

Gig Work as a Double-Edged Sword for Persons with Disabilities: A Conceptual Framework for Addressing Discrimination, Psychological Well-Being, and Inclusive Economic Participation in India's Platform Economy

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ABSTRACT

The gig economy in India is growing quickly. By 2030, it is expected to include 80% of the urban workforce, providing flexible, platform-based job opportunities. This model presents both advantages and disadvantages for individuals with disabilities (PwDs), who are people who have physical or mental impairments that substantially limit one or more major life activities. It promises independence and accessibility through remote or flexible work schedules, which could help them overcome traditional barriers such as hard-to-reach workplaces and discrimination based on their attitudes. But it makes things worse for people who are already vulnerable, like people with disabilities who can't obtain gigs, people who don't have a stable income, and people who are at higher risk for mental health problems like stress, anxiety, and burnout. This conceptual paper integrates literature on the challenges faced by gig workers and their relationship to disability inclusion and proposes a framework to promote rights-based economic participation in accordance with the Rights of Persons with Disabilities (RPwD) Act, 2016, and the UN Convention on the Rights of Persons with Disabilities (UNCRPD).

In India, gig workers are in a precarious situation, with 70% saying they are financially unstable and have irregular income, which adds to their mental stress. People with disabilities face even more problems: performance-based pay and a lack of accommodations make physical and mental health problems, like musculoskeletal disorders and mental burnout, more common. Research shows that the algorithmic management of gig platforms perpetuates discrimination, making people feel alone and less happy. Additionally, the lack of social protections, like health insurance and disability benefits, reflects the larger economic problems that people with disabilities face, as conversion handicaps (extra costs for accessibility) make it harder to turn income into well-being. Even with programs like the Code on Social Security (2020), implementation gaps persist, especially for groups underrepresented in the gig economy.

The proposed conceptual framework consists of three pillars: (1) platform-level interventions that focus on inclusive design (like AI-driven accommodations and bias audits); (2) policy alignment that includes RPwD mandates for skill development and entrepreneurship among PwDs; and (3) advocacy ecosystems that include Disabled Persons' Organisations (DPOs) and public-private partnerships to keep an eye on how complaints are handled. This model suggests that combating discrimination improves psychological well-being, which in turn enhances job performance and economic inclusion, thereby advancing Sustainable Development Goals (SDGs) 8 (Decent Work) and 10 (Reduced Inequalities).

Recommendations include adopting disability-inclusive hiring practices, making algorithms more transparent, and researching their long-term effects. This framework supports a barrier-free gig economy by connecting policy to practice, empowering people with disabilities in India's digital economy.

KEYWORDS: Gig economy, persons with disabilities, psychological well-being, and Inclusive employment

1. INTRODUCTION

The gig and platform economy in India is one of the fastest-growing parts of the job market. This is because of digitalisation, the rise of smartphones, and changes in how people want to work. The NITI Aayog (2022) policy brief, *India's Booming Gig and Platform Economy*, says that the gig workforce was 7.7 million workers in 2020–21 (1.5% of the total workforce) and is expected to grow more than threefold to 23.5 million workers by 2029–30, making up 6.7% of the non-agricultural workforce and 4.1% of the total workforce. The report discusses how easy it is to enter the field and how it can hire from a wide range of backgrounds, specifically noting its relevance for women, youth, and people with disabilities (PwDs). The gig economy is growing quickly, making it a major source of jobs and economic growth in India after the pandemic.

For people with disabilities, gig work is both good and bad. On one hand, platform-mediated employment provides unparalleled flexibility, modifiable hours, location independence, and the option to work from home, which can mitigate conventional obstacles such as inaccessible physical workplaces, inflexible schedules, and attitudinal discrimination common in traditional employment (Harpur & Blanck, 2020). Many people with disabilities (PwDs) see gig platforms as a way to become financially independent and start their own businesses. This aligns with the Rights of Persons with Disabilities (RPwD) Act, 2016, which emphasises the need for reasonable accommodations and equal opportunity. On the other hand, the same platforms often make exclusion worse by using algorithmic bias to assign tasks, paying based on performance without any protections, not providing social security, and not providing accommodations for people with disabilities, which makes people more vulnerable and discriminated against (Hafeez et al., 2022; The gig economy and workforce inclusion, 2024).

Despite the increasing literature on gig precarity and distinct scholarship on disability employment in India, a significant research gap persists: insufficient conceptual integration of gig-specific challenges (algorithmic management, income instability) with disability discrimination and their cumulative effects on psychological well-being and job performance in the Indian context. Current research often examines these dimensions in isolation, neglecting the intersectional experiences of persons with disabilities within the platform economy.

The purpose of this conceptual paper is to address this gap by developing an integrated framework that links discrimination (algorithmic and attitudinal) to psychological well-being, job performance, and ultimately inclusive economic participation. The proposed “Double-Edged Gig Inclusion Model” (DIGIM) synthesises these relationships and offers actionable pathways for stakeholders.

This work is squarely aligned with the RPwD Act, 2016, the United Nations Convention on the Rights of Persons with Disabilities (UNCPRD) Article 27 (right to work and employment), and Sustainable Development Goals 8 (decent work and economic growth) and 10 (reduced inequalities). It directly supports the conference's core theme, “From Policy to Practice: Road mapping Inclusive, Rights-Based and Barrier-Free Societies,” by translating legal mandates into practical strategies for the emerging gig sector.

2. LITERATURE REVIEW & CONCEPTUAL FOUNDATIONS

• Gig Economy in India: Opportunities and Precarity

India's gig and platform economy has grown quickly, turning informal work into online, on-demand work. The NITI Aayog (2022) said there were 7.7 million gig workers in 2020–21 and that number would rise to 23.5 million by 2029–30, adding about ₹2.35 lakh crore to GDP. The Economic Survey 2025–26 shows that this trend remains strong. In FY 2025, the gig workforce grew to 12 million, a 55% increase from FY 2021. This means that gig workers now make up more than 2% of India's total workforce. By 2029–30, non-agricultural gigs are expected to make up 6.7% of the workforce (Government of India, 2026). Major platforms like Uber and Ola (for ride-sharing), Swiggy and Zomato (for food delivery), Urban Company (for home services), and Upwork and Freelancer (for freelance work) have become very popular. They offer easy-to-access jobs in transportation, logistics, personal services, and digital freelancing.

This model promises adaptability, business ownership, and quick income generation, especially in cities and towns near cities. But precarity is what makes the experience. Algorithmic management controls how tasks are assigned, rated, and deactivated, and often does so in ways that are unclear or do not allow appeals (Sharma, 2025). Surge pricing changes, peak-hour dependency, and performance-based deductions all contribute to income instability. Many workers say their earnings are irregular and below the minimum wage. The lack of social security is still a major problem. The Code on Social Security 2020 theoretically protects gig workers, but it isn't always followed, so most of them don't have health insurance, paid leave, or accident compensation (Bhattacharyya, 2021). These structural weaknesses make the ecosystem unstable, with workers taking all the risks and platforms getting more than their fair share of the benefits.

- **Disability Inclusion in Employment: Policy and Ground Realities**

The Rights of Persons with Disabilities (RPwD) Act, 2016, gives a strong legal basis for inclusion. Sections 20 (no discrimination in hiring), 21 (reasonable accommodation), and 19 and 35 (skill development and entrepreneurship) are among the most important. The Act is in line with Article 27 of the UNCRPD and recognises 21 types of disability. There are still significant implementation gaps, especially in the private and informal sectors. People often think that reasonable accommodations are optional rather than required, and enforcement remains weak outside government jobs (Harpur & Blanck, 2020).

For people with disabilities (PwDs), traditional jobs can be very hard to get because of things like inaccessible infrastructure, strict schedules, discrimination based on attitudes, and problems with transportation. This means that only about 36% of PwDs work, compared to more than 50% of the general population. Gig work, on the other hand, is supposed to be flexible. It can include tasks that can be done anywhere, hours set by the worker, and opportunities to work from home, which can overcome many physical barriers. Harpur and Blanck (2020) emphasise that platform models allow persons with disabilities (PwDs) to evade discriminatory hiring practices and workplace inaccessibility, presenting gig work as a potential equaliser.

Nevertheless, intersectionality complicates this promise. PwDs in the gig economy face compounded discrimination: algorithmic biases that undervalue disability-related performance metrics, a lack of platform-level accommodations (e.g., voice navigation or flexible pacing), and exclusion from social protection schemes. Disability and gig-worker status thus create a unique form of double precarity that existing policies have yet to address adequately.

- **Psychological Well-Being and Job Performance Linkages**

The combination of gig work and disability has a big effect on mental health and job performance. Gig workers are under constant stress, anxiety, and burnout due to algorithmic surveillance, unstable income, and the pressure to maintain high ratings (Hafeez et al., 2022). Joseph (2025) records the "health toll" of gig work, which includes more musculoskeletal disorders, mental fatigue, and psychosocial strain, especially for delivery and ride-hailing workers. For people with disabilities, these effects are even worse.

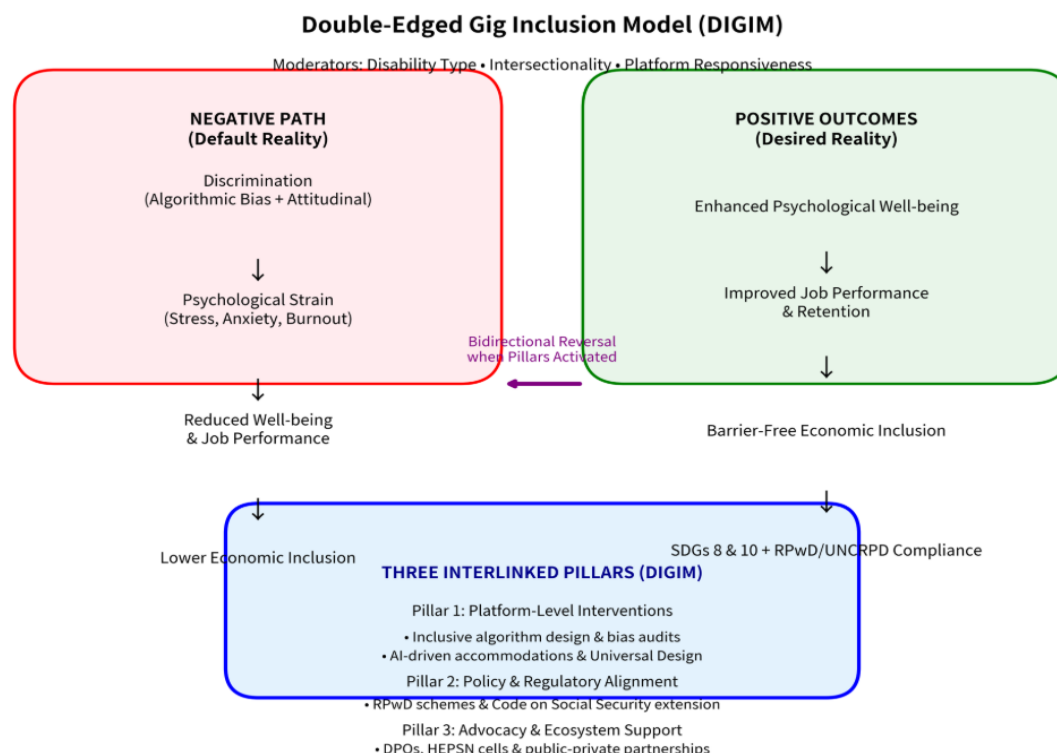
Amartya Sen's concept of "conversion handicap" is especially relevant here. PwDs require additional resources (time, energy, assistive aids, or support) to convert income or opportunities into equivalent functioning and well-being compared to non-disabled peers (Sen, 2004). In gig work, this manifests as higher costs for accessible transport, assistive technology, or rest periods amid performance-based pay, turning potential flexibility into added psychological burden.

Consequently, reduced well-being directly impairs job performance and retention. Seubert et al. (2025) demonstrate that precarious employment undermines psychological safety, leading to lower productivity, higher error rates, and increased turnover intentions. For PwDs in gig roles, this cycle, discrimination-induced stress → diminished well-being → poorer performance → further exclusion—reinforces marginalisation rather than inclusion.

Collectively, these strands reveal a critical gap: while literature separately addresses gig precarity and disability employment, few studies conceptually integrate algorithmic discrimination, conversion handicaps, and psychological pathways in the Indian platform economy. This paper addresses that void through the proposed framework in the following section.

3. PROPOSED CONCEPTUAL FRAMEWORK

To bridge the conceptual gaps identified in the literature, this paper introduces the Double-Edged Gig Inclusion Model (DIGIM), an original, integrative framework tailored to the Indian platform economy. The model explicitly recognises gig work as a "double-edged sword" for persons with disabilities (PwDs): it can either perpetuate exclusion through algorithmic and attitudinal discrimination or become a powerful vehicle for rights-based inclusion when supported by targeted interventions. DIGIM synthesises gig precarity theory, the social model of disability, Sen's concept of conversion handicap, and the psychological well-being literature into a single, actionable structure.

Figure 1: The Double-Edged Gig Inclusion Model (DIGIM)

The central causal chain on the left illustrates the default negative pathway: algorithmic and attitudinal discrimination triggers psychological strain, which erodes well-being and performance, ultimately resulting in lower economic inclusion. Three vertical, interlinked pillars on the right act as intervention points. When activated, they interrupt and reverse the negative flow through bidirectional feedback loops. Moderators (disability types, intersectionality, and platform responsiveness) influence the strength of every relationship. The outcome on the far right is enhanced inclusion, well-being, and performance when the pillars function synergistically.

Pillar 1: Platform-Level Interventions. Platforms are the primary site of daily interaction and discrimination. This pillar demands proactive, technology-driven changes. Inclusive algorithm design requires regular bias audits to prevent PwDs from being deprioritised in task allocation or rated lower due to disability-related performance variations. AI-driven accommodations—such as voice navigation, flexible pacing, auto-adjusting delivery windows, or screen-reader compatibility—must become standard features (Universal Design principles). Platforms like Uber and Urban Company can embed these features at minimal cost while complying with RPwD Section 21 (reasonable accommodation).

Pillar 2: Policy and Regulatory Alignment Legal and policy levers must catch up with platform realities. This pillar calls for full extension of the Code on Social Security 2020 to gig workers with disabilities, including mandatory health insurance, accident compensation, and disability pensions. RPwD-mandated skill development and entrepreneurship schemes (Sections 19 and 35) should be integrated into platform onboarding through government–platform partnerships. Strong grievance redressal mechanisms—such as dedicated PwD dashboards and fast-track appeals against algorithmic deactivation—are essential to enforce accountability.

Pillar 3: Advocacy and Ecosystem Support. Sustainable change requires multi-stakeholder ecosystems. Disabled Persons’ Organisations (DPOs), universities like Pondicherry University’s HEPSN cell, and public-private partnerships play a pivotal role in training, awareness, and monitoring. This pillar links directly to the conference sub-themes on advocacy, DPOs, and grievance redressal. Regular audits, community feedback loops, and capacity-building programmes ensure platforms remain responsive.

When all three pillars operate together, the negative causal chain is reversed: discrimination decreases, psychological strain is mitigated, well-being and performance improve, and genuine economic inclusion is achieved. The model thus operationalises the conference's core theme, “From Policy to Practice,” by translating the RPwD Act and UNCRPD mandates into concrete, measurable actions for the gig sector.

DIGIM is deliberately parsimonious yet comprehensive, making it suitable for both conceptual advancement and future empirical testing (e.g., structural equation modelling or longitudinal studies). It contributes to the literature by being the first India-specific framework that explicitly integrates algorithmic discrimination, conversion handicaps, and psychological pathways in the platform economy.

4. DISCUSSION & PRACTICAL IMPLICATIONS

The Double-Edged Gig Inclusion Model (DIGIM) effectively closes the gap in India's platform economy between what policymakers want and what actually happens. DIGIM turns the vague requirements of the RPwD Act, 2016 and UNCRPD Article 27 into three linked, actionable pillars. This makes high-level rights into measurable actions. It goes beyond vague terms like "reasonable accommodation" and "equal opportunity" to say exactly what platforms, regulators, DPOs, and people can do to break the cycle of discrimination → psychological strain → exclusion. The framework directly supports the conference's main theme, "From Policy to Practice: Road mapping Inclusive, Rights-Based and Barrier-Free Societies."

Recommendations for Platform Companies: Platforms must embed disability inclusion into core product design and operations. A practical **Inclusive Gig Design Checklist** includes:

1. Conduct mandatory annual algorithmic bias audits with third-party verification and publish summary reports.
 2. Implement Universal Design features: voice navigation, screen-reader compatibility, adjustable pacing, and auto-extended delivery windows for PwDs.
 3. Offer disability self-declaration options during onboarding with opt-in reasonable accommodations (e.g., lower rating thresholds for mobility-related delays).
 4. Ensure high colour contrast, large touch targets, and keyboard navigation across driver/rider apps.
 5. Provide transparent rating and deactivation appeal mechanisms with human oversight.
 6. Integrate assistive technology compatibility testing into every app update.
- Adopting this checklist would convert gig platforms from sites of exclusion into genuine enablers of livelihood.

Recommendations for Government and Regulators Central and state governments should enact algorithm transparency provisions similar to the Karnataka Platform-Based Gig Workers Bill, 2025 and Telangana's proposed framework. Key actions include:

- Mandate disclosure of algorithmic parameters affecting task allocation, ratings, and deactivation.
 - Extend the Code on Social Security, 2020, to guarantee portable health insurance, accident compensation, and disability-specific benefits for gig workers.
 - Introduce mandatory PwD quotas or weighted incentives in all government-recognised gig schemes (e.g., 4% reservation with viability-gap funding).
 - Establish a national Gig Workers Disability Grievance Portal with fast-track resolution (within 72 hours).
- These measures would enforce accountability and align the booming gig sector with India's constitutional and international commitments.

Recommendations for DPOs and Academic Institutions: Disabled Persons' Organisations and universities must lead advocacy and capacity building. Pondicherry University's HEPSN Cell offers an excellent, replicable model: free education for PwDs, barrier-free infrastructure, exclusive skill development programmes, and weekly webinars that reach stakeholders across southern India. DPOs and HEPSN-type cells should:

- Conduct joint platform-PwD training workshops on digital literacy and rights awareness.
- Develop and disseminate advocacy toolkits for algorithmic discrimination cases.
- Establish monitoring observatories to track DIGIM implementation.

Recommendations for Persons with Disabilities: PwDs can leverage DIGIM by actively pursuing targeted skill pathways: platform-specific digital training (via Skill India or PM-DAKSH), entrepreneurship orientation under RPwD Section 35, and peer-mentoring networks. Choosing platforms that demonstrate DIGIM compliance will maximise flexibility while minimising psychological strain.

Contribution to Conference Objectives: This paper directly supports the conference objectives by (1) raising awareness of new types of discrimination in the digital economy, (2) making it easier for policymakers, platforms, researchers, and PwDs to talk to each other, (3) showing best practices through the DIGIM framework and Pondicherry University's HEPSN model, (4) making specific recommendations for each stakeholder, and (5) building networks for long-term advocacy and policy monitoring. The study expands the conversation about

including people with disabilities in the future of work by examining the gig economy, one of the fastest-growing yet least-regulated industries.

Ultimately, DIGIM demonstrates that an inclusive platform economy is not an aspirational ideal but an achievable reality when policy, technology, and advocacy converge. Implementing the recommendations will help convert gig work from a double-edged sword into a genuine pathway for economic empowerment and psychological well-being of persons with disabilities.

5. CONCLUSION & FUTURE RESEARCH AGENDA

This conceptual paper has shown that the gig economy in India is both good and bad for people with disabilities. On one hand, its natural flexibility makes it a good way to get involved in the economy by getting around many of the usual problems of workplaces that are hard to get to and schedules that are too strict. On the other hand, algorithmic discrimination, unstable income, and a lack of reasonable accommodations make people more stressed, less happy, and less able to do their jobs well and be included. By thoroughly examining gig precarity, disability policy, and psychological literature, the paper has filled a significant void by presenting the Double-Edged Gig Inclusion Model (DIGIM). This new framework brings together three connected pillars: platform-level interventions, policy and regulatory alignment, and support for the advocacy ecosystem. These pillars can break the cycle of discrimination, psychological strain, and exclusion and turn gig work into a real way to promote rights-based inclusion.

DIGIM operationalises the mandates of the RPwD Act 2016, UNCRPD Article 27, and SDGs 8 and 10 by translating high-level policy into concrete, stakeholder-specific actions. It directly advances the conference's core theme, "From Policy to Practice: Road mapping Inclusive, Rights-Based and Barrier-Free Societies," by providing a practical roadmap for the fastest-growing yet least-regulated sector of India's labour market.

Call to Action On this Zero Discrimination Day, all stakeholders — platforms, governments, DPOs, universities, and PwDs themselves — must act decisively. India's platform economy can and must become truly barrier-free. Implementing the DIGIM pillars is not optional; it is essential to ensure that the projected 23.5 million gig workers by 2029–30 include persons with disabilities as equal participants rather than marginalised outliers.

Limitations: As a purely conceptual paper, DIGIM is limited by the absence of primary empirical data. Its propositions, while grounded in rigorous literature synthesis, require validation in real-world platform settings.

Future Research Agenda Future scholars should test and refine DIGIM through:

1. Longitudinal studies tracking PwDs' psychological well-being and performance before and after platform-level interventions (minimum 12–18 months).
2. Mixed-methods research combining large-scale surveys ($n > 500$) with in-depth interviews to capture intersectional experiences across disability types and regions.
3. Experimental or quasi-experimental studies evaluating the impact of algorithmic bias audits and Universal Design features on task allocation and ratings.
4. Comparative studies between DIGIM-compliant and non-compliant platforms to measure inclusion outcomes.

Such empirical work will strengthen the framework and provide evidence-based guidance for policymakers. Ultimately, realising a barrier-free gig economy will not only empower millions of PwDs but also position India as a global leader in inclusive digital transformation.

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