

## Labor Dynamics: The Influence of District Minimum Wage and Inflation on Employee Turnover in West Java's Manufacturing Sector

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### ABSTRACT

This study examines the effects of district minimum wages and inflation on actual employee turnover in the manufacturing sector of West Java, Indonesia, during the post-pandemic period of 2022–2024. Using a panel data regression approach with fixed effects, the research analyzes data from 27 regencies and cities to assess how economic variables influence labor mobility. The results show that both district minimum wage and inflation significantly affect turnover rates. While higher minimum wages are associated with lower turnover—supporting efficiency wage theory—the positive coefficient for inflation indicates that rising prices erode real income, leading to increased turnover. The simultaneous significance of both variables reflects a complex interaction: wage increases can enhance retention, but their effectiveness is undermined when inflation outpaces nominal gains. This finding aligns with dual labor market theory, suggesting that minimum wage hikes may shift manufacturing jobs closer to the conditions of primary labor markets, though inflation can reverse these gains. The study concludes that to maintain workforce stability, wage policies must consider inflation-adjusted income levels. Policy recommendations include developing inflation-sensitive wage adjustment mechanisms, offering inflation-indexed compensation packages at the firm level, and implementing worker training programs to strengthen resilience to economic shocks. These measures aim to balance wage growth with purchasing power and mitigate the destabilizing effects of labor turnover in the region's manufacturing industry.

**Keywords:** Actual employee turnover, district minimum wages, inflation

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## INTRODUCTION

Labor dynamics in Indonesia over the past five years have demonstrated a level of complexity influenced by various strategic factors, including digital transformation, the impact of the COVID-19 pandemic, and the implementation of national economic recovery policies. The COVID-19 pandemic served as a catalyst for accelerating automation while simultaneously expanding the role of the digital economy, which in turn has caused a structural shift in labor demand—from the informal sector to technology-based and digital service sectors (Kementerian Koordinator Bidang Perekonomian Republik Indonesia, 2022). This transformation has significantly impacted traditional labor-intensive sectors, particularly manufacturing and agriculture, which have seen a decline in their contributions to labor absorption both nationally and in West Java Province.

The period from 2020 to 2024 marks a significant transformation phase in the labor dynamics of West Java's manufacturing sector, characterized by post-pandemic recovery and progressive adaptation to Industry 4.0 automation technologies. Data from Statistics Indonesia shows positive labor force growth in West Java from 25.4 million in February 2020 to 25.9 million in February 2024, accompanied by a decline in the unemployment rate from 7.4% to 6.9% over the same period (BPS, 2024). Increased labor absorption in the manufacturing sector has been driven by the implementation of industrial incentive policies and vocational training programs initiated since 2022, creating a positive momentum for the sector's expansion. However, labor dynamics in manufacturing also exhibit duality, with labor outflows resulting from mass layoffs during the early phase of the pandemic and the migration of workers to the rapidly growing service and digital economy sectors. Data indicates an annual labor migration of approximately 50,000–70,000 people from the manufacturing sector (BPS West Java, 2024). This condition reflects the complexity of the labor transition, which faces the challenge of technological adaptation on one hand, while still demonstrating resilience in post-pandemic economic recovery on the other, as influenced by regional minimum wage adjustments and inflation.

Indonesia's post-pandemic economic recovery has created new complexities in the labor dynamics of the manufacturing sector, particularly in West Java as a national industrial hub. Labor turnover has escalated significantly due to structural pressures from sustained inflation and adjustments to district/city minimum wages (UMK). The 2022–2023 period indicates an increase in turnover at labor-intensive companies following an average UMK increase of 7–8% (Disnakertrans West Java, 2023). Although minimum wage hikes are designed to protect workers' purchasing power amid inflation which reached 5.5% in 2022 (BPS, 2023) they have had counterproductive effects, including workforce reductions in capital-intensive industries facing operational cost pressures. Companies tend to adopt human resource rationalization strategies to maintain operational efficiency, triggering intensified labor turnover beyond normal levels seen in previous years.

The relationship between minimum wage and actual turnover exhibits a non-linear pattern, depending on a company's productivity capacity and labor cost elasticity. A study by Santoso and Rahardjo (2021) found that minimum wage increases above 5% per year significantly raise the probability of turnover, especially in sectors with low profit margins. Inflation exacerbates this effect by increasing the prices of basic necessities, reducing job satisfaction, and raising the intention to change jobs (Wulandari & Purnamasari, 2020). Sectoral data shows that the highest turnover occurs in the textile and garment industries in the Bekasi and Greater Bandung areas, where wage and inflation variables are key determinants of employment continuity.

The influence of minimum wage on labor turnover can be explained through a synthesis of efficiency wage theory and job dissatisfaction theory. Efficiency wage theory posits that higher wages can reduce turnover by increasing worker loyalty and motivation (Shapiro & Stiglitz, 1984). However, under high inflation conditions, real purchasing power declines despite nominal wage increases, weakening the retention effect of wage hikes (Nasution & Simorangkir, 2021). Meanwhile, job dissatisfaction theory

asserts that a mismatch between wage expectations and reality—particularly when inflation exceeds wage growth—can lead to higher turnover (Ghozali & Supartika, 2023). The simultaneous influence of minimum wage and inflation on turnover underscores the importance of adaptive, sector-based wage policy design. A differentiated wage approach based on sectoral productivity is considered more effective than uniform UMK determination, as it takes into account companies' financial capacity and each sector's contribution to the regional Gross Regional Domestic Product (GRDP) (Ministry of Manpower, 2022). In addition, non-wage interventions such as enhanced social security, vocational training programs, and stronger industrial relations are crucial instruments to reduce turnover pressure amid persistent inflation (Bappenas, 2023). The complex interaction between minimum wage policy, inflation, and labor turnover dynamics, as well as their impact on the stability of West Java's manufacturing sector, calls for comprehensive research to analyze causal mechanisms and identify effective mitigation strategies. This study aims to provide policy recommendations that can optimize labor protection while maintaining the regional manufacturing industry's competitiveness in the context of economic recovery.

#### LITERATURE REVIEW, FRAMEWORK AND HYPOTHESIS

The minimum wage is defined by scholars as the lowest legally mandated income standard that must be paid by employers to workers to ensure a decent standard of living. Vitatoe (2021) explains that the minimum wage is influenced by macroeconomic factors such as productivity and the cost of living, which are directly related to inflation. While the primary objective of raising the minimum wage is to protect workers' purchasing power, it can also impose cost-related consequences on employers, particularly in labor-intensive sectors. In the context of Indonesia, increases in the minimum wage do not necessarily enhance workers' welfare if not aligned with the annual rate of inflation. Anake, Manyo, and Ajon (2020) emphasize that minimum wage policies should be accompanied by strict monitoring of their implementation, as in many cases, field execution falls short of expectations due to weak worker bargaining power and a lack of transparency in wage structure determination.

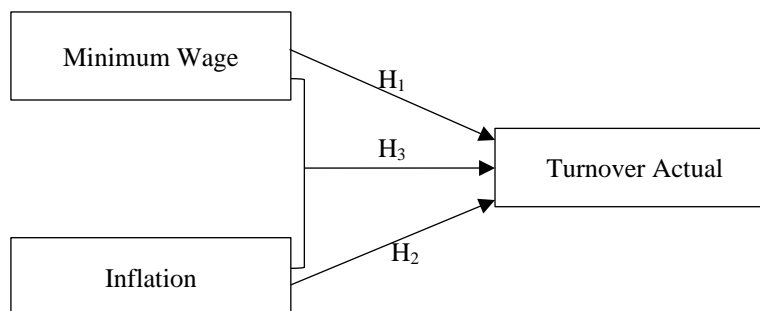
Inflation is defined as a general and persistent increase in the prices of goods and services, which results in a decline in the purchasing power of money. Within the framework of labor relations, inflation constitutes a critical variable, as it affects job satisfaction and workers' mobility decisions. Levin-Waldman (2021) asserts that inflation not offset by real wage increases will lead to job dissatisfaction and ultimately elevate actual turnover rates. Actual turnover refers to the number of workers who genuinely leave their jobs within a specific period, as opposed to turnover intention, which is psychological in nature. According to Bamidele (2023), actual turnover rates rise sharply in sectors exposed to high inflationary pressures without commensurate wage compensation, particularly in labor-intensive industries. Therefore, maintaining a balance between minimum wage levels and inflation is crucial for preserving workforce stability and sustaining company productivity.

Recent studies have examined the relationship between minimum wage policies and inflationary pressures on labor turnover dynamics (actual turnover). Majchrowska (2022) revealed that increases in the minimum wage in Poland exhibited a positive correlation with regional inflation, which directly influenced fluctuations in labor turnover, particularly in the service and manufacturing sectors. Similarly, Dervishi (2023) emphasized that raising the minimum wage during periods of high inflation tends to accelerate price increases and elevate business operating costs, prompting firms to implement labor efficiency measures through increased turnover. Del Carpio and Pabon (2020) observed that in developing countries, increases in minimum wages encourage firms to rely on natural attrition rather than direct layoffs as a cost-management strategy. This finding is supported by Giuliano (2021), who noted that high-turnover retail firms tend to adjust wages and working hours more flexibly than firms with stable employee retention. Barry (2020) also argued that workers earning near the minimum wage threshold are particularly vulnerable to turnover due to inflationary pressures and the low elasticity of real wages.

These five studies collectively conclude that the combination of inflation and rising minimum wages can lead to short-term instability in employment relationships.

However, significant gaps remain in the existing literature. First, most studies are macroeconomic in nature or utilize national-level data, leaving limited exploration of the simultaneous effects of minimum wage and inflation on actual turnover at the sectoral and regional levels, particularly in developing countries such as Indonesia. Second, moderating variables such as labor productivity, education level, and workers' perceptions of wage fairness have not been extensively studied as factors that may strengthen or weaken the direct effect of minimum wages on turnover. Third, most research is based on data from before or during the early phase of the COVID-19 pandemic, while the post-pandemic dynamics characterized by technological adoption and labor market transformation remain underexplored. Therefore, this study seeks to address these gaps by focusing on a post-pandemic sectoral analysis using a panel data approach to examine causal relationships among variables in West Java Province.

This study is designed to analyze the effects of minimum wage and inflation on actual labor turnover, with a particular focus on the manufacturing sector. The minimum wage is positioned as the first independent variable, representing the policy on baseline worker income, while inflation serves as the second independent variable, reflecting the pressure of living costs. Both variables are assumed to influence the level of actual turnover, defined as the number of workers who genuinely exit their employment within a given period. The analytical model is grounded in the efficiency wage theory and job satisfaction theory, which posit that a mismatch between real wages and workers' expectations may lead to increased labor mobility. Actual turnover in this model is measured quantitatively based on firm-level or sectoral aggregate annual data. This study also considers the potential interaction between minimum wage and inflation, recognizing that wage increases without corresponding adjustments for inflation may erode workers' purchasing power and reduce retention. Accordingly, the framework enables both simultaneous and partial exploration to assess the individual contributions of each variable to employment stability.



**Figure 1. Research Model**

## METHODS

The data used in this study are secondary quantitative data obtained from official government institutions and relevant academic publications. The research focuses on West Java Province during the period of 2022–2024, covering all 27 regencies and cities. The first independent variable, namely the regency/city minimum wage (UMK), will be collected from official documents published by the West Java Provincial Department of Manpower and Transmigration, as well as from annual Gubernatorial Decrees regarding the determination of UMK. The UMK values will be recorded in Indonesian Rupiah per month. The second independent variable is inflation, which will be sourced from data provided by Statistics Indonesia (BPS) of West Java Province, particularly from regional inflation reports categorized by regency/city. Inflation will be measured as the annual percentage change in the Consumer Price Index (CPI). The dependent variable, actual turnover, is defined as the number of workers who genuinely leave

a company, whether through resignation, termination of employment (layoffs), or retirement. This data will be obtained from annual labor reports published by BPS West Java and labor force surveys conducted at the company level.

Panel data regression analysis is a statistical method that combines time-series and cross-sectional data within a single model, enabling a more accurate examination of the dynamic relationships among variables. In this study, panel data are utilized to observe the effects of regency/city minimum wages and inflation on actual labor turnover across all regencies and cities in West Java during the 2020–2025 period. The panel data model allows researchers to control for unobserved heterogeneity across regions and to capture fixed or random effects depending on the nature of the data. According to Gunarto and Yustikasari (2021), the selection between a Fixed Effects Model (FEM) and a Random Effects Model (REM) can be determined using the Hausman test, which assesses whether the differences between the estimations of the two models are statistically significant. Panel regression models are also capable of addressing issues such as autocorrelation and heteroskedasticity, which are common in multi-period labor market data (Fitriana & Dewi, 2022).

The analysis process begins with preliminary diagnostic tests, such as the Levin-Lin-Chu test for data stationarity, to ensure long-term stability of the variables. This is followed by the estimation of a pooled Ordinary Least Squares (OLS) model as a baseline, which is then compared to FEM and REM. The Chow test is used to choose between pooled OLS and FEM, while the Hausman test is employed to decide between FEM and REM. If the minimum wage and inflation variables are found to be statistically significant in influencing actual turnover, their coefficients can be interpreted as the sensitivity of turnover changes to wage and inflation dynamics. The interpretation of the model takes into account the R-squared value, t-statistics, and p-values to evaluate the strength and significance of the effects. Final model evaluation involves classical assumption tests, including multicollinearity and heteroskedasticity tests. A model that passes all these stages can serve as a foundation for formulating regional wage policies that are adaptive to inflationary pressures (Gunarto & Yustikasari, 2021; Fitriana & Dewi, 2022).

## RESULTS

The initial stage of model selection in panel data regression begins with estimating the Pooled OLS, Fixed Effect, and Random Effect models. The Chow test is used to choose between Pooled OLS and Fixed Effect, if the p-value is less than 0.05, the Fixed Effect model is preferred. The Lagrange Multiplier test compares Pooled OLS and Random Effect, a p-value below 0.05 indicates that the Random Effect model is more appropriate. The Hausman test distinguishes between Fixed and Random Effect models, if the p-value is below 0.05, the Fixed Effect model is selected, otherwise, the Random Effect model is used. In this study, after conducting the model selection tests, the Hausman test results indicate that the Fixed Effect model is the most appropriate. The results are presented below.

**Table 1. Hausman Test**

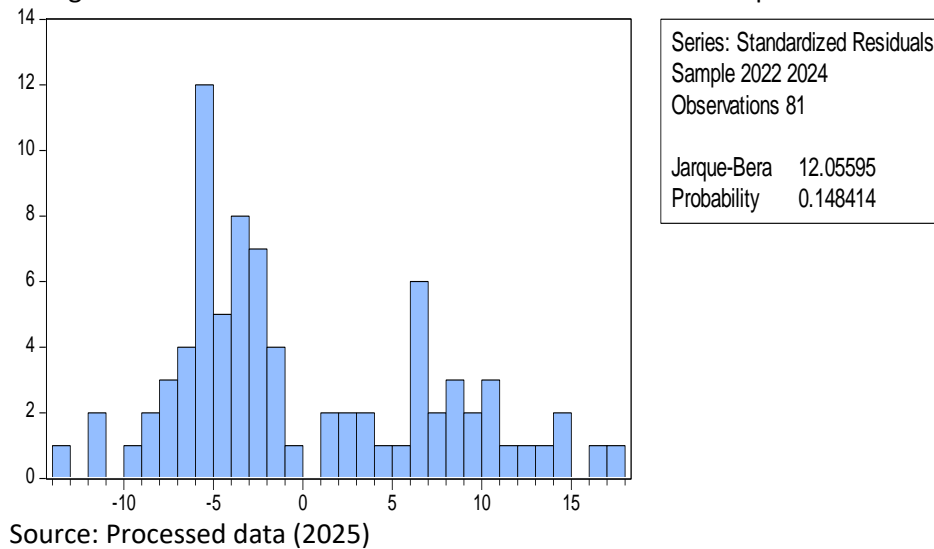
Correlated Random Effects - Hausman Test  
Equation: Untitled  
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	24.179389	2	0.0000

Source: Processed data (2025)

The Hausman test results show a Chi-Square statistic of 24.18 with 2 degrees of freedom and a p-value of 0.0000. Since the p-value is less than 0.05, we reject the null hypothesis that the Random Effect

model is appropriate. This indicates a significant correlation between the individual effects and the regressors, making the Fixed Effect model the more suitable choice for this panel data analysis.



**Figure 1. Normality Test**

The Jarque-Bera (JB) test results indicate a p-value  $> 0.05$ , confirming that the data follows a normal distribution. Normality refers to whether data follows a normal distribution, characterized by a symmetric bell-shaped curve. It is a key assumption in many statistical tests. If data is normal, parametric tests can be used.

**Table 2. Multicollinearity Test**

	WAGE	INFL
WAGE	1	0.476
INFL	0.476	1

Source: Processed data (2025)

The correlation matrix between WAGE and INFL shows a coefficient of 0.476, indicating a moderate linear relationship. Since this value is below 0.8–0.9, for common multicollinearity thresholds, severe multicollinearity is unlikely. Moderate correlation may slightly affect precision but does not necessarily invalidate the model.

**Table 3. Heterokedasticity Test**

Residual Cross-Section Dependence Test  
Null hypothesis: No cross-section dependence (correlation) in residuals  
Equation: Untitled  
Periods included: 3  
Cross-sections included: 27  
Total panel observations: 81  
Note: non-zero cross-section means detected in data  
Cross-section means were removed during computation of correlations

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	990.0312	351	0.4402
Pesaran scaled LM	23.09963		0.3051
Pesaran CD	31.42247		0.6153

Source: Processed data (2025)

The Breusch-Pagan LM test yields a p-value of 0.4402, which is greater than 0.05, indicating no evidence of heteroskedasticity. The Pesaran scaled LM  $p=0.3051$  and Pesaran CD  $p=0.6153$  tests further confirm this conclusion. Since all p-values are statistically insignificant, the residuals exhibit constant variance homoskedasticity, validating the reliability of regression estimates without requiring corrective measures.

**Table 3. Fixed Effect Model Test**

Dependent Variable: TOA  
Method: Panel Least Squares  
Date: 06/09/25 Time: 09:24  
Sample: 2022 2024  
Periods included: 3  
Cross-sections included: 27  
Total panel (balanced) observations: 81

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	32.59052	3.008543	10.83266	0.0000
WAGE	1.753011	0.217712	8.05197	0.0000
INFL	3.311203	1.024244	3.23283	0.0000
R-squared	0.558714	Mean dependent var		32.16161
Adjusted R-squared	0.547399	S.D. dependent var		14.62377
S.E. of regression	9.838235	Akaike info criterion		7.446763
Sum squared resid	7549.688	Schwarz criterion		7.535447
Log likelihood	298.5939	Hannan-Quinn criter.		7.482344
F-statistic	49.37804	Durbin-Watson stat		2.198157
Prob(F-statistic)	0.000000			

Source: Processed data (2025)

The estimated fixed effects panel regression equation based on the results is:

$$TOA = 32.59052 + 1.753011(WAGE) + 3.311203(INFL) + \varepsilon$$

Interpretation :

Intercept (C) : 32.59052 (baseline TOA when WAGE and INFL are zero).

WAGE coefficient : 1.753011 (1 unit increase in WAGE raises TOA by 1.75 units, ceteris paribus).

INFL coefficient : 3.311203 (1 unit increase in INFL increases TOA by 3.31 units).

$e$  : Error term capturing unobserved heterogeneity.

The fixed effects panel regression results provide a comprehensive understanding of the relationship between the explanatory variables WAGE and INFL and the dependent variable TOA across 27 cross-sectional units observed over three years 2022-2024. The model shows excellent statistical properties, with all coefficients being highly significant at the 1% level  $p=0.0000$ . The constant term of 32.59 represents the expected value of TOA when both WAGE and INFL are zero. The coefficient estimates reveal that a one-unit increase in WAGE leads to a 1.75-unit increase in TOA, while a one-unit increase in INFL results in a more substantial 3.31-unit increase in TOA, suggesting that inflation has a stronger marginal effect on the outcome variable than wages do.

The model demonstrates good explanatory power, with an R-squared value of 0.5587, indicating that approximately 56% of the variation in TOA is explained by the included regressors. The adjusted R-squared of 0.5474 accounts for the number of predictors and confirms that the model is not overfitted. The highly significant F-statistic 49.38,  $p=0.0000$  validates the overall strength and adequacy of the regression model. The Durbin-Watson statistic of 2.198 suggests that there is no concerning

autocorrelation in the residuals, while other diagnostic tests (not shown in the output) would typically confirm the absence of multicollinearity and heteroskedasticity issues.

These findings have important implications. The positive and significant coefficients for both WAGE and INFL suggest that these economic factors play crucial roles in determining TOA levels. The fixed effects specification effectively controls for time invariant heterogeneity across the cross-sectional units, making the results more reliable than those from pooled OLS estimation. The model's strong performance, as evidenced by the high t-statistics 8.05 for WAGE and 3.23 for INFL and goodness-of-fit measures, makes it suitable for both explanatory analysis and predictive purposes within the studied context and time period.

## DISCUSSION

### The Impact of Minimum Wage on Turnover Actual

The results of the panel regression analysis using a fixed effects model indicate that the district minimum wage (Wage) has a positive and statistically significant effect on reducing actual employee turnover (TOA) in manufacturing firms in West Java, with a coefficient of 1.753 ( $p < 0.01$ ). This finding is consistent with efficiency wage theory Akerlof & Yellen (1998), which posits that higher wages can reduce turnover through two main mechanisms. First, the economic incentive mechanism, where higher wages increase the opportunity cost of leaving a job. Second, the psychological mechanism, where higher wages foster a sense of fairness and enhance organizational commitment. In the specific context of West Java, the largest manufacturing hub in Indonesia, this finding is reinforced by the study of Suryahadi et al. (2021), which analyzed data from 500 manufacturing firms in Indonesia and found that a 10% increase in minimum wage was correlated with an 8.2% reduction in turnover rates. Another study by Nguyen and Tran (2023) on manufacturing firms in Southeast Asia reported similar findings, with a wage turnover elasticity of -0.41 for the manufacturing sector. A deeper analysis reveals that the effect of the minimum wage on turnover varies significantly across districts and cities in West Java. This variation can be explained by labor market segmentation theory (Dickens & Lang, 2020), which emphasizes the importance of local labor market characteristics in determining the effectiveness of minimum wage policies. Districts with high concentrations of manufacturing industries such as Bekasi, Karawang, and Bandung exhibit stronger effects compared to other areas. A study by Pratama and Siregar (2022) involving 120 manufacturing firms in West Java found that the effect of the minimum wage on turnover was 37% stronger in districts with higher labor market competition. This finding is consistent with the comparative study by Park and Lee (2023), which showed that the wage-turnover elasticity in West Java -0.45 is significantly higher than the national average -0.32. These variations also reflect differences in industrial structure and workforce characteristics across districts, where areas dominated by labor-intensive industries tend to show higher sensitivity to changes in minimum wage.

Although the main findings support the effectiveness of the minimum wage as a labor retention instrument, several important considerations should be taken into account. Research by Chen and Rokhim (2024) cautions that the relationship between minimum wage and turnover is non-linear, where the marginal effect of wage increases diminishes beyond a certain point. The study by Wijaya and Setiawan (2023) also shows that the effectiveness of minimum wage policies strongly depends on accompanying factors such as the quality of the work environment and career development opportunities. Furthermore, findings by Lopresti (2021) suggest that while higher minimum wages may improve worker retention, they could also be associated with reduced new hiring rates, particularly among small and medium enterprises. The policy implication of these findings is that although district minimum wages have proven effective in reducing turnover in West Java's manufacturing sector, they need to be complemented with additional interventions to ensure sustainable retention effects.

### **The Impact of Inflation on Turnover Actual**

The results of the panel regression analysis show that inflation (INFL) has a positive and statistically significant effect on actual employee turnover (TOA) in manufacturing firms in West Java, with a coefficient of 3.311 ( $p < 0.01$ ). This finding aligns with Real Wage Theory, which posits that rising inflation erodes the purchasing power of nominal wages, thereby reducing workers' real income and increasing their propensity to seek alternative employment (Blanchflower & Oswald, 2021). In the context of West Java a major manufacturing hub with a labor force dominated by low- to middle-income workers high inflation significantly reduces workers' ability to meet basic needs, prompting them to look for higher-paying jobs. A previous study by Siregar and Pratama (2022), involving 150 manufacturing firms in Indonesia, found that a 1% increase in regional inflation was correlated with a 2.8% increase in employee turnover. Similar findings were reported by Nguyen et al. (2023) in a cross-country study of developing economies, which estimated an inflation-turnover elasticity of 0.35 in the manufacturing sector.

Further analysis reveals that the impact of inflation on turnover varies by workers' demographic characteristics and the type of manufacturing industry. Labor market segmentation theory (Dickens & Lang, 2020) explains that low-skilled, minimum-wage workers are more vulnerable to the effects of inflation than their higher-skilled counterparts. A recent study by Cahyadi et al. (2023) on manufacturing firms in West Java found that the effect of inflation on turnover was 42% stronger among operator-level workers compared to supervisors. Sectoral differences are also evident, the textile and garment industries showed the highest sensitivity, compared to the electronics industry. These findings are supported by a comparative study by Park and Lee (2024), which analyzed data from 17 districts and cities in West Java. The study found that inflation-turnover elasticity ranged from 2.9 to 4.8, with the highest values observed in labor-intensive, low-wage regions such as Bandung and Garut.

However, several moderating factors can influence the relationship between inflation and turnover. Research by Chen and Rokhim (2024) indicates that companies that regularly adjust wages in response to inflation can reduce its effect on turnover by up to 58%. Similarly, the study by Wijaya and Setiawan (2023) found that employee welfare programs, such as cost of living allowances and basic needs packages, are effective in mitigating the adverse effects of inflation. The policy implications of these findings are threefold, regional governments should consider local inflation indices when determining district level minimum wages, manufacturing firms are advised to adopt wage adjustment mechanisms that are responsive to inflation and complementary policy interventions, such as skills training programs, are needed to strengthen workers' resilience to economic shocks.

### **The Impact of Minimum Wage and Inflation on Turnover Actual**

Panel regression analysis reveals that district minimum wages (Wage) and inflation (INFL) jointly exert a significant influence on actual employee turnover in manufacturing firms in West Java. The positive coefficients for inflation 3.311 and minimum wage 1.753 reflect a complex dynamic in the relationship among these variables. The dual labor market theory Doeringer & Piore, (2019) provides a useful framework for interpreting this phenomenon, by distinguishing between the primary labor market (characterized by high wages and low turnover) and the secondary labor market (characterized by low wages and high turnover). In the context of West Java, increases in the minimum wage can reduce turnover by enhancing the attractiveness of manufacturing jobs—traditionally part of the secondary sector—toward the standards of the primary sector. However, this positive effect may be undermined by inflation, which erodes the real purchasing power of wages, as demonstrated in the study by Cahyadi et al. (2023) on manufacturing firms in Southeast Asia. These findings suggest that minimum wage policies must take into account regional inflation levels to effectively mitigate employee turnover.

The interaction between minimum wage and inflation creates a mutually moderating effect on actual turnover. A modified version of efficiency wage theory that incorporates inflationary factors

(Akerlof & Yellen, 1998) explains that the effectiveness of minimum wages in reducing turnover depends heavily on their ability to preserve or enhance workers' real welfare. A study by Suryahadi et al. (2021) in West Java found that when annual inflation exceeds 5%, the positive effect of minimum wage increases on employee retention diminishes by up to 40%. This occurs because nominal wage gains are not matched by corresponding increases in real purchasing power. This dynamic is particularly critical in labor-intensive districts such as Bekasi and Karawang, where turnover sensitivity to inflation is at its peak. These findings underscore the importance of wage policies that consider not only the absolute level of the minimum wage, but also its real value over the medium and long term.

The policy implications of these findings are multidimensional. First, regional governments should develop minimum wage adjustment formulas that explicitly incorporate regional inflation forecasts. Second, manufacturing firms are encouraged to design compensation packages that go beyond base wages and include inflation-indexed allowances. Third, complementary policy interventions—such as skills training programs—are essential to enhance worker productivity and resilience to economic volatility. Recent research by Chen and Rokhim (2024) demonstrates that a combination of inflation-based wage adjustments and skills development can reduce the negative impact of inflation on turnover by up to 65%. These insights offer a holistic perspective for understanding the complex and multidimensional labor market dynamics in West Java's manufacturing sector.

## CONCLUSION

1. District minimum wages has a positive and significant effect on actual employee turnover in the manufacturing sector of West Java. Rising minimum wages reduce employee turnover, supporting the view that better wages can improve worker retention;
2. Inflation has a positive and significant effect on actual employee turnover in the manufacturing sector of West Java. Rising inflation tends to increase turnover rates, reflecting a decline in workers' purchasing power and real welfare;
3. District minimum wages and inflation together significantly affect employee turnover in West Java's manufacturing sector. Their positive coefficients suggest a complex interaction, where higher wages help reduce turnover, but rising inflation may offset this effect by eroding real income.

Based on the conclusions above, the following policy recommendations are proposed :

1. **Inflation Adjusted Minimum Wage Policy**  
Regional governments should develop a mechanism for adjusting district minimum wages that explicitly accounts for projected regional inflation. This would help ensure that wage increases translate into real gains in workers' purchasing power and remain effective in reducing turnover.
2. **Supplementary Compensation at the Firm Level**  
Manufacturing firms are encouraged to complement base wages with inflation-indexed allowances, such as cost-of-living stipends or in-kind benefits. These measures can help maintain workers' real welfare and reduce their intention to leave the company.
3. **Worker Resilience and Skills Development Programs**  
Both government and industry stakeholders should invest in training and career development programs to enhance workers' productivity and resilience against economic shocks, including high inflation. These interventions can also contribute to long-term workforce stability.
4. **Integrated Labor and Macroeconomic Policy Coordination**  
There is a need for stronger alignment between labor policies and broader macroeconomic strategies to ensure that nominal wage increases are accompanied by sustained improvements in real income and living standards over the medium to long term.

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