



Integrating social protection and digital platforms for workforce reintegration of disabled workers: A hexahelix approach

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ABSTRACT

Background: Workers with permanent total disability face high risks of job loss, long-term income insecurity, and social exclusion, while existing social protection in Indonesia remains largely short-term and compensatory. This study examines regulatory and institutional gaps in disability protection, the limitations of Employment Injury and Unemployment Insurance, and explores optimizing the SiapKerja digital platform through cross-sector collaboration to enhance inclusive workforce reintegration. **Methods:** This study employs a qualitative case study approach focusing on the SiapKerja platform as a central case within the broader context of social protection policies and return-to-work mechanisms. The analysis uses secondary data derived from national regulations, official institutional documents, and relevant academic literature. Data are analyzed using thematic analysis to identify patterns related to policy design, institutional fragmentation, and barriers to workforce reintegration. **Findings:** The analysis reveals three main challenges: exclusion of workers with permanent total disability from unemployment insurance benefits limits income continuity and access to labor market services; employment injury insurance benefits are predominantly lump-sum and insufficient for long-term economic resilience; and utilization of Return-to-Work programs remains minimal due to weak referral systems, limited adaptive training capacity, and low employer participation. Additionally, SiapKerja has not yet been designed as disability-friendly and lacks integration with accident insurance and Return-to-Work data, reducing its effectiveness as a career reintegration tool. From a public value perspective, fragmented governance and non-inclusive digital design constrain equitable access to skills development and decent work for injured workers with disabilities. **Conclusion:** An integrated, career-based return-to-work ecosystem is required to shift social protection from passive compensation toward active reintegration. **Novelty/Originality of this article:** This study proposes a hexahelix collaboration model that integrates social protection data, disability adaptive vocational training, inclusive employers, and an upgraded SiapKerja platform featuring a dedicated disability mode, automatic enrollment, and capability-based job matching supported by progressive employer incentives.

KEYWORDS: inclusive employment; occupational accident; permanent total disability; return to work; social protection.

1. Introduction

Indonesia's Vision 2045 represents a grand national aspiration to transform Indonesia into a developed country free from poverty, characterized by equitable development and

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inhabited by a productive, competitive, and inclusive society. This vision not only serves as a long-term development direction but also reflects the state's commitment to protecting all citizens, including vulnerable groups. One of the main targets of this vision is the achievement of zero percent poverty, equitable development, and an inclusive productive society as the foundation for becoming a developed nation. However, amid accelerated efforts toward this vision, realities on the ground reveal the existence of marginalized groups that are increasingly left behind in the development agenda. One such group consists of workers who experience occupational accidents resulting in permanent total disability.

Table 1. Number of workers experiencing occupational accidents by level of recovery

Type of claim	2023		2022		2021	
	Total	%	Total	%	Total	%
Partial disability	3,495	0.94	4,565	1.53	3,804	1.62
Functional disability	3,029	0.82	4,371	1.47	4,362	1.86
Permanent total disability	32	0.01	44	0.02	28	0.01
Pass away	8,105	2.19	8,272	2.78	6,553	2.8
Recovered cases	61,161	16.5	74,590	25.05	219,624	93.71
Still undergoing treatment	294,925	79.55	205,883	69.15	-	-
Total	370,747	100	297,725	100	234,370	100

(BPJS Ketenagakerjaan, 2023)

Existing schemes such as Employment Injury Insurance (*Jaminan Kecelakaan Kerja*) do provide compensation, but they do not always adequately cover the basic needs of victims and their families in the long term. This situation indicates a significant gap in Indonesia's social protection system. Although workers who suffer occupational accidents are entitled to Employment Injury Insurance benefits, the scheme is largely lump-sum in nature and insufficient to sustain the long-term economic viability of victims. For example, wage replacement benefits are provided in full only during the first six months, after which they are reduced to 50 percent until recovery, which may be inadequate to support household needs during prolonged recovery periods. Educational scholarships are also granted only if the worker experiences permanent total disability and has paid contributions for a minimum of 36 months, thereby excluding survivors who do not meet these administrative requirements. More ironically, workers with permanent total disability are excluded from Unemployment Insurance (*JKK/Jaminan Kehilangan Pekerjaan*) benefits as stipulated in Government Regulation No. 6 of 2025 because they do not meet the eligibility criteria, despite the fact that their job loss is involuntary due to disability.

On the other hand, data from the Return to Work program of Employment Social Security Administration (*Badan Penyelenggara Jaminan Sosial Ketenagakerjaan/BPJS Ketenagakerjaan*) in 2023 show that out of 370,747 occupational accident victims, only 1,838 individuals were enrolled in the Return to Work program, and only 1,675 people (approximately 0.45 percent) successfully returned to employment. This condition reflects a systemic failure in the social and economic reintegration of occupational accident victims, particularly those with disabilities. Existing recovery schemes do not yet include adaptive job training, entrepreneurship support, or affirmative measures for the informal sector. Without cross-sector collaboration among social security providers, the Ministry of Manpower, and vocational training institutions, workers with disabilities resulting from occupational accidents will continue to be left behind in the development agenda and face a high risk of being trapped in structural poverty.

Occupational accidents in labor-intensive sectors such as construction and manufacturing pose a serious threat to workers, as many cases result in permanent loss of work capacity. The primary causes are unsafe actions and working conditions that have not yet become a priority within occupational safety and health culture (Putri & Lestari, 2023). As a result, many workers experience disability and lose access to decent work, education, and economic reintegration. The 2020 National Socio-Economic Survey shows that persons with disabilities face a higher risk of extreme poverty compared to the general population (Alabshar et al., 2024). Furthermore, discriminatory practices such as unilateral

termination of employment against occupational accident victims constitute violations of human rights and labor rights (Hidayat, 2021). Limited systemic support and the lack of adaptive training push many persons with disabilities into informal and precarious employment (Cahyati et al., 2023). Optimizing the SiapKerja platform can serve as a potential solution by linking data on affected workers with specialized vocational training institutions and inclusive employers. This strategy requires cross-sector integration involving employment social security administration as the provider of data and financing, special education schools and vocational training centers as implementers of adaptive training, and the provision of incentives such as tax relief, wage subsidies, and workplace adjustments to encourage employer participation in recruiting persons with disabilities.

2. Methods

2.1 Research design and data sources

This study uses a qualitative approach with a case study method that focuses on policy analysis and the implementation of the SiapKerja application in supporting the sustainability of workers' lives after total disability due to work accidents. This approach allows researchers to understand the phenomenon holistically by examining the surrounding social, institutional, and policy contexts. The case study is deskbased, so the analysis is based on the collection and examination of relevant secondary sources without involving primary data collection in the field.

The data sources used consist of various official documents and credible academic literature. The main documents include national legislation such as Law Number 40 of 2004 concerning the National Social Security System and Government Regulation Number 82 of 2019 concerning Work Accident Insurance and Death Insurance, reports and technical guidelines from employment social security administration, as well as publications regarding the features and policies of the SiapKerja application. In addition, scientific articles published in reputable journals, reports from international organizations such as the International Labor Organization (ILO), and publications from civil society organizations discussing inclusive employment issues were also used. The literature was selected purposively based on three criteria, namely recency, relevance to the research topic, and credibility of the source.

2.2 Data analysis and validity test

Data analysis was conducted using Thematic Analysis. This analysis comprised six stages, namely understanding the data in depth, creating initial codes, identifying main themes, reviewing the suitability of themes with the data, defining and naming themes, and compiling a final report. Each stage is aimed at finding key patterns in SiapKerja policies and implementation, such as obstacles, opportunities for cross-sector integration, and strategies for increasing effectiveness. To maintain the validity of the results, source triangulation was carried out by comparing data from various types of documents and literature so that the interpretations produced were more objective, comprehensive, and contextual to the reality of employment policies in Indonesia.

3. Results and Discussion

3.1 Lack of job loss insurance protection for totally disabled workers: A loophole in PP No. 37 of 2021

Labor issues are crucial in achieving sustainable development goals that correlate with three SDGs simultaneously, including decent work and economic growth, gender equality, and reduced inequality. As the fourth most populous country in the world, Indonesia faces

issues high rates of unemployment which one of the reasons is caused by the high number of layoffs, where based on BPS data in 2024, 17,085 workers were laid off. Currently, the government is working with the Employment Social Security Administration (*BPJS Ketenagakerjaan*) to anticipate this problem through Government Regulation No. 37 of 2021 concerning the Implementation of the Job Loss Insurance Program (JKP). In addition, Law No. 24 of 2011 also stipulates the obligation of employers to register their workers as JKP participants and pay contributions in accordance with applicable regulations. According to the International Labor Organization (ILO) social protection program manager, Ipppei Tsuraga, only 22.8% of workers who are victims of work accidents and 2.5% of people with disabilities in Indonesia receive social assistance benefits. Based on Qisha Quarina's research on coal mining workers, PKWT (Fixed Term Employment Agreement) workers do not receive Pension Insurance/*Jaminan Pensiunan* (JP) and Job Loss Insurance/*Jaminan Kehilangan Pekerjaan* (JKP) when their contracts expire and are not renewed. In fact, victims of layoffs with permanent total disabilities are also not provided with JKP benefits due to the obligation for beneficiaries to return to work. Thus, strict prerequisites limit the benefits that formal workers should be able to obtain (TURC Study, 2021).

The problem with the JKP program lies in its low inclusivity, especially for victims of layoffs due to permanent total disability. These provisions are stipulated in Article 20 paragraph (1) letter b of Government Regulation No. 37 of 2021 and further elaborated in Article 25 paragraph (2) letter b number 3 of Government Regulation No. 44 of 2015 concerning the categories of disability. The regulation classifies disability into three types. First, partial anatomical disability refers to a condition in which there is a reduction or loss of part of a body member, resulting in decreased or lost working ability. Second, partial functional disability is defined as a condition in which there is a reduction or loss of certain functions of a body part, thereby diminishing or eliminating the ability to work. Third, permanent total disability refers to a condition that renders a person completely unable to work.

Based on this definition, workers with permanent total disabilities are excluded from JKP benefits, including cash benefits and job training or job market information. This policy is detrimental because it closes access to financial benefits in the form of 45% of the last wage for the first 3 months and 25% of the last wage for the following 3 months for workers with permanent total disabilities. Although there is a nominal limit of 5 million rupiah, cash benefits remain effective given the regular cash flow for 6 months. Cash flow used responsibly is better than the concept of profit and loss. In addition, JKP also provides job vacancy data, job guidance services, career counseling, and job training in collaboration with government or private institutions. By excluding permanently disabled workers from receiving JKP, victims of layoffs will lose access to the labor market and increase exclusivity in formal sector jobs.

3.2 Limitations of the work accident insurance program: Only addressing initial impacts

The government, through Government Regulation No. 44 of 2015 Articles 27- 29, which discusses Permanent Total Disability Compensation, Compensation Methods and Amounts, and Assistive Devices, provides compensation in the form of social security for victims of layoffs with permanent total disabilities. Assistance is provided to victims of layoffs as a result of total and permanent inability to perform any work according to their abilities in the form of a lump sum calculated at 70% times 80 times the worker's monthly wage and periodic compensation of IDR 250,000 per month for 24 months. In addition, workers are also provided with rehabilitation costs in the form of orthotic and/or prosthetic replacements. There are at least 13 JKK programs listed in the Appendix.

Work accident insurance has a greater value than JKP when viewed in nominal terms. However, this insurance is only beneficial in the short term. Assistance in the form of rehabilitation and health facilities tends to have little impact on the country's economy due to the personal nature of the benefits. Data from the Indonesian Social Security Administration Agency (*BPJS Ketenagakerjaan*) shows that there was an increase in work

accident cases in Indonesia between 2022 and 2023, from 297,725 cases to 370,747. Therefore, the potential increase in workplace accident cases in the future risks burdening the state budget and funds allocated for other national strategic programs.

When viewed comparatively, Government Regulation No. 37 of 2021 concerning JKK and Government Regulation No. 44 of 2015 concerning JKK have not shown ideal continuity in protecting workers after permanent total disability. JKK only functions as initial compensation through compensation and rehabilitation, while JKP should play a role in economic sustainability through work reintegration. However, the two stand separately without a transition mechanism connecting JKK beneficiaries to continue to the JKP program. As a result, victims of work accidents who have lost their total physical abilities do not have a sustainable social protection pathway. This gap shows weak coordination between programs and the lack of a social security system oriented towards long-term recovery and empowerment.

3.3 The compensatory paradigm in social protection: A review through the capability approach and theory of change

The JKP exclusion provision for workers with permanent total disabilities shows that labor policy in Indonesia is still oriented towards a compensatory approach rather than empowerment. This paradigm places workers with disabilities as passive beneficiaries who are only entitled to compensation, rather than as empowered subjects of development or productive individuals with abilities that can still be developed (ILO, 2021). In fact, within the framework of the Capability Approach proposed by Amartya Sen and Martha Nussbaum, true welfare is determined by a person's substantive freedom to choose and live a life that is valuable to them, and has been widely applied in the context of modern inclusive development (Pambudi & Hoesin, 2022). When totally disabled workers remain excluded from JKP benefits because they are considered unable to return to work, the state indirectly closes off opportunities for them to develop their capabilities through adaptive forms of employment or adaptive economic activities tailored to their physical condition.

From a policy implementation perspective, the regulations in Government Regulation No. 37 of 2021 and Government Regulation No. 44 of 2015 reveal a gap between legal norms and real needs in the field. A study in BMC Public Health reveals that weak coordination between institutions in the RTW program and the low availability of work rehabilitation assistants are the biggest obstacles to worker protection, especially in terms of institutional fragmentation and human resource capacity gaps in the regions (Kurnianto et al., 2023). Thus, the obligation for JKP recipients to return to work before receiving benefits is contrary to the condition of work accident victims who suffer from permanent total disability, where the work reintegration process should be facilitated through an adaptive assistance and training system, not required as an administrative prerequisite. This provision also leads to policy exclusion, as there is no alternative mechanism for workers with disabilities to continue participating in the social protection system after losing their physical abilities completely. In other words, regulations that are supposed to guarantee protection actually narrow access to social security for the most vulnerable groups.

When viewed from the perspective of the Theory of Change, the current JKP policy fails to create an inclusive chain of change. Instead of building a security system oriented towards recovery and empowerment, this policy stops at the stage of temporary and administrative financial compensation. In fact, the appropriate input and output stages should include the integration of work accident victim data into the SiapKerja platform, the provision of needs-based training, and the development of a return-to-work mechanism that takes into account the physical and psychosocial conditions of victims. The absence of these measures makes the ultimate goal (impact) of sustainability and socio-economic reintegration of totally disabled workers difficult to achieve. In addition, the digitization of employment in Indonesia has led to digital exclusion for people with disabilities and a lack of data integration, which is hampered by the failure to implement an efficient one data policy. Thus,

the policy gap in JKP is not only legal but also structural because it fails to translate the principle of empowerment into adaptive and humane social protection policies.

3.4 Employment social security administration has not provided a career-based return-to-work (RTW) protocol

Career-based Return-to-Work (RTW) protocols are mechanisms needed by victims of layoffs after rehabilitation or disability in order to connect with the labor market. Several developed countries, such as Germany and Canada, have strategies to support people with disabilities to return to work. Countries such as Germany require a "gradual return to work" (GRTW) based on legal regulations (Social Code) involving assessments by doctors, gradual steps with multidisciplinary involvement, and new career plans if workers cannot return to their old professions. Meanwhile, in Canada, strong legal protections require companies to provide accommodations and further training for the reintegration of workers with disabilities.

The disability-friendly commitment offered by the government has a positive long-term effect if implemented effectively and efficiently. However, the current job market is segmented, especially for workers with disabilities who are not given special opportunities to compete. The approach used by the government is curative or focused on healing victims of layoffs with permanent disabilities. In fact, a transformative approach from all sides in the field of employment in Indonesia is urgently needed to provide opportunities and job training for workers with disabilities to continue working in accordance with their interests and abilities. Countries with a transformative approach have proven to be able to increase the participation of employees with disabilities by imposing taxes on companies that do not meet the minimum quota standards specifically for workers with disabilities.

3.5 Socio-economic impact on victims with disabilities due to work accidents

Hussain (2014) explains that victims of work accidents who experience permanent total disability, partial disability, or functional disability face serious and prolonged socio-economic impacts due to loss of income, social identity, and productive position in society. This situation also affects family stability because spouses or family members often have to work in the informal sector without employment protection (Saktiani et al., 2023). The 2020 National Socioeconomic Survey (*Survei Sosial Ekonomi Nasional/Susenas*) recorded a poverty rate of 15.3% among persons with disabilities compared to 9.7% in the general population (BPS, 2021), highlighting the high economic vulnerability of this group. Workplace accidents add psychological pressure, financial loss, family disintegration, and social isolation, which exacerbate recovery (Burton, 2002). This fact is in line with the finding that only 1.92% of informal workers have accident insurance, and its ownership is greatly influenced by education and income levels (Denti & Atik, 2018). Employment social security administration data from 2023 shows that out of 370,747 JKK claims, 6,524 workers experienced a long-term decline in their ability to work and 294,925 cases were still undergoing treatment, reflecting the burden on health and uncertainty regarding employment status.

Ironically, despite thousands of workers experiencing partial disability, functional disability, or permanent total disability, utilization of the Return to Work (RTW) program remains minimal. In 2023, out of 3,495 cases of partial disability, 3,029 cases of functional disability, and 32 cases of permanent total disability, active RTW participants did not reach 10% of those eligible. This condition shows weak socialization, limited rehabilitation capacity, and a suboptimal medical referral system, even though RTW has the potential to restore productivity through adaptive training, assistive technology, and incentives for inclusive companies. However, in Indonesia, RTW still faces implementation challenges (Rahma et al., 2025). An empowerment approach based on entrepreneurship training and psychological assistance has been proven to increase the confidence and income of persons with disabilities (Cahyati et al., 2019), so it is important to integrate this into RTW. In

addition, Saidah (2022) emphasizes that the success of social security in the informal sector is highly dependent on collaboration between social security administrator/*badan penyelenggara jaminan sosial* (BPJS) and local governments through innovative strategies such as contribution subsidies or proactive outreach. Without an inclusive social protection system and structured rehabilitation, thousands of victims of work accidents will remain trapped in a cycle of poverty, unemployment, and social powerlessness.

The socioeconomic conditions of work accident victims with total disabilities continue to illustrate the failure of the social security system in promoting reintegration into the workforce. The mismatch between short-term financial assistance and adaptive training policies has caused many victims to permanently lose their productive capacity. The lack of adaptive vocational training and low private sector participation in providing disability-friendly jobs exacerbate the economic isolation of this group. As a result, they often turn to the unprotected informal sector, with the risk of exploitation and uncertain income. This underscores the importance of a paradigm shift from a compensation-based security system to sustainable economic empowerment through training, certification, and inclusive employment policies.

3.6 *SiapKerja: The potential of a state platform that is not yet disability-friendly*

The SiapKerja application launched by the Ministry of Manpower is a strategic innovation in digitizing national employment services with three main features, namely SkillHub, KarirHub, and SertiHub. With more than 500,000 downloads in the Greater Jakarta area, this application plays an important role in bridging the needs of the workforce with job opportunities. However, the system's functionality and design still have significant limitations, particularly in reaching vulnerable groups such as people with disabilities and victims of workplace accidents. Ferdiman's (2025) research shows that the SiapKerja website's usability score is only 66 on the SUS scale, or "marginal," indicating the need for improvements in the interface and system speed. Other obstacles such as visual captchas, the absence of subtitles, and an interface that is not disability-friendly are also major barriers (Pudrianisa et al., 2024). The digital transformation of the JKP program through SiapKerja even still causes digital exclusion for vulnerable groups (Putra et al., 2025). In addition, this application has not been integrated with Employment Social Security Administration data, particularly regarding Work Accident Insurance (*Jaminan Kecelakaan Kerja*/JKK) and the Return to Work (RTW) program, even though this data is very important to facilitate workers who are victims of accidents in planning their careers (Prasetyo et al., 2022).

The potential for developing SiapKerja as an inclusive platform is significant if optimized with additional features such as disability filters, RTW profile recognition, and adaptive ability-based job matching algorithms. Thus, this application can become a center of connectivity between data on affected workers and providers of special needs-based vocational training and inclusive companies. This is in line with Law No. 8 of 2016 concerning Persons with Disabilities, which emphasizes accessibility in the employment sector. Strengthening inclusive functions is not only a technical requirement but also an ethical and legal necessity. Although Defasya's (2024) research assesses this application as quite good in terms of empathy and responsiveness, weaknesses in socialization and technical constraints are still evident, in line with the findings of Saputri et al. (2023) regarding the importance of improving user experience features. Therefore, the development of SiapKerja must be carried out through synergy between the Ministry of Manpower, the Social Security Agency for Employment, and training institutions specializing in vulnerable groups. System improvements should not be merely cosmetic based on user numbers, but must touch on the essence of public services that are adaptive to the socioeconomic conditions of JKK victims and persons with disabilities. Without data integration and responsive policies, SiapKerja risks becoming merely a digital showcase with no real impact on the groups most in need of state support.

3.7 Strategies and steps for cross-sectoral integration and pentahelix stakeholder collaboration

The integration strategy between Employment Social Security Administration, the SiapKerja platform, and training institutions such as SLB and BLK is a progressive step towards building an inclusive employment ecosystem for victims of work accidents with permanent disabilities. The auto-enroll mechanism for JKK victim data into the SiapKerja system could be an important turning point (Rahma et al., 2025) as it no longer relies on individual initiatives that are often hampered by physical and digital limitations. SLB and BLK play a role in providing adaptive training based on disability levels combined with psychological reinforcement, which has been proven to increase the confidence and income of persons with disabilities (Cahyati et al., 2019). This integrative flow involves Social Security Administrator as the initial assessment, SLB and BLK as providers of adaptive training, and SiapKerja as a digital bridge to employment opportunities, thereby shifting the social security paradigm from passive compensation to active transformation. Research by Morgante et al. (2025) confirms that effective return-to-work programs must integrate social, physical, and economic productivity aspects so that victims are not isolated from the social system. As reinforcement, the development of the Disabled Mode feature on SiapKerja needs to be a priority so that digital barriers such as visual captchas, interfaces that are not blind-friendly, and the absence of subtitles can be overcome (Pudrianisa et al., 2024) by providing modular online training, flexible assessments, and empathetic accessibility features.

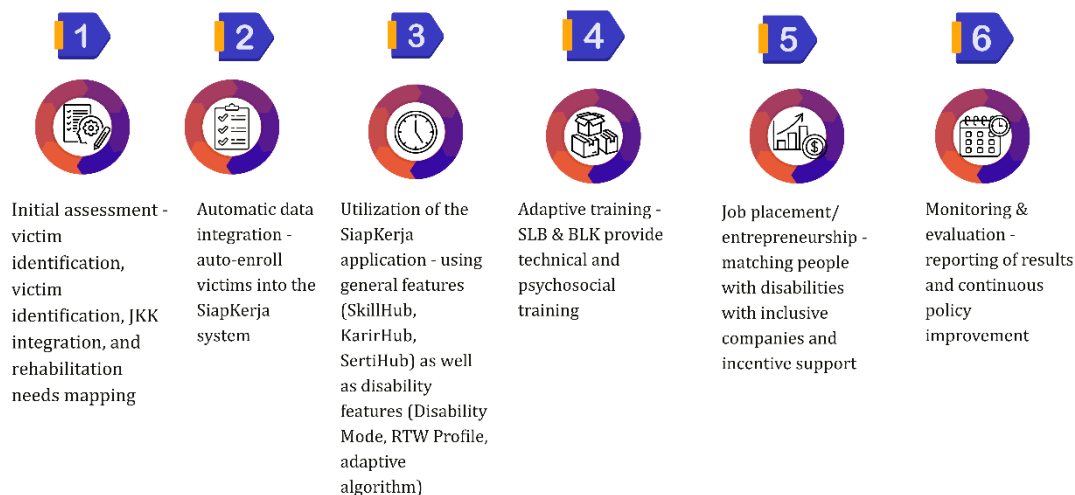


Fig. 1. Reintegration framework for occupational accident victims through the SiapKerja application

Furthermore, this integration strategy requires active collaboration within the hexahelix stakeholder framework, which involves the government through Social Security Administrator and the Ministry of Manpower as the main drivers of data integration and victim assessment, academics and educational institutions such as SLB and the Ministry of Education and Culture, which develop adaptive training and policy research, the business world, which provides inclusive job vacancies and adapts the work environment, media that plays a role in removing stigma and spreading positive narratives about productive persons with disabilities, communities and social organizations that serve as direct companions and advocates, and technology through the SiapKerja digital platform that provides data infrastructure, online training, and job matching algorithms based on Mode Difabel. The synergy of these six elements forms the foundation of an inclusive, adaptive, and sustainable employment system inclusive, adaptive, and sustainable employment system that enables victims of workplace accidents to recover with cross-sectoral support.

The cross-sector integrative approach is not merely a technical solution, but a transformative step in realizing social justice for workers with disabilities. With data integration between Social Security Administrator, SiapKerja, and training institutions, the social security system can transform from a compensation-based approach to a sustainable empowerment system. Hexahelix collaboration between the government, private sector, academia, community, media, and technology sector is key to changing the paradigm of protection for workers with disabilities from passive recipients of compensation to productive agents of development. This integrative implementation is also in line with SDG 8 on decent work and economic growth and SDG 10 on reducing social inequality. Thus, a clear mapping of the roles of each element of the collaboration is needed to ensure the effectiveness of the integration implementation. The hexa-helix stakeholder approach is a strategic framework that describes the synergy of six key actors, namely the government, academia, the business world, the community, the media, and technology, in building an inclusive and sustainable employment system in Indonesia.



Fig. 2. Hexahelix stakeholder model for inclusive reintegration of occupational accident victims

The government, through the Employment Social Security Agency (*BPJS Ketenagakerjaan*) and the Ministry of Manpower (*Kemnaker*), is the main driver in building an inclusive employment system. Social Security Administrator plays a role in assessing victims of work accidents, managing JKK claims, and financing RTW, while *Kemnaker* is tasked with drafting regulations, managing the *SiapKerja* platform, and ensuring cross-sector integration through incentives and work adaptation support. This role is reinforced by academics and educational institutions such as *SLB* and *BLK*, which provide adaptive training tailored to the physical and psychosocial conditions of victims, while also serving as centers for psychosocial rehabilitation and research based policy innovation. The business world is also at the forefront of reintegration by opening inclusive job vacancies, adapting the work environment, and committing to social responsibility, the success of which is highly dependent on incentive support from the government.

Meanwhile, the media, communities, and technology serve as catalysts that expand the reach of inclusion. The media plays a role in removing stigma through positive narratives and public education campaigns, while communities and NGOs directly assist victims through advocacy, psychosocial support, and communication bridges with the government and the business world so that interventions are more tailored to the needs on the ground. Technology, particularly the *SiapKerja* platform, is at the center of integration by providing online training, certification, and job information based on inclusive features such as *Disabled Mode*, *RTW Profile*, and adaptive matching algorithms that ensure more equal access to job opportunities. With this synergy, an inclusive employment ecosystem can be built in a systemic, efficient, and sustainable manner.

3.8 Incentive model for employers hiring persons with disabilities

Indonesia, through Article 53 of the Disability Law, obligates government agencies to employ at least 2% of people with disabilities from the total number of employees and 1% for the private sector to create a disability-friendly commitment as mandated in Article 1 Paragraph 8 of the Disability Law (Kurnianto et al., 2023). However, people with still face serious challenges in the Indonesian workplace, ranging from limited job opportunities to a lack of workplace adaptation. The government itself has actually regulated a policy of providing incentives for companies that employ persons with disabilities in Article 54 of Law Number 8 of 2016. However, there have been no concrete steps taken by the government to implement these regulations (Kurniatin, 2021). Therefore, this section will discuss incentive models that the government can use to encourage companies to employ persons with disabilities. These incentive models are based on benchmarking in countries that have provided incentives for persons with disabilities.

3.8.1 Austria

The Austrian government has developed policies to encourage businesses to be more inclusive of persons with disabilities. One of the policies implemented is to require companies to employ at least 4% of their total employees, a percentage that is higher than Indonesia (Republic of Austria, 2021). In addition, various forms of financial incentives and adaptive facilities are provided to reduce the barriers that employers often face in recruiting and employing persons with disabilities. One of the main incentives is the Inclusion Subsidy, which is a subsidy of 30% of gross salary given for 12 months to employers who hire persons with disabilities (Republic of Austria, 2021). Not only that, companies that employ persons with disabilities even though they are not obliged to do so can receive a subsidy of up to 37.5% of the gross salary of employees with disabilities as an Inclusion Subsidy Plus (Republic of Austria, 2021).

Austria also provides wage subsidies and job protection tailored to the productivity level of workers. The government will compensate for losses incurred in competition with other companies as a result of employing persons with disabilities. Wage subsidies can be granted to companies for persons with disabilities in accordance with a predetermined reduction in performance. In addition, there are grants to compensate for competitive losses caused by disability. These grants cover technical assistance, mobility aids, or relevant individual skills training. As a form of control, Austria imposes a compensatory tax on companies that do not meet the quota for disabled workers. The rate varies depending on the number of employees ranging from around €267 to €398 per month for each unfilled quota position (Republic of Austria, 2021). Revenue from this tax is allocated to support the integration of persons with disabilities into the workforce.

3.8.2 Denmark

Denmark has introduced a flexjob scheme as an employment policy solution specifically for individuals with permanent work limitations. The core of this scheme is a productivity-based full wage subsidy. Employers who hire eligible workers are entitled to a partial wage subsidy calculated on a sliding scale based on the level of reduced work capacity of 1/3, 1/2, or 2/3 of the wage (Gupta et al., 2015). For example, if a person with a disability is only able to contribute 50% of the normal standard, the company only pays half the wage and the government covers the rest. This system directly reduces labor costs while ensuring that workers continue to receive a decent income. Furthermore, this subsidy is permanent for as long as the job lasts, not limited to a trial period or initial incentive (Gupta et al., 2015). Only a few Flexjob recipients actually leave the scheme. The majority of Flexjob recipients retire permanently through old-age pensions. In addition, administrative and technical support from local governments is also an important incentive in the flexjob program. Through job centers, the government assists in matching workers with companies

and participates in contract negotiations and work intensity evaluations (Bredgaard et al., 2025). This assistance eases the recruitment burden on employers and makes the process more efficient.

3.8.3 Hongkong

The Hong Kong government has created various schemes and programs to encourage employers to hire people with disabilities. This system includes wage subsidies, mentor allowances, and structured facility support, making it an example of a comprehensive inclusive policy. The programs implemented by the Hong Kong government to encourage employers to hire people with disabilities are described at Table 2 below.

Table 2. Hong Kong government program related to incentives for workers with disabilities

Program	Government Department	Allowance/Subsidy
Work Orientation and Placement Scheme	Selective Placement Division of the Labor Department	Eligible and participating employers will be provided with a subsidy up to a total of \$60,000 for hiring each person with with disabilities who face difficulties in employment (including those who have difficulty finding work that matches their qualifications and/or job preferences, or those who have difficulty maintaining employment) during the subsidy period of up to nine months. A Mentor, assigned by the employer, who has successfully helped an employee continue their employment after the first three months of employment will be awarded a Cash Award of \$1,500.
Supported Employment Training for Persons with Disabilities	Social Welfare Department	Employers can test the work abilities of participants through a work trial. During the work trial period, employers will receive a wage subsidy of 50% of the actual wages paid to each participant, up to a maximum of \$4,000 per month, whichever is lower, for a maximum period of 6 months.
Financial Incentive Scheme for Mentors of Employees with Disabilities	Social Welfare Department	Eligible mentors are appointed by employers to provide support and assistance in the workplace to employees with disabilities who must be referred by NGOs that provide rehabilitation services vocational rehabilitation services. Incentive pay with a maximum total amount of \$1,000 for a mentor (\$500/month, for a maximum period of 2 months and the mentoring period must begin within the first 3 months since the employee with a disability).
Support Program for Employees with Disabilities	Social Welfare Department	Eligible employers for persons with disabilities can for apply for a subsidy of one Employees time with a maximum amount of \$40,000 with for each employee with disabilities for the procurement of assistive devices and/or implementation of workplace modifications

(The Government of the Hong Kong Special Administrative Region, 2019)

3.9 Model Incentive for Companies that Employ Persons with Disabilities in Indonesia

Based on practices in Austria, Denmark, and Hong Kong, Indonesia needs to design comprehensive and adaptive incentive policies to encourage companies to employ persons with disabilities. So far, the main obstacles have been the additional costs, concerns about

productivity, and the lack of technical support from the government. To overcome this, incentive policies need to be designed to suit Indonesia's employment structure. First, the government can implement proportional wage subsidies based on work capacity. This means that companies only need to pay wages according to the work capacity of workers with disabilities, while the rest is subsidized by the state. For example, if a worker is only able to work 50% of the standard working hours, the government will cover 50% of their wages. Second, provide workplace adaptation and assistive device allowances. Many companies do not have disability-friendly infrastructure. Therefore, the government can provide grants for the procurement of assistive devices for people with disabilities. Third, companies can receive additional incentives if they employ people with disabilities beyond the number required by law. These incentives can be in the form of tax breaks or other supporting facilities. Finally, the mechanism for monitoring the implementation of the obligation to employ persons with disabilities needs to be strengthened, including by imposing compensation taxes on companies that do not fulfill their obligations. With incentives that are designed to be progressive and measurable, Indonesia can create a more inclusive, productive, and equitable employment ecosystem.

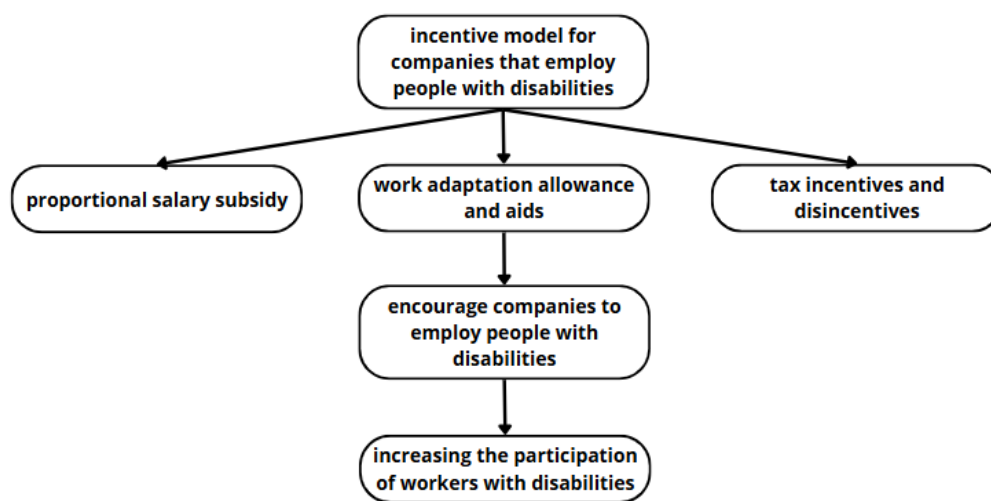


Fig. 3. Impacts of implementing the hexahelix stakeholder model on the inclusive reintegration of occupational accident victims

The implementation of an incentive model for companies that employ persons with disabilities is a strategic and transformative policy strategy to strengthen inclusiveness in the world of work. So far, the main problem in the absorption of disabled workers has not been the lack of individual potential, but rather market failures that cause companies to be reluctant to recruit them. The cost of workplace adaptation, limited accessibility, and concerns about productivity are often used as reasons to prevent the private sector from opening up job opportunities for people with disabilities. On the other hand, regulatory policies such as the implementation of employment quotas as stipulated in Law Number 8 of 2016 concerning Persons with Disabilities and its derivative regulations still face major challenges in terms of compliance and implementation in the field.

This situation shows that regulations without economic incentives are not enough to change corporate behavior. Therefore, policies are needed that not only rely on sanctions and legal obligations, but also foster economic and social motivation for the business world to actively participate in labor inclusion. In this context, incentive schemes serve to internalize the value of social justice into business decisions through tangible economic profit mechanisms. The proposed incentive model integrates three main instruments, namely proportional wage subsidies, workplace adaptation and assistive device allowances, and tax incentives and disincentives.

First, proportional wage subsidies are designed so that companies do not bear the full cost of wages, but only a proportion of the productivity of the disabled workers concerned.

The remaining wages will be covered by the government through a wage subsidy mechanism. This approach is inspired by the Flexjob scheme in Denmark and the Job Support Scheme in Singapore, which have successfully kept workers with physical and mental limitations in the labor market on a sustainable basis. Through this mechanism, the economic risk for companies is reduced, while employment opportunities for persons with disabilities increase significantly.

Second, workplace adaptation and assistive device allowances are key instruments in removing the structural and technical barriers that have long prevented persons with disabilities from accessing employment. This support includes funding for physical infrastructure adjustments, the provision of assistive facilities, and awareness training for managers and non-disabled employees. Thus, this policy not only improves physical aspects but also fosters an inclusive and empathetic organizational culture.

Third, tax incentives and disincentives serve as fiscal instruments to strengthen compliance and encourage corporate social innovation. Companies that employ persons with disabilities beyond the minimum quota will receive income tax deductions, while those that do not comply may be subject to additional tax burdens or lose their rights to other incentives. This "carrot and stick" approach is in line with practices in Germany and South Korea, where fiscal policy is used to offset the social costs of non-compliance with labor inclusivity principles.

Conceptually, this model visualizes the causal relationship between input, output, and outcome. The three incentive instruments serve as policy inputs that reduce economic and technical barriers for companies. In terms of output, this policy is expected to increase the number of companies that actively recruit and retain workers with disabilities. In the long term, the outcome will be an increase in the participation rate of persons with disabilities in the formal labor market, an improvement in the social image of companies, and more equitable economic growth.

In its implementation, the effectiveness of this scheme is highly dependent on governance, inter-agency coordination, and transparent evaluation mechanisms. The government needs to establish an accountable verification and reporting system to ensure that companies are actively employing persons with disabilities, rather than merely fulfilling administrative formalities. On the other hand, it is necessary to build a platform that integrates employment data, vocational training, and technological support for persons with disabilities.

Macroeconomically, this incentive policy has the potential to become an integral part of the sustainable development agenda (SDGs), particularly Goal 8: Decent Work and Economic Growth and Goal 10: Reduced Inequalities. By rewarding inclusive practices with economic incentives, the state not only improves social justice but also shifts the development paradigm from growth alone to empowerment and social participation. Thus, the proposed incentive scheme is not merely a short-term economic intervention, but a strategy long-term to build a system fair, participatory, and equitable employment system for all citizens, without exception.

4. Conclusions

Social protection for workers who are victims of work accidents with permanent disabilities in Indonesia still faces fundamental challenges, both in terms of regulation, policy implementation, and inter-agency coordination. The compensatory Work Accident Insurance (JKK) scheme only covers initial losses without guaranteeing economic sustainability, while the Job Loss Insurance (JKP) scheme normatively closes access to benefits for groups with permanent total disabilities. The protection paradigm, which is still oriented towards compensation and physical recovery alone, results in workers losing their substantive freedom to participate productively in society again. This condition shows that the existing social security system has not transformed towards an empowerment approach as mandated by the Capability Approach and Theory of Change. Therefore, a fundamental change is needed in the design of social protection policies that are not only reactive but

also proactive and transformative. Data integration between Employment Social Security Administration, the *SiapKerja* application, and training institutions such as SLB and BLK is key to building a continuous policy chain between compensation, rehabilitation, and economic reintegration. A cross-sectoral approach based on hexa helix collaboration involving the government, the business world, academics, communities, the media, and technology can create an inclusive and equitable employment ecosystem. The implementation of the Disabled Mode feature and auto-enroll victims JKK in the *SiapKerja* platform will strengthen The presence of the state in opening up adaptive employment opportunities that are suitable for workers with disabilities.

In addition, the implementation of a progressive incentive model for companies needs to be a priority in order to expand the participation of persons with disabilities in the formal labor market. Schemes such as proportional wage subsidies, workplace adaptation allowances, and tax incentives and disincentives not only ease the cost burden on companies, but also serve as strategic instruments in building a more inclusive and socially just work culture. With these steps, Indonesia can realize a transformation of the social security system that is oriented towards empowerment, economic independence, and long-term welfare for all workers, in line with the vision of Indonesia Emas 2045.

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