

Research Article

Review of Indonesian Labour Law in the Era of Fourth Industrial Revolution

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Abstract: This study endeavours to examine and critically assess Indonesian labour legislation within the context of the fourth industrial revolution. Employing a method of descriptive analysis, the research findings affirm that the advent of the fourth industrial revolution has profoundly impacted the lives of individuals, ushering them into the age of digitalization. Notably, within the realm of employment, this era has engendered significant structural modifications in the labour force and pivotal shifts in industries, thereby presenting both challenges and opportunities through the lens of Indonesian labour law. The existing array of regulations and legislations tends to overlook informal workers, such as atypical labourers and those engaged in remote work (telework). Consequently, there is a pressing need for a collaborative employment framework. It is anticipated that the government, in tandem with the legislature, will embark on reforming Indonesian labour legislation to make it adaptive to the demands of the 21st century. This would facilitate endeavours to reinforce legal safeguards and provide legal assurance for workers, thus upholding the principles of justice articulated in Paragraph IV of the Preamble to the Constitution of the Republic of Indonesia.

Keywords: Indonesian Labour Law, Fourth Industrial Revolution Era, A Typical Types of Workers/Labour, Partnership-Based Employment Relations, Fourth Paragraph of the Preamble to the Constitution of the Republic of Indonesia.

1. Introduction

Presently, the global employment landscape, including Indonesia, is undergoing significant structural changes, marked by substantial transitions in industry and the composition of jobs. The advent of the Fourth Industrial Revolution has wielded profound influence over various facets of the economy and society, ushering in a era of radical transformations, with digitalization serving as a prevailing trend [1]. This paradigm shift also underscores the need for a more flexible labour market, necessitating a structural transformation process aimed at fostering high-quality job creation [2]. The process of structural transformation is typically distinguished by the gradual reallocation of production factors from traditional sectors, such as agriculture and low value-added manufacturing, to contemporary activities, such as manufacturing and high value-added services. This reallocation stands as a fundamental component that accompanies and propels economic growth, as elucidated by Timmer [3].

The era of the Fourth Industrial Revolution has witnessed remarkable strides in Information and Communications Technology (ICT), marked by machines engaging in intercommunication through the Internet of Things (IoT), the deployment of advanced algorithms orchestrating diverse workflows spanning a multitude of industries and sectors, and the establishment of interactive two-way interfaces facilitating real-time engagements between users and devices [1]. While ICT

presents new opportunities, it simultaneously engenders fresh challenges for both employees and employers, prompting transformations in the work landscape, career development paradigms, and work modalities [4]. As underscored by Raja [4], job opportunities catalysed by ICT hold great significance, as nations across the globe seek to foster the creation of more high-quality employment, a development with positive economic and social ramifications for the workforce and society at large:

1. ICT opens novel pathways for employment generation, offering potential solutions to address global unemployment, as exemplified by: (1) The burgeoning mobile application industry, which has engendered fresh prospects for small and medium enterprises (SMEs); and (2) Enterprises that supply digital applications to Apple's application store, thereby gaining access to the extensive customer base exceeding 500 million application store account holders.
2. ICT serves as a conduit for linking individuals to employment opportunities, illustrated by the influence of online job marketplaces, which have facilitated job acquisition for approximately 12 million individuals across the world. These platforms establish connections between job seekers and global employers through the utilization of internet and mobile-based tools. These services, in turn, empower workers by enhancing transparency and inclusivity within the labour market.
3. ICT fosters innovation, giving rise to more adaptable work arrangements. This includes: (1) Online contracts that utilize ICT to extend employment opportunities globally, particularly

for small-scale employers, with prominent services like oDesk and Elance posting approximately 2.5 million jobs in 2012, encompassing diverse tasks such as writing, customer service, and software development; and (2) Microwork platforms that segment substantial business processes into smaller discrete tasks (e.g., data entry, copywriting, or graphic design) and distribute them to workers across geographical boundaries, with platforms like Cloud Factory, Mobile Works, and Samasource gaining prominence.

The technological advancements of the 21st century have ushered humanity into the era of digitalization, where the integration of digital technology and its derivatives, including computers, smartphones, and the internet, has catalysed increased speed and efficiency in various domains [5]. This transformation extends to computerizing production, the private sector, and delivery services. As posited by Febry and Irina [5], the proliferation of connectivity has introduced a novel dimension, wherein electronic devices link individuals, workers with machinery, and machinery with other machinery. According to OECD [6], progress in ICT has had a positive impact on corporations' capacity to facilitate communication and coordination across all facets of their business operations, including the ability to engage with clientele and suppliers on a global scale [7].

With the rapid advancement of ICT in the era of the Fourth Industrial Revolution, ICT serves as a pivotal catalyst for corporate reorganization and the perpetuation of global economic globalization activities, thereby directly influencing the employment sector. Consequently, the role of labour law is assuming growing significance in the Fourth Industrial Revolution era. Labour law may be legally construed as a framework established to ensure equity in employment relationships, aimed at enhancing the status of workers [8]. Allen [2] contends that it is vital to strike a regulatory balance that offers both flexibility to companies and security for workers. For example, the existing incentive system in the labour market tends to impede employment stability and career advancement, and labour law provisions related to short-term contracts, employee termination, severance packages, and unemployment insurance should be revisited in light of the necessity to expedite skills development and stimulate heightened productivity.

Workers, constituting vital actors in the pursuit of development objectives [9], play a critical role. However, diverse employment challenges persist, and if not promptly addressed, they may impede progress in development. Consequently, the imperative for legal safeguards, legal assurance, and the preservation of human dignity for workers is fundamental to ensure the protection of the inherent and constitutionally safeguarded fundamental rights of workers. As per Article 27, paragraph (2) of the 1945 Constitution [10], every citizen possesses the right to employment and to attain a dignified livelihood. Within the context of the Fourth Industrial Revolution, the enhancement of legal safeguards, legal certainty, and the preservation of human dignity for workers are perceived to be essential, yet the improvements remain somewhat elusive [2]. Allen [2] enumerates a series of employment challenges in Indonesia as follows:

1. The majority of jobs created use short-term contract agreements or are in the informal sector;
2. Employment quality is the main problem and compliance with existing employment regulations is still very low;
3. Youth unemployment, skills shortages, and skills mismatches are also persistent challenges.
4. Increasing labour productivity is slow, and a multifaceted approach is needed to accelerate labour productivity to support the growth of activities that have higher added value.

Furthermore, Amelia [11] have noted that the complications within Indonesia's employment sector appear to be incessant, spanning issues concerning wages and salaries, fixed-term employment agreements (contractual systems), outsourcing, layoffs, severance compensation, working hours, licensing, the engagement of foreign labour, and various others [12]. In response, the government and the legislative authorities have endeavoured to address these challenges by implementing labour law, serving as the foundational legal framework for labour relations in Indonesia. Consequently, there arises a critical demand for an in-depth examination of labour law with a focus on bolstering legal safeguards, ensuring legal certainty, and safeguarding the human dignity of workers within the context of the Fourth Industrial Revolution.

Drawing from the array of preceding discussions, there arises a pressing need to fortify legal safeguards, ensure legal certainty, and uphold the human dignity of workers in the milieu of the Fourth Industrial Revolution. This article is titled as follows: 'Overview of Indonesian Employment Law in the Era of the Fourth Industrial Revolution.' The researchers seek to underscore the formulation of this research problem as follows:

1. What and how is Indonesian employment law?
2. What are the structural changes in employment in the era of Fourth Industrial Revolution?
3. What are the important shifts in industry and employment in the era of Fourth Industrial Revolution?
4. What are the challenges and opportunities for Indonesian labour law in the era of Fourth Industrial Revolution?

Therefore, this article proceeds in a systematic manner, commencing with an analysis of Indonesian labour law, followed by an exploration of the transformative shifts in employment dynamics during the Fourth Industrial Revolution era. The discussion extends to an examination of the evolving job landscape within the context of the Fourth Industrial Revolution. Furthermore, the article delves into the challenges and opportunities that Indonesian labour law confronts in this era of industrial transformation. Ultimately, the article concludes by offering insights and recommendations, as delineated in Figure 1 below:



Figure 1. Review of Indonesian Labour Law in the Era of Fourth Industrial Revolution

2. Literature Review

Labour law pertains to a legal framework that delineates the rights and responsibilities associated with employment, primarily encompassing employer obligations and worker entitlements [13, 14]. It encompasses regulations governing statutory requisites and collective interactions, which have gained escalating significance within society, encompassing areas such as employment conditions, remuneration, labour conditions, trade union representation, and industrial relations [15]. According to Georgetown Law [14], numerous regulatory statutes are crafted to ensure the safety and equitable

treatment of workers, while simultaneously safeguarding the interests of employers. The term 'Fourth Industrial Revolution' was initially introduced in 2011 at the Hannover Fair and, in October 2012, Robert Bosch GmbH and Kagermann formed a collaborative working group, presenting the concept to the German Federal Government on April 8, 2013 [16].

The era of the Fourth Industrial Revolution, often referred to as the Digital Revolution, is closely linked to the process of digitalization, featuring cutting-edge and sophisticated technologies such as artificial intelligence, block chain, cloud services, robots, virtual and augmented reality, as well as nanomaterials. These technologies exhibit remarkable technical capabilities and adaptability, exerting a profound influence across various domains, including the industrial sector, culture, finance, and education (Dexeus, 2018, as cited in IvyPanda [1]). According to Dexeus (2018), as cited by IvyPanda [1], the Fourth Industrial Revolution bestows society with extraordinary technical capabilities and adaptability, thereby significantly impacting industries encompassing manufacturing, culture, finance, and education. ICT plays a dual role in the employment landscape, both as an industry that generates employment opportunities and as a tool that enables workers to access novel forms of work in more flexible modalities [17].

In accordance with Law No. 6/2023, the concept of employment encompasses all aspects related to individuals both prior to, during, and following the designated work period. The International Labour Office (ILO), in collaboration with the INSEE [18], defines a worker as an individual aged 15 years or above, capable of engaging in paid work for a minimum of one hour per week for specific purposes, or as someone who is temporarily absent from work due to defined circumstances such as annual leave, illness, maternity, and similar reasons, and for a stipulated duration. The ILO, through its affiliation with the INSEE [18], asserts that the scope of work encompasses individuals irrespective of their status as employees, self-employed individuals, or family assistants, regardless of whether their employment is formally declared or not.

Moreover, the expertise of Amelia [11] delineates labour as follows: (1) Each legal entity possessing the capacity to engage in work with the objective of producing goods and/or services, catering to their personal necessities and those of the community; (2) Labourers denote individuals who perform work in exchange for remuneration or alternative forms of compensation. In this context, wages are characterized as the entitlements of workers/labourers, conferred and quantified in monetary terms, a form of recompense disbursed by employers in accordance with the terms of employment agreements, predicated on principles of social justice for workers; and (3) The realization of social justice for workers is attainable through the protection of labourers against unwarranted authority exercised by employers, in conformity with prevailing legislation, thereby preserving and elevating the honour and dignity of workers/labourers [9].

As per Suwarsit [9], a means to enhance the dignity of workers/labourers is achieved through safeguarding the rights of workers/labourers, whether enshrined in the Employment Agreement or articulated within Company Regulations or Collective Labour Agreements. In this context, particularly with respect to employment agreements, the mutual rights and responsibilities of workers/labourers and employers have been meticulously outlined in the Employment Agreement and Collective Labour Agreement [9].

3. Materials and Methodology

The research method employed is normative juridical legal research, characterized by a statutory approach within the framework of the national employment law system. Normative juridical legal research, as defined by Soekanto and Mamudji [19], involves a thorough examination of library materials or secondary data. In this research, the analysis is conducted in a descriptive manner, in accordance with the definition provided by Babbie [20]. Descriptive research encompasses various forms of fact-finding and investigation, primarily aimed at elucidating past phenomena [21]. This is achieved through the utilization of documents as primary sources of information [22].

The collection of legal materials involves the technique of document study, encompassing primary, secondary, and tertiary legal resources, which are subsequently inventoried and interconnected with the issues addressed in this research. Data analysis in this legal document utilizes a deductive method, commencing with the presentation of a major premise and a minor premise, from which a conclusion is derived [23]. The major premise pertains to a legal principle, while the minor premise relates to a legal fact.

In this research, the researcher adopted an approach centred on employment legislation, specifically the Indonesian Labour Law that remains in effect, as outlined below: (1). The 1945 Constitution of the Republic of Indonesia (1945 Constitution); (2). Law Number 6 of 2023 concerning the Determination of Government Regulations in Lieu of Law Number 2 of 2022 concerning Job Creation into Law (UU No. 6/2023); (3). Law of the Republic of Indonesia Number 13 of 2003 concerning Employment; (4). Law Number 2 of 2004 concerning Settlement of Industrial Relations Disputes (UU No. 2/2004); and (5). Law Number 21 of 2000 concerning Trade Unions/Labour Unions (UU No. 21, 2000) [24]. Additionally, secondary legal materials, which furnish interpretations and insights into primary legal materials, along with tertiary legal materials, which encompass guides and elucidations for both primary and secondary legal materials, encompassing Legal Dictionaries and other manuals relevant to the research issue, were also considered.

4. Discussion

4.1. Indonesian Labour Law

Workers/labour represent a crucial resource in driving a nation's economic progress and development [25]. Employment assumes a strategic and pivotal role in fostering economic growth, as the creation of employment opportunities stands as a determining factor in a nation's political stability, while concurrently fostering increased production and investment [26]. Economic growth denotes the augmentation in the production of goods and services from one period to the next, a feat attainable through the enhancement of both the quality and quantity of production factors. In this context, labour constitutes a significant production factor alongside land, capital, and entrepreneurship [27].

Hence, worker productivity and labour regulations are intrinsically linked, akin to two sides of the same coin. This interconnection stems from the fundamental requirement of workers for social security, status, compensation, minimum

wages, and other such provisions. Conversely, employment-related laws and regulations must be capable of safeguarding the welfare of workers through labour legislation, thereby mitigating instances of labour market exploitation and introducing measures such as wage parity [28]. Indonesian labour law serves as a regulatory framework governing a myriad of employment-related aspects within Indonesia. The expectation is that it will effectively address various challenges that arise, particularly in the context of the Fourth Industrial Revolution.

Indonesian labour law encompasses fundamental provisions that are universally applicable, addressing key aspects such as the establishment of employment relationships, terms and conditions of employment, and termination procedures [29]. These regulations encompass various practical concerns, including employment status, background checks, work permits, contractual and implied employment terms, minimum wages, working time constraints, sickness and injury, parental and guardian rights, data protection, anti-discrimination measures,

dismissals, employer and company responsibilities, employee representation, business transition consequences, and more.

Indonesia, with its vast population, is the fourth most populous country globally, following China, India, and the United States. Moreover, it boasts a relatively young populace, with an average age of 29 years, indicating a substantial working-age population. Consequently, Indonesia's labour market grapples with challenges such as elevated youth unemployment, informal employment, and gender disparities. Hence, Indonesian labour law is essential given the country's substantial labour force [30].

Workers or Labour comprise individuals of working age, encompassing those actively employed, job seekers, students, and homemakers [31]. In addition, Djojohadikusumo [32] characterizes workers as all individuals willing and able to work, encompassing those who are jobless yet willing and able to work, as well as those involuntarily unemployed due to a lack of job opportunities. The prevailing conditions of Indonesian workers in February 2023 are summarized in Table 1.

Table 1. Description of Informal Workers (IW) and Formal Workers (FW) in Indonesia as of February 2023

No	Description	Number of Informal Workers (IW)	Number of Formal Workers (FW)
1	The total number of workers in Indonesia as of February 2023 is 138.63 million people	83.34 million people or equivalent to 60.12%	55.29 million people. or equivalent to 39.88%
2	Gender: a. Men b. Women	47.78 million people or equivalent to 57.33% 35.57 million people or equivalent to 42.67%	36.44 million people or equivalent to 65.90% 18.85 million people or equivalent to 34.10%
3	Live in: a. Rural b. Urban	46.57 million people or equivalent to 55.88% 36.93 million people or equivalent to 44.12%	17.07 million people or equivalent to 30.89% 38.22 million people or equivalent to 69.11%

Source: Reports from the Indonesian Central Statistics Agency (BPS) in Mufidayati [33], and Mustajab [34] as well as from various other sources (processed)

The report from the Indonesian Central Statistics Agency (BPS), as shown in Table 1, highlights a significant prevalence of informal workers in Indonesia, dominating the overall workforce composition. The majority of Indonesian labour force participants in the informal sector encompass labourers and casual workers in both agricultural and non-agricultural fields, accounting for 60.12% until February 2023. The remaining 39.88% are engaged in formal employment within the informal sector. Notably, the proportion of informal sector workers has increased by 0.81% points in comparison to August 2022.

The percentage showed a 0.15% increase compared to the corresponding period in the previous year. In contrast, the proportion of formal sector workers experienced a slight decrease of 0.15% from the prior year. When analysed by gender, informal workers in Indonesia consisted of 57.33% men and 42.67% women. In the formal sector, 65.90% of workers were male, while 34.10% were female. Furthermore, the majority of informal workers resided in rural areas, accounting for 55.88%, while 44.12% were in urban areas. In contrast, the majority of formal workers lived in urban areas, totalling 69.11%, with only 30.89% residing in rural areas.

Referring to the history of its development, there are various statutory-level regulations that specifically regulate employment or Indonesian employment law, including:

1. Ordinance concerning the Mobilization of Indonesian People to Do Work Outside Indonesia (Staatsblad of 1887 No.8)
2. Ordinance dated 17 December 1925 Regulations

concerning Restrictions on Child Labour and Night Work for Women Staatsblad of 1925 Number 647)

3. Ordinance of 1926 Regulations concerning the Work of Children and Young People on Ships (Staatsblad of 1926 No.87)
4. Ordinance dated 4 May 1936 concerning Ordinance to Regulate Activities for Searching for Job Candidates (Staatsblad of 1936 No. 2018)
5. Ordinance concerning the Repatriation of Workers Accepted or Deployed from Outside Indonesia (Staatsblad of 1939 Number 545)
6. Ordinance Number 9 of 1949 concerning Restrictions on Children's Work (Staatsblad of 1949 No. 8)
7. Law Number 1 of 1951 concerning Statement of the Applicability of the Work Law of 1948 Number 12 of the Republic of Indonesia for all of Indonesia.
8. Law Number 21 of 1954 concerning Labour Agreements between Labour Unions and Employers.
9. Law Number 3 of 1958 concerning the Placement of Foreign Workers.
10. Law no. 8 of 1961 concerning Compulsory Undergraduate Work.
11. Law no. 7 Pnps of 1963 concerning Prevention of Strikes and/or Lock Outs in Companies, Offices and Vital Agencies
12. Law Number 14 of 1969 concerning Basic Provisions Regarding Employment.
13. Law Number 25 of 1997 concerning Employment.
14. Law Number 11 of 1998 concerning Amendments to the Application of Law No. 25 of 1997 concerning Employment.
15. Law Number 21 of 2000 concerning Trade Unions

16. Law Number 28 of 2000 concerning the stipulation of Perpu Number 3 of 2000 concerning Amendments to Law Number 11 of 1998 concerning Amendments to the Applicability of Law Number 25 of 1997 concerning Employment into Law.
17. Law of the Republic of Indonesia Number 13 of 2003 concerning Employment (UUK No.13/2003)
18. Law Number 2 of 2004 concerning Settlement of Industrial Relations Disputes
19. Government Regulation (PP) no. 78 of 2015 concerning Wages
20. Law Number 11 of 2020 concerning Job Creation: Employment clusters (Job Creation Law No. 11/2020)
21. Government Regulation in Lieu of Law (Perpu) Number 2 of 2022 concerning Job Creation
22. Law Number 6 of 2023 concerning the Stipulation of Government Regulations in Lieu of Law Number 2 of 2022 concerning Job Creation into Law (Job Creation Law No. 6/2023).

Among the various labour laws in Indonesia, both historical and those to come, the foundational principles are consistently rooted in the 1945 Constitution of the Republic of Indonesia (UUD 1945) and Pancasila, the philosophical foundation. Referring to Paragraph IV of the Preamble to the 1945 Constitution, it is discerned that the purpose and role of the Government of the Republic of Indonesia encompass safeguarding the entire Indonesian nation, advancing the collective well-being, and fostering the intellectual development of the nation. This paragraph notably emphasizes the government's duty to protect the entirety of the Indonesian population, enhance the common welfare,

and elevate the intellectual capacities of the nation.

The embodiment of Paragraph IV of the Preamble to the 1945 Constitution is underscored by Article 28 D, paragraph (2), and Article 28E, paragraph (1) of the 1945 Constitution. These articles unequivocally affirm the entitlement of every individual to select a vocation, engage in gainful employment, and receive equitable compensation and equitable treatment within the realm of employment relations. Additionally, Article 28C, paragraph (1) of the 1945 Constitution stipulates the inherent right of every person to self-improvement, encompassing the fulfilment of fundamental needs, access to education, and the utilization of scientific advancements, artistic expressions, and cultural heritage. These rights are intended to enhance the individual's quality of life and contribute to the betterment of humanity. Considering the provisions set forth in Article 28D, paragraph (2), Article 28E, paragraph (1), and Article 28C, paragraph (1) of the 1945 Constitution, it is fitting that these considerations take precedence in the formulation of Indonesian labour law.

Within Indonesia, there are presently two labour regulations in effect. These are the Law Number 13 of 2003 concerning Employment (UUK No.13/2003) and the most recent, Law Number 6 of 2023 concerning the Formation of the Job Creation Perppu (UU Job Creation No.6/2003) [35, 36]. Law No.6/2003 finds its origins in Job Creation Law No. 11 of 2020, which underwent amendments and transformed into Perppu No. 2 of 2022 before ultimately being ratified as a new law in 2023. Several of the most recent provisions encompassed within Job Creation Law No.6/2023 are as follows:

Table 2. Key Points some of the Law Number 6 of 2023 Concerning the Establishment of the Job Creation Perppu.

No Key Points	Elucidation
1. Simplification of permits for the use of foreign workers (regulated in Chapter VIII Article 42 to Article 49 of the Job Creation Law No.6/2023).	<ol style="list-style-type: none"> 1. The use of expatriate employees or foreign workers no longer requires permission to employ foreign workers (<i>Izin Menggunakan Tenaga Kerja Asing</i> or IMTA) from the minister. It is sufficient for a company to have a plan for the use of foreign workers (<i>Rencana Penggunaan Tenaga Kerja Asing</i> or RPTKA) which is approved by the central government as follows: (1). RPTKA requirements do not apply to directors or commissioners with certain share ownership, as well as foreign workers for vocational activities, technology-based start-up companies, business visits and research for a certain period of time; (2). TKA provisions remain limited. Foreign workers can only be hired for certain positions and certain times, and must have competencies according to the position; and (3). Foreign workers are prohibited from holding positions that deal with personnel. Provisions regarding the use of foreign workers are contained in Chapter VIII Article 42 to Article 49 of the Job Creation Law No.6/2023. However, to be able to implement the new law there are still many obstacles, especially in encouraging investment because a number of regulations that complement the smooth use of foreign labour programs are not yet ready, so far only Ministerial Regulation Number PER.02/MEN/III/2008 [37] Concerning Procedures for Using Existing Foreign Workers in addition to 3 other Minister of Manpower Regulations to fill the legal vacuum with the necessary regulations not yet being issued, the old regulations are still in effect [38].
2. The contract period for a Specific Time Work Agreement (<i>Perjanjian Kerja Waktu Tertentu</i> or PKWT) is longer (regulated by Articles 56 - 59 of the Job Creation Law No.6/2023), and the Job Creation Law No.6/2023 no longer recognizes renewal of PKWT contracts, but has been lowered in the provisions regarding the type and nature or activity of work, the period and time limits for extending PKWT are regulated in Government Regulation (<i>Peraturan Pemerintah</i> PP) Number 35 of 2021 concerning Specific Time Work Agreements, Outsourcing, Working Time and Rest Time, and Termination of Employment Relations (PP No. 35 /2021)	<ol style="list-style-type: none"> 1. Job Creation contract employee regulations limit PKWT to work that is temporary or once completed, work that does not take long to complete, seasonal work, work related to new products/activities, and work that is not permanent. The PKWT period has been changed to be longer, namely a maximum of 5 years including extensions (Article 59 of the Job Creation Law No.6/2023). This means that companies will have more freedom to enter into PKWT contracts beyond the old rules (maximum 2 years and 1 year extension). The provisions regarding the PKWT period are not stated directly in the Law, but are included in the Government Regulation (PP) which regulates the extension of the PKWT. The Job Creation Law is Government Regulation (PP) Number 35 of 2021 concerning Specific Time Work Agreements, Outsourcing, Working Time and Rest Time, and Termination of Employment Relations (PP No.35/2021). According to Article 8, PKWT based on a certain period of time can be made for a maximum of 5 years. If the work has not been completed, an extension can be made for the entire employee term and the extension is not more than 5 years. The rules of Article 59 of the Job Creation Law No.6/2023 no longer recognize the renewal of PKWT contracts. Article 59 of the Job Creation Law No. 6/2023 states that provisions regarding the type and nature or activities of work, time periods and time limits for extending PKWT are regulated in PP No. 35/2021. Meanwhile, according to Article 56 of the Job Creation Law No.6/2023, PKWT based on the completion of certain work is made on the basis of an agreement in the work agreement. The agreement must include the scope and limitations of a job declared complete as well as the length of time of the work agreement.

<p>3</p> <p>Employers are obliged to pay PKWT compensation money (regulated in Article 15 PP No. 35 of 2021 which is a derivative of the Job Creation Law No.6/2023).</p>	<p>3. If the work is completed faster than the time agreed upon in the agreement, the PKWT is terminated by law upon completion of the work. However, if the PKWT ends but the agreed work has not been completed, the PKWT can be extended for a certain time until the work is completed. Regarding the technicalities of extension, the latest PKWT rules no longer regulate it, whether before or after the contract ends. However, what needs to be noted is that when the PKWT ends, employees are entitled to compensation money paid before the PKWT extension period. At the end of the PKWT time limit, employees are also entitled to receive more compensation money.</p> <p>1. Regarding PKWT, it requires employers to pay compensation money when the employment relationship ends, namely at the end of the contract and at the end of the contract extension. PKWT compensation money is paid according to the length of service of the employee concerned, by calculating the length of service divided by 12 then multiplied by a month's salary. For example, employees who have worked to complete a 1 year PKWT contract will receive compensation equal to 1 month's salary. This compensation rule also applies if one of the parties ends the employment relationship, for example terminating the contract before the term ends by both the employer and employee.</p> <p>PP No. 35 of 2021, which is a derivative of the Job Creation Law, also provides written confirmation in Article 15, namely: Employers are obliged to provide compensation to employees with PKWT as follows:(1). Compensation money is given when the PKWT ends;(2). Compensation money is given to employees with a minimum of one month of continuous service;(3).If the PKWT is extended, compensation money is given at the end of the PKWT period before the extension, and for the PKWT extension period, the next compensation money is given after the PKWT extension ends; and (4).The provision of compensation money does not apply to Foreign Workers who are employed based on PKWT</p>
<p>4</p> <p>Revived outsourcing article (regulated in Article 64 & Article 66 of the Job Creation Law No.6/2023).</p>	<p>1. Activate Article 64 of UUK No.13/2023 concerning outsourcing systems. For companies, using an outsourcing system for non-core business work will be more efficient compared to the costs of recruiting and training new employees.</p> <p>2. The user company simply needs to enter into an agreement with an outsourcing service company, for example to provide cleaning services or security.</p>
<p>5</p> <p>Longer overtime working time (regulated in Article 77 paragraphs 1 to 4, and Article 78.2 paragraphs 1 - 2 Job Creation Law No.6/2023)</p>	<p>1. If the maximum overtime working time according to the old regulations was 3 hours a day and 14 hours a week, then the overtime provisions of the Job Creation Law No.6/2023 provide an additional 1 hour a day and 4 hours a week, not including overtime work on holidays or weekly breaks. This means that employers can hire employees overtime for up to 4 hours a day and 18 hours a week. However, increasing overtime working hours also has consequences for the amount of overtime wages.</p> <p>If according to the old provisions, the maximum pay for overtime on working days was 5.5 times the hourly wage, then now the maximum pay for overtime on working days under the new regulations is 7.5 times the hourly wage.</p> <p>3. Meanwhile, the conditions for overtime work remain the same, namely on orders from superiors approved by employees and carried out outside working time in the Job Creation Law No.6/2023 (7 hours a day for a 6-day working week or 8 hours a day for a 5-day working week and 40 hours a week)</p>
<p>6</p> <p>Accommodate flexible working time regulations (regulated in Articles 59 - 66 of the Job Creation Law No.6/2023)</p>	<p>Accommodating flexible working hours, where employees can work without following office working hours, namely the work from home or remote working system.</p>
<p>7</p> <p>The basis for determining the minimum wage has been changed (regulated in Article 88 paragraph 2 of the Job Creation Law No.6/2023).</p>	<p>The determination of the minimum wage was changed, and the Government determined the minimum wage based on decent living needs (<i>Kebutuhan Hidup Layak</i> or KHL), taking into account productivity and economic growth.</p> <p>1. The minimum wage calculation formula takes into account the variables of economic growth, inflation and certain indices.</p> <p>$UM(t+1) = UMt + \{[Inflation + (PE \times \alpha)] \times UMt\}$.</p> <p>2. $UM(t+1)$ is the minimum wage to be determined and $UM(t)$ is the current year's minimum wage. Inflation is the inflation rate for a year (September to September), PE is the economic growth of the province or district/city. Meanwhile, α is a certain index that describes the contribution of labour to economic growth, its value ranges from 0.10 to 0.30. The α value must take into account productivity and expansion of employment opportunities. Eliminate sectoral minimum wages, so that only 2 types of minimum wages apply, namely provincial minimum wages (<i>Upah Minimum Provinsi</i> or UMP) and district/city minimum wages (<i>Upah Minimum Kabupaten/Kota</i> or UMK). However, the Micro and Small Business sector is exempt from the obligation to apply minimum wages. Instead, employee wages are set based on an agreement between employers and employees, at a minimum of a certain percentage of average public consumption based on Badan Pusat Statistik Indonesia (BPS) data</p>
<p>8</p> <p>Reduced layoff severance pay (regulated in Article 156 paragraph 1 Job Creation Law No.6/2023)</p>	<p>Job Creation Law Number 6 of 2023 does not change the rules for severance pay or service pay (<i>Uang Penghargaan Masa Kerja</i> or UPMK) in UUK No. 13/2003, namely that it is still based on the employee's length of service at the company concerned. The severance pay rules of Job Creation Law No. 6 of 2023 allow employees to receive smaller severance pay compared to the old rules in UUK No. 13/2003. The minimum value of severance pay has changed from 1 times the provisions to half the provisions. Employees can receive incomplete severance pay, namely 0.5 times if the layoff caused by: (1). Takeover of a company which results in changes in working conditions, and workers/labourers are not willing to continue their working relationship; (2). The company makes efficiency because it experiences losses (3). The company closes due to continuous or non-continuous losses for 2 years; (4)) Bankrupt company; and (7). The worker/labourer commits a violation of the work agreement, company regulations, or collective labour agreement, and has been given a first, second, and third warning letter. Meanwhile, severance pay is given at 0.75 times the provisions if the layoff is caused by force majeure which does not result in the company closing.</p>

Referring to table 2, Job Creation Law No.6/2023 can be seen that this latest legal regulation regulates, among other things: (1) Rules regarding simplification of permits for the use of foreign workers, longer PKWT contract terms; (2). Rules regarding employers' obligations to pay PKWT compensation money; (3). The existence of an outsourcing work system; and (4). Other regulations include: having longer overtime working hours, accommodating flexible working time regulations, changing the basis for determining minimum wages, and reducing layoff severance pay. In this context, the Job Creation Law No. 6/2023 seems to tend to regulate workers/labour in the formal sector, and has not at all touched workers/labour in the informal sector in Indonesia.

In this regard, Indonesian labour law is anticipated to effectively address the challenges and opportunities aligned with the structural transformations in employment and substantial shifts in the industrial landscape during the era of the Fourth Industrial Revolution. Indonesian labour law should place a central emphasis on addressing several critical issues pertinent to both informal and formal labour. These issues can be addressed in the following manner: (1) Maximizing and humanely harnessing the potential of workers, encompassing the provision of legal safeguards, assurance of legal predictability, and preservation of the dignity of labour. (2) Facilitating the realization of equitable employment opportunities and supplying labour that aligns with the developmental requisites of the nation. (3) Affording protection to labourers in pursuit of prosperity, adhering to the constitutional mandates, the 1945 Constitution, and consonant with the core principles of the Indonesian national philosophy, Pancasila.

4.2. Structural Changes in Employment in the Era of Fourth Industrial Revolution

The digital economy, often referred to as the New Economy, stands at the forefront of the era of automation, characterized by technological innovations in production methods that enhance output without a proportionate increase in input [5]. Since the inception of the Fourth Industrial Revolution, technological advancements have played a pivotal role in the trajectory of economic growth. As highlighted by experts in Febry and Irina [5], technological progress accelerates economic growth and productivity, precipitating structural transformations and fostering positive implications for employment. The contemporary capacity of individuals to work flexibly and collaboratively, from any location and at any time, whether at their primary workplace or elsewhere, is made feasible through the remarkable advancements in ICT [40].

Kurt [16] and other experts posit that the Fourth Industrial Revolution represents a transformative paradigm centered on the reduction of costs and the augmentation of productivity within the production line, as delineated below:

1. The Fourth Industrial Revolution transforms conventional technology into smart factories, redefining the labour market. Key technological advancements include: (1) Artificial Intelligence (AI): Enhances manufacturing operations, reducing costs and improving precision. (2) Internet of Things (IoT): Connects devices for real-time monitoring and data exchange, enhancing decision-

making. (3) Cloud Computing: Delivers internet-based computing and storage for real-time data analysis, boosting operational efficiency. (4) Big Data and Analytics: Analysis data from various equipment, identifying trends, patterns, and correlations in production. (5) Augmented Reality (AR), Virtual Reality (VR), and Mixed Reality (MR): Combines real and virtual environments for training, visualization, and remote manual task execution. (6) Additive Manufacturing (3D Printing): Builds 3D objects from digital files, facilitating prototype development and custom part production without excessive inventory, especially for complex components.

2. In the Fourth Industrial Revolution, sensors, data, information, and operations are pivotal. Their combination, driven by robots and AI, may displace unskilled labour, fundamentally altering the workforce and potentially increasing unemployment. Industrial processes increasingly involve machines with algorithms [41].

Industry 4.0 ushers in smart factories characterized by high automation, data-driven processes, and seamless supply chain integration, significantly bolstering efficiency and productivity in manufacturing. The adoption of this model is structured, agile, and fosters collaboration, resulting in a profound impact on the workforce's pivotal role and a departure from classical industrial labour relations. Additionally, location-independent work, as highlighted by ILO [40], becomes increasingly accessible to a broader spectrum of workers. These developments have paved the way for the use of similar platforms for real-time global communication and information sharing, as underscored by Naisbiit and Naisbitt [42].

As indicated by Naisbiit and Naisbitt [42], these platforms have also instigated transformations in learning, employment, production, trade, commerce, media consumption, decision-making processes, and work relationships. This shift, according to Min [43], has notably impacted the dynamics of industrial relations among entrepreneurs and workers, as outlined by Zervoudi [44]. In the era of the Fourth Industrial Revolution, we witness a paradigm shift exemplified by the emergence of the millennial demographic, characterized by their aversion to traditional attachments, giving rise to a novel category of work relationships referred to as "atypical work" [45]. Atypical work encompasses any work arrangement that deviates from the conventional model of permanent, full-time employment, as elucidated by Heymans [46].

Heymans [46] notes a recent surge in atypical work due to growing interest in flexible, autonomous work arrangements for the following reasons: (1). Reduced traditional working hours, enhanced control over work-life balance, and a desire for greater autonomy as independent entrepreneurs. (2). Have more control over work schedule and can choose to work less hours (3). Ideal for parents or caregivers balancing work and family duties. and (4). Enables engagement in diverse and stimulating projects for a more fulfilling work life.

The Industrial Revolution brings about ongoing paradigm shifts in work patterns. Indonesian labour law faces opportunities and challenges, particularly concerning atypical work relations in industrial relations during this era. The field of labour and industrial relations, with its focus on

the rights and responsibilities of employees and employers, is significantly shaped by the globalizing effects of information and communication technology (Hamid,2021e). Indonesian labour law views industrial relations as a mutualistic partnership among the business sector, workers, and the government, working together synergistically to promote economic growth [47]. According to Gde Wiryawan and Bunga [45], atypical types of work relationships are as follows:

1. An employment relationship between an employer and an employee without a long-term employment contract, provision of additional facilities, salaries and pensions, or other benefits normally obtained by employees in general.
2. This unusual employee relationship is outside the context of the employment relationship as intended in Law Number 6 of 2023 concerning the Determination of Government Regulations in Lieu of Law Number 2 of 2022 concerning Job Creation into Law.
3. In atypical work relationships, the positions of employers and workers are equal as determined by mutual agreement between the parties.
4. In the future Fourth Industrial Revolution era, legal protection for atypical workers aims to provide economic, social, and technical safeguards.

In the era of the Fourth Industrial Revolution, there is a significant shift in the relationship between workers and entrepreneurs, moving from conventional work relationships to partnership-based arrangements. This shift necessitates adjustments in the concept of industrial relations [47]. Job Creation Law No. 6/2023 in Indonesia predominantly addresses formal workers, with limited policies for those in the informal sector, despite the significant number of informal workers. Recognizing this empirical phenomenon is crucial, given the substantial transformation in industry and employment during the Fourth Industrial Revolution.

4. 3. Important Shifts in Industry and Employment in the Era of Fourth Industrial Revolution

The advent of the Fourth Industrial Revolution in 2018 brought about significant transformations in people's lifestyles, work dynamics, and interactions. A notable aspect of this revolution has been the shift from human labour to automation, machines, and robots in various production processes [48]. This transformation has also given rise to changes in business systems, such as online commerce and online-based transportation services (e.g., online motorbike taxis and ride-sharing services), greatly enhancing convenience for society at large [49]. According to Santoso [49], the concept of industrial relations revolved around the private interaction between workers and entrepreneurs, but this often led to conflicts within the production process which includes the following:

1. Historically, there has been a dominance of entrepreneurs over the workers they employ in the production process, leading to the exploitation of labour. This phenomenon is rooted in laissez-faire politics, which restricted state intervention in trade, including production processes. Consequently, it resulted in low wages, extended working hours, increased worker poverty rates, and a lack of respect for labourers.

2. The traditional concept of industrial relations, which primarily emphasizes the relationship between workers and entrepreneurs, remains influential. While some balance has been achieved between these parties through government intervention via regulations and legislation, the core notion endures.

The advent of the Fourth Industrial Revolution, commonly known as Industry 4.0, has given rise to an innovative production system focused on mass-producing customized goods to tap into new market segments [50]. Setiawan and Poerbosisworo [50] note that in Indonesia, the rapid development of the Industry 4.0 concept was initiated by President Joko Widodo at the outset of his second term in office and has been evolving since 2015, with a particular emphasis on digitalization and ICT networks for manufacturing processes. The impact of technological empowerment on the global economy is assessed by considering its effects on productivity, employment, unemployment, as well as technological and legal transformations [48].

As outlined by Sima [48], the process of digitalization leads to substantial transformations in the socio-economic landscape, particularly with regard to employment. The implications of ICT advancements in the current era of the Fourth Industrial Revolution encompass a range of innovative technologies and offer considerable advantages for organizations. These advantages include real-time data analysis, heightened visibility, autonomous monitoring, increased productivity, and enhanced competitiveness [51]. Abdelmajied [51] underscores that Industry 4.0 is chiefly characterized by collaboration and comprehensive integration schemes, encompassing both horizontal and vertical dimensions. Innovation assumes a pivotal role in organizations, sectors, and nations. Nonetheless, several challenges hinder the implementation of Industry 4.0, such as financial constraints, technical expertise, and organizational barriers.

In the context of the Fourth Industrial Revolution, a significant transformation in the employment sector pertains to the rise of atypical work arrangements and telework, often referred to as remote work. This paradigm shift has altered how work is conducted within the employment sector. Telework, or remote work, denotes a flexible work arrangement where an employee performs their designated role and official responsibilities from a specified location other than their primary workplace [52].

According to the International Labour Organization (ILO) in 2016, remote work, as described by experts, encompasses flexible working arrangements in which individuals work from a location external to the company's central operational premises. This approach provides workers with flexibility, and the structure of such work arrangements can vary, including working from one's own residence. In practice, remote work, as defined by the U.S. Office of Personnel Management [52], entails two key aspects: (1) Employees have scheduled days for remote work and scheduled days when they work on-site at their agency; and (2) Any arrangement wherein the employee conducts work activities during their regular paid hours from an alternate location, as mutually agreed upon by the employee and the agency, often the employee's home.

As per Article 2 of the 2002 European Framework Agreement on Telework, which was collectively agreed upon and signed by Europe's principal social partners,

including Business Europe (formerly UNICE), the European Association of Crafts, Small and Medium Enterprises (UEAPME), the European Centre for Enterprise with Public Participation and the Enterprises of General Economic Interest (CEEP), and the European Trade Union Confederation (ETUC), organizing telework constitutes a method of conducting work through the use of information technology. In the context of remote work (telework), where work can be performed either at the employer's premises or routinely from an alternate location [40], the presence of an employment contract or relationship holds paramount significance from the perspective of labour law and in upholding fundamental principles of fairness in employment.

Rawls [53] outlines the fundamental principles of justice, which encompass the principle of freedom and the principle of income and wealth distribution. These principles can be readily applied to the patterns of industrial relations in the context of the Fourth Industrial Revolution. Consequently, labour law is anticipated to effectively adapt to the transformations arising from significant shifts in industry and employment during the Fourth Industrial Revolution. This primarily concerns the patterns of industrial relations between entrepreneurs and workers, grounded in the bedrock principles of justice. In accordance with Drury [54], there exist four core principles of justice: (1) Individuals (including employees and business partners) should be treated with dignity and respect. (2) Individuals should be granted the right to voice their opinions. (3) Decision makers (i.e., managers and entrepreneurs) must maintain neutrality and transparency. (4) Decision makers must exhibit trustworthy motives.

In the realm of employment law, particularly within the context of industrial relations patterns during the Fourth Industrial Revolution, the fundamental principles of justice assume a critical role. These principles aim to foster confidence among employees and business partners regarding the organization's fairness and consistency [54]. According to Rusinowitz [55], the various types of justice pertinent to industrial relations patterns in business encompass the following: (1). Distributive justice, which pertains to equitable outcomes such as salaries, wages, profit sharing, and workload. (2). Procedural justice, focusing on the fairness of decision-making processes. (3). Interactional justice, also known as interpersonal justice, concerns how individuals are treated. (4). Informational justice, entailing the provision of sufficient and truthful information by the organization.

As such, the industrial relations patterns in the era of the Fourth Industrial Revolution can effectively uphold the foundational principles of justice within the realm of labour law.

Santoso [49] outlines the concept of industrial relations in the Fourth Industrial Revolution era as follows: (1). Employment relationships are partnership-oriented, emphasizing flexibility in work location and working hours. (2). Workers may engage with multiple companies. Wage structures are based on varying payment methods, such as hourly, daily, weekly, or monthly, contingent on agreements and expertise levels. (3). The concept of industrial relations disputes, including employment termination, may change due to the flexible nature of work. (4). Dispute resolution models encompass both Alternative Dispute Resolution and litigation, with industrial relations courts vested with

authority to handle a wide range of cases.

Hence, within the framework of Indonesian labour law during the Fourth Industrial Revolution, industrial relations adopt a partnership-oriented approach. In this perspective, workers assume a role as partners rather than subordinates to entrepreneurs. The underlying concept strives for a mutually empowering relationship, fostering synergy between industry, labour, and government to bolster economic growth [49]. Consequently, the implementation of partnership-based industrial relations represents both a challenge and an opportunity for Indonesian labour law in the Fourth Industrial Revolution era.

4.4. Challenges and Opportunities for Indonesian Employment Law in the Era of Fourth Industrial Revolution

The Fourth Industrial Revolution serves as the catalyst for labour law changes worldwide, and Indonesian labour law is no exception, particularly concerning the employment relationship system. Initially, the employment relationship system was conceived as industrial relations, representing the private relations between workers or labourers and entrepreneurs or employers [49]. As of February 2023, Indonesia's workforce comprises a substantial 138.63 million workers, with informal workers constituting 60.12% and formal workers 39.88% of this total. Thus, based on statistical data, it becomes evident that in the era of the Fourth Industrial Revolution in Indonesia, informal workers surpass formal workers in dominance.

Law is an indispensable regulation that assumes a pivotal role in nearly every facet of life [56]. Thus, the crucial issues to promote, as stipulated in Paragraph IV of the Preamble to the 1945 Constitution, encompass enhancing legal protection, ensuring legal certainty, and safeguarding the human dignity of both formal and informal workers. Initiating with equitable and legally-grounded recruitment practices, it's impermissible for employers or companies to discriminate against applicants based on age, race, religion, or country of origin, as emphasized by Wigmore [13]. As Baker [57] articulates, employment law falls within the realm of public protection, endeavouring to rectify the fundamental disparities between employers and workers.

Hence, the critical issues in the context of Indonesian labour law during the Fourth Industrial Revolution, with an emphasis on enhancing legal protection, ensuring legal certainty, and upholding the human dignity of workers, can be delineated as depicted in Figure 2, as follows:



Figure 2. Challenges and Opportunities for Indonesian Labour Law in the Era of Fourth Industrial Revolution

4.5. Strengthening Legal Protection

Workers, from an economic standpoint, possess significant strategic potential both on a global and national scale, a significance that is particularly pronounced in the context of Indonesia [58]. As outlined by Hamid, Aldila and Intan [58], workers are integral to the broader global and national societies, their rights, dignity, and the quality of living and working conditions being guaranteed by the Universal Declaration of Human Rights (1948) and national constitutions. Notably, Article 25.1 of the Universal Declaration of Human Rights (1948) underscores that every individual is entitled to an adequate standard of living conducive to personal health and the well-being of their family, encompassing essential provisions such as food, clothing, housing, medical care, and social services. Additionally, it enshrines the right to security during times of unemployment, sickness, disability, widowhood, old age, or other circumstances beyond an individual's control.

Conversely, labour law is anticipated to function as a legal instrument offering protection and assurance, encompassing both legal and social safeguards, equitable remuneration, and facilitating accessibility to government resources, notably financial institutions (banks) and healthcare coverage. Hence, the exigency of labour law is an imperative, in accordance with the stipulations of the Preamble to the 1945 Constitution. In essence, labour legislation, or employment law, serves to delineate the rights, duties, and accountabilities of employers and workers. Per USAGov [59], the legal protection for workers assumes the shape of legislations that govern and safeguard workers in relation to workplace regulations. A compendium of the most prevalent labour laws includes:

1. Termination of employment (PHK), in cases where the worker is unjustly dismissed or released from their employment position.
2. Discrimination, harassment, and retaliation - laws that safeguard workers from unjust and unfavourable treatment in the workplace.
3. Wage laws - regulations concerning minimum wages, overtime pay, and job misclassification.
4. Workers' compensation - Providing cash benefits or medical care for workers who sustain injuries or illnesses resulting from workplace incidents.
5. Workers' rights to a safe working environment and the procedures for reporting workplace safety violations to the relevant government regulatory agency.
6. Family and Medical Leave Rights, which pertain to the rights of both employees and employers to facilitate eligible employees to take extended leaves from their work.

To enhance labour law protection in Indonesia, ratification and implementation of the International Labour Organization (ILO) convention from February 2019 in Geneva, Switzerland can be pursued. The ILO convention emphasizes the necessity of an Integrated Strategy on Fundamental Principles and Rights at Work 2017-2023, encompassing four fundamental principles [60], which are as follows:

1. Public Policy & Governance: Establishing a robust national legal and policy framework along with accountable public institutions for enforcing labour laws, ensuring the realization of workers' fundamental principles and rights at the national level, thereby fortifying legal protection.

2. Empowerment & Representation: Adopting a grassroots approach that seeks to empower and represent rights holders, including the most vulnerable and marginalized workers, small producers, and self-employed workers. This approach allows them to assert their rights and entitlements, primarily through organizing for collective strength, representation, and voice.
3. Partnership & Advocacy: Involving all relevant actors related to employment law, such as government, legislature, academics, employment practitioners, employers, trade unions, and other stakeholders, in a collaborative effort to advocate for the fundamental principles and rights of workers/labour in the workplace.
4. Knowledge & Data: Enhance the evidence base used to design, test, and adapt effective policies, guidance, and interventions related to the employment sector. This involves conducting surveys, developing tools, and disseminating knowledge relevant to the world of work.

Therefore, efforts to prioritize the strengthening of legal protection for workers in the era of the Fourth Industrial Revolution should be precise and necessitate additional international labour standards to pre-empt and mitigate vulnerabilities stemming from diverse national and regional regulations [61]. According to Demaret [61], the international employment standards for workers encompass the following:

1. Reaffirm the principle that open contracts should be the rule.
2. Establish criteria for defining employment relationships, which should include the concept of "Joint Employer" responsibility in situations involving triangular relationships. This will help clarify the roles and obligations of all parties involved.
3. Establish legal presumptions regarding the existence of an employment relationship.
4. Regulate the use of fixed-term contracts or use outsourcing work through: establishing objective reasons that must be respected when carrying out non-permanent work, establishing the maximum total duration of consecutive fixed-term contracts (or agency contracts), and determine the number of renewals of the contract.
5. Incorporate the principle of equal treatment for those in precarious employment, ensuring they receive the same rights as permanent employees, with due consideration for the unique aspects of precarious work, including safety and health, training, involvement in trade union activities, and eligibility to perform trade union roles.
6. Prohibit the use of fixed-term contracts or outsourcing of highly hazardous work.
7. Establish a special salary bonus for non-permanent workers as a percentage of their wages.
8. Allow workers to choose where they want to exercise their collective bargaining rights at any given time.
9. Broaden the reach of collective agreements through legislative measures, guaranteeing comprehensive protection for all employees within user companies, even in critical scenarios.
10. Establish a licensing and certification system for employment agencies and subcontracting companies.
11. Prohibit the use of fixed-term contracts, subcontracts or agency work to replace permanent jobs or striking workers. In reference to the preceding discussions, the

endeavour to fortify the legal safeguards for workers or employees amid the challenges and opportunities posed by the fourth industrial revolution within the framework of Indonesian labour law is a multifaceted undertaking. A strategic approach that could be embraced by the government, legislature, and various stakeholders is the comprehensive integration of the outcomes emanating from the ILO Convention (2019) into Indonesian labour legislation. This entails the formulation of regulations that pertain to the principle of equitable treatment in comparison to formal or permanent workers, while simultaneously acknowledging the distinctive attributes of informal or temporary workers. These distinctions should encompass aspects such as safety, health, training, active engagement in trade union activities, and eligibility to fulfil trade union roles. This alignment of labour law with international conventions is intrinsically tied to the imperative of ensuring legal certainty and safeguarding the human dignity of workers, as mandated by Paragraph IV of the Preamble to the 1945 Constitution.

4.6. Legal certainty

When examining the legal system in Indonesia within the context of its historical and legal-political dimensions, it becomes evident that it is grounded in the Continental European legal system, commonly known as Civil Law. This observation applies to both the origins of legal sources and the mechanisms governing law enforcement, as expounded by Hamid and Hasbullah [62]. A maxim popularized by Marcus Tullius Cicero, 'Ubi Societas Ibi Ius,' which translates to 'where there is society, there is law,' further underscores this notion [63]. According to Suyahman [63], this principle serves as a fundamental tenet of positive law, emphasizing that law is inexorably intertwined with the society that forges it.

Legal certainty stands as a fundamental requirement for upholding the principles of equality before the law, devoid of discrimination. This concept closely aligns with the notion of truth, signifying a matter that can be rigorously deduced using formal legal methodologies, and forms an integral part of the pursuit of justice in harmony with the rule of law. The presence of the legal certainty principle serves as a safeguard for those seeking justice, shielding them from arbitrary actions. This implies that individuals possess the capability to attain their desired outcomes under specific circumstances [64]. As a result, the preservation of legal certainty holds paramount importance across all facets of state affairs, particularly in matters relating to employment relations.

From a logical perspective, individuals are inherently driven to meet their daily necessities, often achieved through gainful employment. Essentially, work assumes a pivotal role, serving as a lifeline for individuals. In the domain of employment relationships, a symbiotic interdependence emerges, where employers and employees both rely on one another. Simultaneously, there exists a governing body, typically the government, vested with authority and responsibility as the ultimate arbiter, as elucidated by Syafii [65]. Its primary function is to regulate the dynamics of employment relationships, particularly in the context of non-standard or atypical work relations. Herein, the government's role is of paramount importance, serving to facilitate the harmonious regulation of work relations between the two principal parties, namely

employers and workers.

The common phenomenon in industrial relations involves conflicting interests between both parties. Industrial relations disputes, as defined by Law Number 2 of 2004 [66] concerning the Settlement of Industrial Relations Disputes (UU No.2/2004), refer to differences of opinion leading to conflicts between employers, employees, or labour unions. Article 2 of Law No.2/2004 addresses four types of industrial relations disputes: rights disputes, interest disputes, employment termination disputes, and disputes between labour unions within a single company. These disputes can be resolved through various methods, including:

1. Bipartite negotiations - Bipartite negotiations are discussions between workers, labour unions or trade unions, and employers to address industrial relations disputes. All forms of such disputes must initially be resolved through collaborative bipartite negotiations to achieve a consensus.
2. Mediation - Mediation serves as a mechanism to address rights disputes, interest disputes, employment termination disputes, and conflicts among workers or labour unions within a single company. These disputes are resolved through mediated discussions facilitated by one or more impartial mediators.
3. Conciliation - Conciliation is the resolution of interest disputes, employment termination disputes or disputes between trade unions within one company through deliberation mediated by one or more neutral conciliators.
4. Arbitration - Arbitration provides a means to settle interest disputes and conflicts involving labour unions within a single company. This process occurs outside the jurisdiction of the Industrial Relations Court and requires a formal agreement between the disputing parties. Dispute resolution is entrusted to an arbitrator, and the arbitrator's decision is both binding and final for the parties involved.
5. Industrial Relations Court - The Industrial Relations Court (PHI) is a specialized court operating within the district court system, empowered to investigate, adjudicate, and issue judgments on matters related to industrial relations disputes.

In this context, industrial relations disputes refer to the examination of how labour-employer relationships can evolve positively. This involves identifying the most influential factors affecting future relations and adhering to government policies in the employment sector [67]. The government, in this regard, holds a pivotal role in the process. It operates as an institution vested with the authority to formulate and enforce laws and regulations related to industrial relations and the mechanisms for resolving such disputes.

Conversely, within a democratic system, the legislative body or People's Representative Council (DPR) holds the authority to enact laws. In this context, the government, in collaboration with the DPR, is anticipated to formulate legislative regulations pertaining to labour law, ensuring legal certainty for workers in the age of the fourth industrial revolution. This legal certainty serves as an assurance that the law is upheld, granting those entitled under the law their rightful claims and enabling the execution of decisions [68]. Legal certainty stands as a fundamental pillar supporting democratic and economic progress [69].

Jan M. Otto, as cited in Sidharta [70], stipulates that

ensuring legal certainty in specific situations necessitates the following conditions: (1). The existence of clear, coherent, and readily accessible legal regulations promulgated by state authorities. (2). Consistent application and adherence to these legal regulations by governing agencies. (3). General consensus among the majority of citizens regarding the content of these rules, which subsequently leads to behavioural adaptation. (4). Impartial and independent judges within the judiciary, applying these legal regulations consistently when adjudicating legal disputes. (5). The concrete implementation of judicial decisions.

These five conditions demonstrate that achieving legal certainty relies on legal principles that align with the societal needs. Laws fostering legal certainty should be rooted in and reflective of the culture of the society, as elucidated by Jan M. Otto in Sidharta [70]. Legal certainty, as per Mertokusumo [64], is a state where the law is unequivocal due to the solid foundation it possesses. The principle of legal certainty serves as a safeguard for those seeking justice against arbitrary actions, and it necessitates that decisions conform to the existing legal framework, as noted by Paunio [71]. Furthermore, Fenwick and Wrбка [72] emphasizes that legal certainty plays a vital role in stabilizing normative expectations and providing a structure for social interactions.

Drawing from the previous explanations, legal certainty serves as a means to enhance the dignity of workers/labourers. Achieving this goal involves reinforcing legal safeguards for workers' rights, whether established within Employment Agreements, Company Regulations, or Collective Labour Agreements. The government, in collaboration with the DPR, is anticipated to formulate and implement legal provisions concerning atypical employment relationships within Indonesian labour law during the Fourth Industrial Revolution era.

Hence, legal certainty embodies a vital facet of legal protection, securing the fundamental rights of workers in Indonesian labour law during the Fourth Industrial Revolution era. This includes (1) establishing criteria to delineate employment relationships, encompassing the concept of "joint employer" responsibility within triangular relationships involving the government, entrepreneurs/employers, and workers/labour; (2) ensuring equal opportunity and non-discrimination in consideration of business progress, for the well-being of workers and their families; and (3) extending the purview of collective agreements through legislative means to safeguard all workers in user companies, including those facing critical situations.

4.7. Guarantee of Human Dignity for Workers/labour

Labour law encompasses the body of legislation governing employment, encompassing areas such as social welfare provisions, equal opportunities in employment, and adherence to international labour standards. It serves to regulate employment relationships, delineate rights and responsibilities, and provide protective measures, as articulated by Hamid and Intan [73]. In the Indonesian context, employment development stands as an intrinsic facet of national progress, underpinned by the tenets of Pancasila and the 1945 Constitution. Article 27, paragraph (2) of the 1945 Constitution explicitly extends protection to each Indonesian citizen (WNI) to exercise their right to seek

gainful employment, consonant with the principles of human rights.

Shalihah [74] asserts that employment development is a pivotal component within the broader framework of holistic Indonesian national advancement, aimed at enhancing the stature and dignity of workers while actualizing prosperity and an equitable, just, and prosperous society, encompassing both material and spiritual dimensions. In this context, the constitution guarantees every citizen's entitlement to gainful employment characterized by human dignity, encompassing various aspects such as wages and salaries, fixed-term employment agreements (contractual systems), employment termination (PHK), severance pay, working hours, permits, among other facets. This commitment aligns with the provisions set forth in Article 28 A through Article 28 J of the 1945 Constitution and is further underscored by Law No. 21/2000:

1. Every individual possesses the right to protect their life and existence.
2. Every person is entitled to enhance their well-being by meeting their fundamental needs, thereby improving their quality of life and contributing to the welfare of humanity.
3. Each individual holds the right to safeguard themselves, their family, reputation, dignity, and property within their authority.
4. Every individual possesses the right to experience a sense of security and protection from the fear of being compelled to act or refrain from acting in a manner inconsistent with their human rights.
5. Every individual has the right to be free from torture or any other treatment that degrades human dignity.
6. Every person has the right to live in physical and spiritual prosperity.
7. Everyone has the right to a good and healthy living environment.
8. Everyone has the right to receive special facilities and treatment to obtain the same opportunities and benefits in order to achieve equality and justice.
9. Every person is free to choose a job.
10. Everyone has the right to freedom of association (Article 28E paragraph 3 of the 1945 Constitution; Article 1 paragraph 1 of Law 21/2000; and article 4 of Law 21/2000).
11. Everyone has the right to freedom of assembly (Article 28E paragraph 3 of the 1945 Constitution; and Law No.21,2000)
12. Everyone has the right to freedom of expression.
13. Every person has the right to protect himself, his family, honour, dignity and property under his control.
14. Everyone has the right to a feeling of security and protection from the threat of fear of doing or not doing something which is a human right.
15. Everyone has the right to be free from torture or other treatment that degrades human dignity.
16. Every person has the right to social security that enables his/her full development as a dignified human being.
17. Everyone has the right not to be enslaved.
18. Everyone has the right to be recognized as a person before the law.

Pursuant to Article 28 I, paragraph 4 of the 1945 Constitution, the duty of safeguarding, advancing, enforcing, and fulfilling human rights primarily rests with the state,

particularly the government. In the context of upholding and preserving human rights within the framework of a democratic rule of law, the realization of human rights is assured and governed by statutory provisions, as stipulated in Article 28 I, paragraph 4 of the 1945 Constitution. Article 28 J, paragraph 1 underscores the obligatory nature of showing due regard for the human rights of others in the well-ordered fabric of society, the nation, and the state.

Hence, when exercising their rights and freedoms, individuals are under the legal obligation to adhere to prescribed constraints. This obligation is rooted in the overarching objective of upholding the recognition and reverence for the rights and freedoms of fellow citizens, and to fulfil just requisites in accordance with moral principles, religious values, security considerations, and public order within a democratic society, as outlined in Article 28 J, paragraph 2. Consequently, it follows that every worker, irrespective of their workplace, possesses inherent human rights (Hak Asasi Manusia - HAM) and should be treated with unwavering dignity, respect, equity, and compassion.

As per the United Nations [75], the main terms and definitions for dignity, justice, inhuman or degrading treatment, harassment, and discrimination are outlined as follows:

1. **Dignity:** Workers have the right to be treated ethically, with respect, and to be protected from intimidation, harassment, or any form of excessively harsh or degrading disciplinary actions. Their right to privacy should also be respected.
2. **Fairness:** Promoting workplace policies, processes, and forums that foster equality and fairness in employment is crucial to ensure equal opportunities without discrimination.
3. **Inhuman or Degrading Treatment:** Treating workers as subhuman, leading to physical or mental suffering, fear, and humiliation, is strictly prohibited.
4. **Harassment:** Harassment can manifest in various settings such as the workplace, accommodations, or transportation. It encompasses a wide spectrum of unacceptable behaviours and practices, including threats, whether occurring once or repeatedly. The purpose is to cause, result in, or have the potential to result in physical, psychological, sexual, or economic harm. This definition also encompasses gender-based violence and harassment.
5. **Discrimination:** All employees are to be treated with respect and fairness, and they must be free from all forms of discrimination, regardless of their location. This includes protection against discrimination based on nationality, gender, ethnicity, social and legal status, race, religion, or any other protected status.

With reference to the preceding discussions, it is anticipated that the government will harness the potential of Information and Communication Technology (ICT) to the fullest extent, facilitating broader public access to employment-related information both domestically and abroad. Additionally, there is a pressing need for the reform of laws and regulations governing employment, as delineated in Articles 28 A to Article 28 J of the 1945 Constitution. This necessitates the formulation of a comprehensive legal framework by the Indonesian government, as underscored in Hamid [76]. This strategic and policy initiative assumes paramount importance in the government's endeavours to fortify Indonesian labour law within the context of the fourth industrial revolution.

5. Conclusions and recommendations

In the present era, global society must swiftly acclimate to novel methods of production and commerce. The business sphere can no longer remain detached from the interconnected electronic information networks that bind various institutions and organizations. Consequently, it is imperative for Indonesian labour law to exhibit adaptability. In the backdrop of the fourth industrial revolution, characterized by a paradigm shift in the production process, the ascendancy of ICT holds the potential to streamline costs and enhance productivity across the production spectrum. This transformation is accomplished by the amalgamation of cutting-edge technologies, including AI, machine learning, the IoT, and robotics.

Hence, it is imperative that Indonesian labour law demonstrates its capacity to effectively respond to these multifaceted transformations, guided by the principles of justice as enshrined in Paragraph IV of the Preamble to the 1945 Constitution. This imperative assumes heightened significance in light of the recent enactment of Indonesian labour law, specifically the Job Creation Law No. 6/2023. There is a notable lacuna in its provisions concerning industrial relations for non-conventional categories of labour, notably those engaged in remote work (telework) during the era of the fourth industrial revolution. Addressing this critical agenda, it is incumbent upon the government and legislature to undertake comprehensive reforms to Indonesian labour law, particularly in view of the substantial demographic of informal workers in Indonesia, which currently stands at approximately 83.34 million individuals, representing 60.12% of the total labour force as of February 2023.

State of the Art

This study conducts a comprehensive examination and critical analysis of Indonesian labour law in the context of the fourth industrial revolution. The anticipated outcome of this research is to offer insights that can guide the government and legislature in formulating regulations and legislation pertaining to Indonesian labour law in the era of the fourth industrial revolution, aligning them with the principles enshrined in the constitution.

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Conflicts of Interest

The authors of this article declare that they do not have any conflicts of interest, whether financial or otherwise, in relation to the publication of this article.

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