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EXPLORING THE EMPLOYMENT OF THE INFORMAL SECTOR IN INDONESIA AND THE FACTORS THAT INFLUENCE IT

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Abstract

The informal sector holds a significant position in Indonesia's labor structure, particularly as a response to the limited availability of formal job opportunities. The increasing proportion of informal workers reflects a shift in labor market patterns influenced by diverse economic and social factors. This study examines the impact of the Open Unemployment Rate (OUR), Average Years of Schooling (AYS), Provincial Gross Regional Domestic Product (GRDP), Regional Minimum Wage (RMW), and poverty rate on informal employment. Adopting a descriptive quantitative method, the research utilizes secondary data sourced from Statistics Indonesia (BPS) and the Ministry of Manpower (Kemnaker) for the years 2019 to 2023. The analysis applies panel data regression, with the Fixed Effect Model (FEM) determined as the most appropriate technique. Findings indicate that the open unemployment rate, poverty rate, and minimum wage positively and significantly affect informal sector employment, while GRDP has a negative and significant effect. Meanwhile, average years of schooling do not significantly impact informal labor absorption. The study suggests that the government should focus on boosting regional economic growth to lower informal employment reliance and strengthen the formal labor market's competitiveness.

Keywords: Proportion of Informal Workforce, Unemployment, Education, GRDP, Number of Poor People

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INTRODUCTION

Indonesia, as a developing country, continues to grapple with significant employment challenges, particularly in accommodating its growing labor force. The imbalance between labor force growth and the availability of formal job opportunities underscores the need to address employment creation comprehensively. While the government has attempted to balance job creation between the formal and informal sectors, deeper structural issues—such as limited industrial diversification and underdeveloped social protection systems—pose significant constraints (Widyaningsih et al., 2024). The informal sector remains a critical component of labor absorption in Indonesia, offering employment opportunities to those excluded from the formal labor market. This sector plays a vital role in economic development by fostering income distribution, reducing regional skill disparities, and supporting economic stability.

Historically, the informal sector has functioned as a stepping stone for rural workers entering the labor market, providing them with essential skills and experience (Kamelia & Nugraha, 2021). Defined by the 15th International Conference of Labour Statisticians (ICLS) as unincorporated private enterprises below a certain size threshold, the informal sector includes activities such as street vending, domestic work, and farm labor (Sheikh & Gaurav, 2020). However, informal workers often face precarious conditions, lacking legal protections, job security, and access to social benefits, making them vulnerable to economic shocks and perpetuating inequality (Meagher, 2019). The COVID-19 pandemic further exposed these vulnerabilities, leading to increased unemployment and

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reduced incomes among informal workers in Indonesia and comparable economies like Vietnam (Sibagariang et al., 2023; Van Vu & Ho, 2022).

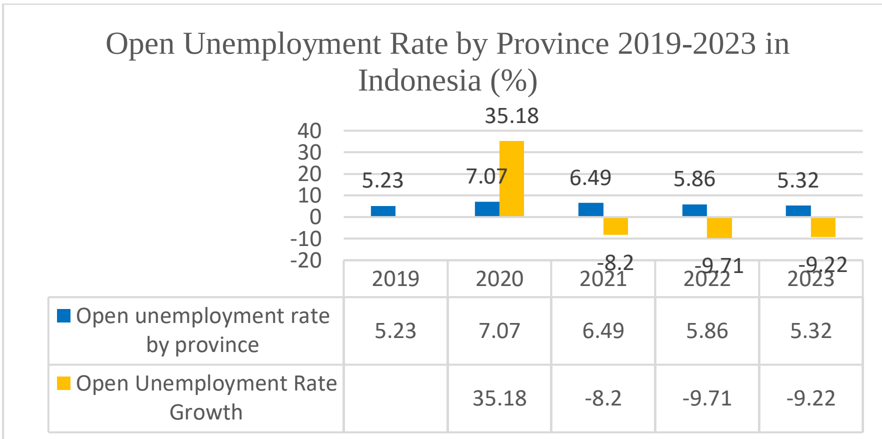

Figure 1.

Open Unemployment Rate by Province in Indonesia 2019-2023

Source: Central Statistics Agency, 2024

Based on Figure 1, the open unemployment rate in Indonesia experienced a significant increase in 2019–2020. This overall rise in unemployment can be associated with a surge in unemployment among informal workers. According to Keynes, unemployment in an economy arises when the effective demand (total expenditure) is lower than the capacity of the available factors of production to produce goods and services. Informal sector entrepreneurs typically consist of small-scale economic actors who engage in trade merely to meet their basic daily needs (Kamelia & Nugraha, 2021). In Indonesia, the informal sector continues to play a vital role in driving economic growth. This is evident in the emergence of trade businesses, service enterprises, and household industries that contribute to job creation.

According to data from Statistics Indonesia (BPS), on average, around 59% of the Indonesian workforce is employed in the informal sector. This is reflected in the widespread availability of informal job opportunities across various

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provinces. It also indicates that the majority of the population relies on the informal sector for employment, making it a backbone for job provision and economic stability, especially amid limited formal job opportunities. However, despite its significant contribution, the informal sector often faces challenges such as lack of legal protection, limited access to financing, and low productivity. Therefore, it is essential for the government and other stakeholders to provide greater support in the form of enabling regulations, skills training, and access to essential resources to improve the welfare of workers in this sector.

As shown in Figure 2, the proportion of workers classified as informal in Indonesia has increased since 2019. In 2019, the percentage of informal employment stood at 55.88%, and within one year, it rose significantly to 60.47% in 2020. This indicates that 60.47% of the workforce relied on the informal sector, meaning more than half of Indonesia's workers were employed in this segment.

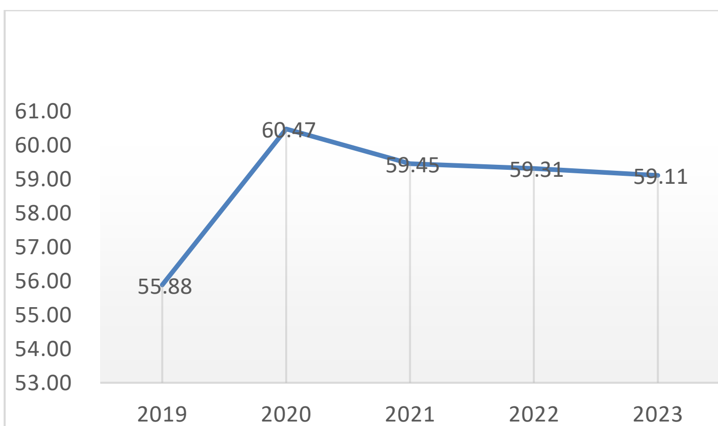

Figure 2.
Proportion of Informal Employment in Indonesia 2019-2023 (%)
Source: Central Bureau of Statistics, 2024

An ideal employment condition is characterized by a higher proportion of the labor force working in the formal sector compared to the informal sector. However, this ideal has not yet been realized in Indonesia, primarily due to the

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limited absorption capacity of the formal labor market and a mismatch between labor force growth and the expansion of formal employment opportunities (Birgitta, 2021). The global crisis triggered by the COVID-19 pandemic at the end of 2019 posed a serious threat to public health and had a negative impact on the economy. In Indonesia, informal workers were among the hardest hit, facing a range of job losses—from severe income reductions among self-employed individuals to job terminations among wage workers. Similarly, in Vietnam, the pandemic significantly affected the economy and informal workers, who generally have limited access to healthcare and social security. On average, the income of informal workers declined substantially, falling by 25% in 2019 and 35.7% in 2020 (Van Vu & Ho, 2022).

Job creation is often driven by economic growth and plays a key role in reducing poverty. According to the International Labour Organization (ILO), decent work includes productive employment, fair wages, social protection, and workers' rights, emphasizing social justice and human dignity. Informal workers, who typically lack access to social security, benefits, and legal protection, are especially vulnerable, particularly in unsafe work environments. In Indonesia, the pursuit of decent work under SDG 8 faces challenges, with only 57.3% of informal workers covered by health insurance (SAKERNAS, 2017, Sibagariang et al., 2023). The ILO (2020) notes that in developing countries, the informal sector accounts for over 2 billion workers, 60% of the workforce, and 80% of enterprises (Van Vu & Ho, 2022). In Indonesia, job availability directly affects employment and unemployment rates; more jobs reduce unemployment, while scarcity worsens it (Kamelia & Nugraha, 2021). The informal sector remains crucial for income generation, as shown by its expanding workforce. This study explores how

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factors like gender, unemployment rates, educational backgrounds, and wages above the minimum wage impact informal employment absorption (Birgitta, 2021).

LITERATURE REVIEW

Unemployment

The informal sector in Indonesia, comprising street vendors, domestic helpers, and agricultural laborers, plays a critical role in job creation amidst high unemployment and limited formal job opportunities (Darbi et al., 2018; Kamelia & Nugraha, 2021). These workers often face precarious employment conditions and limited social protection, making them vulnerable to economic shocks, especially during the COVID-19 pandemic, which heightened unemployment rates (Meagher, 2019; Sibagariang et al., 2023). Keynesian theory underscores that unemployment arises when effective demand falls short of production capacity, a phenomenon evident during economic downturns. Despite these challenges, the informal sector's ability to absorb labor highlights its function as a buffer in the labor market. However, structural barriers, such as low productivity and a lack of formal job opportunities, perpetuate reliance on informal employment.

Education (Average Years of Schooling - AYS)

Education is pivotal in shaping labor market outcomes, as higher education levels often correlate with access to formal jobs, whereas lower education levels are associated with informal sector absorption (Sibagariang et al., 2023). Human capital theory suggests that education enhances skills, knowledge, and productivity, expanding job opportunities and improving earning potential (Ambya & Ciptawaty, 2022; Cantika, 2019). However, merely

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increasing average years of schooling may not suffice; structural mismatches between education systems and labor market demands can limit its impact. Workers with inadequate education often lack the skills required for formal sector entry (Cano-Urbina, 2015). Addressing these mismatches through targeted vocational training and improving secondary education is essential for channeling labor into productive sectors (Lameck Lupeja & Gubo, 2017; Sari & Falianto, 2020).

Regional Minimum Wage (RMW)

Minimum wage policies significantly influence labor dynamics, affecting both labor demand and the transition between informal and formal sectors. While wage increases can enhance purchasing power and stimulate economic growth, they may also raise production costs, potentially reducing labor absorption, particularly in labor-intensive industries (Putri & Sudarsono, 2019; Suharto & Dharmala, 2016). Wage disparities between regions drive labor migration but often result in informal employment due to skill mismatches (Isnaeni et al., 2024). Labor market equilibrium theory highlights that higher wages in the formal sector could encourage transitions to formal employment, provided workers are adequately skilled (Sibagariang et al., 2023). Complementary policies, such as training and labor protections, are critical for mitigating negative effects and fostering inclusive economic growth.

Gross Regional Domestic Product (GRDP)

GRDP, reflecting a region's economic output, significantly impacts labor absorption patterns. Higher GRDP is often linked to formal employment growth, as productive sectors generate stable job opportunities (Rahayu, 2019). However, in regions where informal employment predominates, the benefits of GRDP

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growth may not trickle down effectively, indicating disparities in sectoral development. Theoretical approaches such as the dual economy model suggest that economic growth must be coupled with structural transformations to shift labor from informal to formal sectors (Puspita et al., 2021).

Poverty

Poverty remains a central factor driving informal employment. Poor individuals often lack the education, skills, and access necessary for formal sector jobs, compelling them to rely on informal work for survival (Ratnasari, 2021). While the informal sector provides an alternative amidst economic uncertainty, it also perpetuates cycles of low productivity and income (Bonnet et al., 2019; Vidovic & Ritan, 2022). The COVID-19 pandemic further exacerbated these dynamics, with mass layoffs pushing more workers into informality. Addressing poverty through targeted social programs and integrating informal workers into formal labor policies are critical for reducing vulnerability and enhancing labor market inclusivity (Arias et al., 2018).

RESEARCH METHOD

This research investigates the determinants influencing labor absorption within Indonesia's informal sector over the period 2019 to 2023. The study utilizes secondary data sourced from Indonesia's Central Bureau of Statistics (BPS) and the Ministry of Manpower (Kemnaker RI). Adopting a quantitative methodology, this analysis employs panel data regression to evaluate how various indicators — such as the Open Unemployment Rate (OUR), Average Years of Schooling (AYS), Gross Regional Domestic Product (GRDP), Regional Minimum Wage (RMW), and poverty levels — contribute to the level of informal employment across the

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nation's 34 provinces throughout the selected timeframe. Panel data here reflects a combination of longitudinal (time series) and regional (cross-sectional) observations.

The study distinguishes between independent variables (predictors) and the dependent variable (outcome). The predictors encompass unemployment, represented by OUR; educational attainment, captured through the average number of years individuals aged 15 and above spend in formal education (AYS); economic output, gauged via GRDP; wage policies, reflected in the RMW; and poverty intensity, indicated by the population living below the poverty line. The dependent variable is the share of workers engaged in informal employment, hypothesized to be shaped by these socioeconomic indicators. The relationship among these variables is modeled using a multiple linear regression framework, adapted from Putri and Sudarsono (2019):

$$\boldsymbol{PIE_{it} = \beta_0 + \beta_1 OUR_{it} + \beta_2 AYS_{it} + \beta_3 LogPoverty_{it} + \beta_4 LogGRDP_{it} + \beta_5 LogRMW_{it} + \varepsilon_i}$$

Where:

PIE_{it} : Proportion of Informal Employment (%)

$\beta_1 OUR_{it}$: Open Unemployment Rate (%)

$\beta_2 AYS_{it}$: Average Years of Schooling for the Population Aged 15 and Above (Years)

$\beta_3 LogPoverty_{it}$: Number of Poor Population (Thousands)

$\beta_4 LogGRDP_{it}$: Regional Gross Domestic Product per Capita (Thousands of Rupiah)

$\beta_5 LogRMW_{it}$: Regional Minimum Wage (Rupiah)

β_0 : Constant

$\beta_0 \dots \dots \beta_5$: Regression Coefficients of the Independent Variables

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i : Province i in Indonesia (34 Provinces)

t : Year-t

ε_i : Error term

In analyzing panel data, determining the most suitable estimation model involves a comparison among the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). The Chow Test is employed to evaluate whether the FEM offers a better fit than the CEM. Meanwhile, the Hausman Test is utilized to assess the appropriateness of FEM relative to REM. If the Hausman Test yields a statistically significant result, the FEM is favored due to its consistency in parameter estimation. Conversely, if the result is not significant, the REM is selected for its superior efficiency. After establishing the optimal model, its reliability and explanatory power are tested through individual significance testing (t-test), overall model fit (F-test), and the coefficient of determination (R-squared) (Isnaeni et al., 2024).

RESULTS AND DISCUSSION

Table 1 displays the estimation outputs of the econometric framework utilizing the PLS, FEM, and REM techniques, in addition to the findings from the model selection procedures.

Table 1.
Results of Panel Data Regression Econometric Model Estimation - Cross Section

Variable	Regression Coefficient		
	PLS	FEM	REM
C	-38,60304	-180,5020	-261,6141
OUR	-2,412408	1,016458	0,255328
AYS	-2,081685	3,245461	-2,745132
Log(Poverty)	2,946982	6,729905	3,988298

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Log(GRDP)	-10,40607	-3,343787	-8,332617
Log(RMW)	15,28288	13,60421	27,88371
R^2	0,736702	0,983100	0,370660
Adjusted. R^2	0,728675	0,978198	0,351473
F Statistic	91,77372	200,5408	19,31810
F Statistic Prob.	0,0000	0,0000	0,0000
Model Selection Test			
Chow			
Cross- Section F(33,131) = 57,877787 ; Prob. F(33,131) = 0,0000			
Hausman			
Cross-Section random $\chi2$ (5) = 101,286945; Prob. $\chi2$ = 0,0000			

Source: BPS and Ministry of Manpower of the Republic of Indonesia, processed.

Selection of the Best Estimation Model

Chow Test

To assess whether the Fixed Effects Model (FEM) outperforms the Pooled Least Squares (PLS) approach, the Chow test was conducted. As shown in Table 1, the F-statistic reached a value of 57.877787 with a p-value of 0.0000, which is well below the 1% significance threshold. These results strongly suggest that FEM offers a more suitable framework than the PLS model, thereby justifying the exclusion of the latter.

Hausman Test

Following the disqualification of the PLS model, the Hausman test was employed to compare FEM and REM (Random Effects Model). The test yielded a chi-square statistic of 101.29 with a corresponding p-value of 0.0000, signifying that the Fixed Effects Model provides a more consistent and preferable estimation approach.

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Table 2.
Fixed Effect Model (FEM) Estimation Results

$$PIE_{it} = -180{,}5020 + 1{,}016458\ OUR_{it} + 3{,}245461 AYS_{it} + 6{,}729905\ \log Poverty_{it}$$

(0,0000)* (0,1341) (0,0228)**

$$-3{,}343787 \log \mathrm{GRDP}_{it} + 13{,}60421 \log RMW_{it}$$

(0,0475)** (0,0034)*

R2 = 0,9831; DW = 1,788942; F.stat = 200,5408; Prob. F = 0,0000

Source: BPS and Ministry of Manpower of the Republic of Indonesia, processed. Note: *Significant at α = 0.01; **Significant at α = 0.05; ***Significant at α = 0.10; The numbers in brackets are the probability of the t-statistic value.

Table 3.
Results of Partial Significance Test (t-Test)

Variable	Probability of t-statistic	Criteria	Conclusion
OUR	0,0000	≤ 0,01	Significant at α = 0,01
AYS	0,1341	≥ 0,1	Insignificant
Log(Poverty)	0.0228	≤ 0,05	Significant at α = 0,05
Log(GRDP)	0.0475	≤ 0,05	Significant at α = 0,05
Log(RMW)	0.0034	≤ 0,01	Significant at α = 0,01

Source: Processed data, 2025

The individual impact of each explanatory variable on the dependent outcome is evaluated through the t-statistic within the Fixed Effect Model framework. Findings indicate that the Open Unemployment Rate (OUR) holds statistical significance at the 1% threshold, as evidenced by a p-value of 0.0000. The average length of schooling (AYS) shows an insignificant effect with a probability value of 0.1341. Additionally, both the logged figures of poverty (Log(Poverty)) and per capita Gross Regional Domestic Product (Log(GRDP)) demonstrate relevance at the 5% level, supported by p-values of 0.0228 and 0.0475, respectively. The logged Regional Minimum Wage (Log(RMW)) also

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proves to be statistically meaningful at the 1% level, with a p-value of 0.0034. Consequently, each independent variable incorporated in the model exerts a substantial effect on informal employment levels across Indonesia.

Simultaneous Significance Test (F-Test)

The F-statistic is utilized to ascertain whether the ensemble of independent predictors collectively influences the dependent metric. The Fixed Effect Model yields a p-value for the F-statistic of 0.0000, firmly below the 0.01 level of significance. This outcome substantiates the hypothesis that OUR, AYS, Log(Poverty), Log(GRDP), and Log(RMW) jointly play a critical role in determining the proportion of informal employment.

Coefficient of Determination (R^2)

The R^2 metric serves to quantify the extent to which the independent variables elucidate variability in the dependent variable. In this analysis, the Fixed Effect Model produces an R^2 value of 0.9831, signifying that approximately 98.31% of the fluctuation in informal labor proportions is captured by the explanatory variables included in the study. The remaining 1.69% may be attributable to other unobserved influences not accounted for in the current model framework.

The Influence of Open Unemployment Rate on the Proportion of Informal Sector Employment

The variable representing the open unemployment rate has a probability value of 0.0000 < 0.01, with a regression coefficient of 1.016458, indicating a linear relationship. This shows that the open unemployment rate has a positive and significant effect on the proportion of informal sector employment. Specifically, a 1% increase in the open unemployment rate is associated with a 1.02% rise in the

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proportion of informal workers, assuming other variables remain constant. This implies that as unemployment rises, more individuals tend to enter the informal sector. The informal sector in Indonesia often serves as an alternative source of livelihood for those unable to access formal employment. In developing economies, where the formal sector has limited capacity to absorb labor, mismatches between labor supply and demand are common. Factors such as job scarcity, low skill levels, or bureaucratic barriers further contribute to this shift. The increase in open unemployment driving growth in the informal sector signals structural issues in the labor market, particularly regarding the formal sector's limited absorption capacity. Although the informal sector plays a crucial role as a social safety net, overdependence may indicate underlying economic vulnerability. This finding aligns with previous studies showing that the unemployment variable, as measured by the open unemployment rate, has a positive and significant impact on informal sector employment. For instance, Birgitta (2021), found that a 1% increase in unemployment results in a 0.5% rise in informal employment. Informal employment often dominates due to its lack of formal registration and insufficient social protection. Furthermore, the growth of the working-age population may outpace job creation, exacerbating unemployment (Adianita et al., 2024). Prior findings also indicate that higher unemployment significantly drives informal economic activity in both the short and long term. As Esaku & Mugoda (2025) note, in contexts of high unemployment, the shadow economy tends to expand as individuals seek survival strategies for their families.

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The Influence of Average Years of Schooling on the Proportion of Informal Sector Employment

The variable average years of schooling has a probability value of 0.1341, which is greater than 0.1, and a regression coefficient of 3.245461, indicating a positive but statistically insignificant effect on the share of informal sector employment within a linear-linear model. This result contradicts the findings of Sheikh and Gaurav (2020), who argue that education serves as a key barrier to informal sector entry, noting that individuals with formal education are less likely to engage in informal employment. However, Widyaningsih et al. (2024) highlight that education, when not accompanied by sufficient hard skills, soft skills, and competencies, may not significantly influence labor absorption. This outcome challenges the common perception that education is a primary factor driving employment shifts toward the formal sector. A possible explanation is that formal education alone does not necessarily equip individuals with the practical abilities or job-specific competencies demanded by the formal labor market.

The Effect of the Number of Poor People on the Proportion of Informal Sector Workers

The variable representing the number of poor people, using a log-linear relationship, has a probability value of $0.0228 < 0.05$ and a regression coefficient of 6.729905. This indicates that the number of poor people has a significant and positive influence on the proportion of workers in the informal sector. Specifically, a 1% increase in the poor population leads to a 0.0673% increase in the proportion of informal employment. This aligns with current realities, where the informal sector serves as the main absorber of labor for the poor. In conditions

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of economic hardship, rising basic needs prices, limited access to education and skills, and scarce formal job opportunities—the poor often have no choice but to work in the informal sector, such as daily laborers or unregistered micro-enterprises. Additionally, the flexibility of informal work further drives its prevalence.

The COVID-19 pandemic and its aftermath have exacerbated economic vulnerability, pushing many families into or near poverty. As a result, more individuals are forced into informal employment to survive. These findings are consistent with prior studies, which argue that informal work typically requires minimal skills, making it the default option for the poor with limited qualifications (Sibagariang et al., 2023). Informal employment is especially prevalent in developing countries, offering flexibility and often being the only source of income for urban poor populations and migrant workers. However, informal jobs often lack adequate social protection and benefits, exposing workers to economic and social risks. Moreover, the existence of the informal sector can incentivize firms to hire informal labor due to lower costs and fewer tax obligations, thereby worsening social inequality and hindering the development of an effective social protection system (Desai & Rudra, 2019)

The Effect of Regional Gross Domestic Product (GRDP) on the Proportion of Informal Sector Workers

The regional GDP (GRDP) variable, also using a log-linear model, has a probability value of 0.0475 < 0.05 and a regression coefficient of -3.343787. This result indicates that GRDP has a significant negative effect on the proportion of informal sector workers. A 1% increase in GRDP corresponds to a 0.0334%

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decrease in informal employment, suggesting that regional economic growth contributes to reducing labor informality.

When GRDP increases, it typically signals broader economic activity, higher investment, expansion of formal job opportunities, improved productivity and industrial efficiency, and a better business climate. These conditions allow the formal sector to absorb more labor, including new entrants to the workforce and those previously employed informally. Therefore, economic growth impacts not only output but also generates more stable and decent formal employment. A declining share of informal employment in response to rising GRDP reflects inclusive and quality economic growth.

Strengthening regional economies can thus be an effective strategy to reduce reliance on the informal sector. Local governments can implement policies such as promoting investment in labor-intensive industries, providing incentives for micro and small enterprises to formalize, improving local workforce skills to match industry needs, and planning labor transmigration from low-GRDP to high-growth regions. This approach ensures that economic growth translates into a more formal, productive, and sustainable labor market structure.

This finding is consistent with prior research suggesting a negative relationship between GRDP and labor absorption. This is because GRDP is influenced not only by labor but also by external factors such as global economic conditions and national political stability. GRDP can also reflect labor productivity low productivity can lead to supply shortages and inflation (Puspita et al., 2021).

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The Effect of Regional Minimum Wage on the Proportion of Informal Sector Employment

The variable of regional minimum wage, using a linear-logarithmic relationship model, shows a probability value of 0.0034, which is below the 1% significance level. The coefficient value is 13.60421, indicating that the minimum wage has a significant and positive effect. Specifically, a 1% increase in the regional minimum wage leads to a 0.1360% rise in the proportion of informal employment. This may occur as small business owners seek to avoid the formal sector due to rising labor costs. This finding reflects a current phenomenon in which many micro, small, and medium enterprises (MSMEs) face financial pressure from increasing operational expenses, including labor costs driven by annual minimum wage adjustments.

In response, some business owners choose not to comply with formal labor regulations or avoid formal recruitment altogether, resulting in labor migration to the informal sector. The flexibility and lower costs associated with informal employment become attractive, particularly amid global economic slowdowns and pressure on formal industrial sectors. As a result, workers who originally aspired to join the formal sector may remain in or return to informal employment, such as becoming online motorcycle taxi drivers, digital merchants, freelancers, or daily laborers without formal contracts.

This result contradicts previous studies, which found that minimum wage had no significant effect on employment levels. Those studies argued that mandated wage increases could reduce job opportunities, as businesses facing higher operational costs often respond by hiring fewer workers or downsizing their workforce (Isnaeni et al., 2024).

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Table 4.
Area Effects and Constants

No	Province	Area Effect	Constants
1	ACEH	-11.01542	169.48658
2	NORTH SUMATRA	-11.38772	169.11428
3	WEST SUMATRA	4.370039	184.872039
4	RIAU	-6.390165	174.111835
5	JAMBI	4.750266	185.252266
6	SOUTH SUMATRA	-2.991752	177.510248
7	BENGKULU	12.71725	193.21925
8	LAMPUNG	8.015626	188.517626
9	BANGKA BELITUNG ISLANDS	2.697161	183.199161
10	RIAU ISLANDS	-24.4535	156.0485
11	DKI JAKARTA	-35.34136	145.16064
12	WEST JAVA	-19.46687	161.03513
13	CENTRAL JAVA	-7.538446	172.963554
14	IN YOGYAKARTA	-3.259119	177.242881
15	EAST JAVA	-4.682361	175.819639
16	BANTEN	-20.0666	160.4354
17	BALI	0.425777	180.927777
18	WEST NUSA TENGGARA	14.96842	195.47042
19	EAST NUSA TENGGARA	13.95877	194.46077
20	WEST KALIMANTAN	5.884516	186.386516
21	CENTRAL KALIMANTAN	1.461457	181.963457
22	SOUTH KALIMANTAN	3.742075	184.244075
23	EAST KALIMANTAN	-12.2365	168.2655
24	NORTH KALIMANTAN	6.156771	186.658771
25	NORTH SULAWESI	-2.349404	178.152596
26	CENTRAL SULAWESI	11.88816	192.39016
27	SOUTH SULAWESI	-2.290858	178.211142
28	SOUTH SULAWESI	5.937237	186.439237
29	SOUTHEAST SULAWESI	10.93734	191.43934
30	GORONTALO	23.80221	204.30421
31	WEST SULAWESI	-0.83983	179.66217
32	MALUKU	13.74764	194.24964
33	NORTH MALUKU	-2.499638	178.002362
34	WEST PAPUA	21.34882	201.85082

Source: BPS and Ministry of Manpower of the Republic of Indonesia, processed.

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Based on Table 4, the province with the highest constant value is West Sulawesi, at 204.30421. This indicates that, considering the influence of open unemployment rate, average years of schooling, number of poor people, gross regional domestic product (GRDP), and regional minimum wage on informal sector labor absorption, West Sulawesi exhibits a higher tendency compared to other provinces in Indonesia. Conversely, the lowest constant value is found in DKI Jakarta, at 145.16064, suggesting that the impact of these variables on informal labor absorption is relatively lower in Jakarta compared to other provinces.

CONCLUSION

The findings of this study reveal that the open unemployment rate, poverty rate, and minimum wage have a positive and significant impact on informal sector employment, while GRDP exerts a negative and significant effect. Meanwhile, the average years of schooling show a positive but statistically insignificant relationship with the share of informal sector employment. These results underscore the multifaceted drivers of informal employment, suggesting that economic and labor market dynamics are pivotal in shaping labor absorption patterns.

The statistically insignificant effect of average years of schooling aligns with Widyaningsih et al. (2024), who argue that education alone, without adequate hard skills, soft skills, and job-specific competencies, may not significantly influence labor absorption. This challenges the assertion by Sheikh and Gaurav (2020) that education is a primary determinant steering workers away from the informal sector. Such insights highlight the necessity of aligning education

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systems with labor market demands to improve formal employment opportunities.

From a policy perspective, addressing informal employment requires a holistic approach. Efforts should focus on fostering regional economic growth, as evidenced by the negative impact of GRDP on informal employment. Simultaneously, targeted poverty alleviation programs and strategic wage policies should aim to balance the benefits of minimum wage increases with their potential to incentivize informality. By addressing these interconnected factors, policymakers can reduce reliance on the informal sector and strengthen the formal labor market. Future research should delve into sectoral and demographic dimensions of informal employment to provide a more nuanced understanding and guide more effective interventions.

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