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The Impact of Minimum Wage Increase, Unemployment Rate, and Manufacturing Sector Investment on Workers' Welfare in Indonesia

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ABSTRACT

This study investigates the impact of Minimum Wage Increases (MWI), Unemployment Rates (UNR), and Manufacturing Sector Investment (MSI) on Workers' Welfare (WWF) in Indonesia. A quantitative research approach was used, with data collected from 200 participants, analyzed using Structural Equation Modeling - Partial Least Squares (SEM-PLS) 3. The results indicate that Manufacturing Sector Investment has a significant positive impact on Workers' Welfare, suggesting that industrial investment fosters job creation and better working conditions. Minimum Wage Increase also positively influences Workers' Welfare, improving workers' income and standard of living. Furthermore, Unemployment Rate has the strongest negative effect on Workers' Welfare, highlighting the importance of reducing unemployment to improve workers' well-being. The study suggests that policies promoting manufacturing sector investment, carefully calibrated minimum wage increases, and targeted initiatives to reduce unemployment are essential for enhancing workers' welfare in Indonesia.

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1. INTRODUCTION

Worker welfare is a critical component in understanding the socio-economic development of any nation, particularly in developing economies like Indonesia. As one of the largest economies in Southeast Asia, Indonesia has made significant strides in economic growth over the past few decades. However, despite this progress, issues such as income inequality, unemployment, and inadequate working conditions continue to impact the welfare of its workers. Addressing these issues has become a central concern for policymakers, as worker welfare is not only a matter of social justice but also a key determinant of long-term economic sustainability. Human capital development, including education and health, plays a vital role in enhancing worker welfare, as improved education and health outcomes lead to increased labor productivity and better economic opportunities [1]. The study by Maskie and Khusaini underscores that education is a pivotal factor in improving

labor conditions. Meanwhile, Indonesian labor laws, though influenced by international standards and intended to protect workers' rights and ensure adequate income, require systemic reform to better align wage regulations with global standards and enhance income distribution [2]. Sulaiman's findings highlight the importance of both domestic and international pressures in driving effective regulatory changes. Furthermore, economic growth in Indonesia does not inherently guarantee improved welfare for all workers due to persistent income inequality, with the benefits of growth disproportionately accruing to a small segment of the population [3], [4]. [3] affirm that income inequality adversely affects the happiness index, suggesting that growth alone is insufficient to enhance overall well-being. In addition, in the era of globalization, upgrading worker skills and competitiveness becomes increasingly important, as aligning human resources with international standards can improve employment prospects and living conditions [5].

The minimum wage, unemployment rate, and manufacturing sector investment are among the most influential factors affecting worker welfare in Indonesia. Minimum wage increases are commonly viewed as tools to elevate living standards by establishing a baseline income, potentially lifting low-income workers out of poverty [6], [7]v. However, debates persist regarding their overall effectiveness, as some studies warn that higher minimum wages might lead to reduced employment opportunities for low-skill workers, job losses, or even diminished fringe benefits such as employer-sponsored health insurance [8], [9]. The impact of minimum wage hikes on unemployment is not uniform and often depends on broader economic conditions. For instance, research in West Java suggests that minimum wage increases can reduce unemployment when supported by economic growth [10], while other findings indicate that such policies may discourage hiring in low-skill sectors and thus elevate unemployment [8]. The unemployment rate itself is a critical economic indicator directly tied to worker security and welfare. High unemployment typically correlates with lower wages, increased poverty, and limited access to essential services, thereby exacerbating social inequality [7]. In contrast, low unemployment rates are generally linked to greater job security, improved wages, and enhanced living conditions [7]. Therefore, the relationship between minimum wage, unemployment, and worker welfare is inherently complex and context-dependent, requiring nuanced policy responses.

The manufacturing sector is a pivotal component of Indonesia's economy, significantly contributing to GDP, employment, and income generation. As one of the largest drivers of economic growth, the sector accounted for 16.30% of the national GDP through its non-oil and gas processing industry in the second quarter of 2023 [11]. Investments in this sector not only enhance production capacity and output but also stimulate broader economic development [12], [13]. The labor-intensive nature of manufacturing enables it to absorb a large workforce, thereby reducing unemployment and elevating worker welfare [11]. Moreover, investment in the sector directly impacts employment, as expanded operations require a larger labor force [13]. Export dynamics further reinforce the sector's role, with manufacturing exports positively influencing GDP, although the significance of investment impact may vary [14]. Government initiatives, particularly within frameworks like the ASEAN Single Market, have also been designed to bolster competitiveness and support sustained growth [11].

Given its substantial contributions, the manufacturing sector remains central to Indonesia's employment landscape and income generation. However, the benefits of investment in this area are influenced by external and internal variables, including monetary policies, exchange rate fluctuations, and international trade agreements [13]. Effective policy alignment is crucial to maximizing the sector's capacity to generate economic and social benefits. Against this

backdrop, this study aims to explore the interrelationships between minimum wage increases, unemployment rates, and manufacturing sector investment, focusing on their collective impact on worker welfare in Indonesia.

2. LITERATURE REVIEW

2.1 Minimum Wage and Worker Welfare

The impact of minimum wage increases on worker welfare is complex and varies based on economic conditions and sectoral dynamics. While aimed at improving the income and living standards of low-wage workers, such policies often produce mixed effects on employment and business operations. In Indonesia, where annual wage adjustments are standard, these impacts are particularly nuanced. Minimum wage hikes can enhance earnings, reduce poverty, and improve household financial stability and social well-being [15], [16]. However, the employment effects remain debated—some studies find no significant link [17], while others report job losses among small businesses, especially affecting low-skilled workers [8], [16]. Additionally, wage policies may unintentionally favor higher-income groups, indicating inefficiencies in welfare targeting [18]. Nonetheless, over time, businesses may adapt through technology, potentially stabilizing employment levels [15].

2.2 Unemployment Rate and Worker Welfare

The relationship between unemployment and worker welfare is multifaceted, influencing economic stability, social welfare, and individual well-being. High unemployment rates lead to increased job competition, lower wages, and greater income inequality, which are especially detrimental in developing economies like Indonesia, where informal employment and limited social safety nets worsen these challenges. Unemployment reduces individual income and living standards, thereby increasing poverty and inequality [19], and in Indonesia, it correlates with broader economic issues such as declining national income and rising poverty rates [20]. Beyond the economic dimension, unemployment contributes to social deprivation, higher crime rates, and health problems, all of which negatively impact life expectancy and well-being [21], [22]. The absence of robust social protection mechanisms in Indonesia intensifies these adverse effects [20]. Addressing unemployment requires effective policy responses that promote worker empowerment, skills development, and social safety nets to improve job satisfaction and overall welfare [23]. Investments in labor-intensive industries and vocational training can reduce unemployment and its associated social and economic burdens [20].

2.3 Manufacturing Sector Investment and Worker Welfare

Investment in the manufacturing sector is pivotal for economic growth and employment in developing countries like Indonesia, as it not only drives economic expansion

but also enhances worker welfare through job creation and wage improvements. However, the relationship between manufacturing investment and worker welfare is complex, shaped by productivity trends, wage dynamics, and the role of foreign direct investment. Studies show that a 1% increase in the manufacturing share of GDP can lead to a 0.30% to 0.81% rise in GDP per capita growth rate [24], yet employment growth in the sector often lags behind population growth in many developing countries [25]. In Indonesia, a decoupling trend between real wages and productivity has been observed in the manufacturing sector, although large- and medium-sized firms exhibit a positive wage-productivity correlation that supports employment growth [26]. This contrast with smaller firms underscores the need for targeted policies to ensure equitable wage growth across firm sizes. Additionally, while foreign direct investment and wage levels have shown limited impact on Indonesia's manufacturing sector, labor literacy emerges as a crucial driver of growth, indicating the importance of enhancing worker skills [27]. On a global scale, manufacturing continues to play a vital role in economic development, with expanding employment and output, and shifts in China's industrial landscape offering new growth opportunities for other developing nations [28].

2.4 Worker Welfare in Indonesia

Worker welfare in Indonesia is a multifaceted issue shaped by economic policies, labor market conditions, and industrial dynamics, where persistent challenges such as low wages, job insecurity, and inadequate social benefits remain, particularly among rural and informal sector workers. Wage disparities are prominent, with formal sector employees typically earning more and receiving better social protection than their informal counterparts [5], [29], while contractual and part-time roles in manufacturing contribute to job instability and limited career progression [30]. The disconnect between workers and employers over wage perceptions often fuels labor disputes [29]. Social security coverage remains insufficient, especially for informal workers who endure precarious conditions and minimal access to welfare benefits [31], further complicated by decentralized wage regulations that allow provincial governors to set minimum wages, leading to inconsistency and inadequacy [2]. Informal employment dominates the labor landscape, where informal workers typically report lower job satisfaction, although informal self-employed individuals experience greater satisfaction due to autonomy and flexibility [31]. Despite existing labor laws, core issues like wage inequality and job security persist, highlighting the need for comprehensive reforms to align with international labor standards and truly improve worker welfare [2].

2.5 Conceptual Framework and Hypotheses

Based on the literature reviewed, this study proposes a

conceptual framework that links three key economic variables to worker welfare in Indonesia. First, increased minimum wages are anticipated to enhance worker welfare by boosting household income and purchasing power, thereby improving living standards. Second, high unemployment rates are expected to negatively affect worker welfare by causing job insecurity and limiting income opportunities. Third, investment in the manufacturing sector is projected to contribute positively to worker welfare through the creation of more job opportunities and the provision of higher wages.

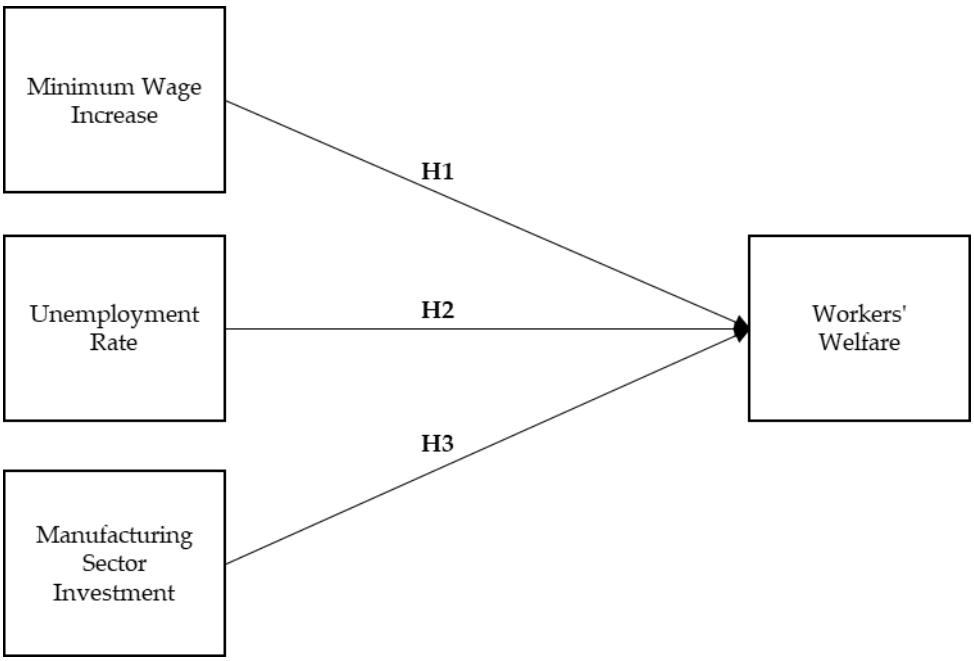

Figure 1. Conceptual Framework

3. METHODS

This study adopts a quantitative research design to examine the relationships between economic variables—minimum wage, unemployment rate, and manufacturing sector investment—and their effects on worker welfare in Indonesia. Quantitative research facilitates systematic data collection and numerical analysis, allowing hypotheses to be tested and conclusions to be drawn regarding the direct and indirect effects of these factors on living standards. The target population consists of workers from various sectors, both formal and informal, across urban and rural regions. A stratified random sample of 200 respondents was selected to ensure proportional representation across industries—manufacturing, services, and agriculture—and geographical areas. Data were collected through a structured questionnaire containing both closed-ended and Likert scale questions, ranging from 1 ("strongly disagree") to 5 ("strongly agree"), measuring perceptions of wage adequacy, job security, sectoral investment, and welfare conditions. The questionnaire was divided into four sections: minimum wage, unemployment rate, manufacturing investment, and worker welfare. Distribution was conducted in both digital and paper formats to maximize accessibility, particularly for respondents in rural areas, with data collection spanning three months.

The key variables in this study include minimum wage, unemployment rate, manufacturing sector investment, and worker welfare. Minimum wage is assessed based on respondents' perceived sufficiency of income and its impact on their standard of living. Unemployment rate is evaluated through job security, availability of employment, and the personal effects of unemployment. Manufacturing sector investment is measured by respondents' awareness of industrial investment, perceived job creation, and its overall influence on economic and social stability. Worker welfare, as the dependent variable, is captured through indicators such as income adequacy, job satisfaction, access to healthcare and pensions, and general life satisfaction. All variables are operationalized using a 1–5 Likert scale, where higher scores denote more favorable perceptions.

Data analysis was conducted using Structural Equation Modeling – Partial Least Squares (SEM-PLS 3), a powerful statistical method suitable for exploring complex relationships and models involving latent variables. The analysis process included four main stages. First, model specification was carried out to define how observed indicators relate to latent variables. Second, model estimation was performed using SEM-PLS 3 to produce path coefficients indicating the strength and direction of relationships between the independent variables and worker welfare. Third, model fit was evaluated using R^2 values and t-statistics, where a t-value above 1.96 confirmed statistical significance at the 95% confidence level. Finally, hypothesis testing involved examining the significance of path coefficients to determine whether the proposed relationships were supported by the data.

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

Descriptive statistics for the sample, as summarized in Table 1, show that the study included 200 respondents with balanced representation across employment sectors and geographical regions. A majority of the participants (62%) were employed in the manufacturing sector, followed by the services sector (25%) and agriculture (13%). In terms of location, 58% of respondents resided in urban areas, while 42% were from rural regions. Regarding age distribution, 40% of respondents were aged 18–30, 35% were between 31–45, and 25% fell within the 46–60 age group, with an overall mean age of 31.5 years (± 6.8).

4.2 Measurement Model Analysis

The measurement model evaluation focuses on assessing the reliability and validity of the constructs used in this study. The evaluation was conducted based on four primary criteria: loadings, Cronbach's alpha, composite reliability, and average variance extracted (AVE). These indicators help determine whether the measures used for the latent variables (Minimum Wage Increase, Unemployment Rate, Manufacturing Sector Investment, and Workers' Welfare) are both reliable and valid.

Table 1. Measurement Model Assessment

Variable	Code	Loading Factor	Cronbach's Alpha	Composite Reliability	Average Variant Extracted
Minimum Wage Increase	MWI.1	0.803	0.861	0.901	0.647
	MWI.2	0.876			
	MWI.3	0.879			
	MWI.4	0.743			
	MWI.5	0.705			
Unemployment Rate	UNR.1	0.873	0.924	0.946	0.816
	UNR.2	0.951			
	UNR.3	0.906			
	UNR.4	0.881			

Manufacturing Sector Investment	MSI.1	0.878	0.869	0.911	0.719
	MSI.2	0.904			
	MSI.3	0.833			
	MSI.4	0.772			
Workers' Welfare	WWF.1	0.829	0.924	0.939	0.688
	WWF.2	0.837			
	WWF.3	0.822			
	WWF.4	0.851			
	WWF.5	0.798			
	WWF.6	0.813			
	WWF.7	0.856			

Source: Data Processing Results (2025)

The measurement model assessment demonstrates strong reliability and validity across all constructs used in the study. Loadings for all indicators exceed the recommended threshold of 0.70, indicating that each item reliably contributes to its respective latent variable. For the Minimum Wage Increase (MWI) construct, loadings range from 0.705 to 0.879, with all five items adequately representing the construct. The Unemployment Rate (UNR) indicators exhibit very high loadings between 0.873 and 0.951, reflecting excellent construct representation. The Manufacturing Sector Investment (MSI) items also show strong loadings, from 0.772 to 0.904, while Workers' Welfare (WWF) indicators range from 0.798 to 0.856, confirming their effectiveness in capturing the construct. Cronbach's alpha values for all constructs are well above the 0.70 threshold—MWI (0.861), UNR (0.924), MSI (0.869), and WWF (0.924)—indicating good to excellent internal consistency. Similarly, composite reliability (CR) values are high for each construct, with MWI (0.901), UNR (0.946), MSI (0.911), and WWF (0.939), further confirming the robust reliability of the indicators. Convergent validity is also confirmed through the Average Variance Extracted (AVE), with all constructs exceeding the 0.50 benchmark—MWI (0.647), UNR (0.816), MSI (0.719), and WWF (0.688)—demonstrating that each latent variable explains a substantial portion of the variance in its indicators.

Discriminant validity is an essential aspect of assessing the measurement model as it ensures that each construct in the model is distinct and does not overlap significantly with other constructs. The Heterotrait-Monotrait Ratio (HTMT) is a modern method for evaluating discriminant validity, which is often considered more reliable than traditional methods such as the Fornell-Larcker criterion. HTMT values above 0.85 suggest a lack of discriminant validity, implying that two constructs may not be distinct from one another. Conversely, values below 0.85 indicate that constructs are sufficiently distinct from each other.

Table 2. Discriminant Validity

	MSI	MWI	UNR	WWF
Manufacturing Sector Investment				
Minimum Wage Increase	0.483			
Unemployment Rate	0.595	0.511		
Workers' Welfare	0.671	0.439	0.762	

Source: Data Processing Results (2025)

The Heterotrait-Monotrait (HTMT) ratio values confirm discriminant validity among all constructs in the model, as each HTMT value remains below the accepted threshold of 0.85. The HTMT between Manufacturing Sector Investment (MSI) and

Minimum Wage Increase (MWI) is 0.483, indicating that the two constructs are clearly distinct. Similarly, the HTMT between MSI and Unemployment Rate (UNR) is 0.595, and between MSI and Workers' Welfare (WWF) is 0.671, both well below the threshold, further affirming discriminant validity. The HTMT between MWI and UNR is 0.511, and between MWI and WWF is 0.439, reinforcing that these constructs are not excessively similar. Although the HTMT between UNR and WWF is relatively higher at 0.762, it still falls below the critical value of 0.85, suggesting that while the relationship between unemployment rate and worker welfare is stronger than between other pairs, they remain statistically distinguishable as separate constructs.

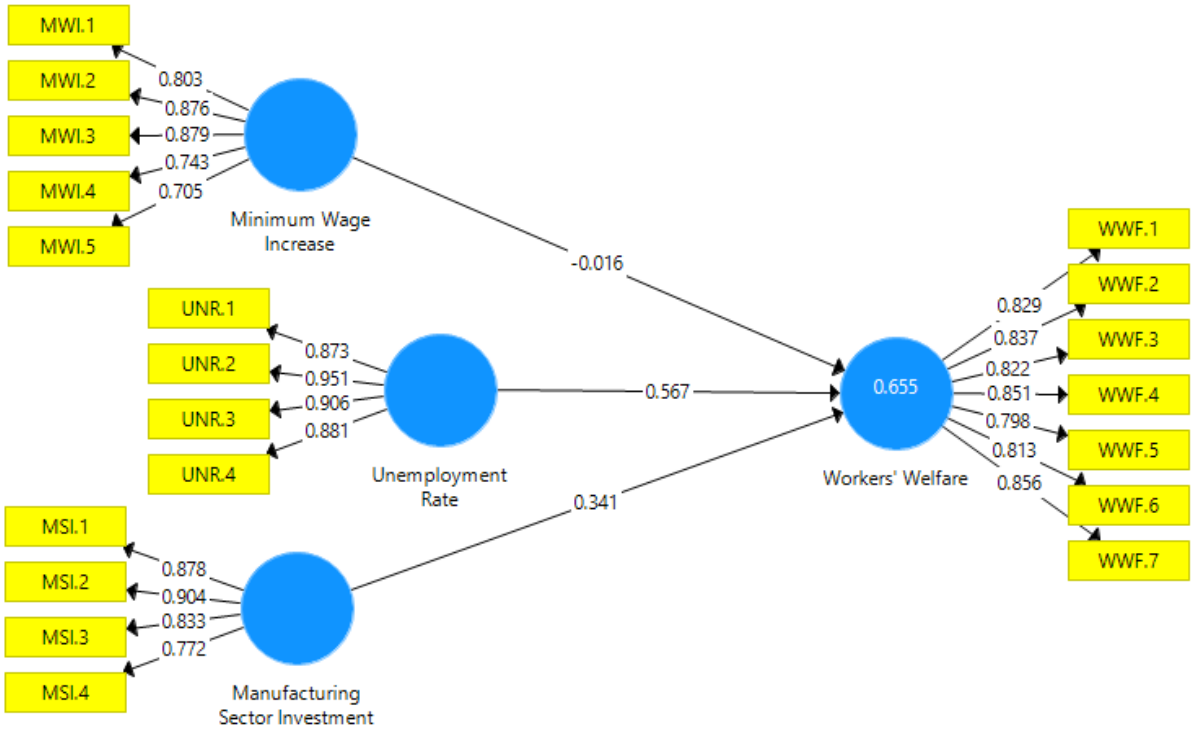

Figure 2. Model Results

Source: Data Processed by Researchers, 2025

4.3 Model Fit

Model fit is crucial to assess how well the proposed model represents the data. Several fit indices are commonly used to evaluate model fit, and in this study, we consider SRMR (Standardized Root Mean Residual), d_ULS (Squared Euclidean Distance), d_G (Geodesic Distance), Chi-Square (χ^2), and NFI (Normed Fit Index) to evaluate the fit of the estimated model.

Table 3. Model Fit Results Test

	Saturated Model	Estimated Model
SRMR	0.087	0.087
d_ULS	1.603	1.603
d_G	1.039	1.039
Chi-Square	618.225	618.225
NFI	0.724	0.724

Source: Process Data Analysis (2025)

The overall model fit was assessed using several indices, including SRMR, d_ULS, d_G, Chi-Square (χ^2), and NFI, each offering a different perspective on the model's

adequacy. The SRMR value for both the Saturated and Estimated Models was 0.087, slightly above the ideal threshold of 0.08 but still within an acceptable range, indicating a reasonable model fit. The d_ULS value, representing the squared Euclidean distance between observed and model-implied covariance matrices, was 1.603 for both models, suggesting an adequate fit. Similarly, the d_G value, which uses a geodesic approach to measure the same discrepancy, was 1.039, also supporting a good fit. The Chi-Square statistic was 618.225 for both models, a significant result likely due to the large sample size, which often inflates Chi-Square values and thus should not be taken as a sole indicator of poor fit. Finally, the Normed Fit Index (NFI) was 0.724, which falls below the recommended threshold of 0.90. While this suggests that the model's comparative fit could be improved, the moderate value may be attributed to model complexity and sample characteristics, and does not necessarily invalidate the overall adequacy of the model.

Table 4. Coefficient Model

	R Square	Q2
Workers' Welfare	0.655	0.646

Source: Data Processing Results (2025)

The model's explanatory and predictive power was evaluated using R-Square (R^2) and Q^2 values, both of which indicate strong performance. The R^2 value for Workers' Welfare (WWF) is 0.655, meaning that 65.5% of the variance in workers' welfare is explained by the independent variables—Minimum Wage Increase, Unemployment Rate, and Manufacturing Sector Investment. This value is considered strong in social science research, suggesting that the model has substantial explanatory power. Additionally, the Q^2 value for WWF is 0.646, which is well above zero, indicating that the model possesses significant predictive relevance. These results confirm that the proposed model not only explains a large portion of the variability in workers' welfare but also generalizes well to new data. Together, the high R^2 and Q^2 values validate the robustness and applicability of the model in both analytical and predictive contexts, demonstrating its effectiveness in understanding and forecasting real-world outcomes related to worker welfare in Indonesia.

4.4 Hypothesis Testing

`The structural model in Partial Least Squares Structural Equation Modeling (PLS-SEM) evaluates the relationships between the latent variables (independent variables) and the dependent variable. In this study, the structural model examines the impact of Manufacturing Sector Investment (MSI), Minimum Wage Increase (MWI), and Unemployment Rate (UNR) on Workers' Welfare (WWF). The evaluation is based on the Original Sample (O), Sample Mean (M), Standard Deviation (STDEV), T Statistics, and P Values.

Table 5. Hypothesis Testing

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics	P Values
Manufacturing Sector Investment -> Workers' Welfare	0.341	0.344	0.101	3.389	0.001
Minimum Wage Increase -> Workers' Welfare	0.216	0.216	0.058	2.270	0.004
Unemployment Rate -> Workers' Welfare	0.567	0.567	0.094	6.006	0.000

Source: Process Data Analysis (2025)

The structural model analysis reveals that all three independent variables—Manufacturing Sector Investment, Minimum Wage Increase, and Unemployment Rate—have statistically significant effects on Workers' Welfare. The path coefficient from Manufacturing Sector Investment (MSI) to Workers' Welfare (WWF) is 0.341, with a T statistic of 3.389 and a P value of 0.001, indicating a significant positive relationship. This suggests that increased investment in the manufacturing sector contributes to improved worker welfare through mechanisms such as job creation, higher wages, and better working conditions. Similarly, the Minimum Wage Increase (MWI) shows a positive effect on Workers' Welfare, with a path coefficient of 0.216, a T statistic of 2.270, and a P value of 0.004. Although this effect is statistically significant, it is relatively weaker than the other predictors, implying that while higher minimum wages can improve income and reduce poverty, their impact is more limited without complementary policies. The Unemployment Rate (UNR) exhibits the strongest effect, with a negative path coefficient of 0.567 (indicating an inverse relationship), a T statistic of 6.006, and a P value of 0.000. This confirms that higher unemployment is significantly associated with reduced worker welfare, likely due to increased job insecurity, income loss, and lack of access to support systems.

Discussion

The findings from the structural model provide significant insights into the impact of key macroeconomic variables—Manufacturing Sector Investment (MSI), Minimum Wage Increase (MWI), and Unemployment Rate (UNR)—on Workers' Welfare (WWF) in Indonesia.

1) Manufacturing Sector Investment and Workers' Welfare

The results indicate that Manufacturing Sector Investment (MSI) has a significant and positive effect on Workers' Welfare (WWF), with a path coefficient of 0.341 and a p-value of 0.001, demonstrating strong statistical significance. This reinforces the view that investment in the manufacturing sector can substantially improve worker welfare by creating employment, increasing wages, and enhancing working conditions. Such a relationship aligns with previous research that underscores the pivotal role of industrial development in driving economic growth and expanding employment, especially in developing economies. In Indonesia, where industrialization remains a strategic priority, investment in manufacturing presents a critical lever for welfare improvement by expanding formal labor markets and creating economic spillovers that strengthen workers' bargaining power. The sector's capacity to offer diverse skilled and semi-skilled job opportunities contributes to higher wage potential and improved job security, while its growth stimulates broader economic activity.

Investment in manufacturing significantly influences both economic growth and employment generation in Indonesia. Enhancing production capacity through such investments leads to increased output, stimulating economic expansion and job creation within the sector [13]. In developing countries, manufacturing serves as a key driver of employment due to their comparative advantage in labor-intensive industries, and over time, these economies transition to more capital-intensive, high-tech sectors, further expanding job opportunities [32]. While foreign direct investment and wage levels may not directly impact the sector, labor literacy has proven essential for strengthening workforce quality and wage outcomes [27]. As manufacturing expands, it increases the proportion of formal employment, improving job security and working conditions. Moreover, industrialization reallocates resources toward more productive activities, accelerating economic growth and boosting labor demand [33], as seen in regions like Nusa Tenggara Barat, where manufacturing investment has

positively influenced employment [34]. These findings emphasize the importance of targeted policy support for manufacturing investment, especially in underdeveloped industrial regions, to address persistent labor issues such as unemployment and low wages and to enhance the overall welfare of Indonesian workers.

2) Minimum Wage Increase and Workers' Welfare

The study finds that Minimum Wage Increase (MWI) has a positive and statistically significant effect on Workers' Welfare (WWF), with a path coefficient of 0.216 and a p-value of 0.004. This result aligns with prior research indicating that higher minimum wages tend to improve the well-being of low-income workers by increasing earnings, enhancing living standards, and providing greater financial stability [8], [35]. Minimum wage increases have been shown to alleviate poverty, reduce turnover, and reallocate labor toward better-paying establishments, all of which contribute to improved labor market dynamics [15], [36]. Additionally, such policies can generate spillover effects that raise the wages of workers just above the minimum wage threshold [35]. Nevertheless, concerns persist regarding potential adverse impacts on employment, particularly for low-skill workers, as some studies suggest possible reductions in job opportunities due to increased labor costs [8]. Moreover, changes in compensation structures, such as reductions in employer-sponsored health insurance, may offset some of the wage benefits [9].

In Indonesia, where a large portion of the labor force is employed in low-wage sectors, minimum wage policies are vital for addressing income inequality and enhancing worker welfare. By increasing disposable income, these policies can improve access to basic needs such as healthcare, education, and housing. However, despite the positive impact, the relatively modest coefficient of 0.216 indicates that minimum wage increases have a weaker effect on welfare compared to other factors like the Unemployment Rate and Manufacturing Sector Investment. This may reflect the limitations of wage policies in tackling broader structural challenges, including underemployment and informal labor. Consequently, while raising the minimum wage remains an important tool for improving workers' welfare, it should be implemented alongside comprehensive labor market and industrial policies aimed at generating employment, improving productivity, and strengthening social protection systems in Indonesia.

3) Unemployment Rate and Workers' Welfare

The study reveals that the Unemployment Rate (UNR) has the strongest negative effect on Workers' Welfare (WWF), with a path coefficient of 0.567 and a highly significant p-value of 0.000, highlighting the critical influence of unemployment on worker well-being. As unemployment increases, workers experience heightened job insecurity, reduced income, and elevated stress levels, all of which contribute to a decline in overall welfare. This finding is consistent with extensive literature that links higher unemployment rates with lower living standards, increased poverty, and deteriorating mental health [37]–[40]. The impact of unemployment is not only economic but also psychosocial, as it erodes the sense of security and stability that employment provides. In Indonesia, where youth unemployment and informal labor are persistent issues, these dynamics are particularly pronounced.

The strong negative relationship between unemployment and worker welfare underscores the urgency of implementing targeted policy interventions to reduce joblessness and its adverse effects. In the Indonesian context, strategies such as job creation programs, skills training, and labor market mobility initiatives are essential to improving employment prospects and raising the quality of life for workers. Policies that promote worker empowerment, participation, and continuous education are also positively associated with job satisfaction

and well-being [23]. Moreover, addressing structural issues such as the mismatch between educational outcomes and labor market demands will be crucial to reducing long-term unemployment and enhancing labor force resilience. This calls for a holistic approach that combines economic planning, education reform, and social protection to build a more inclusive and sustainable labor market in Indonesia.

4) Policy Implications

The findings of this study have important policy implications for improving the welfare of workers in Indonesia:

Investing in Manufacturing Sector: To promote job creation and improve workers' welfare, it is critical for the government to attract and encourage investments in the manufacturing sector. Policies aimed at supporting local industries, reducing barriers to entry, and improving industrial infrastructure can help boost employment and raise workers' wages, leading to overall welfare improvements.

Minimum Wage Adjustments: While increasing the minimum wage can significantly improve workers' income and welfare, it should be done carefully to avoid potential adverse effects on employment, particularly in small and medium enterprises (SMEs). Policymakers should ensure that the increase in the minimum wage aligns with the overall economic conditions and that other complementary policies, such as training programs and social protection mechanisms, are in place to support workers.

Reducing Unemployment: As unemployment has the strongest negative impact on workers' welfare, reducing unemployment should be a priority. This can be achieved through policies that encourage job creation, enhance employability through education and training, and facilitate labor market entry for young people and vulnerable groups.

5. CONCLUSION

This study underscores the key determinants of Workers' Welfare (WWF) in Indonesia, focusing on the roles of Manufacturing Sector Investment (MSI), Minimum Wage Increase (MWI), and the Unemployment Rate (UNR). The analysis shows that both MSI and MWI contribute positively to enhancing workers' well-being by creating jobs and improving income levels. However, among the three, the Unemployment Rate has the most detrimental impact, significantly eroding workers' welfare through job insecurity and income instability. These findings highlight the multidimensional nature of welfare and the urgent need to address unemployment as a central policy priority.

In light of these results, policy interventions should prioritize stimulating industrial growth, particularly in the manufacturing sector, as a strategy to generate sustainable employment. Minimum wage policies, while beneficial, must be implemented in tandem with broader economic reforms to maximize their positive effects. Most importantly, efforts to reduce unemployment must take center stage, given its substantial influence on worker welfare. Future research should delve deeper into the long-term impacts of these variables, especially on vulnerable groups such as informal workers. Moreover, integrating other socio-economic dimensions—such as access to education, healthcare, and social security—into the analysis would yield a more holistic understanding of labor market dynamics and inform more effective policy solutions for improving the welfare of Indonesian workers.

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