The Socioeconomic Implications of Multinational Corporations in Indonesia Between 2012 and 2022: A Comparative Analysis of Mining Industries in Morowaly Regency, Central Sulawesi Province, and Mimika Regency, Central Papua Province

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Abstract. This study intends to evaluate the effects of multinational corporations (MNCs) on the social and economic aspects of the communities in Mimika Regency and Morowali Regency, Central Sulawesi Province, Indonesia. The study employs a mixed-methods approach with a case study design to explore and understand the importance that people or a group place on social or humanitarian issues. The study uses data from MNCs and time series data covering the period from 2012 to 2022 to assess secondary data's economic and social implications. This study analyzed the unemployment rate, gross domestic product, human development index, mean years of schooling, and poverty rate. The research indicates that MNCs have had a significant economic and social impact in Morowali and Mimika Regency. This shows that the U.S. capital market outperforms China in terms of both the quantity and quality of foreign direct investment (FDI). However, China has a more significant impact on boosting economic growth.

Keywords: MNCs, Socioeconomic, Mining Industry.

1 Introduction

The economy of the 21st century is defined by economic globalization, which refers to the interconnectedness and integration of economic activities and commerce between countries, transcending national borders. Globalization mainly revolves around the existence of MNCs. MNCs have a significant impact on molding the global economic system. MNCs contribute positively to global prosperity by investing in subsidiaries in other countries where their parent firms operate. Hence, it significantly contributes to establishing and enhancing economies, particularly in developing nations. It offers numerous advantages, such as the augmentation of macroeconomic indicators, capital inflow, job creation, income generation, and gross domestic product (GDP) growth. It also advantages the energy industry, industries, and export-oriented firms [1].

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Indonesia is one of the key economic drivers in Asia. Indonesia's active global role in fostering international and bilateral relations between countries is notable, and Indonesia is the sole Southeast Asian nation actively engaged in the G-20 group of nations. Consequently, the amount of foreign investment in Indonesia has increased significantly. From 2010 to 2023, the average amount of foreign direct investment (FDI) in Indonesia was 94.80 IDR trillion. The highest FDI recorded was 196.20 IDR trillion in the third quarter of 2023, while the lowest was 35.40 IDR trillion in the first quarter of 2010. Indonesia's top inward direct investors are Singapore, the United States, Japan, The Netherlands, and the People's Republic of China.

The strategic significance of Indonesia as a mineral producer cannot be disregarded by the United States and China, given that Indonesia holds the title of the largest global producer of nickel, the second-largest global producer of tin, and the third-largest global producer of coal. Indonesia is the third-largest copper producer worldwide and the ninth-largest gold producer. Indonesia possesses 21 million metric tons of nickel reserves, constituting 9.6% of the global total. These deposits are distributed across the states of Kalimantan, Sulawesi, Maluku, and Papua, as reported by the Nickel Institute. According to data from the Central Statistics Agency [2], nickel exports from Indonesia in early 2022 amounted to $2.45 billion, or 297.76 thousand tons in volume. This signifies a volume increase of 574 percent and a value increase of 462 percent in exports compared to last year [3].

Foreign investment has resulted in developing various new industries, including mining. Some global corporations use Indonesia as an export hub to meet domestic demands. Bilateral relations between Indonesia and the United States began upon Indonesia's independence from the Netherlands in 1949. China and Indonesia established diplomatic ties on April 13, 1950, which were discontinued on October 30, 1967, due to the "November 30 event" in 1965. Bilateral relations began strengthening during the 1980s [4]. In transnational economic diplomacy, collaborations with multinational corporations necessitate substantial assistance from the home country to the host country. The Indonesian government has partnered with China to bolster nickel initiatives in Indonesia. Principal investors in the 2014 establishment of the industrial zone were Shanghai Decent Investment. Ltd., PT. Sulawesi Mining Investment, and PT. Bintang Delapan Mineral, which subsequently became PT. Indonesia Morowali Industrial Park. According to data from the Central Statistics Agency [2], throughout 2022, Indonesia exported 777.4 thousand tons of nickel, with approximately 661.7 thousand tons to China [5].

This study aims to assess the MNC's impact on human and economic development so it may offer recommendations to the national government. These recommendations may assist in formulating a strategic program to enhance policy performance, attract more FDI, and encourage regional economic growth. This study also has the potential to strengthen the bilateral partnership between Indonesia-China and Indonesia-USA.

2 Methods

The research will utilize data from MNCs in Mimika District and Morowali District and time series data from 2012 to 2022. The data used originates from established government entities, including the Central Bureau of Statistics (BPS), the Indonesian Bank, and the National Planning and Development Agency (BAPPENAS). To address the research question, we utilize SPSS to examine the effect of the mining sector on labor absorption and economic growth. Comparative analysis is used to address the second and third research topics. This study will analyze the factors that affect labor absorption between PT IMIP in Morowali and PT Freeport in Timika. Furthermore, this analysis seeks to assess and contrast the effects of the two nickel and gold mining businesses on economic activity expansion in the surrounding regions.

3 Results

This study examines the socio-economic implications of Multinational Corporations in the Mining Industry within Morowali Regency, Central Sulawesi Province, and Mimika Regency, Central Papua Province. Initially, the data and trends of each indicator from various periods are outlined. Subsequent tables and figures present the descriptive analysis findings from this study.

Table 1 displays the mean values of various economic and social indicators, where Mimika generally exhibits higher mean values compared to Morowali across all indicators, indicating a more robust economy. Based on the economic indicators, although the GRDP in the mining and quarrying sector and the total GRDP in Mimika are higher, contrastly the unemployment rate is also higher than in Morowali. Based on social indicators, Mimika still maintains higher mean values, albeit with a narrower margin than economic indicators. This suggests that while Mimika enjoys a stronger economic foundation, both regions show relatively comparable levels of social development. Based on the overall trends, MNCs in the mining industry in both regencies significantly contributed to both the economic and social aspects. This is evident from the substantial proportion and contribution of the GDRP in the mining industry to the total GDRP, indicating a dominant reliance on this sector in the economy. Additionally, other economic and social indicators also performed well, further highlighting the mining industry's positive implications on the regencies' overall development.

Table 1. Descriptive Statistics

Variables		Mean	Median	Std. Dev	Min	Max
UMP	Morowali	3.39	3.00	1.06	2.29	5.21
	Mimika	6.74	7.51	1.62	3.20	8.30
MGDRP	Morowali	6061.6	4237.4	4481.2	1494.6	14888.9
	Mimika	52216.0	49510.0	10571.1	36029.2	69937.8
GDRP	Morowali	23146.1	13363.8	22547.3	5011.9	70515.6

Variables		Mean	Median	Std. Dev	Min	Max
	Mimika	60483.8	57214.5	11017.6	45652.2	80277.6
HDI	Morowali	70.06	70.41	2.23	66.48	72.55
	Mimika	72.26	72.42	2.13	68.95	75.08
MYS	Morowali	8.67	8.73	0.60	7.82	9.35
	Mimika	9.59	9.54	0.51	8.75	10.20
PR	Morowali	14.68	14.55	1.32	12.58	17.25
	Mimika	15.83	14.72	2.28	14.17	20.37

Note: UMP (Unemployment Rate); MGDRP (Mining Industry Contribution to GDRP); GDRP (Gross Domestic Regional Product); HDI (Human Development Index); MYS (Mean Years of Schooling); PR (Poverty Rate)

To compare the socio-economic implications between Morowali Regency and Mimika Regency, the researchers conducted a comparison test using statistical methods. Before performing this test, the researchers assessed the normality of the data using the Shapiro-Wilk Test due to the small sample size. This test was employed to check the normality assumption before applying parametric or non-parametric tests. Based on Shapiro-Wilk Test Result, several indicators, including Unemployment Rates, GRDP in the mining and quarrying sector, GRDP, and Poverty Rate, showed a p-value < 0.05, indicating that the data deviates from a normal distribution. In this study, the researcher also employed Levene's test as a preliminary analysis before conducting tests to assess the equality of variances among different groups. The results of Levene's test indicate that the significance value of several indicators is < 0.05, suggesting that variances are unequal across all groups. Considering most indicators were not normally distributed, the researchers employed the Mann-Whitney U Independent Sample Test to examine the difference in the socioeconomic implication of MNCs in the Mimika Regency and Mimika Regency mining industry. This test is appropriate for data that do not conform to the assumption of normal distribution.

Table 2. Mann-Whitney U Independent Sample Test

Variables	Mann-Whitney U	Wilcoxon W	Z	Asymp Sig. (2-tailed)
UMP	5.500	71.500	-3.615	0.000
MGDRP	0.000	66.000	-3.973	0.000
GDRP	14.000	80.000	-3.053	0.002
HDI	31.000	97.000	-1.937	0.053
MYS	13.000	79.000	-3.119	0.002
PR	44.500	110.500	-1.051	0.293

Based on the result of the Mann-Whitney U Independent Sample Test (Table 2), it was found that all economic indicators, including unemployment rate, GDRP in the mining and quarrying sector, and total GDRP, showed the Asymp. Sig. (2-tailed) value < 0,05. It can be concluded that there is a significant difference in the economic implications between Morowali Regency and Mimika Regency. The GDRP in the mining and quarrying sector, as well as the total GDRP of Mimika Regency, demonstrate better performance. At the same time, the unemployment rate in Morowali Regency is lower than that in Mimika Regency. Otherwise, it was found that several social indicators, including the Human Development Index and Poverty Rate, showed the Asymp. Sig. (2-tailed) value > 0.05. It can be concluded that there is no significant difference in the economic implications between Morowali Regency and Mimika Regency. However, the Mean Years of Schooling showed the Asymp. Sig. (2-tailed) value < 0.05, indicating a significant difference in this indicator. The GDRP in the mining and quarrying sector and the total GDRP of Mimika Regency demonstrate better performance. At the same time, the unemployment rate in Morowali Regency is lower than that in Mimika Regency. Furthermore, the HDI and Mean Years of Schooling in the Mimika Regency are higher than in the Morowali Regency. At the same time, the Poverty Rate in the Morowali Regency is lower than in the Mimika Regency.

4 Discussions

4.1 Economic Implications of MNCs

Between 2012 and 2022, there were significant economic implications from the operations of MNCs in the mining industry in Morowali and Mimika. This is particularly evident in unemployment rates, GDRP in the mining and quarrying sector, and the total GDRP. The GDRP showed an increasing trend while the unemployment rate demonstrated a decrease. The unemployment rate in Morowali experienced a decline from 4.63% in 2012 to 3.20% in 2022, with fluctuations in 2020 attributed to the Covid-19 pandemic. In Mimika, although initially having a higher unemployment rate of 7.15% in 2012, also witnessed a significant reduction to 3.20% by 2022. The expansion of the mining sector, driven by MNCs, contributed to increased labor demand and job creation in both regions, resulting in a significant decrease in unemployment rates over the analyzed period. In addition, the GDRP in the mining and quarrying sector and total GDRP exhibited substantial growth year by year. In Morowali, the nickel mining industry's expansion, driven by global market demand, led to a doubling of the GDRP in this sector. The GDRP in the mining and quarrying sector in this regency has increased nearly tenfold by 2022 since the commencement of its nickel industry in 2015. Similarly, Mimika experienced consistent growth in GDRP, reflecting positive economic development catalyzed by MNCs operating in the mining sector. In addition, it was found that there are significant economic differences between Morowali and Mimika Regencies, with Mimika showing better GDRP performance while Morowali has a lower unemployment rate.

MNCs play a pivotal role in driving economic growth and development in the Morowali and Mimika Regencies. The decline in unemployment rates reflects the positive impact of increased economic activity generated by the mining sector, translating into job opportunities and improved livelihoods for local communities. Moreover, the substantial growth in GDRP, both in the mining sector and overall, highlights the significant contribution of MNCs to regional economies. This growth not only benefits the mining industry but also stimulates ancillary sectors, fostering a multiplier effect on the overall economy. However, policymakers need to ensure that this growth is sustainable and inclusive, addressing potential environmental concerns and ensuring equitable distribution of benefits to all stakeholders. These findings confirm the study conducted by Adams et al. [6], which found that oil and gas MNCs in oil-rich developing countries have had a significant impact on the economic growth of these nations. In line with Ray's [7] findings, foreign direct investment (FDI) in India has been shown to positively impact the country's economic growth. Specifically, a 1% change in FDI volume correlates with approximately a 0.93% change in economic growth, as measured by GDP growth. Furthermore, Tang and Gyasi [8] revealed that Chinese Foreign Direct Investment (FDI) in Ghana led to a significant 91% increase in total employment within the manufacturing sector.

4.2 Social Implications of MNCs

The research findings highlight significant improvements in various social indicators in Morowali Regency, Central Sulawesi Province, and Mimika Regency, Central Papua Province, between 2012 and 2022, particularly discernible across several key indicators including human development index, mean years of schooling, and poverty rates. The HDI witnessed a notable increase in both regions, with Morowali's HDI rising from 66.48 in 2012 to 72.55 in 2022, and Mimika's HDI increasing from 68.95 to 75.08 during the same period (an increase by around 1.009 point per year for both regency). Additionally, mean years of schooling also experienced positive growth in both regencies, with Morowali seeing an increase from 7.82 years in 2012 to 9.35 years in 2022 (an increase by around 1.018 point per year), and Mimika from 8.75 years to 10.20 years over the same timeframe (an increase by around 1.016 point per year). Moreover, poverty rates showed a declining trend, albeit with fluctuations, in Morowali Regency, dropping from 17.25% in 2012 to 12.58% in 2022 (a decline of around 0.970% per year), and in Mimika Regency, declining from 20.09% to 14.28% over the analyzed period (a decline of around 0.969% per year). However, there is a significant disparity in Mean Years of Schooling between Morowali and Mimika. In contrast, there is no notable difference in the Human Development Index and poverty rate between these two regencies.

The presence and operations of MNCs in the mining industry in these two regencies have enhanced the social indicators. These corporations have played a significant role in driving economic growth, creating employment opportunities, and investing in regional social development programs. The increase in HDI scores reflects advancements in education, healthcare, and standard of living, which are associated with economic prosperity facilitated by MNCs. Similarly, the rise in mean years of schooling indicates enhanced access to education and skill development opportunities, contributing to human capital formation and socioeconomic empowerment among the local population. Furthermore, the declining poverty rates signify a reduction in income disparity and an improvement in living standards, underscoring the positive impact of MNC-driven economic activities on poverty alleviation efforts. These findings align with the research conducted by Djokoto & Wongnaa [9]. who investigated the effects of FDI on the stages of human development across 87 developing countries, 13 transition economies, and 34 developed countries, revealed that foreign direct investment has a positive impact on human development in both developing and developed nations. However, policymakers and stakeholders need to ensure that the benefits of economic growth are inclusive and sustainable, addressing social inequalities and environmental concerns to foster long-term social development and well-being in Morowali and Mimika Regencies.

5 Conclusion

Indonesia's government policies, as outlined in Article 33 of the 1945 Constitution and subsequent laws, prioritize using mineral and coal resources for the nation's welfare. However, the mining industry has often favored investors over national interests, creating societal challenges. Law Number 4 of 2009 marked a shift towards prioritizing national interests and maximizing the benefits of these resources. The transition to a licensing system and emphasis on domestic processing aimed to add value, increase revenue, and support downstream industries. Despite this, domestic processing remains underdeveloped, and raw mineral exports continue to rise. Resistance from mining entrepreneurs to smelter development reflects the tension between commercial and national goals. Nonetheless, regulations and increased export taxes show the government's commitment to local processing. Multinational corporations (MNCs) in mining have contributed significantly to regional economies and employment, but disparities in economic benefits and social indicators, such as the Human Development Index and poverty levels, persist. While government policies and MNC investments have yielded economic and social gains, challenges remain in fully realizing the sector's potential for national development. Addressing these challenges requires continued collaboration between the government, industry, and local communities. This study used descriptive analysis and statistical methods to assess the economic and social impacts of mining. Future research could employ qualitative methods to gain deeper insights into stakeholder perspectives and explore regional comparisons to support informed decision-making in the sector.

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