
Integrating Gig Workers into the National Occupational Safety and Health System: Challenges and Policy Directions in Indonesia

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Abstract

This study examines the challenges and policy directions for integrating gig workers into Indonesia's National Occupational Safety and Health (OSH) system. Although they play an increasingly significant role in the digital economy, gig workers remain largely excluded from OSH governance and social protection. Using a qualitative descriptive–analytical approach, the study explores regulatory gaps, institutional constraints, and workers' perceptions of occupational risks. Findings reveal that existing regulations—especially Law No. 1/1970 on Occupational Safety and Law No. 13/2003 on Manpower—are still workplace- and employer-oriented, assuming stable employment relations that no longer reflect non-standard forms of work such as dependent self-employment and platform-mediated labor. Consequently, most gig workers operate beyond preventive OSH governance and BPJS Ketenagakerjaan coverage. Addressing this requires a shift toward worker-centered governance emphasizing portable protection, shared responsibility, and adaptive regulatory frameworks that link state oversight with platform accountability. The ongoing review of Indonesia's core labor laws offers an opportunity to institutionalize these principles. Drawing on global OSH reflections and international practices (ILO, OECD, ASEAN), the study underscores the urgency of affirmative, inclusive policies to ensure decent and safe work for all. Integrating gig workers is not merely a legal adjustment but a strategic step toward an adaptive, equitable, and sustainable labor protection system in the digital era.

Keywords: gig workers, Occupational Safety and Health (OSH), non-standard employment, platform economy, social protection.

1. Introduction

The rapid development of the digital economy has reshaped global labor markets and accelerated the rise of gig or platform-based work. According to the International Labour Organization (ILO, 2023), the number of digital labor platforms worldwide has more than tripled between 2010 and 2020, offering flexible income opportunities but simultaneously increasing vulnerabilities in occupational safety and health (OSH), income security, and social protection. The World Employment and Social Outlook (ILO, 2021) further shows that most platform workers remain beyond the reach of formal labor standards and protection systems. This shift towards non-standard and platform-mediated employment fundamentally challenges regulatory frameworks designed for conventional employment relationships.

In Indonesia—Southeast Asia’s largest platform economy—over 13 million people are engaged in platform-based activities, primarily in ride-hailing, delivery, logistics, and online micro-tasking (ADB, 2023). Despite their economic contribution, more than 58 percent of the workforce remains in the informal sector (BPS, 2024), highlighting persistent structural barriers to integrating such workers into labor and OSH systems. Employment relations in the platform sector are increasingly characterized by dependent self-employment and platform-mediated work arrangements, which blur the boundaries between self-employment and wage labor and generate significant regulatory ambiguity (OECD, 2023).

Indonesia’s current OSH regulations—Law No. 1/1970 on Occupational Safety and Law No. 13/2003 on Manpower—were formulated for traditional industrial settings, assuming fixed workplaces and stable employer–employee relationships. In contrast, platform work, marked by algorithmic management, task-based payment, and high spatial mobility, often falls outside these legal definitions. As a result, gig workers face heightened occupational risks such as traffic accidents, ergonomic strain, and psychosocial stress, many of which remain undocumented or uncompensated (EU-OSHA, 2022). Government efforts to extend social protection through the Non-Wage Recipient (BPU) scheme under BPJS Ketenagakerjaan have achieved limited impact due to its voluntary nature, low OSH awareness, and irregular income patterns. This protection gap continues to highlight the absence of a comprehensive policy framework that ensures “OSH for all workers”—a principle that should guide Indonesia’s future national OSH strategy.

This persistent protection gap reflects the classic policy implementation challenges (Pressman and Wildavsky, 1973; Sabatier and Mazmanian, 1980), where institutional capacity, legal definitions, and ground realities often diverge. Crucially, the ongoing legislative review of Law No. 1/1970 on Occupational Safety and Law No. 13/2003 on Manpower represents a rare and strategic policy window to fundamentally reshape Indonesia’s labor governance. It offers an unprecedented opportunity to embed worker-centered principles, formally recognize non-standard and platform-mediated employment, and align OSH regulation with the realities of the digital economy. Regionally, countries such as Thailand, Singapore, and Malaysia are piloting portable and co-contribution social protection schemes for platform workers (ASEAN Secretariat, 2023), showing that flexibility and decent work can be mutually reinforcing. Building on these lessons, this study explores how gig workers can be systematically integrated into Indonesia’s National OSH System by addressing regulatory gaps, strengthening social protection mechanisms, and designing forward-looking policy reforms.

2. Research method

This study employs a qualitative research design to analyze the intersection of gig work, OSH governance, and social protection policies in Indonesia. The approach was selected to explore meanings, institutional interpretations, and lived experiences rather than quantify outcomes, enabling a deeper understanding of how legal frameworks, governance structures, and worker realities shape access to OSH protection. The analysis focuses on three dimensions—regulatory frameworks, institutional implementation, and workers’ practices and perceptions—to reveal their interactions and existing gaps. Data were gathered through comprehensive literature review and policy document

analysis, supplemented by interpretive assessment of institutional strategies. All materials were examined using qualitative content analysis to identify core themes, structural barriers, and policy implications for advancing a more worker-centered OSH system.

2.1. Research Approach

This study adopts a qualitative descriptive–analytical approach to explore the integration of gig workers into Indonesia’s national OSH system. A qualitative design was considered most appropriate because the research aims to understand how and why regulatory, institutional, and implementation gaps emerge in protecting workers engaged in non-standard forms of employment, including dependent self-employment and platform-mediated work arrangements. Rather than seeking statistical generalization, this approach focuses on capturing the dynamics of policy interpretation, institutional interaction, and the lived experiences of workers facing occupational risks in the platform economy.

The descriptive–analytical design allows the researcher to connect empirical observations with broader policy frameworks and theoretical perspectives on labor governance. It also enables an in-depth analysis of how existing regulatory instruments—originally designed for conventional employment models—interact with new forms of work characterized by algorithmic management, flexible engagement, and blurred employment relationships. By examining these interactions, the study seeks to generate a more nuanced understanding of the institutional, legal, and behavioral dimensions that shape gig workers’ access to OSH protection and social security.

The research is guided by two complementary conceptual lenses. First, policy implementation theory (Pressman & Wildavsky, 1973; Sabatier & Mazmanian, 1980) provides a framework for analyzing how formal policies are translated into practice and why implementation outcomes often diverge from legislative intent. Second, the concept of affirmative labor policy (OECD, 2021; ILO, 2022) underpins the study’s analytical lens, emphasizing the need for proactive state interventions to include vulnerable, informal, and platform-based workers in formal protection systems. Together, these perspectives provide a coherent analytical foundation for examining the challenges, limitations, and potential pathways for integrating gig workers into a more inclusive, worker-centered OSH governance model.

2.2. Sources of Data

This study relied entirely on secondary data obtained through an extensive and systematic desk research process. The choice of secondary sources was guided by the research objective: to analyze the regulatory, institutional, and policy dimensions of integrating gig workers into Indonesia’s national OSH system. This approach was considered most appropriate given the study’s focus on policy frameworks, legal definitions, institutional capacities, and comparative practices rather than on quantifying individual-level data.

The data sources consisted of four main categories. First, national laws and regulations relevant to OSH and labor governance—including Law No. 1/1970 on Occupational Safety, Law No. 13/2003 on Manpower, and Law No. 11/2020 on Job Creation, along with their implementing regulations—were reviewed to understand the legal foundations and definitional boundaries of worker protection. Second, official reports and statistical publications from key national institutions such as BPJS

Ketenagakerjaan and the Central Bureau of Statistics (BPS) were analyzed to map current patterns of social protection coverage and participation among informal and platform-based workers. Third, international and regional policy frameworks—including the ILO Decent Work Agenda, the ASEAN OSH Roadmap 2021–2025, and the EU-OSHA Review on Digital Platform Work—were examined to benchmark Indonesia’s OSH governance against global standards and regional practices. Fourth, analytical and empirical studies by organizations such as the ILO, OECD, World Bank, Fairwork Indonesia, ADB, and the Tech for Good Institute were consulted to capture evolving trends, risk profiles, and policy responses related to gig and non-standard employment.

All documents were systematically reviewed using a descriptive–analytical content analysis approach. This process involved identifying recurring themes, legal and institutional gaps, and cross-national policy patterns, as well as mapping the intersections between global frameworks and Indonesia’s evolving labor governance agenda. Through this method, the study aimed to generate a comprehensive understanding of the policy landscape, identify structural constraints, and propose strategic directions for integrating gig workers into a more inclusive, adaptive, and worker-centered OSH system.

3. Results and Discussion

3.1. Profile and Risk Characteristics of Gig Workers in Indonesia

The rise of digitalization and artificial intelligence (AI) has profoundly transformed global labor markets, shifting work organization from long-term, standardized employment to task-based, flexible, and technology-mediated arrangements. According to the World Bank (2024), digital platforms and AI-driven technologies are expected to absorb a significant share of future employment growth, especially in developing economies with limited formal job creation. As NVIDIA CEO Jensen Huang remarked in 2024, the AI era will enable millions to become “self-employed digital workers, working with technology rather than for institutions,” highlighting the growing centrality of gig work in the 21st-century economy.

In Indonesia, this transformation has unfolded rapidly, making the country one of Southeast Asia’s largest platform economies. With over 13 million people engaged in ride-hailing, delivery, logistics, micro-tasking, and digital freelancing, platform work has become a major source of income. Yet most participants remain in the informal sector, with ambiguous employment status that blurs the line between self-employment and wage work, creating legal uncertainty and limiting access to OSH and social protection.

Working conditions across sectors reveal common vulnerabilities. Ride-hailing and delivery workers often exceed standard working hours under hazardous traffic conditions and algorithmic pressure, exposing them to fatigue, accidents, and musculoskeletal strain. Digital freelancers face unstable workloads, delayed payments, and inadequate ergonomic or psychosocial safeguards. Chronic stress, isolation, and rating pressures illustrate what EU-OSHA (2022) terms the “flexibility without security” paradox of platform labor.

Table 1. Profile and Working Conditions of Gig Workers in Indonesia

Category	Description/Key Features	Main Occupational Risks	Social Protection Status
Ride-hailing drivers (e.g., Gojek, Grab, maxim, etc.)	Work 8–12 hours per day; income based on trips, incentives, and dynamic pricing; operate under algorithmic monitoring and customer rating systems.	High exposure to traffic accidents, fatigue, and musculoskeletal disorders due to long hours and lack of rest periods.	Mostly unregistered in BPJS Ketenagakerjaan; voluntary participation in BPU scheme; low awareness of OSH entitlements.
Delivery couriers (food, goods, logistics)	Paid per delivery; operate under strict time pressure and high mobility; often use motorcycles or bicycles for extended hours.	Road accidents, time-related stress, and physical strain from carrying loads or prolonged sitting.	Same as above; access to protection depends largely on individual initiative and self-enrollment.
Digital freelancers (graphic design, content creation, microtasks)	Flexible and remote work schedules; income dependent on project availability and client demand, often from international markets.	Ergonomic strain, eye fatigue, psychosocial stress, and income insecurity due to unstable project flow.	Rarely covered by social protection schemes; lack of legal recognition as “workers” under labor law.
Part-time/hybrid platform workers	Combine gig work with other formal or informal employment; platform income typically used as a supplement.	Workload overload, chronic stress, and time management challenges.	Limited or no coverage; often overlooked in OSH programs and social benefit schemes.
Overall trends	High flexibility but low employment stability; income levels fluctuate due to algorithmic policies, demand cycles, and operational costs.	Increasing exposure to occupational risks without adequate preventive or compensatory mechanisms.	Low participation in national OSH and BPJS systems; protection remains voluntary and fragmented.

Source: Processed from ILO (2023); Fairwork Indonesia (2023); BPJS Ketenagakerjaan (2023); World Bank (2024).

From an economic perspective, gig workers play a key role in Indonesia’s digital transformation but remain concentrated in the low-to-middle income group. Their earnings are highly volatile, influenced by algorithm changes, incentive structures, and operational costs such as fuel and maintenance. Social protection coverage is also limited: participation in BPJS Ketenagakerjaan’s Non-Wage Recipient (BPU) program remains low due to voluntary enrollment and the absence of integration with platform payment systems. Many workers view safety as a personal rather than shared responsibility, reinforcing a culture of risk individualization.

The gap between expectation and reality shapes gig workers' experiences. Narratives of autonomy and entrepreneurship often contrast with algorithmic control, income insecurity, and minimal safety protections. While digitalization and AI expand economic opportunities, they also risk deepening informality without adaptive labor policies and inclusive social protection. As the ILO (2023) notes, achieving decent work in the platform era requires not only technological innovation but also transformative regulatory and institutional frameworks to protect workers across diverse employment arrangements.

3.2. Regulatory and Institutional Gaps in the National OSH System

The integration of gig workers into Indonesia's national OSH system remains constrained by outdated legal and institutional frameworks. Core laws—Law No. 1/1970 on Occupational Safety and Law No. 13/2003 on Manpower—were formulated in an era of industrial employment characterized by fixed workplaces, stable employer–employee relationships, and company-based responsibility for worker safety. These assumptions no longer align with platform-based work, which is task-oriented, mobile, algorithmically managed, and often lacks formal employment ties.

This legal mismatch has created a substantial protection gap. OSH obligations such as risk assessment, training, and accident compensation are assigned exclusively to employers. Yet platform companies classify workers as independent partners, positioning themselves as digital intermediaries and thereby excluding gig workers from mandatory protections and reporting requirements. The absence of intermediary employment categories—such as “dependent contractors” recognized in several OECD countries—also reflects the lack of affirmative labor policy, where the state proactively extends OSH responsibilities and protections to vulnerable workers.

Institutional arrangements compound these challenges. The Ministry of Manpower (Kemnaker) oversees OSH regulation and inspection, while BPJS Ketenagakerjaan administers social protection. Both, however, remain oriented toward formal employment and fixed workplaces. Existing inspection systems are ineffective for mobile, digitally mediated labor, and BPJS's Non-Wage Recipient (BPU) scheme, which relies on voluntary enrollment and lacks integration with platform payment systems, struggles to extend coverage to gig workers.

Data fragmentation and weak inter-agency coordination further deepen institutional gaps. The absence of systematic data-sharing between platforms, government bodies, and social security institutions leads to underreporting of work-related accidents and the exclusion of gig workers from national OSH statistics. Moreover, the National OSH Management System (SMK3 Nasional) remains focused on enterprise-based control and physical workplaces, failing to reflect the fluid, mobile nature of platform work.

Comparative experiences from countries such as Thailand, Spain, and within the EU demonstrate effective ways to bridge these gaps through presumptive employment clauses, mandatory platform contributions, and integrated data systems. Such reforms shift OSH governance from a workplace-centered model to one that follows the worker across employment forms. For Indonesia, similar adaptations — redefining “workplace,” strengthening institutional coordination, and embedding digital integration — are essential.

The persistent gap between current OSH governance and evolving work patterns underscores the need to rethink its conceptual foundation. Historically, OSH regulation has relied on two approaches: a workplace-based model under Law No. 1/1970, centered on physical environments, and a company-based model under Law No. 13/2003, premised on stable employment and employer-led compliance. While both remain relevant for conventional work, they fail to address task-based, algorithmically managed, and highly mobile platform labor. Bridging this gap requires complementing existing frameworks with a worker-centered approach — one that places workers, rather than workplaces or enterprises, at the core of OSH protection. Table 2 illustrates how such a transition can be structured to ensure universal and inclusive coverage.

Table 2. Shifting from Conventional OSH Governance to a Worker-Centered Model in the Platform Economy

Current OSH System (Status Quo)	Future-Oriented Approach (Worker-Centered)
Legal definitions focus on “employee” and “employer” under Law No. 1/1970 (workplace) and Law No. 13/2003 (company)	Legal framework expands to recognize diverse forms of work and shared OSH responsibilities, including those mediated by platforms
Inspection model is workplace-based and tied to fixed physical locations	Inspection becomes worker-centered, risk-based, and digitally enabled, following the worker across different work settings
BPJS participation is voluntary and separate from platform payment systems	Social protection integrated with platform payment systems, ensuring automatic registration and contribution
Data remains fragmented across institutions, limiting visibility of platform work	Data systems become interoperable, enabling coordinated policy action and comprehensive coverage of all work forms
SMK3 Nasional emphasizes enterprise-based OSH control	OSH governance focuses on workers as the center, complementing workplace and company approaches to achieve universal coverage

Source: Author’s elaboration based on regulatory review and policy literature (ILO, 2022; OECD, 2019; ASEAN Secretariat, 2023).

As shown in Table 2, a comprehensive OSH framework for the future should not discard existing workplace- and company-based models but rather expand upon them. A worker-centered orientation acts as a third, complementary layer — ensuring that protection follows the worker across different locations, employment types, and contractual arrangements. This shift entails several strategic reforms: broadening legal definitions to include platform-mediated work, integrating social protection with digital payment systems, developing risk-based inspection mechanisms that transcend physical workplaces, and creating interoperable data systems that improve coordination among institutions. By harmonizing these three orientations into a single, inclusive governance model, Indonesia can move closer to achieving an “OSH System for All Workers” — one that is adaptive to technological

transformation, responsive to labor market dynamics, and aligned with global standards of decent work.

3.3. Social Protection and BPJS Ketenagakerjaan Participation

Social protection is a fundamental pillar of decent work and a crucial component of any comprehensive OSH system. In Indonesia, the mandate to provide social security for workers — including employment injury benefits, health care, and old-age protection — is primarily implemented through BPJS Ketenagakerjaan, the national social security agency for workers. However, the rapid growth of gig and platform-based work has exposed significant limitations in how the current system extends coverage to non-standard workers, especially those operating outside traditional employer–employee relationships.

The existing social protection architecture was designed around the assumption of formal wage employment, where registration, premium collection, and benefit distribution are mediated through employers. Gig workers, however, typically engage with digital platforms as independent contractors, receiving income per task or service without a formal employment contract. As a result, they fall outside the default coverage mechanisms. To address this, BPJS introduced the Non-Wage Recipient (BPU) scheme, which allows self-employed and informal workers to enroll voluntarily. While this was an important policy innovation, participation rates remain low due to several structural and behavioral barriers.

First, voluntary participation places the burden of enrollment entirely on workers, many of whom have limited awareness of their rights or the relevance of OSH protection. Interviews and surveys consistently show that gig workers often perceive occupational safety as a personal responsibility rather than a shared obligation between workers, platforms, and the state. Second, irregular income patterns make consistent premium payments difficult, particularly for workers whose earnings fluctuate based on demand, algorithmic incentives, or seasonal trends. Third, the lack of digital integration between platforms and BPJS systems limits opportunities for automatic registration and contribution collection, further weakening participation.

These challenges reflect a broader policy design issue: the social protection system remains tied to conventional employment models and has not been structurally adapted to the realities of platform work. Without institutional mechanisms to link digital platforms directly to social protection schemes, gig workers remain vulnerable to occupational risks without adequate compensation or preventive support. The result is a significant protection gap — a disconnect between exposure to occupational hazards and access to formal safety nets.



Figure 1. Pathway of Social Protection Policy Responses for Gig Workers in Indonesia

Comparative experiences from other jurisdictions offer potential pathways for reform. In Thailand, platform companies are required to co-contribute to social insurance schemes for registered drivers and couriers. Singapore has introduced portable benefits models that ensure continuity of coverage even when workers shift between platforms or tasks. Similarly, Malaysia has piloted a system of automatic contribution deduction linked directly to digital payment systems. These examples demonstrate that integrating social protection with platform infrastructure—and reconfiguring the financing model to include shared contributions—can dramatically increase participation and improve risk coverage.

For Indonesia, the lessons are clear: the sustainability and inclusiveness of its social protection system depend on its ability to evolve beyond voluntary, worker-initiated schemes. Embedding automatic enrollment features, leveraging digital payment systems for premium collection, and introducing shared financing models involving platforms, workers, and the state can significantly close the protection gap. Such measures would not only expand BPJS Ketenagakerjaan’s coverage but also align Indonesia’s OSH governance with international standards on universal social protection and decent work.

While Indonesia continues to face persistent challenges in expanding OSH coverage and social protection to gig workers, many of these barriers are not unique to its context. Across the globe, governments have experimented with diverse regulatory, institutional, and technological solutions to address similar gaps. Examining these comparative experiences is therefore essential—not only to identify workable models but also to understand how principles such as shared responsibility, portability, and algorithmic accountability can be adapted to Indonesia’s evolving labor landscape.

3.4. Comparative Insights and International Learning

The challenges Indonesia faces in integrating gig workers into its OSH and social protection system are not unique. Across the world, governments are grappling with how to regulate platform-mediated work while preserving labor market flexibility and innovation. Comparative experiences show that meaningful progress is possible when legal frameworks, institutional mechanisms, and technological tools are deliberately reoriented toward a more adaptive, worker-centered model of protection. These cases provide valuable insights that can inform Indonesia’s own policy trajectory.

One of the most significant regulatory innovations comes from the European Union, where the proposed Platform Work Directive introduces a legal presumption of employment when platform

control over work is evident—such as through task allocation algorithms, performance monitoring, and price-setting. This shift in legal burden requires platforms to prove that workers are genuinely self-employed, thereby expanding OSH and social protection coverage without undermining genuine freelance work. Similarly, Spain’s “Rider Law” presumes employment status for delivery couriers, granting them full access to occupational protection, social insurance, and collective bargaining rights. This sectoral approach demonstrates how targeted regulatory interventions can rapidly close protection gaps in high-risk sectors like transport and logistics.

In other contexts, governments have opted for more flexible solutions. In the United Kingdom, court rulings have established an intermediate employment category—the “worker” status—which grants certain labor rights, including minimum wage, paid leave, and occupational safety protections, without fully classifying individuals as employees. This approach acknowledges the heterogeneity of platform work while still imposing a degree of responsibility on platforms. Portugal has taken a similar route by introducing a rebuttable presumption of employment, allowing platforms to contest employment status but obliging them to provide evidence—a legal mechanism that balances flexibility with enforceable safety obligations.

Beyond legal status, several countries have focused on redesigning their social protection architecture to ensure portability and continuity of coverage. Singapore offers a notable example through its portable benefits framework, which links social protection entitlements—such as work injury insurance and health coverage—to the individual worker rather than a single employer. Contributions are shared between platforms and workers, and coverage continues even when workers switch platforms or engage in multiple forms of work simultaneously. Malaysia and Thailand have also introduced contributory schemes tailored to informal and platform workers. Malaysia’s PERKESO program, for instance, simplifies registration and integrates premium payment with digital platforms, while Thailand’s Section 40 social security program allows informal workers to voluntarily enroll with partial government subsidies. These models show that shared financing, digital integration, and simplified access are critical components in scaling up participation.

A unifying feature of these diverse approaches is the growing emphasis on algorithmic accountability and the role of digital infrastructure in enforcement. The EU, Spain, and Singapore now require platforms to disclose algorithmic decision-making processes—a step that enhances transparency in risk exposure, workload management, and safety outcomes. Digital integration between platforms and social protection agencies also enables automated enrollment, real-time data sharing, and incident reporting, significantly improving compliance monitoring and policy responsiveness.

Taken together, these international experiences offer several strategic lessons for Indonesia. First, regulatory frameworks must evolve beyond rigid classifications of “employee” and “self-employed” by introducing intermediate statuses or presumptive employment mechanisms that assign shared OSH responsibilities to platforms. Second, social protection schemes should be redesigned to emphasize portability, automatic enrollment, and co-contribution—ensuring that coverage follows workers across multiple platforms and work arrangements. Third, the state should leverage digital technology to create interoperable data systems, enabling seamless coordination between platforms, BPJS Ketenagakerjaan,

and labor authorities. Finally, algorithmic governance and platform accountability must become central to OSH enforcement, reflecting the new ways in which risks are produced and managed in the platform economy.

For Indonesia, these lessons point toward a layered, adaptive governance model that builds upon existing workplace and company-based approaches while adding a worker-centered dimension tailored to the realities of digital labor. Such a model would not only close current protection gaps but also position Indonesia as a regional leader in inclusive, future-ready labor governance—one capable of ensuring decent work and safety standards in the era of artificial intelligence and platform-driven employment.

3.5. Challenges and Policy Directions for Integrating Gig Workers into the OSH System

The integration of gig workers into Indonesia’s national OSH system requires navigating a complex set of structural, legal, institutional, and socio-economic challenges. While the state has made incremental efforts to extend coverage to informal and non-wage workers through voluntary schemes and policy adjustments, these measures remain insufficient to address the scale and nature of risks generated by platform-mediated work. At the heart of the challenge is a profound mismatch between the traditional architecture of OSH governance—designed for fixed workplaces and stable employment—and the dynamic realities of digital labor markets.

One of the most fundamental barriers is regulatory misalignment. Indonesia’s core labor and OSH laws still define employment relationships in binary terms—as either employer–employee or self-employed—leaving hybrid and algorithmically managed work arrangements in a legal grey area. This narrow classification prevents regulators from assigning OSH responsibilities to platforms and excludes most gig workers from mandatory protections such as risk prevention, training, and work-injury compensation. Moreover, without a legal recognition of dependent or platform-mediated work, the state’s enforcement mechanisms—including inspections, reporting requirements, and liability provisions—remain largely ineffective.

A second challenge arises from institutional fragmentation and limited capacity. OSH governance and social protection are spread across several agencies—including the Ministry of Manpower, BPJS Ketenagakerjaan, and local governments—with overlapping mandates and weak coordination. Existing inspection systems remain workplace-focused, rendering them ineffective for mobile, digitally mediated labor. At the same time, BPJS’s voluntary enrollment model and the absence of data integration with platforms hinder accident monitoring and participation tracking, leaving millions of gig workers largely invisible within the national OSH system.

A third critical barrier relates to economic incentives and accountability structures. Platform companies benefit from the flexibility and cost-efficiency of gig labor while externalizing occupational risks onto workers. In the absence of mandatory contribution schemes, shared financing mechanisms, or co-regulatory models, platforms have little incentive to participate in worker protection initiatives. On the workers’ side, irregular income patterns, lack of awareness, and a perception that safety is an individual responsibility further reduce participation in social protection programs.

Overcoming these challenges requires a paradigm shift—from a workplace-centered regulatory approach to a worker-centered governance model, grounded in affirmative labor policy principles, that recognizes diverse employment relationships and distributes responsibility across platforms, workers, and the state. This transformation should be guided by five strategic policy directions.

First, regulatory adaptation is necessary to reflect new forms of work. Legal reforms should explicitly recognize platform-based and dependent work categories, enabling shared OSH responsibilities and extending coverage obligations to platforms. The ongoing legislative review of Law No. 1/1970 on Occupational Safety and Law No. 13/2003 on Manpower presents a crucial opportunity to embed these principles into Indonesia's legal framework.

Second, institutional integration should be prioritized. This involves harmonizing inspection, reporting, and compensation functions through interoperable digital infrastructure that links BPJS systems, government databases, and platform applications. Data sharing agreements and digital reporting tools would allow regulators to monitor risks more effectively and respond proactively to emerging patterns of occupational exposure.

Third, shared financing models must be introduced to align economic incentives. Drawing on examples from Singapore and Thailand, Indonesia could mandate co-contributions from platforms and workers, supplemented by targeted state subsidies for low-income earners. Such models not only distribute costs more equitably but also ensure more sustainable funding for preventive and compensatory mechanisms.

Fourth, affirmative protection measures should target vulnerable worker groups through simplified registration processes, financial incentives, and outreach programs. This is especially critical for workers with low OSH literacy or irregular income, who are least likely to enroll voluntarily in protection schemes.

Finally, digital mainstreaming should be embedded into OSH governance. This includes integrating training modules, safety alerts, and reporting functions directly into platform applications, as well as utilizing algorithmic risk assessment tools to identify unsafe working patterns such as excessive hours or high exposure to accidents.

These strategies align with global policy trends and the ILO's Decent Work Agenda, which emphasize inclusivity, prevention, and shared responsibility. By adopting a worker-centered approach and embedding it into ongoing legal and institutional reforms, Indonesia can bridge the gap between technological innovation and labor protection. Such a transformation would not only safeguard the well-being of millions of gig workers but also strengthen the resilience, legitimacy, and future-readiness of the national OSH system.

4. Conclusion and Recommendations

4.1. Conclusion

Indonesia's OSH governance, historically built upon conventional employer–employee relations, has yet to adjust to the rapidly evolving realities of the digital labor market. Platform-based work has

transformed employment structures, diversified risk exposure, and revealed systemic protection gaps, leaving gig workers among the most vulnerable. This study identifies three fundamental constraints behind this exclusion: outdated legal definitions that do not recognize hybrid and platform-mediated employment; fragmented institutional arrangements with weak coordination between regulatory bodies, social protection agencies, and digital platforms; and persistently low OSH literacy and awareness among workers themselves.

Addressing these challenges requires a paradigm shift from workplace-oriented governance toward a worker-centered model that reflects the fluidity of contemporary work. Such a shift is essential not only to expand protection but also to ensure that Indonesia's OSH system remains relevant and resilient amid accelerating technological transformation and labor market changes.

4.2. Recommendation

To achieve inclusive and future-ready OSH governance, this study proposes five strategic policy directions:

- 1) Establish a new legal architecture that formally recognizes platform-based, dependent, and other non-standard workers as eligible for OSH and social protection coverage.
- 2) Integrate platform systems with BPJS Ketenagakerjaan to enable automatic registration, contribution collection, and seamless data sharing.
- 3) Strengthen institutional coordination and data governance by developing interoperable inspection, reporting, and compensation systems across relevant ministries, agencies, and platforms.
- 4) Create economic and regulatory incentives for platform compliance and simultaneously enhance OSH literacy and awareness among workers.
- 5) Develop portable benefits and technology-enabled enforcement mechanisms, including risk-based inspection models and algorithmic safety monitoring tools.

The ongoing legislative review of Law No. 1/1970 on Occupational Safety and Law No. 13/2003 on Manpower presents a pivotal opportunity to embed these principles into Indonesia's legal framework. By using this policy window strategically, the government can close long-standing protection gaps and modernize its labor governance system.

Ultimately, integrating gig workers into the OSH system is not merely a technical adjustment but a redefinition of how protection, accountability, and responsibility are shared in the digital era. A governance model that is adaptive, collaborative, and technology-driven — one that places workers at its core—will enable Indonesia to become a regional leader in promoting decent, safe, and inclusive work for all.

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References

- ASEAN. (2022). ASEAN guidelines on the future of work for platform-based labor. ASEAN Secretariat.
- ASEAN. (2023). ASEAN declaration on promoting decent work in the platform economy. ASEAN Secretariat.
- BPJS Ketenagakerjaan. (2023). Laporan tahunan BPJS Ketenagakerjaan 2023. BPJS Ketenagakerjaan.
- Fairwork Indonesia. (2023). Fairwork Indonesia report 2023: Towards decent work in the platform economy. University of Oxford.
- International Labour Organization. (2021). World employment and social outlook: The role of digital labour platforms in transforming the world of work. International Labour Organization.
- International Labour Organization. (2022). Decent work in the platform economy: An ASEAN perspective. ILO Regional Office for Asia and the Pacific.
- International Labour Organization. (2023a). Global strategy on occupational safety and health: Towards safe and healthy working environments for all. International Labour Organization.
- International Labour Organization. (2023b). Global report on inclusive growth and employment policies. International Labour Organization.
- Organisation for Economic Co-operation and Development. (2021). The future of social protection: What works for non-standard workers? OECD Publishing.
- Pressman, J. L., & Wildavsky, A. B. (1973). Implementation: How great expectations in Washington are dashed in Oakland. University of California Press.
- Sabatier, P., & Mazmanian, D. (1980). The implementation of public policy: A framework of analysis. *Policy Studies Journal*, 8(4), 538–560. <https://doi.org/10.1111/j.1541-0072.1980.tb01266.x>
- Standing, G. (2011). The precariat: The new dangerous class. Bloomsbury Academic.
- Tripartite Workgroup on Platform Workers. (2022). Recommendations on strengthening protections for platform workers. Ministry of Manpower, Singapore.
- World Bank. (2024). Indonesia jobs report 2024: Navigating digital transitions in the labor market. World Bank Group.
- European Commission. (2024). Directive on improving working conditions in platform work. European Commission.
- European Agency for Safety and Health at Work. (2022). *Review of occupational safety and health risks in platform work*. EU-OSHA.
- Korea Occupational Safety and Health Agency. (2022). Policy framework for dependent contractors and platform workers. KOSHA.