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The Impact of Artificial Intelligence On The Determination of Wages in Employment Agreements

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Abstract

The development of artificial intelligence technology has brought significant changes in various sectors of life, including in the field of employment. The application of artificial intelligence in the world of work not only affects the production process and work efficiency but also has an impact on the mechanism for determining wages in labor agreements between workers and employers. This study aims to analyze the impact of the use of artificial intelligence on the determination of wages in employment agreements and review its implications from the perspective of labor law in Indonesia. The research method used is normative legal research with legislation approach and conceptual approach. Data sources used in the form of primary, secondary and tertiary legal materials that are analyzed qualitatively. The results showed that the use of artificial intelligence can affect the structure and wage system, among others, through job automation, changes in labor skill needs and the application of algorithm-based management systems in assessing worker performance. These conditions have the potential to cause inequality in the determination of wages if not balanced with adequate regulation. Therefore, adaptive legal arrangements are needed to ensure the protection of workers' rights, especially in the aspect of wages, in order to remain in line with the principles of justice and legal certainty in labor agreements.

Keywords: Artificial intelligence, Employment, Employment agreement, Wages.

INTRODUCTION

The development of digital technology in the era of globalization has brought fundamental changes in various aspects of human life, including in the field of employment. One of the most influential technological innovations is artificial intelligence, which is now widely used in production processes, Human Resource Management and decision making in labor relations. The presence of artificial intelligence not only increases efficiency and productivity, but also significantly changes the structure and pattern of relationships between workers and employers (Klaus Schwab, 2016, p. 7).

In the context of employment, the use of artificial intelligence has encouraged the automation of jobs previously performed by humans. This has an impact on reducing the need for labor in certain sectors, while increasing the demand for labor that has high digital skills and technical capabilities (Richard Baldwin, 2019, P. 45). These changes directly affect the mechanisms of the labor market, including in terms of determining wages, which is one of the essential elements in labor agreements.

Wages as a normative right of workers have a very important position in labor law in Indonesia. Based on the provisions of the legislation, wages are not only seen as a reward for work, but also as a means to ensure a decent life for workers and their families (Lalu Husni, 2016, p. 102). Therefore, the determination of wages must be carried out fairly, transparently and in accordance with the principles of applicable law.

Nevertheless, the development of artificial intelligence technology has presented new challenges in the wage system. The use of algorithms in assessing the performance of

workers, for example, has the potential to cause injustice if it is not clearly regulated. Artificial intelligence-based systems can determine the level of productivity, efficiency and even the feasibility of workers' wages based on certain data and calculations that do not necessarily consider humanitarian aspects as a whole (Jeremias Prassl, 2018, P. 89). This raises concerns about dehumanization in labor relations as well as inequality in wage determination.

On the other hand, labor regulations in Indonesia still do not specifically regulate the use of artificial intelligence in labor relations, especially related to wage determination mechanisms. Although Law No. 13 of 2003 on manpower as amended through Law No. 6 of 2023 on the establishment of job creation regulation into law has regulated wages, these provisions have not been fully able to answer the challenges posed by digitization and automation (Adrian Sutedi, 2020, P. 134).

This condition shows the gap between technological development and existing legal regulations. If not immediately anticipated, the use of artificial intelligence in wage determination has the potential to cause legal uncertainty and weaken the protection of workers' rights. Therefore, a comprehensive legal study is needed to analyze the impact of the use of artificial intelligence on the determination of wages in labor agreements, as well as formulate the concept of adaptive and responsive legal arrangements to technological developments.

Based on the description, this study is important to do in order to contribute ideas in the development of labor law in Indonesia, especially in ensuring justice and legal certainty in determining wages in the digital era.

FORMULATION OF THE PROBLEM

Based on the background described above, the problem is formulated as follows:

1. How does the use of artificial intelligence affect the mechanism for determining wages in employment agreements?
2. How is the regulation of labor law in Indonesia in accommodating the use of artificial intelligence in the wage system?

DISCUSSION OF THE PROBLEM

1. The influence of the use of artificial intelligence on the mechanism of determining wages in labor agreements.

The development of artificial intelligence has brought about fundamental changes in the mechanisms of industrial relations, in particular in the determination of wages in labor agreements. In practice, artificial intelligence not only serves as a production aid, but has also developed into a managerial instrument capable of influencing decision making related to workforce management, including in terms of performance evaluation and determining the level of wages of workers (Klaus Schwab, 2016, p. 54).

One of the forms of influence of artificial intelligence on the mechanism of determining wages is through the automation of work. Automation allows companies to replace routine and repetitive work with machine or algorithm-based systems. This condition causes a shift in the structure of the workforce, where workers with low skills tend to experience a decrease in bargaining power in wage negotiations. (Richard Baldwin, 2019, P. 63). In contrast, highly skilled workers, especially those capable of operating or developing artificial intelligence technology, actually experience an increase in economic value which has an impact on rising wage levels.

In addition, the use of artificial intelligence also encourages the emergence of algorithm-based performance assessment systems. In this system, worker performance is

measured in real time through data collected by digital devices, such as work productivity, task completion time and efficiency levels (Jeremias Prassl, 2018, P. 102). The results of the data analysis are then used as a basis in determining the number of wages or incentives received by workers.

Although the system offers efficiency and objectivity, there is the potential for significant legal problems. Algorithms used in artificial intelligence systems are often “black box” or non-transparent, making them difficult for workers to understand (Frank Pasquale, 2015, p. 18). This can lead to unfairness in the determination of wages if the parameters used are not known or cannot be tested openly. In the legal context of an employment agreement, this condition contradicts the principles of openness and fairness that are supposed to be fundamental in employment relationships.

Furthermore, the use of artificial intelligence in wage determination also implies a shift in the negotiation mechanism in labor agreements. Traditionally, the determination of wages is carried out through a negotiation process between workers and employers or through mechanisms provided for in collective bargaining agreements. However, with the advent of artificial intelligence, wage related decisions tend to become more centralized in systems controlled by companies, reducing the space for workers to participate in the determination process (Valerio De Stefano, 2019, P. 20).

In the perspective of Indonesian labor law, wages are a normative right of workers that must be protected by the state. The regulation on wages has been regulated in Law Number 13 of 2003 concerning manpower as amended by Law Number 6 of 2023. However, the regulation has not explicitly regulated the use of artificial intelligence technology in wage determination mechanisms (Adrian Sutedi, 2020, P. 145). As a result, there is a lack of norms that can be used by employers to implement technology-based wage systems without adequate supervision.

On the other hand, the use of artificial intelligence also has the potential to create indirect discrimination in wage determination. This can happen if the algorithm used contains bias based on historical data that is not neutral, resulting in decisions that harm certain groups (Cathy O’neil, 2016, p. 56). In this context, it is important to ensure that artificial intelligence systems used in employment relationships meet the principles of non-discrimination and social justice as mandated in labor law.

The use of artificial intelligence has a significant influence on the mechanism for determining wages in labor agreements, both in terms of efficiency and the potential risk of injustice. Therefore, more adaptive and comprehensive legal arrangements are needed to anticipate the negative impacts of the use of artificial intelligence while ensuring that the protection of workers' rights remains guaranteed in the digital age.

2. Regulation of labor law in Indonesia in accommodating the use of artificial intelligence in the wage system.

The regulation of labor law in Indonesia basically aims to provide protection to workers' rights while ensuring legal certainty in labor relations. One of the important aspects in the employment relationship is remuneration, which is normatively regulated in various laws and regulations, especially in Law No. 13 of 2003 on employment which has undergone changes through Law No. 6 of 2023 on the establishment of the work copyright regulation into law (Adrian Sutedi, 2020, P. 23).

In the framework of positive law, wages are defined as the rights of workers received and expressed in terms of money in return from the employer for a job (Lalu Husni, 2016, p. 95). This arrangement affirms that the state has a role in ensuring that the determination of wages is carried out fairly and meets a decent standard of living for

workers. In addition, the government also establishes wage policies that include minimum wages, wage structure and scale and wage protection (Lalu Husni, 2016, p. 110).

Nevertheless, the regulation is still drawn up in the context of conventional labor relations, which have not yet fully taken into account the development of digital technologies, in particular, the use of artificial intelligence in labor management systems. In practice, the application of artificial intelligence in wages is often done through digital systems that integrate worker performance data as a basis for determining wages or incentives (Jeremias Prassl, 2018, P. 120).

One of the relevant regulations in this context is Government Regulation Number 36 of 2021 concerning wages which regulates wage policies more technically, including regarding the structure and scale of wages based on position, length of Service and worker competence (Adrian Sutedi, 2020, P. 156). However, this regulation does not explicitly regulate the use of algorithms or artificial intelligence systems in determining these components.

The absence of special regulations regarding the use of artificial intelligence in the wage system indicates the emptiness of legal norms. This condition has the potential to cause various problems, such as the lack of clarity in performance appraisal standards, lack of transparency in wage calculations, and the potential for discrimination due to algorithmic bias (Cathy O'neil, 2016, p. 78). In a legal perspective, this can contradict the principles of justice and non-discrimination on which labor protection is based.

Furthermore, in Indonesian labor law, the principle of protection of workers is known as a weak party in labor relations (Asri Wijayanti, 2009, p. 45). This principle requires the state to be present in providing regulations that are able to balance the bargaining position between workers and employers. In the context of the use of artificial intelligence, the principle is becoming increasingly important given the information gap between workers and companies regarding how the algorithms used in determining wages work.

In addition, aspects of transparency and accountability in the use of technology is also an important issue. In artificial intelligence-based systems, the resulting decisions are often difficult to explain, so workers do not have adequate access to understand the basis for determining their wages (Frank Pasquale, 2015, p. 33). This potentially violates the right of workers to obtain clear and fair information in the employment relationship.

On the other hand, Indonesia actually already has several regulations related to the use of information technology, such as Law Number 27 of 2022 concerning Personal Data Protection. This regulation provides a legal basis regarding the management of personal data, which is also relevant in the use of artificial intelligence because the system relies on the processing of workers data (Shidarta, 2021, P. 210). However, the regulation is still general and has not specifically regulated its implications in the context of employment and remuneration.

Thus, it can be concluded that the current labor law regulation in Indonesia is not fully able to accommodate the use of artificial intelligence in the wage system. Therefore, adaptive legal reform is needed by incorporating new norms governing the use of artificial intelligence, such as algorithm transparency obligations, supervision of potential discrimination, as well as legal protection mechanisms for workers. This step is important to ensure that the use of technology remains in line with the principles of social justice and legal certainty in employment relations.

Conclusion

1. The use of artificial intelligence in the world of employment has had a significant influence on the mechanism for determining wages in labor agreements. Artificial intelligence is enabling job automation, which is impacting changes in the structure of the workforce, particularly with a declining demand for low skilled labor and an increasing need for high skilled labor. This condition directly affects the wage disparity among workers. In addition, the application of an algorithm-based management system in assessing worker performance makes the wage determination process more data based and efficient. However, the system also raises concerns about transparency, fairness and potential algorithmic bias that could harm workers. In practice, wage determination mechanisms have become less participatory due to the dominance of employer-controlled systems.
2. The regulation of labor law in Indonesia has basically provided a normative Foundation related to the wage system through various laws and regulations. However, the existing regulations are still oriented to the pattern of conventional labor relations and have not specifically accommodated the development of artificial intelligence technology in the mechanism of determining wages. The use of artificial intelligence in the wage system presents new challenges, especially related to aspects of transparency, accountability and potential discrimination due to the use of algorithms. The absence of specific arrangements on this subject creates a vacuum of norms that could potentially weaken legal protection for workers. In addition, the existence of information gaps between workers and employers in understanding artificial intelligence-based systems reinforce the dominant position of companies in determining wages, potentially reducing the principles of justice and balance in labor relations. Therefore, labor law in Indonesia needs to adapt to technological developments in order to remain relevant and be able to provide optimal protection for workers.

Advice

1. It is necessary to implement artificial intelligence systems ethically and responsibly, ensuring the disclosure of information regarding performance appraisal parameters and wage determination. In addition, companies need to keep involving employees in the decision-making process in order to maintain balance in the employment relationship.
2. It is necessary to update the labor regulation by including special provisions on the use of artificial intelligence in labor relations, in particular in the wage system. The regulation should include the principle of transparency of algorithms, supervision of potential bias, as well as legal protection mechanisms for workers and the necessary formulation of legal norms that are more progressive and adaptive to technological developments, including regulation on the right of workers to know the basis for determining wages based on artificial intelligence systems.

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