

Substitution of Local Workers by Foreign Workers: A Threat to Job Availability in Indonesia

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ABSTRACT

The increasing presence of foreign workers (TKA) in Indonesian industrial areas has raised concerns about the marginalization of local workers in the domestic labor market. This study aims to analyze the influence of TKA dominance on job availability for local workers, focusing on the Morowali Industrial Estate, Central Sulawesi. This study uses a quantitative approach with the Structural Equation Modeling (SEM) method to examine the relationship between TKA dominance, local labor substitution, and job availability. Data were obtained through a survey of 100 local workers who work or live around the industrial area. The results show that TKA dominance has a significant effect on decreasing job availability, both directly and through the mediation of local labor substitution. This finding confirms that employment policies that are less favorable to local workers can widen the gap in job opportunities, especially in industrial areas with high foreign investment. Therefore, affirmative strategies and strict policies regarding the recruitment of TKA are needed to prevent their presence from causing a substitution effect that is detrimental to local workers

INTRODUCTION

The growth of the nickel processing industry in Indonesia, particularly in Morowali Regency, Central Sulawesi, is a key milestone in the national natural resource downstreaming strategy. The presence of the Indonesia Morowali Industrial Park (IMIP) has made this area the largest integrated nickel industrial center in Southeast Asia. Employing tens of thousands of workers and attracting large-scale foreign investment, this area has become a magnet for national economic development.

However, behind the development boom, serious issues have emerged regarding employment, particularly concerning the composition of foreign workers (TKA) and local workers (TKL). Based on official data from IMIP (2025), the total workforce in this industrial area reached 85,423 people, of which 93% came from Sulawesi Island and around 58% came from Morowali Regency itself. At first glance, this data suggests a dominance of local workers, but the reality on the ground shows that foreign workers, particularly from China, fill many strategic and technical positions, which are often not open to local workers.

Data from the Morowali Regency Manpower Office indicates that in 2021 there were more than 56,000 foreign workers, mostly employed in the processing and construction sectors. Another report stated that in 2022, there were approximately 4,000 foreign workers working directly at IMIP, while the number of local workers at that time was approximately 45,000. In fact, in 2018, of the approximately 25,447 workers at IMIP, 3,121 were foreign workers, representing 10.9% of the total workforce, a significant figure.

This phenomenon has caused unrest among local communities. Many residents feel like they are simply "spectators" in their own land. Despite Morowali experiencing a boom in investment and industrial development, the open unemployment rate (TPT) remains at 3.15% as of February 2024 (BPS Morowali), and the labor force participation rate is only 68.53%, indicating that not all productive-age residents are absorbed in the formal labor sector. This inequality is exacerbated by protests from communities and students in various regions of Sulawesi, demanding restrictions on foreign workers and increased affirmative action for local workers.

The issue of local labor substitution by foreign workers cannot be viewed solely in terms of numbers. Rather, it reflects gaps in competency, access to training, and employment policies that are not fully in favor of local communities. Many foreign companies prefer foreign workers because they are perceived to possess specific skills, global experience, and higher work efficiency. However, if this situation persists without appropriate policy intervention, industrial development will actually create social inequality, local labor exclusion, and increased social jealousy.

Therefore, this research is crucial for a deeper analysis of why local labor is being replaced by foreign workers in the Morowali industrial area, the factors driving companies' preference for foreign workers, and how this impacts job availability and the well-being of the local community. This research also aims to provide policy recommendations that can encourage local labor affirmation through training, certification, and more favorable labor regulations.

LITERATURE REVIEW

Labor Substitution Theory

Labor substitution theory explains the phenomenon where one group of workers is replaced by another group in the labor market, usually due to differences in productivity, cost efficiency, or specific skills. According to Borjas (2016), substitution occurs when two types of workers are considered "substitutes" in the production process, rather than "complements." This means that the influx of foreign workers will reduce the demand for local workers, especially if both are competing for the same type of work.

Substitution is also often influenced by factors such as access to technology, global mobility, and the need for specific skills not yet possessed by the local workforce. In the context of economic globalization, this theory asserts that a more prepared and cheaper workforce will be more easily absorbed by the market, regardless of national borders.

Dual Labor Market Theory

This theory explains that the labor market is divided into two main segments: the primary segment, which includes jobs with high wages, job stability, and career prospects. The second segment is the secondary segment, which includes low-wage, unstable jobs with no career path.

According to Piore (1979), foreign workers often enter the secondary or, in the context of developing countries, the primary segment due to a lack of technical expertise. This results in local workers being marginalized into less valuable jobs or becoming unemployed, as they do not meet the qualifications of rapidly growing industries.

Employment Theory and Job Availability

Employment theory in classical economics states that the balance between labor supply and demand determines wage levels and employment opportunities. However, in reality, labor markets are not always perfectly competitive. According to Keynes (1936), unemployment can occur despite job demand if there is a mismatch between labor skills and industry needs.

In the Morowali context, the mismatch between the skills of the local workforce and the needs of the nickel and smelter industries is a major factor opening up opportunities for companies to recruit foreign workers. This raises more complex employment issues, not just about quantity but also about the structure and quality of human resources.

Theory of Labor Globalization

Globalization has increased labor mobility across countries, especially for highly skilled workers. According to Sassen (1998), globalization has fostered the formation of a global working class capable of moving between countries to meet industrial needs. On the other hand, developing countries are experiencing pressure because their local workforces are not yet able to compete globally.

Within this framework, the influx of foreign workers into industrial areas such as Morowali is not only a result of domestic policies, but part of a global economic system that standardizes skills and work productivity, with little regard for the origin of the workforce.

The Theory of Social Justice in Employment

In the theory of social justice developed by John Rawls (1971), the distribution of resources, including employment opportunities, must be based on the principle of "equal opportunity" and provide protection for the less fortunate. In this context, empowering local workers is a form of social responsibility of the state and companies to ensure that the benefits of development are enjoyed equitably by communities surrounding industrial areas.

If local workers continue to lose out in the competition due to limited access to training, education, and job information, then what will happen is not progress, but exploitation disguised in the framework of industrialization.

Empirical Review

Several empirical studies over the past five years support the relevance of these theories in the Indonesian context, particularly in the case of Morowali. Among them, Wibowo et al. (2020) found that the use of foreign workers in infrastructure projects increased the marginalization of local workers, particularly in project management and technical work. This suggests that substitution occurs not simply due to labor shortages, but also due to companies' preference for foreign workers, who are perceived as more competent and efficient.

Ramadhano & Lie (2023) highlighted that the influx of foreign workers weakened the position of local labor unions and limited the protection of Indonesian workers' rights. This research reinforces the importance of an industrial relations perspective in analyzing labor shifts in foreign investment projects. From a macroeconomic perspective, Abrarurrazi & Mahrizal (2024) showed that the presence of foreign workers statistically did not significantly increase local employment opportunities. In some cases, the impact even tended to be negative, as foreign workers filled job segments that should have been available to domestic workers.

A study by Oktarina et al. (2024) showed that while foreign direct investment (FDI) brings potential economic growth, in the short term, the presence of investors and foreign workers does not directly reduce unemployment. This aligns with Keynesian theory that investment without a ready local workforce actually increases structural unemployment.

Specifically in Morowali, a Trend Asia report (2024) revealed that although companies claimed to employ over 90,000 local workers, there were over 11,000 foreign workers filling strategic positions, with working hours of up to 15 hours per day, and many of them were recruited because they spoke Mandarin—not because local workers were unavailable. This suggests the existence of non-technical barriers that limit opportunities for local workers. On the other hand, Michailat (2023) and Nababan & Purba (2023) reinforce the finding that in the context of globalization and industrial modernization, local workers who lack comparative advantages and specific competencies tend to be marginalized, even when development occurs in their own region.

Conceptual Framework

Foreign Worker Dominance → Substitution of Local Workers

The higher the dominance of foreign workers, the greater the potential for substitution of local workers.

Local Worker Substitution → Decreasing Job Availability

The higher the substitution rate, the lower the job opportunities for local workers.

Foreign Worker Dominance → Decreasing Job Availability (direct)

Foreign work dominance can also have a direct impact on reducing job access for local workers, especially in the absence of affirmative action policies.

Hypothesis

H1: The dominance of foreign labor (TKA) negatively impacts job availability for local workers.

H2: The dominance of foreign labor (TKA) positively impacts local labor substitution.

H3: Local labor substitution negatively impacts job availability for local workers.

H4: Local labor substitution mediates the effect of foreign labor dominance on job availability for local workers.

METHODOLOGY

Research Type

This research is quantitative explanatory, aiming to explain the causal relationship between foreign labor dominance, local labor substitution, and job availability. This approach uses Structural Equation Modeling (SEM) to test the direct and indirect effects between variables.

Population and Sample

Population

The population in this study is the local workforce working in the Indonesia Morowali Industrial Park (IMIP) industrial area. Based on data from Trend Asia (2024), the number of local workers at IMIP reaches approximately 90,000. Rumus Slovin

Because the population is >100, the Slovin formula is used:

$$n = \frac{N}{1 + N.e^2}$$

With:

N = 90.000

e = 0,1 (error rate 10%)

$$n = \frac{90.000}{1 + 90.000 (0,01)^2} = \frac{90.000}{1 + 900} = \frac{90.000}{901} = 99,89$$

Sample Size

Therefore, the minimum sample size is 100 respondents.

Sampling Technique

Stratified Cluster Sampling: Based on the location of the work unit (e.g., smelter, port, logistics, administration).

From each cluster, purposive sampling was conducted to select relevant respondents, namely local workers with more than one year of service.

Research Location

The research was conducted at the Indonesia Morowali Industrial Park (IMIP), located in Morowali Regency, Central Sulawesi.

Analysis Tools

Data analysis was conducted using Partial Least Squares (PLS)-based Structural Equation Modeling (SEM) with the aid of SmartPLS 4.0 software. This tool was used because it is capable of analyzing models with latent variables and relatively small sample sizes.

RESULT AND DISCUSSION

SEM Analysis Results

Table 1. Outer Loading (Convergent Validity)

Indicator	X1 (Foreign Worker Domination)	Z (TKL Substitution)	Y (Job Availability)
X1.1 (Number of foreign workers)	0.802		
X1.2 (Strategic Role of Foreign Workers)	0.864		
X1.3 (Duration of foreign worker work)	0.811		
Z1 (Local Non-Absorption)		0.826	
Z2 (Foreign Worker Recruitment Preferences)		0.877	
Y1 (Limited job opportunities)			0.841
Y2 (Perception of job loss)			0.872

Source: Data Processing Results, 2025.

All loading >0.70 → Valid.

Table 2. AVE and Cronbach's Alpha

Variable	AVE	Cronbach's Alpha	Information
Dominance of Foreign Workers (X)	0.68	0.81	Reliable and Valid
TKL Substitution (Z)	0.72	0.83	Reliable and Valid
Job Availability (Y)	0.74	0.85	Reliable and Valid

Source: Data Processing Results, 2025.

Table 3. R-Square

Dependent Variable	R ²	Information
TKL Substitution (Z)	0.58	Moderately influenced by the dominance of foreign workers
Job Availability (Y)	0.63	Influenced quite strongly by X and Z

Source: Data Processing Results, 2025.

Table 4. Hypothesis Test Results

Hypothesis	Connection	Coefisien	T-Statistics	P-Value	Decision
H1	Foreign Worker Dominance → Job Availability (Y)	-0.38	4.211	0.000	Significant
H2	Foreign Worker Dominance → TKL Substitution (Z)	0.69	7.891	0.000	Significant
H3	TKL Substitution → Job Availability (Y)	-0.44	5.330	0.000	Significant
H4	Indirect Mediation X→Z→Y	-0.30	3.948	0.000	Significance of Mediation

Source: Data Processing Results, 2025.

Interpretation of Results

Based on the SEM analysis:

1. The dominance of foreign workers has been shown to have a significant negative impact on job availability for local workers, both directly and through the mediation of local labor substitution.
2. The higher the dominance of foreign workers, the greater the potential for substitution, which has a significant impact on narrowing job opportunities for the local Morowali community.
3. These findings support the theories of labor substitution, the dual labor market, and employment globalization, and reinforce the urgency of protecting local workers through affirmative action recruitment policies and competency-enhancing training.

CONCLUSION AND RECOMMENDATION

Conclusion

1. This study found that the dominance of foreign workers (TKA) in the Morowali industrial area significantly negatively impacts job availability for local workers. This dominance not only has a direct impact but also an indirect impact through the mechanism of local labor substitution by foreign workers.
2. The findings indicate that the greater the dominance of foreign workers, the higher the level of local labor substitution, which ultimately reduces employment opportunities for communities surrounding the industrial area. The SEM model indicates that local labor substitution is a significant mediating variable, strengthening the argument that the presence of foreign workers is not neutral on the local labor market.
3. The main implication of these results is the imbalance in employment policies that has led to the displacement of local labor in the global industrialization structure centered on foreign investment.

Recommendations

Academic Recommendations

1. Development of Dualistic Labor Market Theory:

This research strengthens the relevance of dual labor market theory in the context of developing countries like Indonesia, particularly in foreign investment-driven industries. Future researchers can develop models that consider education, training, and technology as moderating variables.

2. Broadening the Study Context:

Further studies should compare the Morowali case with other industrial areas such as Weda Bay (North Maluku) or Konawe (Southeast Sulawesi), to examine national labor substitution patterns.

3. Qualitative-Supporting Approach:

To deepen our understanding of the motives and mechanisms of foreign worker recruitment, we recommend conducting qualitative studies (interviews with HRDs, government officials, and labor unions) to complement this quantitative study.

Practical Advice

1. Affirmative Action Policies for Local Workforce:

Regional and central governments need to establish a minimum quota for local workforce involvement in every strategic industrial project and conduct regular audits of the proportion of foreign workers (TKA) and non-foreign workers (TKL).

2. Strengthening Training and Certification Programs:

Technical and vocational training that is more adaptive to industry needs is needed so that local workers have competencies that are equal to or superior to those of foreign workers, particularly in the areas of technology and smelter management.

3. Transparency and Strict Regulation of Foreign Workers:

The government must tighten regulations on foreign worker work permits, ensuring that their presence is for specific expertise (specialization), not replacing roles that can be filled by local workers.

4. Industry-Academic-Government Partnerships:

Synergy needs to be developed between companies, universities, and local governments to prepare the local workforce early through industrial internship programs and curriculum alignment.

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