in transforming the labour practices altogether by creating new categories of workers and jobs such as : on-call workers, piece work, and homework embedding business processes into triangular contractor and subcontractor relationships (ILO, 2021).

Nowadays, digital platforms are significantly driving the growth of gig work by offering online marketplaces that connect workers with various tasks and services. Platforms have expanded globally, with many operating in multiple countries which enabled the workers to access a global market for their services, simultaneously raising questions about compliance with local laws and regulations. Companies like Uber, Airbnb, Upwork etc. have become widely recognized, disrupting traditional industries and introducing new form of work opportunities commonly referred to as ‘flexible work’ while raising concerns about job security, income stability, and social protection for workers. According to Istrate et al. (2017), by 2015, 15.8 per cent of the US workforce had shifted to gig work, a figure that rose to 39 per cent by 2022. Additionally, the



Federal Reserve Board (2020) reported 58 per cent of gig workers in US considered their gig income to be either essential or important to their overall financial stability. Research by McFeely et al. (2020) indicates that gig workers in the U.S. tend to be younger, predominantly male, and more likely to belong to minority groups than traditional full-time employees. Furthermore, a McKinsey study conducted in 2022 revealed that 87 per cent of Americans expressed a preference for flexible work arrangements in the repercussion of pandemic.

Traditionally the policy discussions have been focused on broad categories of work such as industry, agriculture, construction etc., with a renewed focus from the 1970s on formal-informal, organised-unorganised modes of performing such work. However, the emergence of gig work has introduced new complexities for policymakers, making regulation particularly challenging. Debates around worker classification, minimum wage entitlements, and access to social benefits have intensified, prompting some countries to initiate regulatory reforms in response to these evolving work arrangements. (Katiyatiya et. al,2024). Traditionally in the welfare capitalist framework the outcomes of 'labour market' and 'work' were intrinsically linked to each other where the focus has been on increasing the efficiency of both work and the market. This view is akin to the late industrialisation phase of the US and Europe. Braverman (1998) observed this phase, the 'occupational shift' and 'social structure of the working class' and concluded that classical labour mobility was not taking place in the United States as was conceived in the welfarist paradigm. Similarly, Granovetter (1992) based on his enquiry of labour markets observed the growing difference between the classical and neo-classical view of the market as against the personal and structural ties that defined the outcome of work and mobility in the US. Towards the 1980s demands for 'flexible work arrangements' started gaining attraction in developed countries like the US, UK and Canada. This was also a period that witnessed the globalisation of industrial work where low-skilled work started getting outsourced to underdeveloped economies because of the presence of low-rate wage labour in these regions and the 'race to the bottom' approach to industrialisation. As a result, the global division of labour increased, producing different impacts across countries, dividing the global workforce into core and periphery (Dukes &Streeck, 2022). Subsequently, the low-skilled work in developed countries became precarious and informal in nature and hence started generating the phenomenon of 'gig-employment'. For Standing (2014), the shifts that happened during the 1980s in the world economy mark the 'polanyiandisembeddedness' summarizing the world economy inside global markets and subsequently transforming the global class structure which is intrinsically linked to the transformation of the nature of work, organisation and remuneration associated with different classes and the replacement of the traditional category of 'proletariat' who had to negotiate power over 'wages' and 'labour rights' with a new class phenomenon of precariat who suffers from stagnant wages, uncertainty and lack of social security.



With the rise of technology firms during the 2000s, the labour market for such work became complex, leading to an interesting development called ‘platform economy’ where demand and supply of gig workers could be aggregated technologically through computational and algorithmic methods (Abraham, et.al., 2018). The expansion and development of the platform cannot be understood without dual perspective on both the changing nature of work (due to digitalisation) and changing nature of the workforce, embedded within the larger technological and structural shifts in the world economy. The growing demand for flexible work in the West can be broadly attributed to many additional factors such as the rise of austerity politics, increased burden of unpaid work for women (Nair, 2021), hence flexibility for women workers (especially single mothers), the rise of this kind of job which demands increased emotional labour at reduced wages and so on. Hence, demand for ‘flexibility’ is the key driver behind the rise of platforms in the developed world where the focus is mainly on ‘white collar’ professional work. In the global south, however, the nature of gig and platform employment is starkly different, mainly driven by the precarity and underdeveloped work-industry relations (Sharif et.al, 2023) and is concentrated primarily in urban service delivery sectors such as ride-sharing, domestic services, food and delivery services etc (Dhanya, 2025).

1.3 Highlights from International Declarations

Challenges of platform employment have been highlighted in several Declarations and other documents adopted in different years within the G20, OECD, BRICS, ILO etc. Building on earlier G20 discussions, the G20 Labour and Employment Ministerial Meeting Held in BRICS (2016) initiated discussions on the policy recommendations for promoting more equitable and sustainable social protection systems. German G20 Presidency (2017) recognised the policy recommendations for the future of work, and issues concerning the spread of digital technology, development policy, labour market and employment policy etc. Within the G20 framework, a digital affairs minister’s conference was organised for the first time to discuss digital technology and its impact. The Argentina G20 Presidency (2018) provided guidelines and principles for developing comprehensive social protection strategies. The Kingdom of Saudi Arabia G20 Presidency (2019) focused on the policy options for adapting social protection to reflect the changing patterns of work and discussed adequate social protection to make them more sustainable, adaptive, resilient, inclusive and responsive to a changing world of work. In the 2021 G20 Labour and Employment Ministerial Declaration, the need for more inclusive and adaptive labour protection for all workers including part-time, low-wage, self-employed, and migrants are acknowledged. Resilience against future shocks through adaptive social protection is outlined in the G20 Labour and Employment Ministerial Declaration of 2022.

However, there was a gap in the discussions concerning the new digital platforms especially on gig and platform work and social protection. Given that digital labour



platforms operate across multiple jurisdictions, the gig and platform sectors face several challenges in promoting social protection to extend rights at work. To address this issue, many international organizations emphasize a human-centric approach to the Future of Work, assigning individuals at the forefront of economic and social policies. In February 2023, the first meeting of the Indian G20 Employment Working Group focused on three key issues related to employment viz. global skills gap, gig and platform economy and social protection, and sustainable financing of social security (MoLE-PIB, 2023). In G20, New Delhi Leader's declaration made in September 2023, a common consensus was reached by all the leading countries towards the development of Digital Public Infrastructure (DPI) and Global Digital Public Infrastructure Repository (GDPIR) to foster a global cooperative digital ecosystem for boosting governance initiative in gig and platform sector (MeitY, 2023).

The members of the G20 countries addressed some of the key issues of gig and platform workers to extend social protections to workers. These countries include Brazil (Occupational safety and health for workers), France (accident insurance costs for self-employed workers), Indonesia (work injury and death benefits to workers), Canada (fair wages, pension and facilitating dispute resolution), Australia (to set minimum pay), India (enactment of social security code will facilitate insurance cover, death and disability cover through establishment of social security fund), United Kingdom (paid leaves and minimum wages) and France (platform's voluntary social charter to obtain a "decent price" for their work). Countries have also adopted various approaches to the classification of platform workers such as: (i) classifying them as employees, often based on the amount of control exercised by the platform; (ii) adopting an intermediate category to extend labour protection; (iii) creating a de facto intermediate category to ensure that they obtain certain benefits; iv) classifying them as independent contractors.

Presidential Summit of BRICS 2014, the member countries decided to include matters related to employment, social security and inclusive labour markets as concerns in the forum after which the first BRICS Labour and Employment Ministers' Meeting (LEMM) was held in Russia 2016 (MoLE, 2016). This meeting led to the formation of the BRICS Employment Working Group. Since 2016, BRICS LEMM has happened in Geneva (June 2016), New Delhi (September 2016), Brasilia (September 2019), Moscow (October 2020) and virtually in 2021 (hosted by India) and 2022 (hosted by China). Formalisation of the labour market, improvement in data collection to ensure better governance and enhancement of social security have been the part of agenda in all these meetings. The first LEMM declaration focused on quality jobs and inclusive employment policies, formalisation, and better information exchange across BRICS countries for labour governance. The second declaration paid emphasis on social protection, increasing the employability of workers and increasing employment generation across BRICS nations. In Brasilia LEMM summit held in September



‘inclusive future of work’ and ‘productive employment for enhanced social security’ were the key agendas.

In July 2021 Declaration apart from formalization and social security, two additional issues about the participation of women in the labour force and gig and the role of platform workers in labour markets were incorporated into the agenda. Ministers collectively acknowledged the increasing role of digital technology in the labour market and supported the development of the digital economy including digital delivery of services. The ministers collectively agreed to leverage this opportunity and strive to overcome the challenges posed by the gig and platform sector towards achieving the target of decent work and social security in this sector as per the Sustainable Development Goals (SDGs). ILO and ISSA jointly prepared and presented the paper on the protection of workers in new forms of employment at the BRICS employment working group under the China Presidency in April 2022. A Centenary Declaration for the Future of Work was adopted in 2019 at the 108th session of the International Labour Conference. 187 member countries of ILO participated in the discussion and adoption of the declaration. The adopted declaration focused on adequate minimum wages, workplace safety, health, and social security amidst the challenges and opportunities arising due to the digital transformation of work and the rise of the gig and platform sector.

BRICS Network of Labour Research Institutes for 2024 under the Russian presidency recommended focusing on the following groups of tasks within the framework of the joint research:

- 1) Interpretation of the main categories of platform employment in national legislation. The legal status of platform employment and digital platforms, their rights and obligations.
- 2) Statistical estimation of medium-term trends in the development of platform employment in the national economy of a BRICS country.
- 3) Analysis of the structure of platform employment (by occupation and qualification, gender, age, education and industry). Socio-demographic profile of the platform worker and its dynamics.
- 4) Peculiarities and problems of legal regulation of platform employment, including the mechanisms for providing platform workers with basic social guarantees.
- 5) Specifics of collective representation of platform workers’ interests. Prospects for the development of social partnership. Practices of socially responsible behavior of platforms.



- 6) Risks of spreading platform employment and risks of expanding the sphere of government regulation in this regard (in views of government, business & population). Estimation of platform employment risks and tools for their minimization.

1.4 Main Objectives:

According to the study focus as mentioned above the main objectives of this research focusing on national context are:

1. Explain the legal status, rights, and obligations of platform employment and digital platforms within national legislation and address the legal regulation challenges and social guarantees for platform workers in India.
2. Estimate medium-term trends in the development of platform employment in the Indian economy.
3. Analyse platform workers' socio-demographic profile and platform employment structure in India.
4. Examine collective representation and social partnership prospects for platform workers.

1.5 Methodology of the Study:

The primary survey was conducted in four metro cities (Hyderabad, Mumbai, Kolkata, and Delhi) among platform workers across four on-demand categories: cab and ride pooling, beauty & wellness, parcel delivery, and food/grocery delivery. These locations were selected because they are key nodes in the migration corridors of the country. The present study uses a mixed-method approach, incorporating both qualitative and quantitative methods. The qualitative data collection methods include semi-structured, in-depth interviews with platform workers, open-ended checklists, focus group discussions (FGDs), and other approaches. For quantitative data collection, close-ended questions based on semi-structured questionnaires were used to survey the individual level. The snowball sampling method, along with appropriate sampling techniques, was used. The sample size is as follows:

Location	Total
Hyderabad	300
Kolkata	303
Delhi	300
Mumbai	300
Total	1203



Secondary data was collected from various government reports, research studies and other authentic documents.

1.6 Limitations of the study:

Since this research focuses on four metro cities (Hyderabad, Mumbai, Kolkata and Delhi), generalization is slightly difficult considering the diversity of platform workers across the country. However, these cities are the key nodes in migration corridors that depend mostly on platform work before they settle down with permanent work. Hence, this study will give a broader picture of the platform providers, platform workers and the role of government bodies in India.



Chapter II

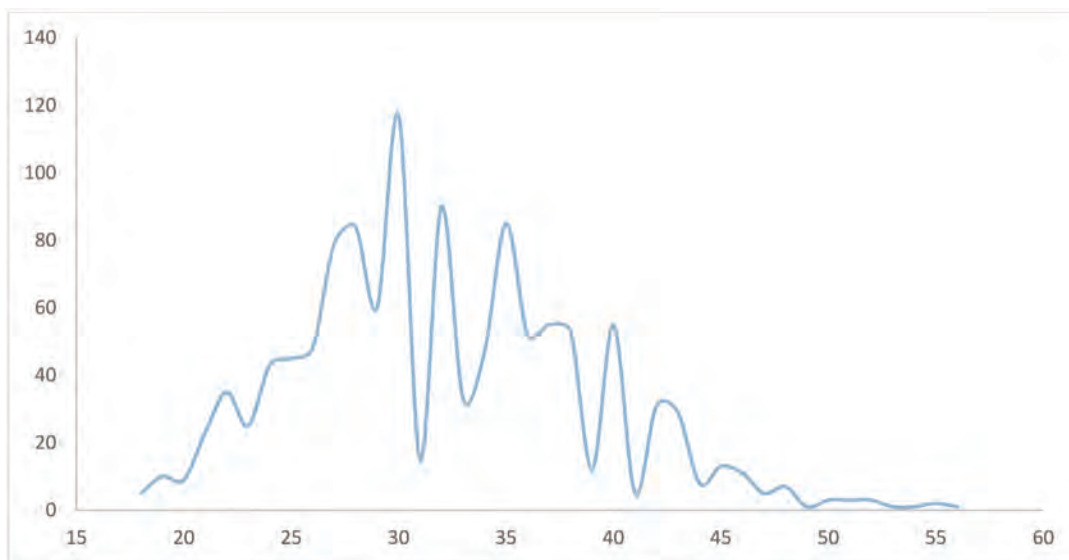
Socio-demographic Profile of the Platform Workers and its Dynamics

2.1 Socio-Demographic Profile

This chapter deals with the analysis of the structure of platform employment and the socio-demographic profile of the platform worker and its dynamics in a detailed manner. To check the ground reality of the gig work and issues pertaining to the workers, the researcher conducted a field survey into four metro cities of India i.e., Delhi, Hyderabad, Mumbai and Kolkata. A total of 1203 samples were collected based on the different factors such as socio-demographic profile of the gig workers, their migration pattern, work profile and also few issues related to their engagement in the gig economy.

Among the collected samples, including carpooling, bike sharing, beauty and wellness work, food/grocery delivery, and package delivery services, platforms such as Uber and Ola (ride-hailing), Swiggy and Zomato (food delivery) Urban Company and Yes Madam (beauty and wellness) had larger representation in the surveyed data. Additionally, other platforms such as Zepto, InDrive, Porter, YatriSathi, Rapido, etc were also represented in proportion to gig workers in these services.

Survey findings show that 90 per cent of the sample are male (particularly in the transportation-based services) and 10 per cent are female (mostly concentrated on beauty and wellness services), with most workers involved in multiple platforms, reflecting the flexible nature of the work. The underrepresentation of women is particularly in the transportation-based services where male workers overwhelmingly prevail. Several obstacles restrict women from participating in transport-based services including safety concerns, traditional restraints, driving skills etc. Addressing these barriers is critical for achieving gender equity in gig employment assuring that women have equal access to flexibility and income-generating possibilities (Dhanya, 2025). Figure 4.1 illustrates platform workers age distribution trend, revealing that youth is much higher in the collected samples.

Fig 2.1: Age-Wise Spread of Gig Workers.

Source: Primary Survey Data

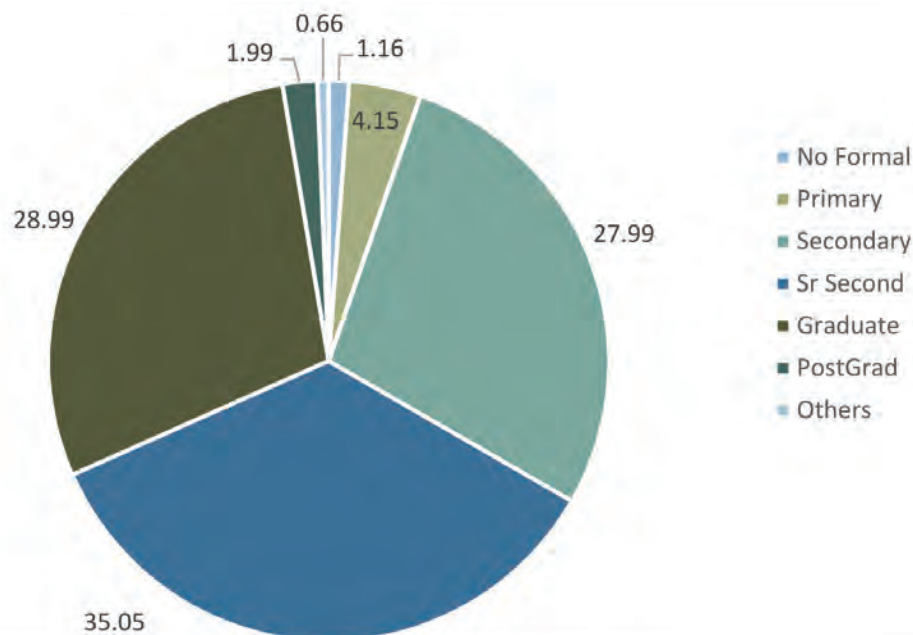
Sample data reveals that 22-40 years age groups are involved in much higher participation, beginning to rise in the late teens, with possible students and young graduates. It is emphasising the temporary character of gig for these individuals who are either exploring career options or supplementing their income.

In the later youth age group, the number of platform workers fluctuates with repeated peaks. It seems that the sector is likely to attract more workers from this age because of the degree of flexibility it provides while allowing them to balance their work and other personal responsibilities. The number of workers after the age of 40 declines drastically and by the age of 50, it reaches its lowest level. This probably indicates that older adults find gig employment less sustainable or barely attractive due to less knowledge of digital technology and the physical limits or benefits that traditional employment offers.

Considering the education level of the platform workers from selected samples, around 92 per cent of the gig workers are from secondary to graduate levels. Among this, the largest proportion of gig workers has attained the senior secondary level of education, i.e., approximately 35 per cent indicating that a significant number of gig workers possess a foundational academic skill typically provided by secondary schooling. It also indicates that secondary education is a typical final stage for many joining the gig work whether by choice or necessity. Following closely, around 29 per cent of the workers have attained graduate level placing them in the second largest group. It suggests a sizeable proportion of workers may be in transition either working in gig work as subsidiary employment or pursuing further education or acquiring skills before

seeking permanent job opportunities. Further, the third most significant group consist of secondary which represents around 28 per cent of the total workforce. This may indicate gig economy is an alternative employment opportunity for these individuals while advancing their skills or possibly due to flexibility and autonomy.

Fig 2.2: Education Attainment of the Gig Workers



Source: Primary Survey Data

Data indicates the gig economy is accessible to individuals with diverse educational backgrounds, the widely held graduate and sr. secondary level of education with notable presence of secondary significantly among youth. It can be notice that early youth age group workers (18-24 years) enter the gig economy just after completing their sr. secondary and graduation while the share of the later youth age group (25-34) have relatively more in the senior secondary level. Similarly, the share of senior secondary education is higher among adult and secondary among older age groups i.e. 35-44 years and 45-60 years respectively. While the share of non-formal education among older age group workers is higher (3.9%) following the youth age group with 3.3 per cent. Interestingly, in others category which consists of diplomas, certification and other vocational courses, the share of later-age youth workers (25-34 years) are significant number. Overall trends suggest young workers with relatively well-educated are participating more in the gig economy.

Table 2.1: Educational Attainment across the Age Group of Gig Workers (%)

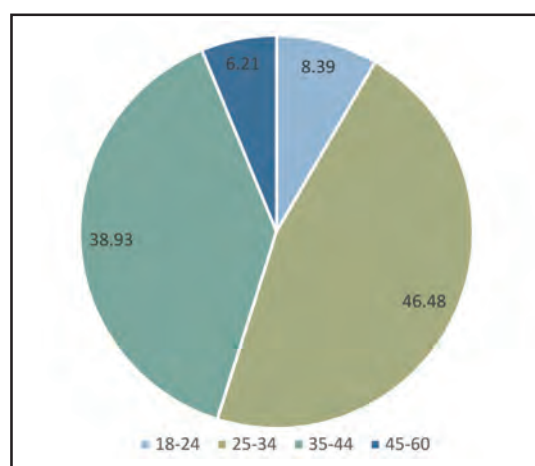
Education	18-24	25-34	35-44	45-60
No Formal	3.3	0.5	1.0	3.9
Primary	4.0	3.4	5.2	5.9
Secondary	16.0	26.9	32.5	43.1
Senior Secondary	38.0	33.7	37.1	27.5
Graduate	36.0	32.7	21.8	17.6
Post Graduate	2.7	1.8	2.1	2.0
Others	0.0	1.1	0.3	0.0

Source: Primary Survey Data

Further, from the variables age group and sole earner of the family, we can infer that among 1203 respondents, 596 workers are sole earners with almost 10 per cent of them being female workers. The later-age youth (25-34 years) represent the highest share of sole earners in the family accounting for 46.48 per cent.

2.2 Gig Workers Experiences: Survey Results

In fig 2.3, sole earners reflect a considerable interest in the gig economy, as many young people prefer the flexible work arrangements that gig employment provides to support their families. Additionally, the elder age group (35-44 years) is also noteworthy as sole earners accounts for 38.93 per cent which often includes mid-career professionals who use platform work as major or alternative income sources. Their second highest share as sole earner in the samples reflects growing dependence on the gig economy due to its mobility and capacity to manage family obligations simultaneously.

Fig 2.3: Sole Earners across Age Group of Gig Workers (%)

Source: Primary Survey Data

Notably, a sizable proportion of gig workers from the early youth age group (18-24 years) are sole earners for their families (8.39 per cent). This trend may be attributed to the growing financial obligations they incur at a younger age which may typically coincide with their educational inspirations. The gig economy provides opportunities for these young people to make money while also supporting their families.

Further, table 2.2 shows the relationship between the time duration of migration of platform workers and how recently they joined working in the sector after migration. It reveals varying trends of platform workers based on how long they have been migrants. Out of the total sample collected from the field survey, around half of the platform workers were found to be migrant from various regions of the country with different time frames. A significant share of platform workers who migrated within a year, almost half of them started working as platform workers within six months. This indicates that recent migrants are swiftly integrating into the platform economy.

Table 2.2: Migration Duration of Workers and their Timeframe of Joining Platform Economy

How recently did you start working in gig economy?	Time Duration of Migration			
	> 1 year	1-3 years	3-5 years	5+ years
0-2 months	18.2	2.1	1.0	3.7
3-6 months	30.9	2.9	1.0	8.2
6-12 months	30.9	33.6	10.4	5.3
1-2 years	16.4	53.6	51.0	23.7
2-3 years	1.8	6.8	20.8	13.5
3-5 years	0.0	1.1	13.5	24.1
5+ years	1.8	0.0	2.1	21.6

Source: Primary Survey Data

Similarly, for workers who had started working as platform workers within 1-2 years, a sizable proportion of them (53 per cent) fall into the 1-3 years migration timeframe category indicating that when they migrate, they prefer to explore opportunities in platform employment after a few months. The longer-term migrants are more likely started gig work after an extended period. They might be exploring the local job market or working for some other traditional sectors while switching to the gig economy as an alternative or additional source of income.

Further, data suggests rising dependence on the platform economy as the majority of workers (87.38 per cent) work full-time in this sector with a much higher share of

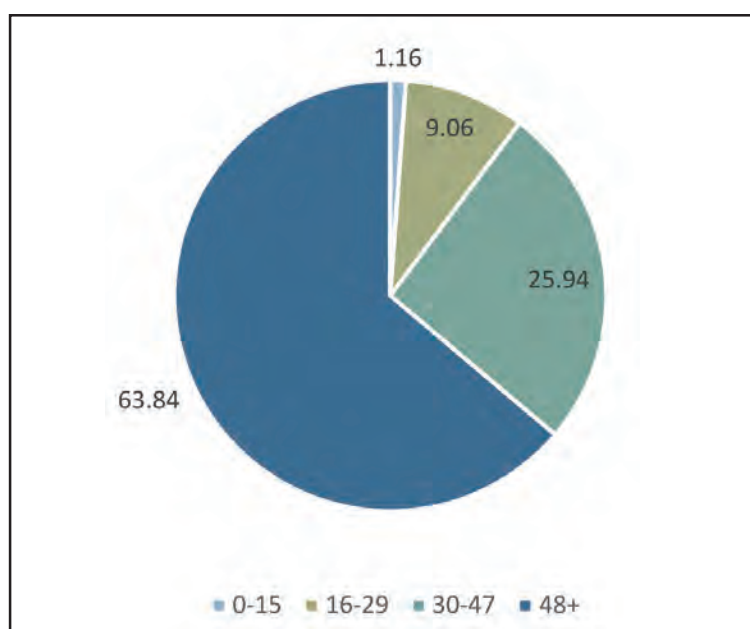
female workers (91.74 per cent) as compared to part-time involvement while the share of male with 86.89 per cent share in full-time employment as platform workers indicating strong commitment to the economy as the primary source of their income. This can be also proved from another graph (fig 2.4) that the majority (63.84 per cent) of platform workers are working for more than 48 hours a week which also includes multiple platforms. It implies that these workers completely embrace the freedom and opportunity that the economy provides. A high share of females is noteworthy mainly due to the flexibility it provides which is beneficial for balancing work with family responsibilities. It also represents the broadening participation of women in socio-economic trends with the platform serving as a practical option for achieving higher work-life balance as a counterpart to traditional jobs that provides rarely any flexible provisions.

Table 2.3: Contingency Table for the Employment Type and Gender

Gender	Type of employment		Total
	Full-time	Part-time	
Male	941(86.89)	142(13.11)	1,083(100)
Female	111(91.74)	10(8.26)	121(100)
Total	1,052(87.38)	152(12.62)	1,204(100)

Source: Primary Survey Data

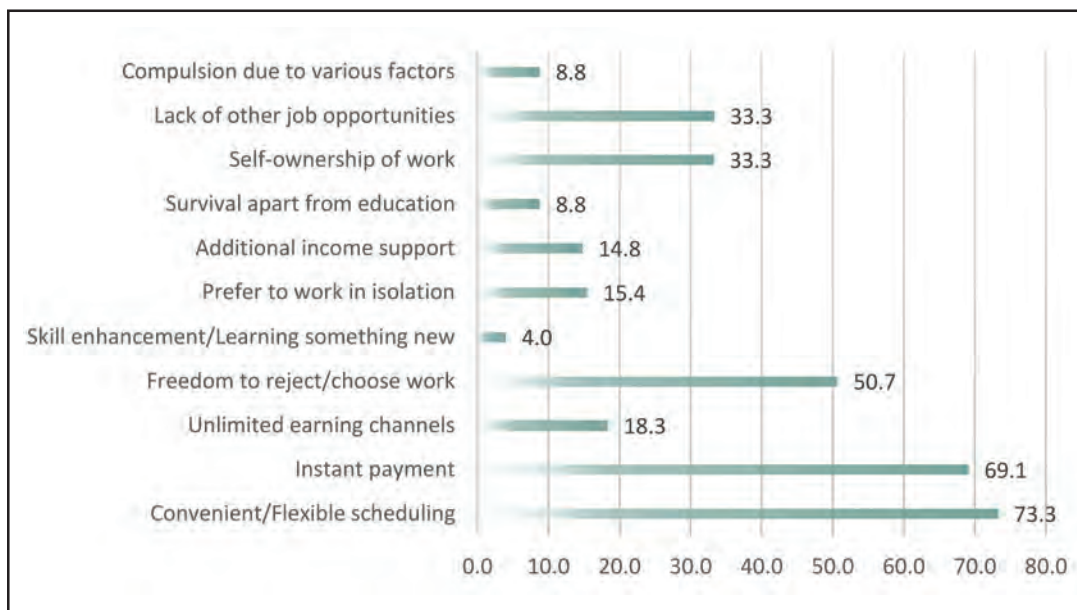
Fig. 2.4: Average Weekly Hours Spent by Workers in Gig Economy (%)



Source: Primary Survey Data

The data offers a comprehensive perspective on the diverse motivations influencing individuals to participate in platform work, highlighting the multifaceted reasons behind employment preference. The primary determinant is convenient/flexible scheduling (73.3 per cent). This significant proportion underscores the critical role of flexibility in platform employment, enabling individuals to adapt their work schedules to align with personal requirements and other responsibilities. Such adaptability is particularly attractive to those managing multiple commitments or seeking alternative employment structures that accommodate their lifestyle preferences. Another major reason to work in the platform economy is the immediate payment settlement (69 per cent). The temptation of instant monetary reward meets an essential need for many platform workers, who may want the immediate flow of cash. This element of gig employment is in sharp contrast to regular employment, where payment periods are lengthier. Furthermore, freedom to reject/choose work (44.14 per cent) demonstrate a desire for autonomy and control over working circumstances, highlighting the attractiveness of gig jobs that provide freedom from hierarchical structures and tight timetables. However, data also reveals a few other reasons that motivate workers to join platform economy which are self-ownership of work and lack of other job opportunities as cited by 33 per cent; and unlimited earning channel (18.3 per cent); prefer to work in isolation (15.4 per cent); additional income support (14.8 per cent) etc. Overall, platform labour is a dynamic and financially relevant job option, but not without constraints and the effect of external influences.

Fig 2.5: Reasons mentioned by Workers for joining the platform economy (%)

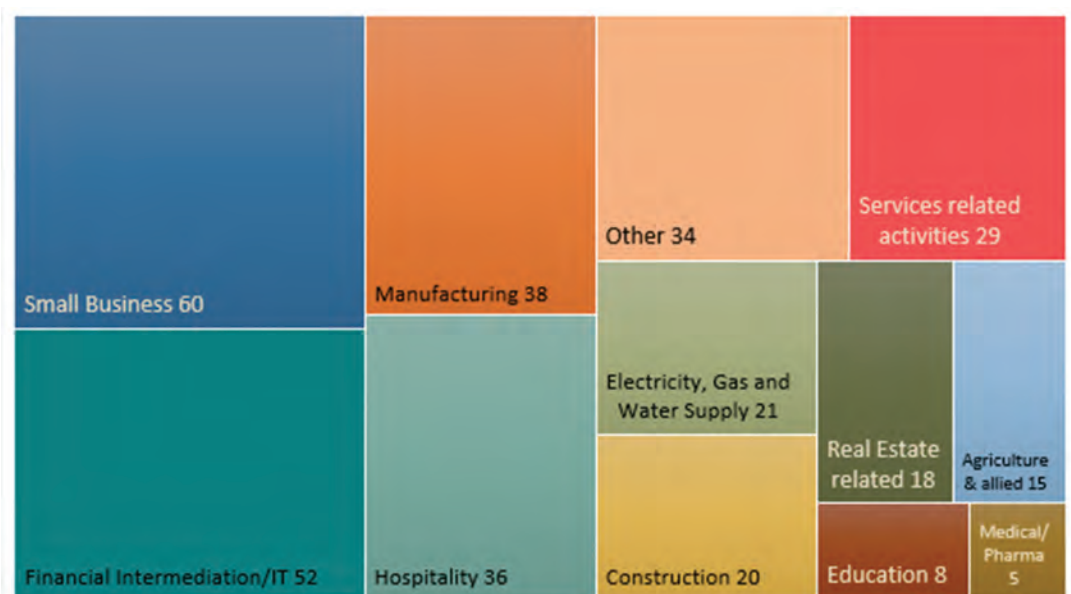


Source: Primary Survey Data



Around 30 per cent of the gig workers are not solely reliant on gig work. Rather they are involved in other sectors simultaneously, holding multiple jobs at the same time to boost their income and enhance financial stability. The involvement of workers in multi-sector illustrates their flexibility and resilience in managing the economic landscape while emphasizing the need to provide them with the assistance and tools they require to properly manage their multiple jobs, allowing them to retain their livelihoods while contributing to diverse sectors. Fig 2.6 reflects a significant portion of the workforce leveraging diverse opportunities to boost their earning. Small business and Finance/IT-related sectors are the most common sectors where gig workers are engaging. This trend implies that many of them are looking for stable and additional financial sources in small initiatives which provide constant earnings to their family. Apart from this, hospitality, manufacturing and other service-related work are the sectors where gig workers are seen in a sizable number.

Fig 2.6: Number of Workers Engaged in another Sector Apart from Platform Economy

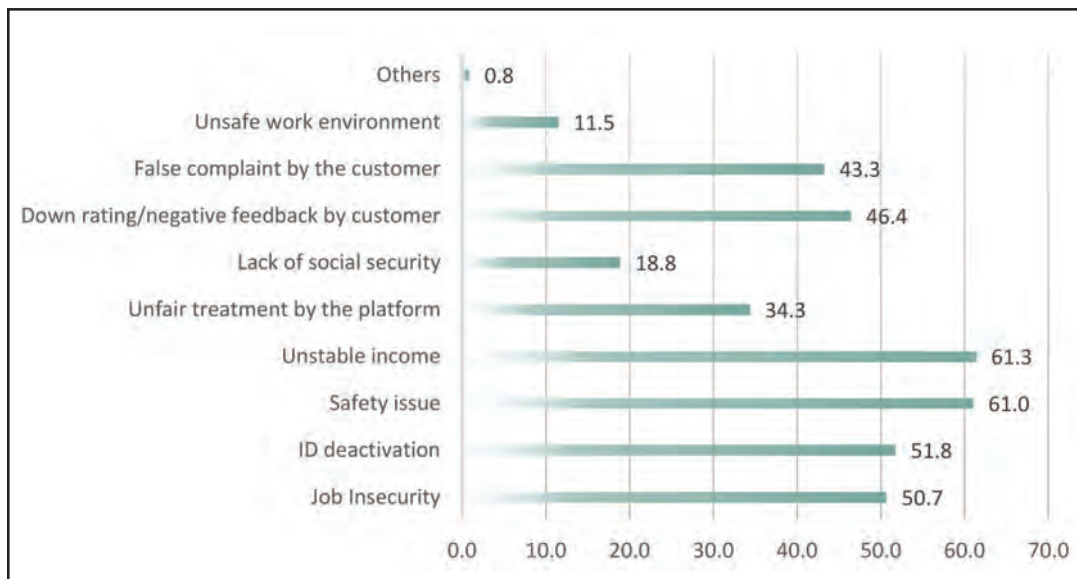


Source: Primary Survey Data

The data provides an in-depth analysis of the key challenges that platform workers have to deal with. Majority of gig workers, i.e., 61.3 per cent, identify unstable income as their primary concern. It reflects unpredictable nature of gig work, where income can fluctuate drastically owing to demand variations and algorithm modifications. This is closely followed by concerns about the safety issue (61 per cent) indicating underlying the hazards particularly those in delivery and transportation services and ID deactivation (51.80 per cent), reflecting sensitivity of gig workers to consumer-

driven assessments which can have a direct influence on their job security and earning potential. Around 50 per cent of gig workers are concerned about their job insecurity. Furthermore, around 46 per cent of the respondents are concerned about negative feedback which might result in ID deactivation leading to the loss of the primary source of income. Similarly, false complaint by the customer is a worry for around 43 per cent of the workers, indicating that they frequently experience a lack of consistency in their jobs. A few other significant reasons constitute an unfair treatment by the platform, lack of social security, and unsafe working environment but affecting at comparably at lower proportions to the workforce.

Fig 2.7: Kind of Worries by the Workers in Platform Work (%)



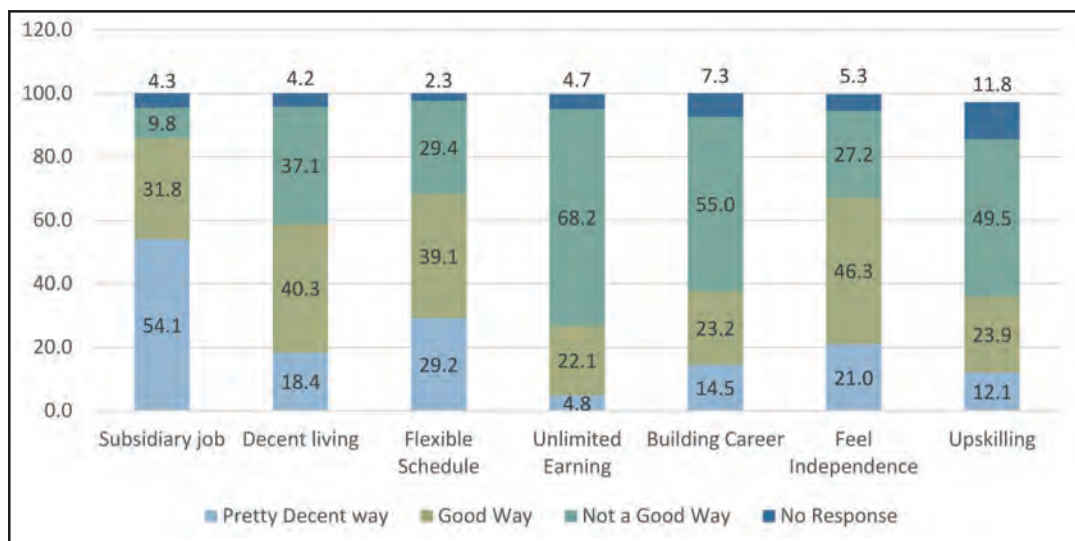
Source: Primary Survey Data

Further, fig 2.8 shows that workers have different perspectives on platform work's success in attaining various areas of their professional life in the long term. Overall data reveals a mixed response from platform workers who enjoy their flexibility and freedom but are concerned about financial security, job advancement, and skill development. A whopping 54 per cent of workers regard their employment as a Pretty Decent Way to make subsidiary employment in the long run, showing that the majority look at it as a dependable source of supplementary earnings rather than a primary job. However, barely 4.8 per cent believes that it is a good way to make a sustained earning in the long run, demonstrating a dramatic discrepancy in their perceptions of financial security and development in gig employment. Similarly, while a significant 21 per cent find freedom in the gig economy, just 14.5 per cent consider it as a credible method of establishing a long-term career. On the other side, a significant 40.3 per cent of workers regard the gig economy as Not a Good Way to make a decent living in the long run, indicating worries about income sufficiency. Furthermore, 68.2 per cent



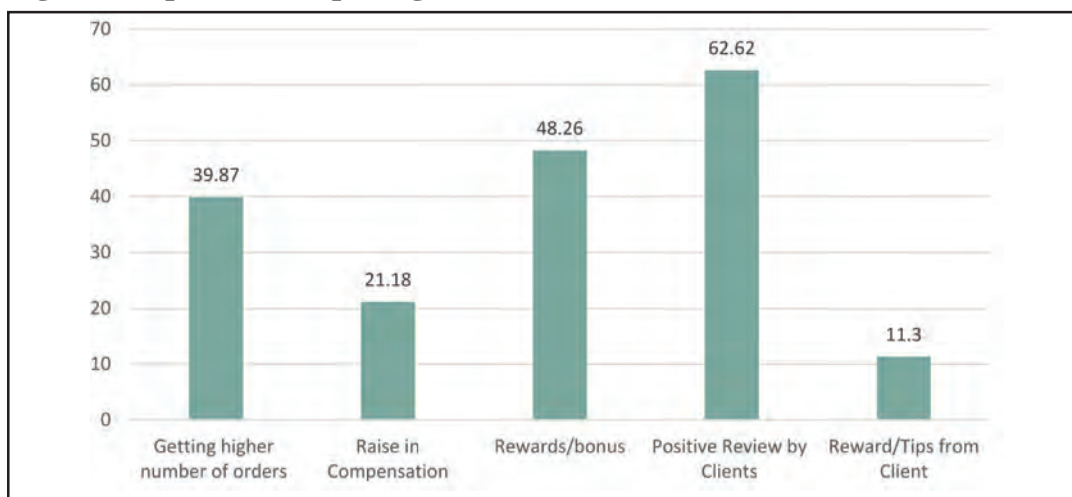
responded gig economy is not a good channel for the long run to offer unlimited earning possibilities that emphasise unpredictability associated with the sector. Upskilling options are also limited as around half of the workers believes that platform employment is inadequate for skill development. Despite these problems, a large proportion of workers highlight that it might provide a higher independence in the long run.

Figure 2.8: Worker’s Perspectives on Platform Employment in Long Run (%)



Source: Primary Survey Data

The graph reflects numerous outcomes that workers experience when they execute orders within the time frame. Around 62.62 per cent of the workers responded that clients provide positive reviews/high ratings to them when they deliver or complete the order within the time limit. This emphasises how much client feedback is decisive in the gig economy since it can lead to increased work prospects on the platform and also the motivation for gig workers that directly influence their future earning and job stability. Furthermore, around 48 per cent of gig workers report getting bonus or reward when tasks are completed on time. Platforms frequently utilize rewards to incentivize timely and efficient work that matches their operational objectives. Receiving a higher frequency of orders from the platform is also a significant incentive, with 39.87% of employees perceiving this benefit indicating a prompt service improves their reputation and dependability, increasing their chances of being picked for future work. However, only 21.18% of workers received a raised compensation for timely completion, demonstrating that while immediate cash rewards are limited, there are other types of recognition and perks too. These insights highlight the need for platforms to maintain and enhance incentives to support timely and efficient work among gig workers.

Fig. 2.9: Impact of Completing of Orders within Time Limit (%)

Source: Primary Survey Data

Safety reasons are one of the major concern for gig and platform workers, particularly among those involved in transportation and delivery-based services. Figure 2.4 represents how the platform responds to safety issues according to employment type. The result shows a significant proportion of the workers getting delayed response from their platform in case of safety-related concerns while very few of them reported that they received immediate response from their platform. It is alarming that around 22 per cent of the gig workers report no response from the platform raises a serious issue in the platform accountability and safety of the workers. These findings highlight the critical need for the platforms to improve their response system and provide immediate assistance to the platform workers experiencing safety issues.

Table 2.4: Employment Type and Platform Response to Safety Concern.

Response	Type of employment		Total
	Full-time	Part-time	
Immediately	92 (14.05)	14 (18.92)	106 (14.54)
Not immediately, but on time	140 (21.37)	16 (21.62)	156 (21.40)
Delayed	280 (42.75)	34 (45.95)	314 (43.07)
Not responded	143 (21.83)	10 (13.51)	153 20.99
Total	655 (100.00)	74 (100.00)	729 (100.00)

Source: Primary Survey Data

With the growing concerns related to working atmosphere in the platform economy, involvement of workers with the labour union is increasing to raise their voices to make a better ecosystem and safe working environment for the workers. The collected data from the field survey provides critical insight into gig workers' labour union membership, which has been further broken down by gender and age. The Pearson chi-square tests for both gender ($\chi^2(2) = 13.7773$, $Pr = 0.001$) and age group ($\chi^2(6) = 34.1583$, $Pr = 0.000$) from Table 2.5 show statistically significant associations inferring that gender and age have a major impact on union engagement and familiarity among gig workers.

Table 2.5: Contingency Table for the Different Age Group, Gender and Their Involvement with Labour Union

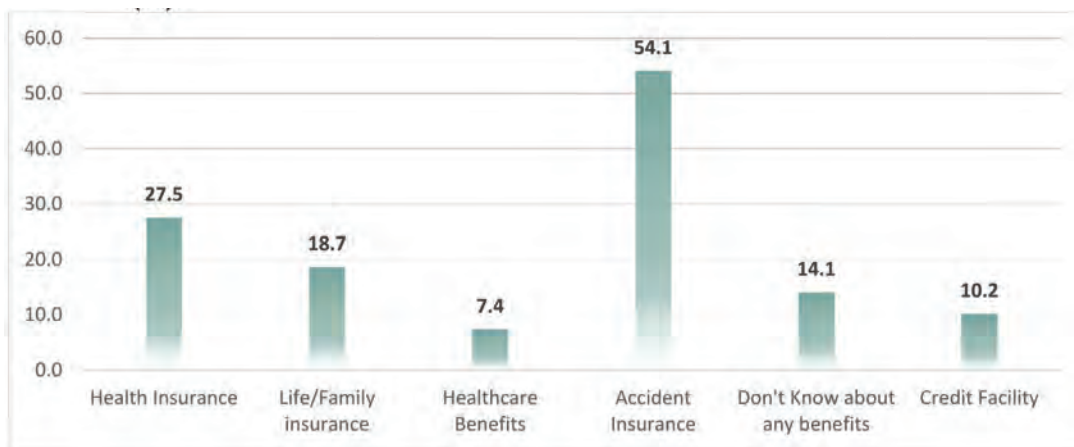
Association of Gig Worker with any Labour Union	Age Group				
	18-24	25-34	35-44	45-60	Total
Currently Associated	8 (3.56)	117 (52.00)	94 (41.78)	6 (2.67)	225 (100)
Not Associated	106 (13.91)	383 (50.26)	241 (31.63)	32 (4.20)	762 (100)
Unaware of it	36 (16.67)	117 (54.17)	50 (23.15)	13 (6.02)	216 (100)
Total	150 (12.47)	617 (51.29)	385 (32.00)	51 (4.24)	1,203 (100)
<i>Pearson $\chi^2(6) = 34.1583$ $Pr = 0.000$</i>					
	Male	Female	Total		
Currently Associated	201 (89.33)	24 (10.67)	225 (100)		
Not Associated	672 (88.19)	90 (11.81)	762 (100)		
Unaware of it	209 (96.76)	7 (3.24)	216 (100)		
Total	1,082 (89.94)	121 (10.06)	1,203 (100)		
<i>Pearson $\chi^2(6) = 13.7773$ $Pr = 0.001$</i>					

Source: Primary Survey Data

Interestingly, from Table 2.5, the later youth age group (25-34 years) had the highest level of involvement in labour unions, with 117 respondents, indicating that this demographic is better informed or prepared to pursue collective bargaining and support systems. The elderly age group (35-44 years) also has a significant number of

respondents (94) who are members of trade unions. However, participation is much lower in the workers from early youth (18-24) and the older (45-60) age groups as compared to others indicating that workers from these age groups are not much interested to be involved or are unaware of trade unions. It may also be possible for the younger age group they be new to the workforce while the older age group regard labour unions as less advantageous to their employment circumstances. From the gendered perspective, the number of males is significantly higher (201) involved in labour unions as compared to their female counterparts (24). The disparity may be attributed to numerous factors including the awareness level, type of employment and other social responsibilities etc. Insight from the field survey suggests the same story of gender disparity. The majority of women are reluctant to join labour unions due to certain fear of ID deactivation while some women are found to be connected through social media platforms. It can be inferred from the data table, that there is an urgent need for enhanced communication and specific initiatives to boost awareness of labour unions and particular involvement of youth and female gig workers. Enhanced understanding and perceived benefits of union membership may help to overcome these inequalities and provide enhanced assistance for platform workers.

Fig 2.10: Awareness among Platform Workers about the Benefits Provided by their Platform (%)



Source: Primary Survey Data

In context of the benefits provided by the platform, it usually seems that platform workers are not very aware of it. Figure 2.9 shows gig workers' understanding of the benefits provided by their respective platforms. Around, 54 per cent, are aware of accident insurance, making it their most recognized benefit among gig workers. The relatively high level of awareness regarding accident insurance among gig workers can be accredited to its direct relevance in the gig economy, particularly for those engaged in ride-sharing and delivery services where occupational risks are prevalent. In contrast, awareness of other critical benefits remains considerably lower, only 27.5 per cent of workers are aware of health insurance while barely 18.7 per cent are familiar



with life or family insurance provisions. This disparity highlights a significant communication gap between platforms and workers concerning the availability and importance of such benefits. Notably, only 7.4 per cent of gig workers reported awareness of healthcare benefits, which is particularly concerning given their potential healthcare needs and limited access to employer-sponsored coverage.

Furthermore, 14 per cent of employees are entirely ignorant of any perks, revealing a substantial knowledge deficit that platforms must solve. Insufficient knowledge of credit facilities (10.2 per cent) indicates that financial services provided by platforms are either poorly conveyed or not viewed as important by workers due to tedious paperwork. There is a clear need for platforms to improve awareness and comprehension of different advantages such as health and life insurance, credit facilities, healthcare benefits etc. Increasing communication efforts regarding these perks can help gig workers make more resolute employment decisions while successfully mitigating the inherent potential risks of the gig economy.

The survey data reveals that improvement in financial condition varies dramatically with the number of platforms they are engage with. Gig workers engaged with four or more platforms report the highest level of financial benefit (71.74 per cent), suggesting that employing varied strategies such as switching between platforms for higher pay, diversifying tasks, and targeting specific geographical areas can lead to improved financial outcomes.

Table 2.6: Platform Diversity and Economic Mobility in the Gig Economy

Gig worker in a better financial position than before joining platform?	Total Number of Platforms Gig Workers are Currently Working				
	One	Two	Three	Four+	Total
Better	349 (46.23)	93 (43.66)	26 (50.98)	132 (71.74)	600 (49.88)
Worst	124 (16.42)	46 (21.60)	13 (25.49)	30 (16.30)	213 (17.71)
Almost same	282 (37.35)	74 (34.74)	12 (23.53)	22 (11.96)	390 (32.42)
Total	755 (100)	213 (100)	51 (100)	184 (100)	1,203 (100)

Source: Primary Survey Data

Furthermore, 46.23 per cent of workers working with one platform have reported significant improvement in financial condition, as these workers mainly fall under the category of personal care & wellness and food/groceries delivery workers, demonstrating that even small participation in the gig economy may lead to



profitable. However, the number falls to 43.6 per cent and 51 per cent for people working on two and three platforms, respectively. On the contrary, people working on two and three platforms (21.60 per cent and 25.49 per cent, respectively) had a greater proportion in the “Worst” category than those working on one platform (16.42 per cent) or four or more platforms (16.30 per cent) which indicates a possible instability or risk connected with working across some (but not the most) platforms such as platform-specific constraints, time management, competition etc. influencing financial progress in these groups. Around 32 per cent of the workers reported that their financial situation remained the same as earlier and did not change even after joining the gig economy. Interestingly, those who work on more than four platforms at the same time have the least (around 12 per cent) reported to be the stabilised income. However, workers engaged with less than that have experienced more stabilized financial progress after joining gig work. In conclusion, diversified engagement with different platforms can lead to better financial improvement with varying risk and income constancy.

2.3 Behind the app : Stories from the gig workers

During field survey spread across metro cities in India – Delhi, Mumbai, Hyderabad and Kolkata, we came across multiple stories of workers who defy the odds of society.

2.3.1. Empowering Women through Platform Work

The stories of women who work for Urban Company in Delhi is full of hope and inspirations. As per the ESG Report 2022 of Urban Company the company has more than 50,000 service partners (workers) across beauty, wellness, cleaning and home appliance repairing category. We talked to over 60 women workers of Urban Company actively working in Delhi and came across inspiring stories of hard-work, and resilience. All these women worked in beauty and wellness segment for the Urban Company. Over fifty per cent of these women are either single mothers or were living away from their husband for several reasons. In many cases, husbands don't make enough for livelihood or are out of the workforce altogether, so the entire family was dependent on these beauty workers for their everyday needs.

Amongst them, the most inspiring story is of Kavita¹ who has earned enough during 2019-2023 from the app-mediated work that she has been able to rent a better house, buy a refrigerator, a sofa and a scooty for herself over these years. She has also been able to send her child to a better private school. Kavita husband earns a meagre salary of about ten to twelve thousand, most of which is saved by the household and the entire family depends on her for their needs she earns around forty thousand (average) from beauty work.

In this way, the app-mediated work has empowered Kavita in her family as well as in society. We encountered a similar case of a single mother who provides delivery services for Zepto in Hyderabad to earn her livelihood and take care of her child. In this case,



the woman distributes her time between her house, the nearest Zepto store and delivery destinations in such a way that she can take care of her child. Hence, she prefers taking those delivery requests which are shorter in destinations, this flexibility associated with her work is critical to her overall routine.

Apart from this, the app-mediated beauty work also provided an opportunity for many women to polish their beauty skills through skill training. In some cases, women felt empowered both digitally, financially and skill-wise and opted out of the app to start their own beauty parlour. The seasonal nature of this work with high demand during wedding seasons becomes an incentive for many to join the app for a few months while being in a flexible routine work in some other set-up. Such multiple job holdings are common amongst those who women are members of self-owned family enterprises such as *kirana shops* etc. A 23-year-old Urban Company woman worker from Kolkata spoke to us about how she entered into this sector after doing a graduation in Bengali language because over the time she realized that beauty work was her passion which she could take through Urban Company. Despite coming from an affluent family, she worked for Urban Company for several years and is now amongst the top high rated service provider of her region.

Women from Urban Company reported to us that apart from the entrepreneurial empowerment which is a positive achievement of the app mediated work, there are some critical issues that needs to be acknowledged and reformed. There have been instances when after encountering some issues with the company regarding ID blockage, women have unionized and protested for their rights at due places, a moment of political empowerment towards recognition of one's identity, rights and sense of self.

2.3.2. Platform Workers Performing Brotherhood and Solidarity

An important advantage of gig and platform work is the performative leverage it brings along with it, especially to the cab drivers and delivery boys. Now a days these two categories are socially recognized mainstream occupational identity in India with which consumers and public at large shares a relationship of intimacy, sympathy and belongingness. The unpredictability associated with work in terms of which task is supposed to be performed next converts into a playful adventurous game which has also been recognized in the literature by scholars of this field (Cameron, L. D., 2024)².

We came across a case from Kolkata where a worker uses his 'waiting time' in between deliveries for spreading message of care, communal harmony and brotherhood in the society. Ravi³ works for passenger delivery apps and has a scooty of his own. He is involved with a union and has turned his Facebook account into a union account. While doing deliveries, at waiting time he helps random people on the street whom he meets through his Facebook union account. Ravi's primary involvement in gig work, as our field investigators found out is not driven by any economic necessity. His brother

³Name changed for maintaining the anonymity of the respondent.



is able to support the family with his business, and Ravi's attachment to the work is driven by a social cause to be available on the streets during working time to help out needy people in the city. In this way, he is using the platform to earn a modest revenue primarily to carry forward his social work. Another similar story from Kolkata is of a Swiggy worker who was working as a contractual employee in a government department but lost his job in 2018-19. He then joined platform work and due to the flexible nature of the work he continued so that he could revive his old passion towards Bengali poetry. Now he utilizes his YouTube account as a forum to spread his words, his written Bengali poems and remains vocal about the occupational challenges of doing gig work. In this way, he has gained recognition amongst workers as well as in society at large and is acting as a bridge for forging solidarities.

2.3.3. Entrepreneurial Spirit of Gig and Platform Workers

The workers active in the gig and platform sector are primarily associated with the platform companies as partners. This gives an entrepreneurial aspect to the overall job, while it is a long-standing demand to recognize gig and platform partners as 'workers' and 'employees', some workers leverage the partnership aspect of the job to their own business ends. In this respect, we identified a few workers in Delhi who have used the partnership model of Urban Company, Swiggy and Zomato to expand the market size of their principal business enterprises. Gig and Platform apps provide access to information about potential clients and customers of a specific area which workers follow up to build their market and trust networks for long-term business utilization. In this way, these workers are able to leverage the information economy of gig and platform work for their market expansion and competitive pricing of their products and services.

The most inspiring case of entrepreneurial spirit that we encountered in the field was of Abhay⁴ from Hyderabad who works for Rapido bike-sharing service company. Abhay is from a very modest Telugu background and has done his B.Tech from a provincial college. His wife also works and contributes to the family income. He has been working as ride ride-sharing service provider for over four years. During this time, Abhay has done market and technical research of his own on the scope of the app-mediated work and is dedicatedly putting up a team of five individuals from his friends' network towards launching a local bike ride-sharing app in Hyderabad. If this endeavour becomes successful, then Abhay's B.Tech education and his experience of working in ride-sharing will prove inspirational for millions of gig and platform workers in India.

²Cameron, L. D. (2024, June 21). How Micro-Choices and games Motivate gig Workers. Harvard Business Review. <https://hbr.org/2024/06/how-micro-choices-and-games-motivate-gig-workers>

³Name changed for maintaining the anonymity of the respondent

⁴Name changed for maintaining the anonymity of the respondent

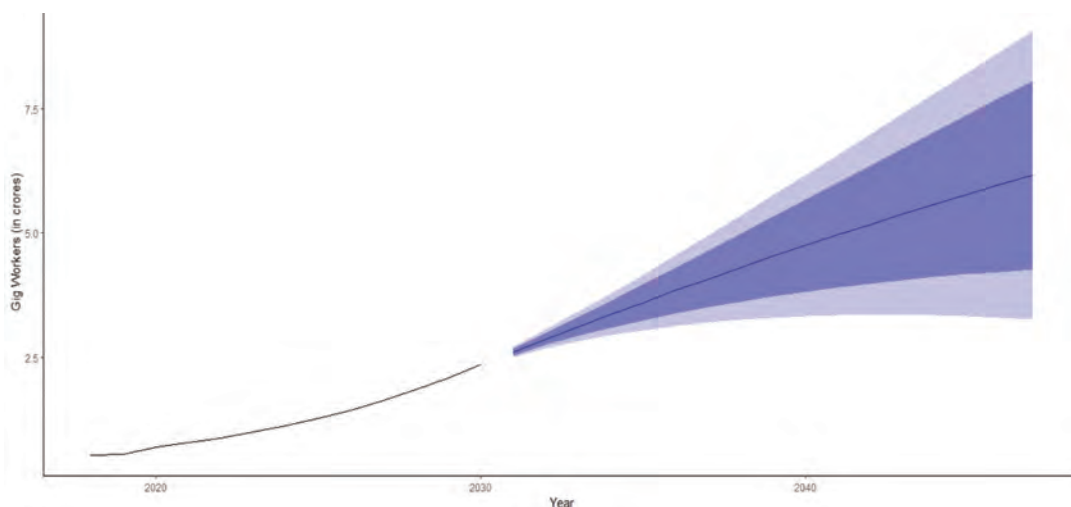
Chapter III

Trends in the Development of Platform Employment: National Estimation, Legislation and Rights

3.1 Projections of Gig and Platform Economy in India

The gig and platform economy offered new markets for businesses and more income-generating opportunities for workers in the last few years, as it has the potential to shape the future of work. The number of web-based and location-based online platforms increased from 142 in 2010 to over 777 in 2020 (ILO, 2024). Particularly, in the restaurant and retail industries, numerous small and medium-sized enterprises have started location-based platforms and are depending more and more on digital labour platforms. The gig and platform economy is booming at an exorbitant pace. Web-based and location-based gig workers are primarily employed by educated rural youth and are located in metropolitan and semi-urban areas in search of employment. (NITI Aayog, 2022; World Bank, 2021). The percentage of workers from rural that participate in the gig economy will increase by the end of the decade due to technological penetration, much like in developed nations. (ILO, 2021).

Figure 3.1: Forecast of Employment in Gig and Platform Economy using Exponential Smoothing method.



Source: Dhanya MB, 2025

According to the vision 2047 report (Dhanya, 2025) figure 3.1 signifies with upward trajectory of 6.16 crores by 2047 of employment in the gig and platform economy indicating the sector's employment figure with an increasing trend in upcoming years. As the projection progresses, gaps expand, indicating the growing complexity and unpredictability of the forecasts. Under an aspirational scenario, the sector could



generate 9.08 crore jobs; however, in a pessimistic scenario (like technological disruption or economic shocks) may decrease it to 3.25 crore. Overall, the trend suggests that the sector will play a significant role in employment generation in the Indian economy encompassing a wide range of jobs from freelancing to technology based across different industries.

3.2 National Legislation and Rights

The platform technology originated in a ‘libertarian’ context offering ‘employment at will’ to people within the model of ‘coordinated market economies’ (Deepika & Madhusoodhan, 2022). Unlike traditional models of employment where workers have an organizational work identity, the platform is particularly different because of the heterogeneity of the work model, fragility of organizational identity as well as task contents. Partly due to these reasons platforms treat workers as ‘contractors’ or ‘partners’ and themselves as ‘intermediaries’ or ‘aggregators’ who are facilitating the contract between the worker and the customer or client. To put it differently, platforms are digital service providers who are helping the workers connect with customers. In this sense, in the broader logic of laws and regulation, it is believed that every gig task that is performed by the worker is an ordinary business transaction being performed by independent parties (Koutsimpogiorgos et al., 2020). This ambiguity becomes complicated if one thinks of aggregator platforms solely as marketplaces and not business organizations in themselves. As a result, the scope of legal and policy intervention in the gig and platform sector has a challenge across the world. Hence for the longest time, gig and platform work mediated by digital platforms have remained outside the scope of ‘labour laws’ and ‘social security’ (World Bank, 2021). The growing legal and economic scholarship (ibid) on the gig and platform sector has been suggesting to identify gig and platform work as ‘employment relationships’. Recently, with the increasing realization of the scale and nature of gig and platform work, governments across the world are taking steps towards bringing this sector under the purview of labour laws.

In the Indian constitution, labour comes under the concurrent list meaning both the central & state governments can enact legislation as per their requirements. As of 2020, there were over 40 central laws and more than 100 state-level labour laws that applied to a variety of sectors in the Indian economy (PRS India, 2020). It created multi-level complexity both for businesses and organizations to identify and comply with the labour law framework. The diversity in laws and their procedural compliance was a ‘cost-burden’ on business organizations hence the usual strategy for businesses was to remain informal and unorganized and to opt out of compliance altogether. As a result, nearly ninety per cent of commercial entities operate as informal-unorganised entities in India and only around ten per cent are under the ambit of labour law regulations (Shrija & Shrike, 2014). Further, the labour laws offered little window for negotiations over conflicts leading to a state of inflexibility in the employment



relationships. The second National Commission on Labour in 2002 suggested that an integrative legal framework classified into five broad categories for industrial relations, wages, social security, safety welfare and working conditions is needed to overcome inconsistency, complexities and technical glitches of the existing laws (MoLE, 2003). Further with growing demand from industries and other key stakeholders, the emphasis was on simplification of labour laws to boost transparency, and flexibility and to ensure implementation. After a prolonged consultative process, the central government finally introduced four bills in 2019 to integrate the existing 29 central laws. These four labour codes are as follows:

- Code on Wages, 2019
- Occupational Safety, Health and Working Conditions Code, 2020
- Industrial Relations Code, 2020
- Code on Social Security, 2020

It is important to note that labour codes have been approved by both houses of the parliament as well as received the president's assent in the years 2019 and 2020. These codes are still at the pre-published stage and may be implemented as soon as state governments and other key stakeholders are taken on board towards its implementation (Sirwalla, 2024). Three key legislative developments have happened with respect to gig and platform workers in the past few years. Firstly, the recently drafted Codes on Social Security 2020 have identified gig and platform work as standard employment relations to implement universal social security provisions (MoLE-CoSS,2020). Secondly, in 2023 Rajasthan government enacted the Rajasthan Platform-Based Gig Workers (Registration and Welfare) Act envisioning and establishing a "Rajasthan Platform Based Gig Workers Social Security and Welfare Fund", wherein all sums received from the welfare cess, contributions made by individual platform-based gig workers, sums received as grant-in-aid from the State Government, donations, etc., will be held, and utilised for the social upliftment of the platform workers (Govt of Rajasthan, 2023). In continuation to these two developments, recently, the labour department of the Karnataka and Jharkhand government also published the draft of the Platform-based Gig Workers Bill (Govt of Karnataka and Govt of Jharkhand, 2024).

3.2.1 Gig & Platform Economy and Code on Social Security 2020.

With an aim of universalizing social security, within these four labour codes, the subject of gig and platform work has been recognized in Codes on Social Security 2020. To realize social security benefits, the code focuses on five broad areas related to gig and platform workers, the scope of their implementation is being further broadened with draft rules for implementation

- a) Expanding the scope of the definition of gig and platform work to include all categories of workers without any error of classification.



- b) Ensuring formal registration of workers and aggregators and to issue Universal Account Numbers (UAN) and digital identity cards with photographs to workers
- c) Establishing a helpline to disseminate information about laws, policies and welfare schemes
- d) Expansion and implementation of existing social security schemes such as old age pension, maternity benefits, accident insurance etc. to gig and platform workers
- e) Establishment of a Social Security Fund to be utilised for the benefit of gig and platform workers

Section 112 of the Code on Social Security, 2020 focuses on setting up helpline centres, section 113 is on the registration of gig and platform workers, section 114 lays out the detailed schemes for gig and platform workers and section 141 is on establishing social security fund for gig and platform workers (MoLE-CoSS,2020).

A. Defining Gig and Platform Work

Traditionally the concept of employee in Indian legislation has focused solely on traditional factory or office-based workers. Defining of gig and platform workers becomes crucial to identify the beneficiary group that needs to be targeted through the laws. Chapter 1, section 2(35) of Codes on Social Security defines a gig worker as “a person who participates in work arrangement and earns from such activities outside of a traditional employer-employee relationship”. Similarly, in section 2(2), an aggregator has been defined as “a digital intermediary or a marketplace for a buyer or user of a service to connect with the seller or the service provider”. As stated earlier, due to a lack of legal definition of ‘gig worker’, the platforms treat them as independent ‘contractors’ or ‘partners’ and hence exclude them from the purview of labour enforcement. The attempt to define gig workers and aggregators increases the scope of implementation of codes in this sector.

B. Registration of Platforms and Workers

To further identify the beneficiary group, in order to bring the gig and platform sector under the social security net, it is important to overcome the classification and recognition problem of platforms and workers. Section 113 of the Code on Social Security, 2020 provides for registration of unorganized workers, gig and platform workers for availing social security schemes. The minimum age for such workers has been kept at sixteen years. The registration process for availing of social security schemes will be Adhaar-linked. The draft rules for



the codes make it compulsory for the aggregators to enable such registrations. Chapter VIII, Rule 50 (2) (a) of the draft rule for Code on Social Security, 2020 makes it compulsory for aggregators to register gig and platform workers on the designated portal of the central government for the generation of Universal Account Number. Every such worker will be issued an identity card (digital or otherwise with a photograph) from the designated portal. A similar registration process for aggregators shall be compulsory on the Shram Suvidha portal, a single window for labour law compliance has been laid out in the draft rules of the codes, and each aggregator will have a unique registration number through which compliance will be monitored.

As of now, the central government maintains an e-Shram portal for unorganized sector workers which is a voluntary window of registration and their self-identification. This includes construction workers, migrant workers, gig and platform workers, street vendors, domestic workers, agriculture workers, etc. This database is maintained by the Ministry of Labour & Employment to ascertain the employability of unorganised sector workers and to extend the benefit of social security schemes to them. Currently over 30 crore e-Shram cards seeded with Adhaar cards have been issued by the portal. The e-Shram portal registration is crucial for availing the social security schemes such as AB - PMJAY, PMSYM, Atal Pension Yojana, Pradhan Mantri Awaas Yojana (G) etc which is a government-backed scheme for unorganised workers meant for improving the social protection and standard of living of workers.

C. Helpline Centres

Section 112 of the code on social security proposes to establish a helpline and facilitation centre for unorganized workers, gig workers and platform workers. These centres will have toll-free calling facilities to fulfil two main objectives. Firstly, to disseminate information about social security schemes available for unorganized workers, gig workers and platform workers. Secondly, the helpline centres will help to facilitate filing, processing registration, and forwarding of application forms regarding registration of unorganized, gig and platform workers towards enrolment in social security schemes.

D. Existing Scheme for Gig and Platform Workers

Section 114 of the code expands the scope of implementation of existing social security schemes on gig and platform workers. These schemes include life and disability cover, accident insurance, health and maternity benefits, old age protection, crèche and other such schemes as and when implemented by the central government. The funding for such schemes as the section iterates will come either wholly from the government, partly from the government,



partly from the aggregators or through a mutual contribution of government, aggregators and workers. The draft implementation rules of the code have laid out form XX and XXI as the framework for self-assessment of aggregators and to ascertain their respective contributions of cess amount for implementation of such schemes.

E. Social Security Fund

The code on social security prescribes the establishment of a social security fund for the social welfare of gig and platform workers and unorganized workers. As per the Code, aggregators will have to contribute 1 to 2 per cent of their annual turnover for social security which will not exceed 5 per cent of the amount paid or payable by an aggregator to gig workers and platform workers. The funds collected will be utilised towards the social upliftment of gig and platform workers. The fund will be monitored by a designated agency and will be audited from time to time by the Comptroller and Auditor General of India.

Apart from the Code on Social Security, Rajasthan, Jharkhand and Karnataka governments have also initiated steps towards legislating laws for gig and platform workers.

a. Rajasthan Platform Based Gig Workers (Registration and Welfare) Act, 2023

Section 2(e) of the Rajasthan Platform Based Gig Workers (Registration and Welfare) Act, 2023 defines gig worker as “a person who performs work or participates in a work arrangement and earns from such activities outside of traditional employer-employee relationship and who works on contract that results in a given rate of payment, based on terms and conditions laid down in such contract and includes all piece-rate work”(Govt of Rajasthan. 2023). This act follows the same path laid in the codes, emphasising creating a board to regulate social security and welfare funds. The board has also been granted regulatory power to track and monitor all payments generated on the platforms to ensure fair trade practices and to overcome algorithmic opacity. Some academicians have emphasised the dimension of data privacy and algorithmic transparency that needs to be brought under the regulatory frame by the welfare boards (Guha & Zaidi, 2024).

b. Karnataka Platform-based Gig Workers (Social Security and Welfare) Bill, 2024

Similar in its aim and scope, the labour department of the Karnataka government has published a draft bill for consultation with different



stakeholders to ensure social security and welfare of gig and platform workers active in Karnataka. Apart from the usual focus on welfare and social security this bill also aims to bring transparency in automated decision-making systems to provide dispute resolution mechanisms. The bill also empowers the state to review workers' contracts to ensure reasonable and fair trade practices. Along with it, there is a provision to establish the Karnataka Gig Workers Social Security and Welfare Fund by collecting welfare fees from aggregators, government and workers' contributions (Govt of Karnataka, 2024).

c. **Jharkhand Platform-based Gig Workers (Registration and Welfare) Bill, 2024**

Recently, the Government of Jharkhand tabled the draft 'Jharkhand Platform based Gig Workers (Registration and Welfare) Bill, 2024', similar in its scope and mandate to the Rajasthan and Karnataka bills. Apart from creating provisions for 'social security' and 'welfare funds for platform workers, the bill also proposed to create dispute resolution mechanism in the sector. A unique feature of the bill is the proposal to create a 'Central Transaction Information and Management System' to track and monitor each transaction made to platform worker and keep a record of the commission, Goods and Services Tax (GST) and welfare cess deducted from each transaction (Govt of Jharkhand, 2024).

3.2.2 Further Scope of Legislation

The Ministry of the Road Transport and Highways has issued the Motor Vehicle Aggregator Guidelines 2020 making it compulsory for aggregators to get a license from state governments before starting operations anywhere in India. The purpose of bringing aggregators under this licensing system is to enable a regulatory framework which can be utilized for compliance related to environmental laws, road accidents etc. by the aggregators (MoRTH-PIB, 2020). So far, the existing legislative process has primarily focused on the recognition, classification and categorisation of gig and platform workers in India. The focus is mostly on the location-based, geographically tethered gig and platform workers which are otherwise known as "blue-collar workers". This includes mostly the drivers, delivery boys, and beauty and care workers who fall under the category of low-income groups. Hence, the legislation focuses mostly on bringing this category of worker under the social security net. Apart from social security, the issue of wage theft, identity privacy, algorithmic domination, workplace safety, and citizenship rights in the case of migrant workers are additional concerns that need to be adequately recognised through the other three codes. Several governments are taking steps to ensure algorithmic auditing protocols keep a check on discriminatory and exploitative practices that are carried out by algorithms. At the same time, a holistic framework is needed to regulate cloud-based platform workers who are selling their



labour power in the global digital labour market. An internalised legal framework consisting of algorithmic auditing, wage protection, data sovereignty and intellectual property rights will be needed to regulate cloud-based platforms.

3.2.3 Promotion of Digital India Initiative and Skill Development

Keeping in mind the growing significance of digital technologies in the economy, the Government of India launched its ambitious Digital India Program which had a cascading effect on the economy. Along with this, the continued focus on skill development has played a critical role in bringing digitally marginalized social groups into mainstream employment including in the gig and platform sector.

a) Digital India Initiative

The use of digital technology has increased the outreach of government, bringing excluded groups and distant geographical territories inside the fold of governance. The Indian government launched its ambitious India Stack initiative to integrate 1.4 billion Indians into a digital ecosystem for governance purposes. Such integration led to the development of JAM (Jandhan-Aadhaar-Mobile) framework which works as an aggregator platform to facilitate the delivery of welfare services, financial inclusion, ration distribution etc. (Swallow et al., 2021). In 2010-11, the Unique ID Authority of India was formed with the ambition to issue biometric Aadhaar Cards for all Indians. The first set of Aadhaar Cards were issued in 2010 and by 2016 the number of Aadhaar Card holders crossed 100 crore (MoC-PIB, 2016). In continuation of the Aadhaar Card initiative, the National Payment Corporation of India (NPCI) launched an initiative to link Bank Accounts with Aadhaar Cards, subsequently launching e-KYC (Know Your Customer) interface which reduced the customer onboarding cost. Subsequently, Aadhaar Linked Unique Payment Interface (UPI) was launched by NPCI as a digital aggregator for mobile payment infrastructure which could enable real-time payments. This digital infrastructure has been critical to the growth of the gig and platform sector after COVID-19. During the COVID-19 Pandemic, over 200 crore vaccination doses have been provided by CoWIN, a digital platform maintained by the Ministry of Health and Family Welfare (MoHFW, 2024). Another pioneering example of platformization for social benefit is DIKSHA (Digital Infrastructure for Knowledge Sharing), a Ministry of Education initiative that hosts teacher training modules, and learning resources for K-12 education across India (MoE, 2021). Government is taking concrete steps towards better implementation of e-marketplaces to bring transparency in government procurement process. Similar initiatives like MyGov and UMANG (Dhange MB 2014) is empowering citizens with direct access to many government services by increasing accountability through enhanced participation of citizens in day to day affairs (Invest India, 2024).



b) **E-Shram Portal**

Portal launched in 2021, works as a national database for workers in the unorganized sector. Any worker can register themselves on e-shram portal with their Aadhaar card and mobile number. As of now over 30 crore workers including migrant workers, gig and platform workers have registered themselves on the e-shram portal. Through this portal, they can access multiple government schemes and targeted assistance that are provided during crises. Alongside e-shram portal, Shram Suvidha and SAMADHAN (Software Application for Monitoring and Disposal, Handling of Industrial Disputes/Claims/General Complaints) are two additional portals that provide compliance interface for industries including MSMEs for matters related to labour laws (MoLE, 2025).

c) **Skill Development Initiatives**

The promotion of digital literacy and skill development programs have been supportive of gig and platform workers. One of the ambitious skill development programme is Pradhanmantri Kaushal Vikas Yojna (PMKY) under which over 16 million candidates have been trained for employability in various sectors. Enhancing digital capability has been an area of focus in such skill related initiatives (PIB, 2025). A significant portion of the trained workers enter into different forms of digitally enabled self-employment opportunities including in gig and platform sector.

3.3 **Trends in the Development of Platform Employment in India**

3.3.1 **Locating Gig and Platform Work in India**

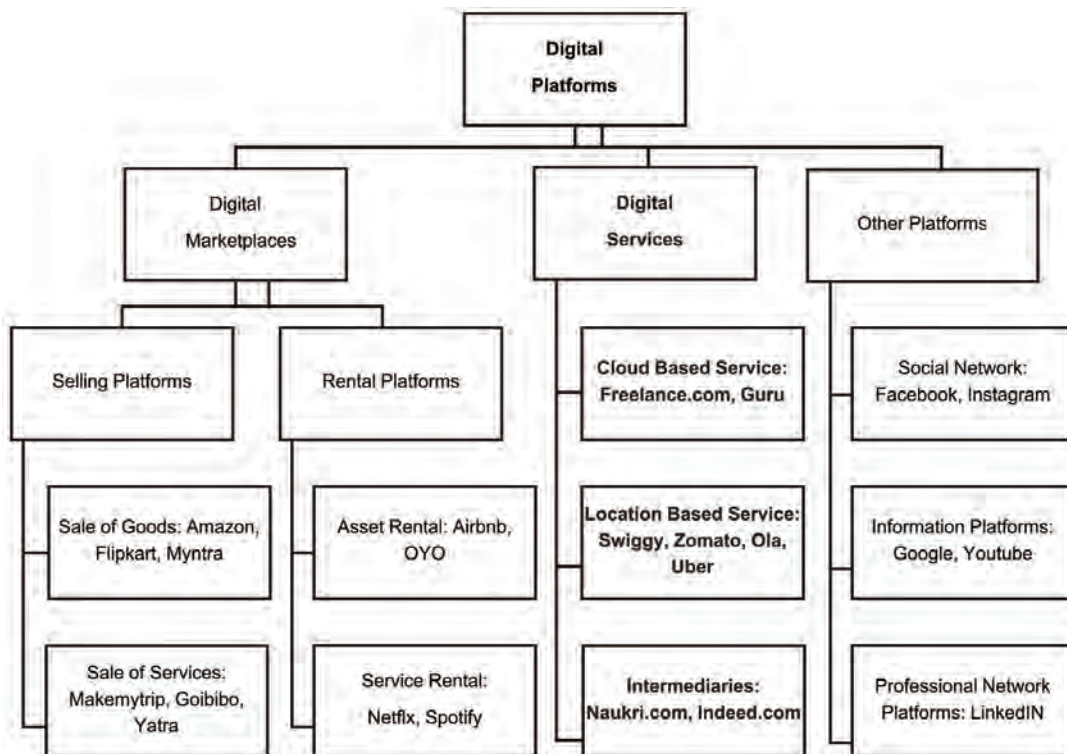
Bester et al. (2020) have categorized India under 'growing digital economy' which has a significant number of domestic digital platforms and cloud work. Digital platform in itself is a broad category which includes three types of platform technology namely digital marketplaces, digital services and other platforms (Fig.3.1). Further, digital marketplaces can be divided into selling and rental platforms as per the sale or rental goods, services or assets. Digital services include cloud-based and location-based platform which is the biggest employment generator in gig and platform sectors. Other platform set-ups can include social networks such as Facebook or Instagram, information platforms such as Google or YouTube or professional networking platforms such as LinkedIn. All these categories of platforms have opened a variety of business and economic opportunities but from a labour and work perspective, digital service platforms are of critical significance. They involve application or website-mediated interface through which specific forms of work or services are performed either in remote locations or at specific geographical locations. In terms of work, there are four distinct features of gig and platform work, it is a form of 'non-standard employment'

i.e. flexible in nature, ‘digitally mediated’, ‘no entry or exit barriers’ i.e. a social equalizer and ‘spatially dispersed’. Amidst these four characters, gig and platform work has a trilinear logic where the customer, platform and worker interact with each other digitally to perform the work.

3.3.2 Digital Service Platform

A digital service platform or digital labour platform is the site where the largest share of work, value and employment has been generated in the past. All of this can be collectively categorized into two broad categories; location-based work and web-based cloud work or remote work. The typology shown in Fig. 3.1 attempts to provide a broad categorization for different kinds of digital platforms operational in India from a work and labour perspective. The boxes indicated in bold are the sites where the largest number of gig and platform employment has been generated in the past few years.

Fig. 3.2: Typology of Digital Platform:



Source: Dewan S. et.al., (2022)

Note: The boxes indicated in bold have generated the largest employment in the digital sector.

Due to limited data availability, determining the precise share of each work category is challenging in India. However, estimates indicate that more than 80 per cent of new employment has emerged in location-based services, with companies such as Swiggy,



Zomato, Ola, Uber, and Urban Company being among the major contributors to job creation in this segment (Bester, 2020).

3.3.3 Location-based Platforms

Location-based platforms provide geographically tethered services as per the demand of customers which required at a specific location at a specific time, hence they require a direct interface with visible human labour. It includes transport services, delivery services, and household and personal services (Woodcock & Graham, 2019). Transport services can be further categorised into long-distance transport and on-demand short-distance transport which can be further subdivided into car rental services or bike rental services. Location-based gig work requires low or mid-level skills, digital literacy, ownership of a mobile phone and internet accessibility (Dewan S. et.al., 2022). There are no barriers to entry and exit in terms of educational requirements and qualifications, hence it is an attractive job destination for the growing youth population in India. The popular brands of gig and platform work such as Swiggy, Zomato, Ola, Uber, Urban Company and Dunzo all fall under location-based work which employs cab drivers, bike riders, beauty or domestic workers or last-mile delivery workers. In terms of work, it involves activities such as cab driving, ride-sharing, food and grocery delivery, e-commerce delivery, beauty and care work, home maintenance and domestic work (ibid). Initially concentrated in major urban centres, these services are gradually expanding to smaller towns and cities creating newer employment opportunities (Business Standard, 2019). Data shows that many low-income earning self-employed people can do location-based work along with primary work as an additional source of income. Gig workers working for these platforms can be categorized as self-employed workers and are treated as partners by the platforms.

These workers use their own fixed assets such as vehicles, computers or beauty products to deliver services, bearing the cost of acquiring the assets, fuel cost, internet charges as well as its depreciation value. These platform business models depend on scale, with algorithmic decision-making for last-mile workers. The over-supply of labour in this sub-sector has driven wages down and has led to the degradation of work. Going by the idea of work content, work conditions and work status the most promising aspect of gig and platform work is 'flexibility' (NCAER, 2023). It is important particularly for women because it enables them to balance income generation with the burden of household responsibilities hence digital labour platforms potentially can be an attractive destination for women's employment (Dhanya, 2025). However, current research shows that the participation of women continues to be low in this sector and they are primarily located in the household and domestic work segment. Transport, delivery and logistics continue to be gendered with negligible presence of women.

- Ola and Uber are two major on-demand cab service providers in India. Ola was started in 2010 while Uber resumed its service in 2013. This group of



workers is constituted mostly of men of different age groups who either own or rent a car to provide riding service. Rapido is the major two-wheeler ride-sharing service provider in India that started in 2015 after the boom in the four-wheeler cab service market. It provides ride-sharing services at a lower price of about Rs 10-12/KM and hence has an increased demand in urban centers. Initially, until 2016, as has been reported Ola and Uber drivers were enthusiastically joining this sector because it was offering good returns of monthly income more than Rs. 75,000 (The Wire, 2017) but with time due to scaling up of operations and increased labour supply, the return drastically fell (Baluja A, Ghosh A, Pal R, Menon GR, Bhoi S, Galwankar SC, 2022).

- Swiggy, Zomato and Blinkit are major food and grocery delivery services which deliver last-mile food delivery for cloud kitchens (for food) and e-commerce intermediation (for grocery). Workers in this category usually wear a dress code while performing the service hence are easily recognizable as gig and platform workers popularly known as ‘delivery boys’. In a recent study conducted by the National Council of Applied Econometric Research (NCAER, 2023) amongst these workers, it was found that over 90% of them were 10th pass or above with one-third of workers having a graduate degree (Moneycontrol, 2023) indicative of underemployment in the sector. 84% of the workers were below 30 years of age. Further NCAER (2023) report indicates that becoming a ‘delivery boy’ is a transitory choice for the lower income group men to support their families with additional sources of income while being at their early career stage. Most of the entrants had self-selected this work as an alternative to conditions of job loss or low income and were most likely to exit it after a certain point if they did well in their primary job occupation.

3.3.4 Web-based Cloud Work/Remote Work

This sub-sector within the digital labour platform remains invisible in terms of the nature of work, size or composition. The estimated size of this sector in 2021 was \$7.3 billion which is expected to grow to \$50.4 billion at a CAGR of 16.1 per cent between 2022 and 2032 (Sheer Analytics and Insights, 2022). It mostly involves high or mid-level skill-based jobs in IT and software, marketing and advertising, finance, consulting, accounting and data entry, film and multimedia, ed-tech, writing and translation. Platforms like Upwork, Freelancer, and Fiverr connect Indian freelancers with global and domestic clients (Table 3.1).

This type of gig work segment, driven by factors such as flexibility, convenience, a sense of ownership and opportunities for skill enhancement, stands to benefit significantly from the growing global demand for online digital labour, especially from developed economies like the United States. Indian freelancers are sought after



globally due to their dominant skills in IT, programming, design, content creation, etc. Hence, for businesses, hiring remote freelancers from India can be cost-effective compared to hiring locally in more developed nations (Kathuria et.al., 2017). Workers can acquire new skills and experience through diverse projects, contributing to professional growth. It allows participation in the digital economy from smaller towns and rural areas, reducing urban migration pressures. Remote gig and platform-based work in India are poised for continued growth, driven by technological advancements, changing work preferences, and global economic factors. However, addressing regulatory and operational challenges will be crucial to ensure better employment opportunities in this sector. This sector is critical for women as it offers flexibility and enables them to balance domestic responsibilities with income generation (Ghosh A. et.al., 2023). Continuous up-skilling of this category of worker is essential to enhance their competitiveness in the global market. Recently, the Government e-Marketplace (GeM) has facilitated work opportunities for freelancers where they can engage with government departments to secure projects.

Table 3.1: Major Web-Based Platforms and their Country of Origin

Websites	Country
Catalant, Crowdspring, Echo 360, Gigster, Guru.com, Nexxt, SkyWord, Upwork, WriterAccess	US
Freelance India, Flexiple, Internshala, Rockerstop, Truelancer.com, Work in Hire, Youth for Work	India
99 designs, Envato, Freelancer.com,	Australia
PeoplePerHour	UK
Fiverr	Israel
IKEA	Sweden
INGKA Holding	Netherlands

Source: Sheer Analytics and Insights (2022)

3.4 Initiatives by Digital Platforms

- a) A few aggregators¹, such as Amazon Flex, provide several advantages to their delivery partners, including flexible scheduling with ‘not necessary app login’, allowing partners to work when it is most convenient for them. The platform allows for next-day payments, assuring quick access to income. It also promotes financial awareness with educational resources in multiple languages and financial mentoring. Delivery partners also receive vehicle maintenance savings through Amazon Flex Rewards.



- b) The platform also partners with the National Skill Development Council (NSDC) to provide opportunities to acquire skills for individuals looking for additional income. Flex also prioritize the safety of its delivery partners by providing accidental insurance, safety training videos and emergency assistance through their app. Delivery partners access real-time support for on-road issues and utilize various basic facilities at Amazon sites. Moreover, it has also dedicated review process and transparent terms of services that outline the rights and responsibilities of delivery partners ensuring a fair work environment.
- c) Urban Company's ESG 2024 report indicates that the company has taken several initiatives to improve the quality of life of its service partners. It focuses on improving the earning and wealth creation of its workers by providing them with training and skills for their overall security and well-being. In terms of earnings, the report indicates that all categories of workers in Urban Company are able to earn up to living wages. Wherever there is an instance of average earning not reaching up to the required threshold, the company takes additional steps to reimburse and support the workers.

Table 3.2: Urban Company Earnings Index

	All partners	All partners with >30 services in a month	Top 20% of partners by services delivered
Active Partners in India (%)	100	54	20
Total Gross Earnings	42,397	56,555	72,041
UC Commission & Fee (%)	25%	24%	23%
Travel Cost	1,732	2,371	2,934
Product Cost	5,408	7,246	9,628
Net earnings per month	24,845	33,469	42,792
Total hour spent on the platform	79	108	129
Net Earnings per hour	314	310	333

Source: Urban Company, ESG India Report FY24

- d) In terms of gender distribution, Urban Company is doing exceptionally well with its average hourly earnings of female partners being higher than that of male partners. The average hourly earnings of a male partner is Rs 294 and a female partner is Rs 363. Further, the report shows that Urban Company

¹ NLI Workshop discussion points



partners have experienced upward social mobility with 47% of them enrolling their children in English-medium school, over 28% owning their own house and 6% of partners owning a four-wheeler.

- e) To ensure the security and well-being of its employees (UC's ESG India Report, 2024), Urban Company provides life insurance cover worth Rs 6 Lakh, disability cover of Rs 6 Lakh and accidental hospitalization and OPD treatment cover with Rs 70,000 and Rs 10,000 respectively. As of now, the company has distributed over Rs 6.29 crores as insurance claims to over 1800 delivery partners.
- f) Apart from insurance support, the company also assists its employees with personal loans for several purposes such as children's education, medical emergencies, vehicle purchase, buying house/property, family functions etc. As per the estimates, the company has disbursed over Rs 32 crores as loans to over 26,200 service partners. Apart from this, the company has also supported over 3500 service partners with loans worth over Rs 6.5 crores to buy service kits.
- g) Since women in large numbers work for Urban Company, the organization has taken a social initiative called 'Project Nidar' intended to support service partners facing domestic violence and abuse. Under this initiative, the company provides mutual support, legal and monetary help and counselling support to such partners. In the same context, Swiggy recently joined the Red Dot Foundation (Swiggy 2024) to create awareness about gender bias and sexual harassment under Safe City initiatives.
- h) Swiggy for a long while has been persistent in implementing sexual harassment policy for female delivery executives to increase the share of women riders in delivery work (Praveen, 2023). In these attempts, any types of harassment by employees, as well as consumers or restaurant partners, are reported and dealt with by the committee headed by women. Further, Swiggy introduced 'no-questions-asked, two-day paid monthly period time-off policy for its regular female delivery partners' for acknowledging the menstrual leave in a flexible work routine (Business Today, 2021).
- i) Apart from its focus on female employees, Swiggy (2023) launched a partner-friendly simpler delivery app to increase its operational efficiency and earnings for partners. Additionally, Swiggy has started a 'paw-ternity' policy for employees as a gesture to show support towards animals and make compassionate and inclusive workspaces (Menon G., 2024). Under this policy, the company supports employees who are pet parents with additional paydays off to help them with adoption and supporting pet animals in their families.



- j) To support the workers in everyday delivery work, Zomato has started “Zomato Shelter Project” towards building common resting points and recharge stations where workers are provided with clean drinking water, washroom, high speed internet etc. (Zomato, 2023).
- k) Towards enabling the transition to green energy, platforms in India are taking steps to introduce electric vehicles in the delivery fleet. Amazon has recently taken concrete steps by introducing electric vehicles for 300 delivery partners and has targeted to introduce around 10000 electric vehicles through an incentive-induced lease model in its delivery fleet by 2025 (Amazon, 2023).
- l) Several organizations have taken initiatives to support women platform workers by providing them with training in self-defense and personal empowerment. Women on Wheel by Azad Foundation works in collaboration with Uber and Ola women drivers and help them to overcome societal challenges to participate in gig and platform economy (Ghosh et. al., 2021). Uber initiated a preference feature for women drivers in 2024 for women and non-binary drivers to get trip requests exclusively from women riders so as to create safe, inclusive and supportive environment for both women drivers and customers (Uber, 2024).

3.4.1 Fairwork Index of Indian Gig and Platform Companies

Fairwork provides an independent perspective on the working conditions of gig and platform sectors. It evaluates digital work on five principles; pay, work conditions, contracts, management and representation divided into two thresholds (Economic Times, 2024). If a company performs well on the first basic threshold then it is evaluated on the higher threshold on the same principle, based on such evaluations an annual report is prepared and updated yearly. The following table provides a snapshot view of the performance of Indian digital platform companies on the Fairwork evaluation score. Based on the table it can be argued that Urban Company and Big Basket followed by Flipkart have been doing relatively better than other gig and platform companies in India.

Table 3.3: Indian Digital Platforms Score on Fairwork out of 10

Company	2019	2020	2021	2022	2023
Big Basket	5	2	4	6	6
Swiggy	4	1	4	5	5
Urban Company	4	8	5	7	5
Zomato	4	1	3	4	5
Flipkart	7	7	7	5	3
Dunzo	5	4	1	-	1



Company	2019	2020	2021	2022	2023
Zepto	-	-	-	2	4
Amazon Flex	-	-	1	-	2
Amazon ATS	-	2	1	-	-
Uber	2	1	-	-	1
Ola	2	2	-	-	-
Blue Smart	-	-	-	-	5
Porter	-	-	-	1	-
Housejoy	4	2	-	-	-
Rapido	3	-	-	-	-
Uber Eats	3	-	-	-	-
Food Panda	2	-	-	-	-
Grofers	-	4	-	-	-
Pharomeasy	-	-	1	-	-

Source: Fairwork India

Note: The columns marked with dash (-) indicate that the study for those respective companies in the respective years has not been conducted by Fairwork or there was a lack of verifiable evidence to provide the score. It may also mean that the companies were not operational in those respective years.



Chapter IV

Building Business Resilience in the Digital Economy

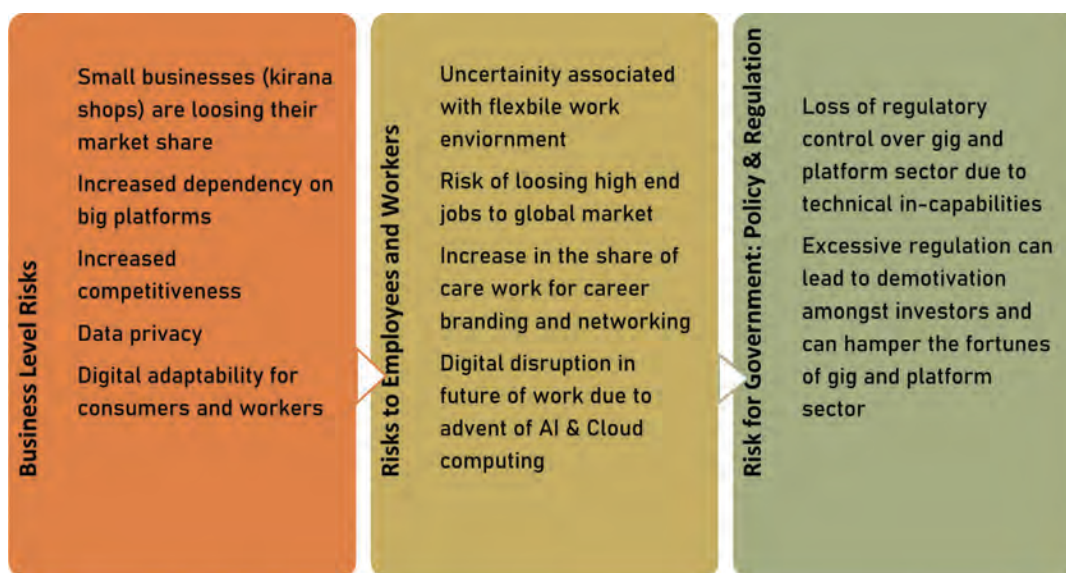
4.1 Risk in the Gig and Platform Sector

The advent of Economy 4.0. or the fourth industrial revolution is bringing large-scale changes in the ways in which we live and work, creating new opportunities and exposing us to new forms of risks (McKinsey & Company, 2022). Risk in economics refers to the uncertainties that prevail in everyday life that must be accounted for to enable a sustainable future. No economic activity or sector is averse to risk; however, the degree and scope of risk may vary across sectors (Koch & Menkhoff, 2025). The factors affecting such risks and the key stakeholders may also vary depending on the nature of the economic sector. Sometimes risk can also be harnessed as a new opportunity for development and growth.

One such risk-inducing event was COVID-19 which led to supply chain disruptions creating scope for expansion of gig and platform sectors across the world. Innovations such as work from home (WFH) model and cloud kitchen made it compatible for many people to deal with the lockdown and at the same time created new opportunities for businesses. As far as the gig and platform sector is concerned, the ever-changing world of technology is the biggest risk-inducing factor. With the advent of cloud computing and generative AI, more and more businesses are digitalising and platforming their activities leading to competitive risks for older firms.

From the business point of view, the ever-changing context of work and technology can pose newer challenges for businesses. Hence 'building workforce capabilities and shifting mindsets for successful digital transformation' becomes critical (McKinsey & Company, 2022). These developments are also disrupting job markets where workers are being expected to up-skill themselves according to changing work requirements. Since employment in this sector is increasing every day, the population groups joining it for sustainable livelihood can be at the receiving end of such risks and threats. The small businesses who are associating with digital platforms are able to leverage this opportunity but at the same time, they are at the risk of competitive disadvantage, dependency and data privacy (Gibson, 2024). Hence it becomes important to ascertain the nature and degree of risks that prevail in the world of digital and platform business and to take certain steps towards creating provisions to overcome such risks. The identification of key stakeholders who are exposed to such risks is essential.

Table 4.1: Risks associated with Digitalization and Platformization



Source: Conceptualised by the author

To address the complexities, we have categorised the risks associated with digitalisation and Platformization into three broad categories; risks faced by businesses, risks faced by workers, and risks related to policy and regulation. Table 5.1 provides a snapshot view of different types of risks that exist for businesses, employees and governments in the age of Industry 4.0.

4.1.1 Employment Risk and Constant Uncertainties for Workers

It is a recognized fact that digital technologies have been the biggest disruptor of labour market in the past decade. While it is true that the gig and platform sector has created newer work opportunities, especially in countries of the global south, however, nature of work and low wage rates continue to be a challenge. Since most of these jobs have been created outside of ‘standard employment relations’ – they expose the worker to different forms of financial and work-related uncertainty, leading to physical and mental crises. In a recent survey conducted among cab drivers in India, some of the respondents reported mental health issues and anxiety due to uncertainties associated with income levels (Shukla A, 2024). In the case of digital content creators for commercial purposes, the partners are constantly exposed to discontinuation risk from the platform(Gönczi, P., 2024). In the case of white-collar platform workers, the risk of losing the existing ‘repetitive’ and ‘mundane’ work to newer technologies and shifting global patterns of work. While being exposed to global labour markets through platforms brings new opportunities to workers, they at the same time keep them on their toes since they can lose out in the global competitive race to fetch new work.



According to estimates, freelance economy is key part of US labour market and contribute to more than 1.3 trillion \$ annually while spreading among more educated workers (Ozimek, 2021). In the absence of permanent employment opportunities, we are entering into an age of the ‘end of employees’ as was put by Wall Street (Weber, L., 2017). To get better pay in freelancing opportunities, workers are performing large-scale unpaid and underpaid work for their ‘career branding’ and ‘networking’ (Pulignano & Domecka, 2025). Berge (2018) uses the phrase ‘working hard and hardly working’ to mark this phenomenon where workers are constantly exposed to different forms of non-paid work as a part of their formal work contracts. In his book *Culture of New Capitalism* (Richard Sennett, 2006), Richard Sennett calls it the phenomenon of surplus talent and the ‘spectre of uselessness’ due to withering away from the traditional bureaucratic model of work and its replacement with flexible gig-like working eco-systems. In the absence of strong social security provisions, such workers are exposed to life-long risk and crisis. Focusing on the risks and vulnerabilities of platform workers, Van Doorn (2024) suggests that the power of ‘algorithmic management’ of platforms needs to be regulated keeping in mind the complex ways in which the lives of platform workers are embedded into algorithms and the co-dependency that workers and platforms with each other.

4.1.2 Business Level Risk

The business-related risks associated with digital transformation can be classified into two broad verticals as discussed below

a. Small Business:

Digital transformations are creating newer economic opportunities for digitally enabled businesses but at the same time posing risks and threats to small traditional business models. This has critical implications for a developing economy like India where a significant section of the population is employed in micro, small and medium enterprises. Hence it becomes necessary to enhance the ‘business resilience’ and ‘digital capacity’ of small businesses to ensure their competitiveness in the market. The most visible segment of such risks has been the traditional *kirana shops* in India which used to retail groceries in neighbourhoods as per the consumer demands. With the advent of digital platforms like Blinkit – the *kirana shop* business model is at risk of losing market share substantially. In this context, the government has launched an initiative under ONDC (Open Network for Digital Commerce) to help kirana stores in their digitalization (Singh A. N., 2024). Further, those small businesses which are able to digitalize are becoming heavily dependent on platforms for their market which can become riskier in the long run. Such businesses will have to diversify their market presence in both digital and physical formats of business.



b. Adaptability

Further large and small business enterprises which are adopting digital technologies and transforming the traditional model of work to tech-enabled gig and flexible work are facing challenges of adaptability by key stakeholders – customers and employees. Employees are being expected to up-skill themselves as per the changing technological content of work. Hence most investment in workforce training is required to adopt digital transformation. The tastes and preferences of customers have to be adjusted as per the digital scope of intervention in the market to ensure the durability of digital products and services. This will require stronger investments in building trust in digital products and services to make them acceptable amongst those consumers who are habituated to traditional forms of consumption.

4.1.3 Government Level Risk

The way forward to overcome the risks stated above is to put effective regulatory mechanisms in the digital world. Given the positive outlook of digital economy, it has grown without any substantial regulation in the past few years. Regulatory intervention by the government can create a situation of demotivation among investors. Such regulations have to be designed in such a way that it does not prohibit the radical potentials of such technologies but can also ensure that their effects create positive outcomes for all stakeholders – employees, businesses, consumers and government. The government can implement a governance, risk and compliance (GRC) framework to oversee the developments within this sector without hindering its potential growth¹. Digital companies already use this model for their internal risk management which can be incorporated with the regulatory infrastructure of governments to ensure effective implementation of risk-averse regulation for the gig and platform sector. Bringing gig and platform work under the ambit of Code on Social Security 2020 is one such step towards protecting the gig and platform workers against the social risks that inform the employment conditions of this sector (MoLE-CoSS, 2020). However, this is just a minor step in the long journey for enabling a holistic regulatory infrastructure for ensuring sustainable and equitable growth of the gig and platform sector in India. Genuine efforts towards up-skilling of workforce and small businesses are needed to overcome the risk of losing out on economic opportunities created due to the digital boom.

5.2 Collective Representation of Platform Workers Interests in India

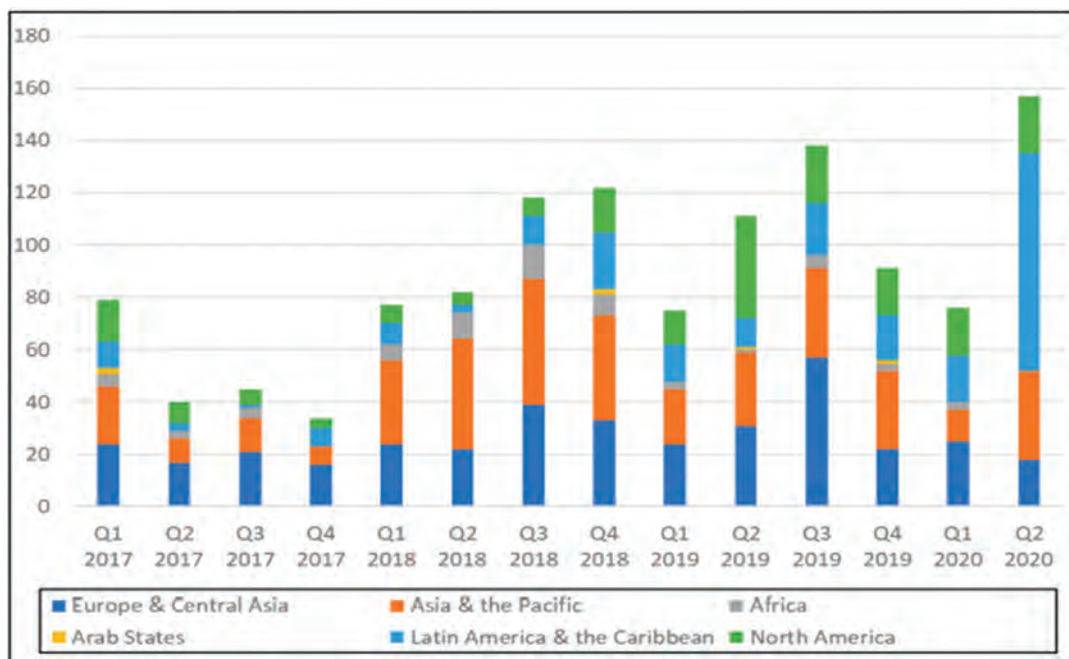
With the growth in the gig and platform sector, there has been a parallel growth in workers' discontent over issues ranging from low wages, uncertainty, increased control over time etc. Based on the Leeds Index for Platform Labour Protest, for the period

¹ <https://www.oceg.org/compliance-gig-economy/>

January 2017 to July 2020, Bessa et.al.,(2022) identified a total of 1,271 instances of worker protest globally in four platform sectors: ride-hailing, food delivery, courier services and grocery delivery. Table 5.1 shows an increasing trend in the number of protests from 2017 to 2020 implying the growing discontent with platform employment across the world. The increase in the number of protests by gig and platform workers either independently through different union organizations suggests the increasing significance of collective representation and bargaining in this sector (Umney, 2024).

India has a long and rich history of labour unions and collective bargaining dating back to the colonial era. Indian Constitution has progressively recognized the value of collective representation as an essential component for achieving industrial- harmony, equality and democracy in everyday life. Article 19(1) (c) of the constitution provides for the right “to form associations or unions or co-operative societies” as a part of the Fundamental Rights. The Trade Unions Act, of 1926 (Erstwhile Indian Trade Unions Act) recognized the term ‘trade union’ as an association formed to regulate the relationship between workmen and employees.

Fig 4. 2: Protests by digital labour platforms.



Source: Bessa et.al., 2022, International Labour Organization.

In the same spirit, the Industrial Relations Code, 2020 provides the framework for forming unions for the protection of the rights of workers and employees. This has been reaffirmed globally by ILO through its declaration of fundamental principles and right to work (ILO, 2024).



As far as the gig and platform sector in India is concerned, in the past ten years with the increase in employment in this sector, we have witnessed many occasions where gig workers have collectivized and demanded better wages, working conditions and social security. The Leeds repository has recorded a total of 143 protests in India² spread across major metropolitan towns and cities. The first set of protests by gig and platform workers in India can be traced back to 2016 when thousands of Ola and Uber drivers registered their concerns about decreasing share in wages and increased controls by the platform. At the onset of the platform business model, drivers were able to earn more than Rs 80,000 a month in the year 2013-14 which gradually declined to Rs 15,000-20,000 by 2017-18 (Bhatia, 2017). This can partly be due to an increased number of service providers joining the platforms along with increased algorithmic management of share of returns by the platform. Hence, in their first set of collective representations, workers demanded transparency from the platform. The protests and representation have not been limited to workers in the ride-sharing category. Swiggy workers protested in Bengaluru in 2022 demanding a fixed salary of Rs. 26000/month (Navya, 2022). In December 2021, Urban Company sued its workers for protesting outside the official premises of the company in Gurgaon (Ara, 2021). After a series of loose protests and mobilizations, we are also witnessing the emergence of several registered workers unions who are representing the concerns of this sector through formal channels. Unions have participated in legislative consultation processes as well as direct action and mobilizations against ad-hoc practices of platforms. Some of the major trade union organizations that represent a variety of interests for gig and platform workers are as follows.

a) All India Gig Workers Union: The All-India Gig Workers' Union (AIGWU) is a registered trade union for all food delivery, logistics, and service workers who work on any app-based platform in India. b) Indian Federation of App-Based Transportation Workers: This union was founded in 2019 to provide a collective voice to millions of gig workers, apart from organizing protests for gig and platform had filed a petition at the Supreme Court demanding to recognize gig and platform workers under the category of unorganized workers (SCO, 2021). c) Telangana Gig and Platform Workers Union: The Telangana Gig and Platforms Workers Union (TGPWU) founded in 2021 to represent the interests of gig workers and platform workers in Telangana, India.³ This union is actively working towards realizing the goals of Social Security and active implementation of Codes on Social Security 2020 for the gig and platform sector. The union is also a part of the International Alliance of App-Based Transport Workers (IAATW) and represents the concern of gig and platform workers from India at international forums. d) United Food Delivery Partners' Union: United Food Delivery Partners' union is based out of Bangalore and has participated in numerous protests and collective representations for platform workers. This union has practised a 'LOG OFF' strike amongst delivery workers aimed at creating awareness about their work

² Explore – Leeds protest map. (n.d.). <https://leeds-index.co.uk/explore/?country=India&sort=latest>

³ <https://tgpwu.org/about-tgpwu/>



conditions (The Hindu, 2022). Such strikes have also created awareness amongst customers about the issues of platform workers. e) **Kolkata Ola Uber App Cab Operator and Drivers Union:** Kolkata Ola Uber App Cab Operator and Drivers Union is a Kolkata-based union for cab and taxi drivers.

Unions have played a critical role in making critical suggestions for the legislative process initiated to support gig and platform workers in the past few years. Starting from their active participation in legislative consultation over the Code on Social Security 2020, gig and platform workers' unions have also been actively participating in consultation with central and state governments over various legislative interventions. The core agendas for gig and platform worker unions are as usual; fair pay, decent work, social protection and labour rights. In October 2023, a delegation of several gig workers' associations based in Delhi met the Delhi government demanding the creation of a gig workers' welfare board similar to that of the construction workers' welfare board (Jha, M., 2023). As reported on 20th July 2024, the Indian Federation of App-Based Transport Workers submitted their recommendations to the Jharkhand government concerning the Jharkhand Government Platform Based Gig Workers (Registration and Welfare) Bill, 2024 (Sen, S. 2024).

Despite several challenges, gig and platform workers unions are playing an active role in the collective representation of the interests of platform workers. The challenge of unionization of gig workers can be overcome through increased app-mediated union activities. ILO (2022) is also embracing the significance of digital technologies for unionization purposes. By leveraging digital technologies, unions can strengthen their communication, improve their reach and advocate for their members and the general public in innovative ways – and in the process promote their organizational revitalization. Digitalization of union activities can also ensure that the privacy of the unionizing workers is protected against any form of union busting or attacks from platform companies.

4.3 Conclusion

The study focuses on the current scenario of gig workers and their socio-demographic and work profiles in a detailed manner. Data collected from metro cities highlights that the sector is widely spreading across the different categories of work and is successful in absorbing mostly youth age group. Nevertheless, even with the flexible nature of the gig work, women are still less in number as compared to their male counterparts and are overrepresented in only beauty and wellness work while male gig workers mainly represent the transportation-based work. Further, gig workers are found to be working with multiple platforms at the same time to diversify their income and work schedule according to their preferences. For completing the task on time, a significant number of workers experience getting positive responses and bonuses from their platform, as well as a higher number of orders. However, very few reported



receiving any monetary benefit. The majority of workers accepted that gig work is ideal for the long run as subsidiary employment due to its flexible scheduling, and sense of independent feeling it provides while it is not conducive for sustained earning, building a career or skill enhancement indicating that the sector requires certain policy improvement to better support long term job prospects.

Furthermore, several other issues and risks reported by workers in the gig economy include volatile or unstable income, safety-related issues, and the deactivation of IDs on false complaints by the clients, which leads to job insecurity. Regarding the involvement of gig workers in labour unions, most of the workers are not formally in the labour unions while the majority of them are connected through social media groups and local networks.

Finally, the dynamic and growing field of platform work demands both private and public sector collaboration to ensure equitable opportunities and sustainable growth. While private platforms play a crucial role in creating employment opportunities and introducing innovative work models, they must also work in tandem with public institutions to address the challenges of job security, fair wages, and social welfare. To protect workers' rights and improve the overall ecosystem, legislative frameworks such as the Code on Social Security 2020 and state-level laws should be integrated with active participation from private platforms to achieve inclusive growth.



References

- A Srijja & Shrinivas Shirke (2014). “An Analysis of the Informal Labour Market in India,” Working Papers id:6353, eSocialSciences. <https://ideas.repec.org/p/ess/wpaper/id6353.html>
- Abraham, K., Haltiwanger, J., Sandusky, K., & Spletzer, J. (2018). Measuring the Gig Economy: Current Knowledge and Open Issues. <https://doi.org/10.3386/w24950>
- Amazon (2023). Amazon Launches a Lease Program of Electric Vehicles for its Last Mile Delivery Partners. Amazon News. <https://www.aboutamazon.in/news/sustainability/amazon-electric-vehicles-delivery-partners>
- Ara I., (2021). Urban Company Sues Workers for Protesting Against ‘Unfair Labour Practices’. Protest Called Off. News Article, The Wire.
- Baluja A, Ghosh A, Pal R, Menon GR, Bhoi S, Galwankar SC,(2018). Occupational Profile of Taxi Drivers from Three Metropolitan Cities in India. International Journal of Academic Medicine 2018;4: 119–23 <https://www.irte.com/assets/research/4.%20occupational%20profile%20of%20taxi%20drivers%20in%20the%20metropolitan%20cities%20in%20India.pdf>
- Berge, L. C. (2018). Decommodified Labor: Conceptualizing Work After the Wage. Articles, Issue 7.1—Marxism and Cultural Studies. <https://doi.org/10.25158/17.1.2>
- Bessa, I., Joyce, S., Neumann, D., Stuart, M., Trappmann, V., Umney, C., (2022). A Global Analysis of Worker Protest in Digital Labour Platforms. ILO Working Paper 70, International Labour Organization. https://www.ilo.org/sites/default/files/wcmsp5/groups/public/%40dgreports/%40inst/documents/publication/wcms_849215.pdf
- Bester, H., Linden, A., & Dewan, S. (2020). Policy Options for Regulating Platform Work. Just Job Network and CENFRI https://cenfri.org/wp-content/uploads/Policy-options-for-regulating-platform-work_Nov-2020-2.pdf
- Bhatia A., (2017), What the Ola, Uber Strike Tells Us About the Nature of ‘Informal’ Exploitation, Business, News Article, The Wire. <https://thewire.in/business/factory-workers-uber-drivers-nature-exploitation-changed>
- Bhatia, S., Yadav, H., & Tariq, M. S. (2025). Impact of Digital Transformation on the Traditional Business Model. Article, Gyan Management 1–13. <https://doi.org/10.1177/09747621251329646>
- Braverman, H. (1998). Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century. NYU Press. <http://www.jstor.org/stable/j.ctt9qfrkf>
- BRICS (2016), ‘BRICS Labour and Employment Ministers Declaration: Quality Jobs and Inclusive Employment Policies’. BRICS Information Centre, University of Toronto. <http://www.brics.utoronto.ca/docs/160126-labour.html>
- BRICS (2016), ‘BRICS Labour and Employment Ministers’ Declaration: Employment Generation, Social Protection for All and Transition from Informality to Formality’. BRICS Information Centre, University of Toronto. <http://www.brics.utoronto.ca/docs/160928-labour.html>
- Business Standard. (2019). How Ola Bike is Gaining Rider Confidence in Small Towns. News Article, Business Standard. https://www.business-standard.com/podcast/companies/how-ola-bike-is-gaining-rider-confidence-in-small-towns-119112600647_1.html
- Business Today (2021), Swiggy offers no-questions asked, two-day monthly paid period leave to female delivery partners, News Article, Corporate, Business Today. <https://www.businesstoday.in/latest/corporate/story/swiggy-offers-no-questions-asked-two-day-monthly-paid-period-leave-to-female-delivery-partners-309979-2021-10-21>



- Canilang, S., Duchan, C., Kreiss, K., Larrimore, J., Merry, E., Troland, E., Zabek, M., & Board of Governors of the Federal Reserve System. (2020). Report on the Economic Well-Being of U.S. Households in 2019, Featuring Supplemental Data from April 2020 <https://www.federalreserve.gov/publications/files/2019-report-economic-well-being-us-households-202005.pdf>
- Datta, Namita; Rong, Chen; Singh, Sunamika; Stinshoff, Clara; Iacob, Nadina; Nigatu, Natnael Simachew; Nxumalo, Mpumelelo; Klimaviciute, Luka. 2023. Working Without Borders: The Promise and Peril of Online Gig Work. © World Bank. <http://hdl.handle.net/10986/40066> License: CC BY 3.0 IGO.”
- Deepika M G Madhusoodhan M. (2022). Labour Laws for Gig Workers in the Context of Labour Law Reforms. Economic and Political Weekly, Vol. 57, Issue No. 30, 23 Jul, 2022. <https://www.epw.in/journal/2022/30/perspectives/labour-laws-gig-workers-context-labour-law-reforms.html>
- Dewan S., Krishnamurthy M., Taneja D. (2022). Digitalization and the Indian Labor Market: Trends, Challenges, and Opportunities, Working Paper, German Society for International Cooperation (GIZ) GmbH. <https://www.econbiz.de/Record/digitalisation-and-the-indian-labour-market-trends-challenges-and-opportunities-dewan-sabina/10013418990>
- Dhanya, M.B. (2024) ‘E-formalization process in BRICS Countries’, BRICS Network of Labour Research Institute Research 2021, NLI Research Study Series No 166/2024, VV Giri National Labour Institute, NOIDA. <https://vvgnli.gov.in/sites/default/files/166-2024%20Dhanya%20MB.pdf>
- Dhanya M.B. (2025) Navigating the Gig Economy: An Intersectional Investigation into the Experiences and Challenges of Women in the Indian Gig Economy, NLI Research Series. (Forthcoming)
- Dhanya M.B (2025), Vision 2047: Gig and Platform Employment, NLI Research Series No 173/2025, VV Giri National Labour Institute, NOIDA. <https://vvgnli.gov.in/sites/default/files/173-2025%20Dhanya%20MB.pdf>
- Doorn, N. V. (2024). The Contingencies of Platform Power and Risk Management in the Gig Economy. Internet Policy Review, Volume 13, Issue 2. <https://doi.org/10.14763/2024.2.1778>
- Dukes, R., & Streeck, W. (2022). Democracy at work: Contract, Status and post-Industrial Justice, Political Economics, Wiley. <https://www.wiley.com/en-in/Democracy+at+Work%3A+Contract%2C+Status+and+Post-Industrial+Justice-p-9781509548996>
- Economic Times (2024), ‘Work4Food: IIT Delhi Researchers Propose Solutions for Fair Compensation to Food Delivery Agents’. News Article, ETGovernment.com. <https://government.economicstimes.in/diatimes.com/news/digital-india/work4food-iit-delhi-researchers-propose-solutions-for-fair-compensation-to-food-delivery-agents/106638901>
- G20Germany | Agenda. (2017). The G20 Presidency 2017 at a Glance https://www.g20germany.de/Webs/G20/EN/G20/Agenda/agenda_node.html
- G20Argentina | Agenda. (2018). Overview of Argentina’s G20 Presidency 2019 - Building Consensus for Fair and Sustainable Development. G7G20 document database. <https://g7g20-documents.org/database/document/2018-g20-argentina-leaders-miscellaneous-overview-of-argentinas-g20-presidency-2018-building-consensus-for-fair-and-sustainable-development>
- G20 Saudi Arabia | Agenda. (2019). Overview of Saudi Arabia’s G20 Presidency 2020 - Building Consensus for Fair and Sustainable Development. G7G20 document database. <https://g7g20-documents.org/database/document/2018-g20-argentina-leaders-miscellaneous-overview-of-argentinas-g20-presidency-2018-building-consensus-for-fair-and-sustainable-development>



- Ghosh, A., Ramachandran, R., & Zaidi, M. (2023). "Women Workers in the gig economy in India - an exploratory study." SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.4501098>
- Gibson K.,(2024). Partnering with Platform Companies: Benefits & Risks, Business Insights, Harvard Business School Online. <https://online.hbs.edu/blog/post/platform-companies>
- Gönczi, P. (2024, April 18). What is platform risk and what can creators do about it? The Creators' Diary. <https://thecreatorsdiary.com/creator-business/platform-risk/#examples-of-platform-risk>
- Govt of Rajasthan (2023). The Rajasthan Platform Based Gig Workers (Registration and Welfare) Bill, 2023. https://aioe.in/wp-content/uploads/2023/09/Gig_Workers_Bill_2023_1690274461.pdf
- Govt of Jharkhand (2024), The Jharkhand Platform Based Gig Workers (Registration and Welfare) Bill, 2024, Department of Labour, Employment, Training and Skill Development. <https://shramadhan.jharkhand.gov.in/ftp/WebAdmin/documents/Gig-worker-social-security.pdf>
- Govt of Karnataka (2024), The Karnataka Platform based Gig Workers (Social Security and Welfare) Bill, 2024, Labour Department. <https://ksuwssb.karnataka.gov.in/storage/pdf-files/draftnotification.pdf>
- Goyal D., (2023). Introducing – The Shelter Project, Blog, Zomato. <https://blog.zomato.com/introducing-the-shelter-project>
- Granovetter, M. (1992) „The Sociological and Economic Approaches to Labour Market Analysis: A Social Structural View , The Sociology of Economic Life, Granovetter M. Swedberg R. San Fransisco: Westview Press.
- Guha, A., & Zaidi, Y. (2024, July 4). Notice period, ratings transparency: How Karnataka is trying to protect rights of gig workers. The Indian Express. <https://indianexpress.com/article/opinion/columns/gig-workers-rights-karnataka-notice-period-rating-9425781/>
- ILO (2021), 'Digital Platforms and the World of Work in G20 Countries: Status and Policy Action, Paper Prepared for the Employment Working', Group under Italian G20 Presidency https://www.ilo.org/sites/default/files/wcmsp5/groups/public/%40dgreports/%40ddg_p/documents/publication/wcms_829963.pdf
- ILO (2021). World Employment and Social Outlook The role of digital labour platforms in transforming the world of work. International Labour Office – Geneva: ILO, 2021. https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@dgreports/@dcomm/@publ/documents/publication/wcms_771749.pdf
- ILO (2024). Digital Labour Platforms can Advance Social Justice by Focussing on Worker Welfare. Newsroom, International Labour Organization. <https://www.ilo.org/resource/statement/digital-labour-platforms-can-advance-social-justice-focussing-worker#:~:text=According%20to%20the%20ILO's%202021,to%2078%20million%20in%202023.>
- IndiaSA Comms (2024). Uber Introduces New Features to Elevate Safety, Uber. <https://www.uber.com/en-IN/newsroom/uber-introduces-new-features-to-elevate-safety/>
- Invest India (2024). Digital India: Revolutionizing the Tech Landscape. Articles and Blog. <https://www.investindia.gov.in/blogs/digital-india-revolutionising-tech-landscape>
- Istrate E., Harris J. (2017), The Future of Work: The Rise of the Gig Economy, NACo Counties Futures Lab. <https://www.naco.org/sites/default/files/documents/Gig-Economy.pdf>
- Jha, M. (2023). Delhi Govt's Stance on Gig Workers Stirs Controversy, Demand for Separate Board Raised. News Article, NewsClick. <https://www.newsclick.in/delhi-govts-stance-gig-workers-stirs-controversy-demand-separate-board-raised>



- Jullien, B., & Sand-Zantman, W. (2020). The Economics of Platforms: A Theory Guide for Competition Policy. *Information Economics and Policy*, 54, 100880. <https://doi.org/10.1016/j.infoecopol.2020.100880>
- Jullien, B., Pavan, A., & Rysman, M. (2021). Two-sided markets, pricing, and network effects. In *Handbook of Industrial Organization* (pp. 485–592). <https://doi.org/10.1016/bs.hesind.2021.11.007>
- Kathuria R., Kedia M., Varma G, Bagchi k., Khullar S., (2017). Future of Work in a Digital Era: The Potential and Challenges for Online Freelancing and Microwork in India. Publication. ICRIER. <https://icrier.org/publications/future-of-work-in-a-digital-era-the-potential-and-challenges-for-online-freelancing-and-microwork-in-india/>
- Kashyap G., (2023). Gig Workers’ Access to Social Security: Writ Petition Summary (The Indian Federation of App-based Transport Workers), Gig Workers’ Access to Social Security, Cases, Supreme Court Observer. <https://www.scobserver.in/reports/gig-workers-access-to-social-security-the-indian-federation-of-app-based-transport-workers-ifat-v-union-of-india-writ-petition-summary/>
- Katiyatiya, L. M., & Lubisi, N. (2024). The current social protection discourse, gig economy within the advent of COVID-19: some emerging legal arguments. *Labor History*, 66(1), 64–76. <https://doi.org/10.1080/0023656X.2024.2340610>
- Koch, M., & Menkhoff, L. (2024). The Non-Linear Impact of Risk Tolerance on Entrepreneurial Profit and Business Survival. *Small Business Economics*, Volume 64, pages 1643–1670, (2025). <https://doi.org/10.1007/s11187-024-00956-6>
- Koutsimpogiorgos, N., Van Slageren, J., Herrmann, A. M., & Frenken, K. (2020). Conceptualizing the gig economy and its regulatory problems. *Policy & Internet*, 12(4), 525–545. <https://doi.org/10.1002/poi3.237>
- McFeely, S., & Pendell, R. (2025). What workplace leaders can learn from the real gig economy. Gallup.com. <https://www.gallup.com/workplace/240929/workplace-leaders-learn-real-gig-economy.aspx>
- McKinsey (2022) ‘Americans are embracing flexible work—and they want more of it’, McKinsey & Company. <https://www.mckinsey.com/industries/real-estate/our-insights/americans-are-embracing-flexible-work-and-they-want-more-of-it>
- McKinsey (2022). What are Industry 4.0, the Fourth Industrial Revolution, and 4IR? McKinsey & Company. <https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-are-industry-4-0-the-fourth-industrial-revolution-and-4ir>
- MeitY-PIB (2023), Prime Minister announces completion of Global Digital Public Infrastructure Repository and creation of a Social Impact Fund to advance Digital Public Infrastructure in Global South, Press Release, Ministry of Electronics & IT Government of India. <https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=1979113>
- Menon G., (2024). Introducing “Paw-ternity” policy for pet parents at Swiggy, Blogs, Swiggy Diaries. <https://blog.swiggy.com/life-at-swiggy/introducing-paw-ternity-policy-for-pet-parents-at-swiggy/>
- MoC-PIB(2016), UIDAI generates a billion (100 crore) Aadhaars A Historic Moment for India, Press Release, Ministry of Communication, Government of India. <https://www.pib.gov.in/newsite/printrelease.aspx?relid=138555>



- MoE(2021). India Report Digital Education-Remote Learning Initiatives Across India, Department of School Education & Literacy, Ministry of Education Government Of India. https://www.education.gov.in/sites/upload_files/mhrd/files/irde_21.pdf
- MoHFW(2024), CoWIN Dashboard, Ministry of Health and Family Welfare, Government of India. (Accessed on 9th July, 2024) <https://dashboard.cowin.gov.in/>
- MoLE (2003). The Indian Labour Conference, Report of the Second National Commission on Labour with Emphasis on Rationalization of Labour Laws and Unorganized Labour, Ministry of Labour and Employment, Government of India. https://labour.gov.in/sites/default/files/39ilcagenda_1.pdf
- MoLE (2016). BRICS Labour & Employment Ministerial Meeting. Ministry of Labour & Employment, Government of India. <https://labour.gov.in/brics/brics-labour-employment-ministerial-meeting#:~:text=The%20Labour%20and%20Employment%20Ministers,attain%20the%20sustainable%20goals%20of>
- MoLE-CoSS (2020). The Code on Social Security, 2020, Ministry of Labour and Employment, Government of India. https://labour.gov.in/sites/default/files/ss_code_gazette.pdf
- MoLE-PIB (2023), G20 Employment Working Group to focus on three priority areas -Addressing Global Skill Gaps, Gig and Platform Economy, Social Protection and Sustainable Financing of Social Security, Press Release, Ministry of Labour and Employment, Government of India. <https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=1914413>
- MoLE(2025), eShram Portal, Ministry of Labour & Employment, Government of India. <https://eshram.gov.in/indexmain>
- Moneycontrol, (2023). More than a third of food delivery workers in India are graduates, finds study. Moneycontrol. <https://www.moneycontrol.com/news/trends/more-than-a-third-of-food-delivery-workers-in-india-are-graduates-finds-survey-11278821.html>
- MoRTH-PIB (2020). Motor Vehicle Aggregator Guidelines Issued to Regulate Shared Mobility and Reducing Traffic Congestion and Pollution. Ministry of Road Transport & Highways, Government of India <https://pib.gov.in/Pressreleaseshare.aspx?PRID=1676403>
- MSDE (2025), 1,60,33,081 candidates have been trained/oriented under the PMKVY scheme from 2015 to 2024, Press Release, Ministry of Skill Development and Entrepreneurship, Government of India. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2115272>
- Muro M., & Liu, S. (2023). As the Digitalization of Work Expands, Place-based Solutions can Bridge the Gaps. Research. Brookings. <https://www.brookings.edu/articles/as-the-digitalization-of-work-expands-place-based-solutions-can-bridge-the-gaps/>
- Nair, Gayatri (2021). “Between Precarity and Flexibility Labour and Capital in the Gig Economy.” Economic and Political Weekly Vol. 56, Issue No. 14, 03 Apr, 2021 <https://www.epw.in/journal/2021/14/book-reviews/between-precarity-and-flexibility.html>
- Navya P K., (2022). Swiggy Delivery Workers Protest in Bengaluru, Demand Fixed Salary of Rs 26,000/month. News Article, Deccan Herald. <https://www.deccanherald.com/india/karnataka/bengaluru/month-2-1137677.html>
- NCAER (2023) “Socio-economic Impact Assessment of Food Delivery Platform Workers”. National Council of Applied Economic Research, Report 20230801. <https://www.ncaer.org/publication/socio-economic-impact-assessment-of-food-delivery-platform-workers>
- Onoriode H.E. (2025), The Gig Economy: Opportunities and Challenges for Workers and Employers. Global Educational Research Journal: 2360-7963 Vol. 13(1) January, Pp. 22-31, 2025. <https://>



- [/springjournals.net/articles/pdf/822326012025](https://springjournals.net/articles/pdf/822326012025)
- Oranburg, S. C., & Palagashvili, L. (2021). Transaction Cost Economics, Labor Law, and the Gig Economy. *Journal of Legal Studies*, 50. Retrieved from <https://dsc.duq.edu/cgi/viewcontent.cgi?article=1115&context=law-faculty-scholarship>
- Ozimek A., (2021). Freelance Forward Economist Report, Research, Upwork. <https://www.upwork.com/research/freelance-forward-2021>
- Praveen, P. (2023). 'Swiggy introduces sexual harassment policy for female delivery executives, blog, Swiggy Diaries. <https://blog.swiggy.com/2022/11/21/swiggy-introduces-sexual-harassment-policy-for-female-delivery-executives/>
- PRS India (2020), Issues for Consideration: Labour Codes – Three Bills on Occupational Safety and Health; Industrial Relations; and Social Security, 2020, PRS Legislative Research. https://prsindia.org/files/bills_acts/bills_parliament/2020/Issues%20for%20Consideration%20-%20Labour%20Codes%202020_0.pdf
- Pulignano, V., & Domecka, M. (2025). Freelancing 'for the Sake of Reputation': A Binary/Non-Binary Relationship between Unpaid and Precarious Work in Online Platform Work. Oxford University Press eBooks (pp. 159–202). <https://doi.org/10.1093/oso/9780198888130.003.0007>
- Rao, K. R., Kumar, K., Gupta, R., Khurana, S., Verma, K. N., Chandra, S., Singh, R. R., Dharap, O., Sasikumar, S. K., Abraham, V., Padhi, B., Communications Team, NITI Aayog, Dasgupta, I., & Sachdeva, S. (2022). India's Booming Gig and Platform Economy: Perspectives and Recommendations on the Future of Work. In POLICY BRIEF, NITI Aayog, Government of India. https://www.niti.gov.in/sites/default/files/2022-06/Policy_Brief_India%27s_Booming_Gig_and_Platform_Economy_27062022.pdf
- Sen, S. (2024). Unions, Civil Society Groups Submit Suggestions to Jharkhand Govt On Gig Workers Bill. News Article, Your Story. https://yourstory.com/2024/07/unions-civil-society-suggestions-jharkhand-govt-gig-workers-bill?fbclid=IwZXh0bG9hZWMTEAAR3wWC_cuRfE2XQaKZpq1w-i2Rj2sNvco-DuM8ALiUscu929uX2ykUZ6Xuk_aem_CU_EEEFdQjDnaBcXxA6CHA
- Sennett R., (2006). The Culture of the New Capitalism, Yale University Press, <https://www.jstor.org/stable/j.ctt1nq6wd>
- Sharif, I., & Qiang, C. Z. (2024). The Promise and Peril of Online Gig Work in Developing Countries. World Bank Blogs. <https://blogs.worldbank.org/en/voices/promise-and-peril-online-gig-work-developing-countries>
- Sheer Analytics and Insights (2022). "India Freelance Jobs Market Size, Share, Analysis & Reports" <https://www.sheeranalyticsandinsights.com/market-report-research/india-freelance-job-market-21>
- Shukla A., (2024). Poor work culture taking a toll on mental health of 99% cab, drivers, delivery staff in India: Survey. News Article, The Indian Express. <https://indianexpress.com/article/cities/bangalore/poor-work-culture-taking-a-toll-on-mental-health-of-99-cab-drivers-delivery-staff-in-india-survey-9217449/>
- Sirwalla, P. (2024). Labour codes: Accelerating India's Labour Law Revolution, Blog, KPMG. <https://kpmg.com/in/en/blogs/home/posts/2024/05/labour-codes-accelerating-indias-labour-law-revolution.html>
- Singh, A. N. (2024). The ONDC Revolution: Transforming India's Kirana Stores in the Digital Era. Business of Food. <https://www.businessoffood.in/the-ondc-revolution-transforming-indias-kirana-stores-in-the-digital-era/>



- Standing, G. (2014). The Precariat. Research Article, Contexts, Sage Journal, 13(4), 10-12. <https://doi.org/10.1177/1536504214558209>
- Stanford, J. (2017). The Resurgence of Gig Work: Historical and Theoretical Perspectives. The Economic and Labour Relations Review, 28(3), 382-401. <https://doi.org/10.1177/1035304617724303>
- Swallow Y.C., Haksar V., Patnam M. (2021). India's Approach to Open Banking: Some Implications for Financial Inclusion, Working Paper International Monetary Fund, WP/21/52. <https://www.imf.org/en/Publications/WP/Issues/2021/02/26/Indias-Approach-to-Open-Banking-Some-Implications-for-Financial-Inclusion-50049>
- Swiggy (2023), 'A New App To Empower our Delivery Partners - Swiggy Diaries. Swiggy Diaries'. <https://blog.swiggy.com/2019/04/08/a-new-app-to-empower-our-delivery-partners/>
- Swiggy (2024), 'Swiggy and Red Dot Foundation join forces to create awareness and combat Gender Bias and Sexual Harassment through the Safecity Initiative - Swiggy Diaries. Swiggy Diaries'. <https://blog.swiggy.com/2024/08/02/swiggy-and-red-dot-foundation-join-forces-to-create-awareness-and-combat/>
- The Hindu (2022). Food delivery partners in Bengaluru participate in 'log off' stir, News Article. <https://www.thehindu.com/news/national/karnataka/food-delivery-partners-participate-in-log-off-stir/article65672014.ece>
- Umney, C., Stuart, M., Bessa, I., Joyce, S., Neumann, D., & Trappmann, V. (2024). Platform Labour Unrest in a Global Perspective: How, Where and Why Do Platform Workers Protest? Work, Employment and Society, 38(1), 3-26. <https://doi.org/10.1177/09500170231209676>
- Urban Company (2024), ESG India Report. <https://content.urbancompany.com/pdfs/growth/home-screen/1719911158399-097c13.pdf>
- Vallas, S., & Schor, J. B. (2020), 'What do platforms do? Understanding the gig economy'. Annual Review of Sociology, 46(1), 273-294. <https://doi.org/10.1146/annurev-soc-121919-054857>
- Weber, L., (2017). The End of Employees. News Article, The Wall Street Journal. <https://www.wsj.com/articles/the-end-of-employees-1486050443>
- WEF (2024), The Rise of Global Digital Jobs, White Paper, World Economic Forum https://www3.weforum.org/docs/WEF_The_Rise_of_Global_Digital_Jobs_2024.pdf
- Woodcock J., Graham M. (2019): The Gig Economy: A Critical Introduction, Cambridge: Polity Press. <http://acdc2007.free.fr/woodcock2020.pdf>
- World Bank (2023). National Digital Transformation Strategy – Mapping the Digital Journey, Policy & Regulatory Governance. World Bank. <https://digitalregulation.org/national-digital-transformation-strategy-mapping-the-digital-journey/>
- World Bank (2023). The Economic Impacts of the COVID-19 Crisis, Finance For an Equitable Recovery, World Development Report 2022, World Bank. <https://openknowledge.worldbank.org/server/api/core/bitstreams/e1e22749-80c3-50ea-b7e1-8bc332d0c2ff/content>

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