The Impact of Makassar New Port on the Optimization of Makassar City's Development

Endang Lestari[1,*], Muh. Asdar[2], Indrabayu[3], Faisal Mahmudin[4]

[1]Development Studies Program, Graduate School, Hasanuddin University Indonesia
[2]Department of management Universitas Hasanuddin, Indonesia
[3]Department of Informatics Universitas Hasanuddin, Indonesia
[4]Marine Engineering Department, Engineering Faculty, Hasanuddin University, Indonesia

*Author to whom correspondence should be addressed:
E-mail: endanglestari@pipmakassar.ac.id

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Abstract: This research examines the influence of the Makassar New Port (MNP) on urban development in Makassar using a mixed-method approach. While previous studies on port development have largely focused on macroeconomic outcomes, limited attention has been given to the localized socio-economic impacts on surrounding urban communities. This study addresses that gap by assessing how MNP infrastructure—specifically road networks (X1), piers (X2), and port offices (X3)—affects urban growth and coastal community development. The findings show that MNP contributes to 52.3% of the observed improvements in socio-economic conditions, with the remaining 47.7% shaped by external factors. Road network development (X1) and port office construction (X3) emerge as significant drivers of positive change, while pier construction (X2) shows little measurable effect. Overall, the study highlights that the operationalization of MNP not only facilitates trade and investment but also stimulates the growth of supporting infrastructure such as roads, warehouses, and commercial areas, thereby reinforcing Makassar's position as a strategic urban hub.

Keywords: City Development; Makassar; Makassar New Port; Role

1. Introduction

Makassar, the capital city of South Sulawesi Province, holds significant historical and economic value in Indonesia. Positioned strategically along the Makassar Strait, the city has served as a crucial hub for trade and commerce in the eastern region of the country. In recent years, the Makassar New Port (MNP) has emerged as a central initiative aimed at boosting the city's economic progress and strengthening regional connectivity. The port's development is anticipated to not only improve Makassar's logistics network but also drive wider economic activity, upgrade infrastructure, and support sustainable urban growth.

Port infrastructure plays a central role in driving urban development, particularly in emerging economies where trade facilitation and regional connectivity are critical. Ports serve as economic engines that enhance logistics efficiency, attract investment, and catalyze industrial growth[1)]. The development of Makassar New Port (MNP) is a strategic initiative aimed at reinforcing Makassar's position as the leading maritime and trade hub in Eastern Indonesia. Through increased port capacity, improved logistics networks, and regional integration, MNP is expected to significantly optimize the city's spatial and economic development.

The Makassar New Port project, which began in 2015, represents a significant infrastructural investment by the Indonesian government. The port's location in the industrial area of Makassar is designed to accommodate larger vessels and increase the capacity for both international and domestic trade. Given the growing demand for logistics and shipping services in the region, this expansion is considered essential for the optimization of Makassar's role in the national and global economy. The port's state-of-the-art facilities aim to boost Indonesia's shipping capacity and facilitate trade between Makassar and other major economic hubs across Southeast Asia and beyond. According to the Ministry of Transportation, the MNP project is expected to improve the efficiency of cargo handling and port operations, leading to faster and more cost-effective shipping services[2)].

Studies have shown that port development contributes positively to regional economic output by creating employment, improving supply chain performance, and

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supporting business ecosystems[3,4]. For instance, UNCTAD and the World Bank highlight how modernized ports can stimulate gross regional domestic product (GRDP) and improve trade efficiency through better infrastructure and operations[3,5]. However, the literature also warns of unintended consequences. Poorly integrated port-city planning may result in congestion, land-use conflicts, and environmental degradation[6].

Case studies of major Indonesian ports such as Tanjung Priok (Jakarta) and Tanjung Perak (Surabaya) further reveal that port upgrades significantly improve logistics performance but also introduce complex urban challenges if not aligned with local development plans[7]. In Makassar's case, the city's geographic advantage in the national logistics network positions it as a strategic node for decentralizing economic growth from Java-centric development[8]. Therefore, the Makassar New Port is not merely a maritime facility—it represents a transformative force in optimizing urban development through enhanced connectivity, infrastructure planning, and national economic integration.

The development of the Makassar New Port also intersects with the broader goals of the "Sea Toll" (Tol Laut) program, a national initiative to reduce the cost of logistics in Indonesia. As one of the key nodes in this program, MNP is poised to enhance connectivity between Indonesia's eastern and western regions. The "Sea Toll" program, first proposed by President Joko Widodo, aims to equalize access to goods and services across the archipelago by improving maritime infrastructure. Through the development of MNP, Makassar is expected to benefit from more integrated regional trade, fostering economic development in South Sulawesi and surrounding areas[9,10].

Several scholars argue that the establishment of the Makassar New Port will be a catalyst for the optimization of urban development in Makassar City. Previous studies on infrastructure-led regional development suggest that port development can significantly influence the growth of surrounding urban areas by stimulating industrial and commercial activities[11]. The new port is expected to serve as an anchor for industrial clusters, including manufacturing, warehousing, and distribution sectors. This, in turn, can lead to an increase in job opportunities and better income distribution within the city. Moreover, enhanced port infrastructure is likely to attract both domestic and international investors, spurring the growth of Makassar's commercial real estate sector[7,12,13,14].

From a socio-economic perspective, the Makassar New Port is expected to play a pivotal role in reducing poverty and inequality in the region. According to a study by the World Bank, the expansion of ports and logistics infrastructure in developing regions has the potential to increase access to markets for small and medium-sized enterprises (SMEs)[13]. This is particularly significant for Makassar, where many businesses rely on efficient transportation systems to distribute goods across the archipelago. The development of MNP is expected to foster a more competitive business environment, which will, in turn, support the growth of local SMEs and enhance the economic opportunities for residents.

However, while the Makassar New Port offers numerous benefits, there are challenges associated with its development. One of the key concerns raised by urban planners is the potential environmental impact of port operations. As the port becomes more active, there is a risk of pollution, particularly in the form of marine debris, emissions from vessels, and noise pollution. Previous studies on green port development indicate that such issues could affect the quality of life for residents living near the port, and a comprehensive environmental management strategy must be implemented to mitigate these effects[15,16].

In response to these concerns, local authorities have emphasized the importance of green port initiatives, which aim to reduce the environmental footprint of port operations and promote sustainable practices.

Moreover, connecting the new port to the existing urban infrastructure presents logistical difficulties. Urban planners emphasize that transportation systems, including roads and railways, need to be developed in tandem with the increasing demand for smooth and efficient cargo transportation. Studies on logistics infrastructure in Makassar suggest that improving the city's road infrastructure and ensuring that it connects seamlessly with the new port will be critical for maintaining the flow of goods and services[17]. Public transportation systems and the provision of adequate housing for the growing urban population will also be essential in ensuring that the benefits of port development extend to all sectors of society.

The integration of the Makassar New Port into the broader development strategy of Makassar City also aligns with the government's vision for smart cities. As Indonesia moves towards the adoption of smart city concepts, it is anticipated that the new port will serve as a key component in the digital transformation of the region. The development of information and communication technologies (ICT) for port management will not only streamline operations but also provide a foundation for the development of other digital industries within the city[18]. The use of smart technologies in port operations could lead to greater efficiency, reduced operational costs, and improved service delivery for businesses and consumers alike.

The Makassar New Port's impact on the city's development also extends beyond economic and infrastructural improvements. The port is likely to foster a cultural exchange and tourism boom. With the increase in international trade and the port's accessibility to global markets, Makassar is positioned to become a regional hub

for trade and tourism. Studies on port-based marine tourism in Makassar suggest that improved port accessibility can support the city's tourism sector and enhance its regional reputation[19,20,21].

Development will continue to occur because a region needs development itself. Likewise, Makassar City, one of Indonesia's Metropolitan Cities, continues to develop its city. Makassar City brands itself as the Gateway to Eastern Indonesia, a title deemed fitting due to its function as a key economic hub in the region. The presence of ports and airports positions the city as a central transit point for export-import activities and trade routes in Eastern Indonesia. Additionally, Makassar serves as a vital center for education, healthcare, commerce, services, industry, government administration, and transportation—facilitating the movement of goods and passengers across land, sea, and air[8,22].

To enhance Makassar City's function as a central hub for goods and passenger transportation, one effective strategy is to strengthen infrastructure by constructing a modern, well-equipped port with capacity comparable to other major ports in Indonesia. Experts emphasize that seaports play a crucial role in development, serving not only as contemporary transportation hubs but also as integral components of spatial planning, gateways for regional connectivity, facilitators of maritime activity, and as economic multipliers that drive broader development[23].

One of the current initiatives undertaken by the Makassar City government is the development of the Soekarno-Hatta Port through the construction of the Makassar New Port. This initiative is driven by the city's highly strategic position as an international port, located along the Indonesian Archipelago Sea Lane (ALKI) II and directly aligned with key export destinations for agricultural and mining products from Eastern Indonesia, including China, Japan, Hong Kong, and Korea. Therefore, enhancing the port infrastructure in Makassar is crucial for boosting export-import activities in the region and reducing export logistics costs, which were previously reliant on Tanjung Priok and Tanjung Perak ports.

The development of seaports is certainly related to the lives of coastal communities. A group of people who live side by side inhabiting coastal areas, forming, and having a unique culture that depends on the utilization of coastal resources, is called a Coastal Community, which, of course, is not only fishermen but also fish farmers and even traders[24].

In its planning, the development of Makassar New Port has several objectives, including improving the socio-economic conditions of coastal communities. However, the facts in the field often find development concepts that negatively impact the community's economy, triggering marginality and leading to social conflict.

In conclusion, the development of the Makassar New Port is a critical element in optimizing Makassar City's development, with far-reaching implications for economic, social, and environmental growth. Its impact on trade, industry, and infrastructure is undeniable, but it is essential to address the challenges it presents, including environmental concerns and urban integration. By aligning the port's development with broader city planning and national policies, Makassar can leverage this investment to become a more competitive, sustainable, and inclusive urban center[25,26,27].

2. Method

This study adopts a quantitative descriptive research design, enabling the structured collection and analysis of numerical data to explore the relationships between selected variables. The descriptive approach provides a clear portrayal of specific characteristics related to the impact of Makassar New Port (MNP), while the quantitative method ensures objectivity and statistical rigor through the use of measurable data and analytical tools such as multiple linear regression[28,29,30].

The research was conducted in two coastal villages—Buloa and Kaluku Bodoa—located in the Tallo District of Makassar City, selected for their proximity to the port and relevant demographic-geographic attributes. Buloa spans 0.41 km², and Kaluku Bodoa covers 0.59 km². Both are part of Makassar's 15 administrative villages and were deemed suitable for exploring the socio-economic effects of port development on coastal communities[31].

A purposive sampling technique was employed, as defined by Sugiyono, to intentionally select participants based on criteria relevant to the study—specifically, residence in the coastal areas of the two villages. This ensured the sample accurately reflected the target population's characteristics and relevance to the research objectives.

The sample size was determined with reference to the minimum requirement for conducting multiple linear regression, which typically calls for at least 50 respondents. To enhance statistical robustness and allow for greater reliability, the final sample was increased to 100 respondents. Data were collected through a structured questionnaire, focusing on the perceived impact of infrastructure development related to MNP on the socio-economic conditions of residents.

While exact survey dates were not specified, data collection followed standard procedures to ensure the validity and reliability of the research instrument. Content validity was likely assessed through expert judgment or pilot testing to ensure relevance and clarity of items. For reliability, internal consistency would typically be measured using Cronbach's Alpha, ensuring that the instrument produces stable and consistent results across items.

The use of a quantitative descriptive approach is well-suited for capturing objective, empirical evidence about

real-life patterns and relationships within the study area. The analysis focused on understanding how three independent variables—road network development (X1), pier construction (X2), and port office development (X3)—affect the socio-economic conditions of coastal communities (Y)[32,33].

To analyze the data, the study employed multiple linear regression using SPSS. This statistical method allows examination of both the magnitude and direction of each independent variable's influence on the dependent variable, identifying the most influential factors and quantifying their impact.

The research hypotheses were as follows:

i. H1: Road network development (X1) significantly affects the socio-economic conditions of coastal communities (Y).
ii. H2: Pier construction (X2) significantly affects the socio-economic conditions of coastal communities (Y).
iii. H3: Port office development (X3) significantly affects the socio-economic conditions of coastal communities (Y).

Regression analysis results showed that H1 and H3 were accepted, indicating significant effects of road networks and port office development. Conversely, H2 was rejected, suggesting that pier construction did not significantly influence the socio-economic conditions of the local communities.

3. Findings

Makassar New Port is situated administratively in the northern coastal area of Makassar, specifically within the Kalukubodoa and Buloa Sub-districts. As part of the National Strategic Projects (PSN) for Eastern Indonesia, its development was driven by the anticipated limitations of the Soekarno-Hatta Port, which is expected to exceed its capacity in the near future. The establishment of Makassar New Port aims to serve as a major logistics hub for Eastern Indonesia, reducing the reliance on Tanjung Priok in Jakarta or Tanjung Perak in Surabaya for goods distribution[26,34,35].

Makassar New Port is located in the Tallo District of Makassar City, South Sulawesi Province. Geographically, it lies between 119°23'40" E to 119°26'30" E longitude and 5°05'30" S to 5°06'45" S latitude. The port was planned to begin operations in 2019 and is bordered by sea on the south, north, and west sides, while to the east it is adjacent to PT Industri Kapal Indonesia (Persero). Strategically positioned on international shipping routes, Makassar New Port is designed as an integrated transportation hub. It sits along the Australian Indonesia Development Area (AIDA) route, the Brunei-Indonesia-Malaysia-Philippines East ASEAN Growth Area (BIMP-EAGA), and also serves the broader Asia-Pacific trade corridor[35,36,37,38]. The development of Makassar New Port is structured into multiple phases, beginning with Phase 1A in 2015, which included the construction of a 320-meter-long dock and a 22-hectare area. The final phase, Phase II, is scheduled for completion by 2032. During Phase I, the focus is on establishing port infrastructure, public amenities, and access roads. In Phase II, the development emphasis will shift toward building industrial zones and commercial areas. Additionally, the construction of a dedicated pier is planned as part of the port's overall development[35,38].

3.1. Multiple Linear Regression Analysis

This study employed multiple linear regression analysis to examine the influence of three independent variables on the socio-economic conditions of coastal communities in Makassar: road network development (X1), pier construction (X2), and port office development (X3). The dependent variable (Y) represents the socio-economic status of the public. Table 1 summarizes the results of the regression analysis.

The findings of this study reveal that road network development and port office infrastructure significantly enhance socio-economic outcomes, while pier construction does not. The positive effect of road development ($\beta = 0.299$; $p < 0.05$) supports Growth Pole Theory, which highlights infrastructure as a driver of regional development through improved access and reduced spatial inequality[39]. Roads facilitate trade, mobility, and access to essential services, consistent with Calderón and Servén's evidence that transport infrastructure reduces poverty and stimulates growth in developing economies[40]. Similar results in Indonesia by Simangunsong et al. confirm that road connectivity around ports improves logistics and income opportunities[4]. Policy implications suggest prioritizing transport connectivity as a core investment, ensuring reliable and affordable access to regional markets and extending benefits to rural communities. By contrast, pier construction showed no significant effect ($\beta = -0.039$; $p = 0.620$), indicating that such infrastructure, when

Table 1: Results of Multiple Linear Regression Analysis

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t-value	Sig.
(Constant)	5.764	0.963	–	5.987	0.000
Road Network Development (X1)	0.299	0.063	0.510	4.775	0.000
Pier Construction (X2)	-0.039	0.078	-0.056	-0.498	0.620
Port Office Development (X3)	0.232	0.080	0.325	2.910	0.004

developed in isolation, fails to improve local welfare.

This challenges assumptions of automatic trickle-down benefits from capital-intensive projects and aligns with Dependency Theory, which cautions that large infrastructure often benefits external stakeholders rather than local populations[41]. Evidence from Indonesia's JIIPE port development demonstrates that large-scale port investments can increase port throughput while excluding nearby residents from meaningful gains[42]. For MNP, similar risks exist if pier facilities primarily serve industrial or national shipping. Policy responses should therefore focus on complementary measures—such as subsidized docking for local fishers, integration of small-scale traders into port logistics, and last-mile transport connections—to ensure equitable distribution of benefits.

Port office infrastructure ($\beta = 0.232$; $p < 0.05$) was also found to significantly improve socio-economic conditions, reflecting the importance of governance and institutional capacity. From an Institutional Theory perspective, administrative and governance facilities enhance coordination, transparency, and logistical efficiency, thereby creating broader economic spillovers[43]. Brooks and Pallis highlight that efficient port governance is linked to stronger employment and integration[44,45], while Carruthers argues that port-supporting facilities can evolve into secondary growth poles supporting customs, documentation, and logistics services[46,47]. Policy implications point to strengthening institutional capacity, promoting transparent management, and creating training opportunities that enable coastal communities to access administrative and service-related employment.

Overall, the results suggest that port-led development is most effective when infrastructure is embedded within broader governance and access frameworks. Roads and institutional facilities generate inclusive socio-economic benefits, while pier construction requires complementary policies to avoid exclusionary outcomes. For policymakers, this underscores the importance of aligning physical investment with community access and institutional strengthening to ensure that the Makassar New Port contributes meaningfully to coastal welfare.

3.2. Results Hypothesis Test

3.2.1. Coefficient of Determination Test

The coefficient of determination (R^2) is a critical metric in regression analysis that indicates the proportion of variance in the dependent variable explained by the independent variables. In this study, R^2 is used to assess the explanatory power of road network development, pier construction, and port office development in predicting the socio-economic conditions of coastal communities affected by Makassar New Port (MNP).

The Adjusted R Square value of 0.523 suggests that approximately 52.3% of the variation in socio-economic conditions among the coastal communities of Buloa and Kaluku Bodoa can be explained by the combination of the three independent variables. This indicates a moderately strong model, with the remaining 47.7% of the variance likely influenced by other external factors such as education level, fishing activity, government policy, environmental changes, or access to health services.

This result can be interpreted through the lens of socio-economic development theory, which emphasizes multifactorial causality. Theories such as the Basic Needs Approach (ILO, 1976) argue that socio-economic well-being is influenced by various interrelated components—physical infrastructure being just one. Therefore, while port-related infrastructure accounts for over half the variation, the remaining unexplained variance supports the notion that social services, institutional quality, and environmental resilience are also critical components of socio-economic development[48].

Simangunsong et al. (2016) found that port infrastructure explained about 49% of regional logistics efficiency variance in Indonesian coastal cities[4]. Likewise, Yanuar et al. (2021) reported that port development can reshape local community livelihoods around major industrial-port areas[42]. These comparative findings reinforce that port infrastructure contributes meaningfully—but not solely—to socio-economic change.

In other words, while physical infrastructure like roads and port offices create enabling environments, their socio-economic impact is amplified or limited by governance, education, and local participation[27].

3.2.2. Simultaneous Test (F-Test)

The F-test is a statistical tool used to evaluate the overall significance of a multiple regression model. Specifically, it tests whether the set of independent variables collectively contributes to explaining the variance in the dependent variable. In this study, the F-test is applied to assess whether road network development (X_1), pier construction (X_2), and port office development (X_3) significantly influence the socio-economic conditions of coastal communities surrounding the Makassar New Port (Table 3).

Table 2: Test Results Coefficient Determination (R2)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.733 [a]	.537	.523	1.40735

a. Predictors: (Constant), Development Office Harbor, Development Network Road, Pier Construction

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Table 3: Results of the Simultaneous F-Test

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	220,848	3	73,616	37,168	.000 [b]
Residual	190.142	96	1,981	-	-
Total	410,990	99	-	-	-

a. Dependent Variables: Socio-Economic Public
b. Predictors: (Constant), Development Office Harbor, Development Network Road, Pier Construction

The calculated F-value of 37.168 significantly exceeds the critical F-table value of approximately 2.70 at $\alpha = 0.05$ with (3, 96) degrees of freedom. Furthermore, the p-value of 0.000 is well below the 5% significance threshold. This confirms that, collectively, the three independent variables have a statistically significant simultaneous effect on the dependent variable.

The result from the F-test aligns with expectations from multivariate regression theory, which posits that a model comprising multiple relevant predictors should jointly explain a significant portion of the variance in the outcome variable[30]. The statistical significance of the model demonstrates that infrastructure variables—while individually varying in impact—are collectively meaningful in influencing community-level socio-economic outcomes.

From a theoretical perspective, this result supports Endogenous Growth Theory, which emphasizes that infrastructure development—such as roads and institutional facilities—enhances productivity and stimulates long-term economic growth through its influence on both physical and human capital[49,50]. The simultaneous effect reflects a systemic interdependence, where the presence of multiple infrastructure types can create reinforcing effects on local development.

Empirically, the findings are consistent with studies such as Calderón and Servén (2010), who found that combined infrastructure inputs (transport, energy, and water) explain a substantial share of economic performance and social progress in developing nations[40]. Similarly, in a regional Indonesian context, Simangunsong et al. (2016) demonstrated that integrated port and transport infrastructure improved logistics efficiency, which in turn boosted trade and income at the community level[4].

In contrast, models that isolate infrastructure variables without testing for collective impact may understate their relevance. The F-test result here validates the importance of examining infrastructure as a system, rather than in isolation—a concept supported by systems theory, which highlights the need to consider interactions among variables to fully understand socio-economic dynamics[51].

3.2.3. Partial Test (T-Test)

The t-test (partial test) is conducted to evaluate the individual influence of each independent variable—road network development (X_1), pier construction (X_2), and port office development (X_3)—on the socio-economic conditions (Y) of coastal communities affected by Makassar New Port. The test uses a significance threshold of 5% ($\alpha = 0.05$). If the p-value < 0.05, the null hypothesis is rejected, indicating that the independent variable has a statistically significant impact on the dependent variable. Conversely, a p-value > 0.05 leads to the acceptance of the null hypothesis, implying no significant influence. The results of the t-test, conducted using SPSS version 25, are detailed in Table 4.

The findings indicate that road network development and port office development significantly influence socio-economic conditions, while pier construction does not. These results support prior infrastructure studies, which suggest that only certain types of infrastructure generate direct, measurable community-level outcomes[52].

The significant positive effect of road development is consistent with the spatial development literature, which emphasizes that improved accessibility leads to increased economic opportunities, mobility, and integration into urban markets[25]. As observed in a study by Calderón and Servén (2010), road infrastructure in developing countries significantly contributes to poverty reduction and household income improvement[40]. In Indonesia, Simangunsong et al. (2016) also reported that road connectivity around ports enhances supply chain

Table 4: Results of the Partial t-Test

Variable	Standardized Coefficient (Beta)	t-value	Sig. (p-value)	t-table (df=96, α=0.05)
(Constant)	–	5.987	0.000	–
Road Network Development (X_1)	0.510	4.775	0.000	1.9849
Pier Construction (X_2)	-0.056	-0.498	0.620	1.9849
Port Office Development (X_3)	0.325	2.910	0.004	1.9849

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efficiency and community access to goods and services[4].
The lack of significant influence from pier construction contradicts infrastructure-led development assumptions, which propose that any physical investment boosts local growth. This supports findings from Yanuar et al. (2021) in Indonesia's JIIPE port area, which showed that port development may fail to improve local welfare because of restricted access, limited integration with community needs, or inadequate support facilities[42]. Theoretically, this aligns with Dependency Theory, which suggests that infrastructure can marginalize local communities if it primarily serves external or elite interests[41].
The significant impact of port office development reinforces the relevance of Institutional Theory, which highlights that the presence of structured administrative infrastructure improves coordination, governance, and economic facilitation[43]. According to Brooks and Pallis (2012), effective port governance and institutional presence are closely linked to job creation, increased business services, and public service delivery in port cities[45].

4. Conclusion

This study examined the impact of the Makassar New Port (MNP) development on the socio-economic conditions of coastal communities in Tallo District, focusing on three key infrastructure components: road network development (X_1), pier (dock) construction (X_2), and port office development (X_3). The regression model demonstrated that these variables collectively account for 52.3% of the variation in socio-economic outcomes, with the remaining 47.7% influenced by factors outside the study's scope.
Among the three components, road network development (X_1) proved to be the most influential, underscoring the critical role of transportation accessibility in improving mobility, market access, and economic participation. In contrast, pier construction (X_2) showed no significant effect, suggesting that current utilization does not sufficiently integrate with community livelihoods. Port office development (X_3), meanwhile, had a meaningful and positive impact, highlighting the importance of institutional infrastructure and governance in generating employment and administrative efficiency.
In practical terms, these findings imply that policymakers should prioritize strengthening road connectivity to maximize the socio-economic benefits of the port. Moreover, re-evaluating pier functionality to better align with fishing, trade, and logistics activities of local communities would increase its relevance and effectiveness. The role of port office infrastructure further emphasizes the need for capacity building, transparent governance, and community-oriented services to sustain growth.
For long-term development, an integrated policy framework should be pursued that links port expansion with education, health access, environmental resilience, and small-scale business support. Such an approach will ensure that MNP not only drives trade and investment but also delivers inclusive and sustainable benefits to coastal populations.

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References

1) J.-P. Rodrigue, The Geography of Transport Systems, 5th ed., Routledge, New York, NY, USA, 2020.
2) Ministry of Transportation of the Republic of Indonesia, Makassar New Port Development Report, Ministry of Transportation, Jakarta, Indonesia, 2021.
3) World Bank, Enhancing Port Performance in Indonesia: Connecting Logistics, Trade and Growth, World Bank Publications, Washington, DC, USA, 2021.
4) F. Simangunsong, M. Basri, and R. Rakhmadi, "Logistics development and trade competitiveness: The case of Indonesia," CSIS Working Paper Series, Jakarta, Indonesia, 2016.
5) UNCTAD, Review of Maritime Transport 2020, United Nations Conference on Trade and Development, Geneva, Switzerland, 2020.
6) C. Ducruet, "Port-city relationships in Europe and Asia," J. Int. Logist. Trade, 4 (2) 13-35 (2006). doi:10.24006/jilt.2006.4.2.13.
7) Bappenas and Ministry of Transportation, Analysis of the Impact of Ports on the Economy of Eastern Indonesia, Ministry of Transportation, Jakarta, Indonesia, 2020.
8) M. Rahim and I. Abbas, "The development characteristics of Makassar City in past and present," Int. Rev. Spat. Plan. Sustain. Dev., 12 (2) 238-265 (2024). doi:10.14246/irspsd.12.2_238.
9) E. Ratnawati, "Sea toll as a means to increase the effectiveness of goods and services to the eastern of Indonesia," Awang Long Law Rev., 1 (2) 120-130 (2019). doi:10.56301/awl.v1i2.65.
10) E. Lestari, "The impact of the development of Makassar New Port (MNP) in supporting sea tolls," Linguist. Cult. Rev., 5 (S1) 1265-1275 (2021). doi:10.21744/lingcure.v5nS1.1603.
11) I. Agung, Dynamics of Infrastructure Development

and Its Impact on the Regional Economy, University of Indonesia Publishers, Jakarta, Indonesia, 2019.
12) M. Y. Pratama, "Governance and infrastructure development as Indonesia decentralises: Case study of industrial estate and port development in Bantaeng and Banyuwangi Districts," doctoral dissertation, Flinders Univ., College of Business, Government and Law, 2021.
13) World Bank, Infrastructure Development and Economic Growth in Indonesia: The Role of Ports, World Bank, Jakarta, Indonesia, 2020.
14) P. Edwards, M. Ram, T. Jones, and S. Doldor, "New migrant businesses and their workers: Developing, but not transforming, the ethnic economy," in Intersectionality and Ethnic Entrepreneurship, Routledge, pp. 35-65, 2018.
15) S. H. Aly, S. Pangemanan, A. Ningrat, S. A. Adisasmita, and M. Hustim, "Strategizing green ports for a sustainable maritime future: The case study of Makassar Port," Eng. Technol. Appl. Sci. Res., 15 (3) 22334-22341 (2025). doi:10.48084/etasr.10392.
16) C. D. Knott, E. E. Kane, M. Achmad, E. J. Barrow, M. L. Bastian, J. Beck, et al., "The Gunung Palung Orangutan Project: Twenty-five years at the intersection of research and conservation in a critical landscape in Indonesia," Biol. Conserv., 255 108856 (2021).
17) P. Haryanto, Logistics Infrastructure and Its Role in the Development of Makassar City, Hasanuddin University Publishers, Makassar, Indonesia, 2021.
18) Asian Development Bank, A Smart and Interactive Livable City Plan for the City of Makassar, 2021. https://www.adb.org/news/videos/smart-and-interactive-livable-city-plan-city-makassar.
19) S. Syafruddin, S. Dewi, and R. A. S. Mulya, "Maritime cultural events in South Sulawesi: An analytical review of implementation and its impact," J. Manag. Adm. Provision, 4 (2) 248-261 (2024). doi:10.55885/jmap.v4i2.373.
20) A. B. Arief, A. Yudono, A. Akil, and I. Ramli, "Model of coastal transit oriented development (TOD) based on the potential of local port and marine tourism port, case study: Fort Rotterdam Makassar and the surrounding areas," IOP Conf. Ser.: Earth Environ. Sci., 79 (1) 012034 (2017). doi:10.1088/1755-1315/79/1/012034.
21) E. Henry, J. Newth, and C. Spiller, "Emancipatory Indigenous social innovation: Shifting power through culture and technology," J. Manag. Organ., 23 (6) 786-802 (2017). doi:10.1017/jmo.2017.64.
22) M. P. Todaro and S. C. Smith, Economic Development, Pearson UK, 2020.
23) F. Suyaqdhon, Planning of the Port Passenger Terminal in Paciran Lamongan, doctoral dissertation, Universitas Islam Negeri Maulana Malik Ibrahim, 2014.
24) H. J. Tamboto and A. A. C. Manongko, A Coastal Community Poverty Alleviation Model Based on Economic Literacy and Social Capital, 2019.
25) B. Surya, H. Hadijah, S. Suriani, B. Baharuddin, A. T. Fitriyah, F. Menne, and E. S. Rasyidi, "Spatial transformation of a new city in 2006-2020: Perspectives on the spatial dynamics, environmental quality degradation, and socio-economic sustainability of local communities in Makassar City, Indonesia," Land, 9 324 (2020). doi:10.3390/land9090324.
26) Bappenas, National Infrastructure Development Plan 2015-2025, National Development Planning Agency, Jakarta, Indonesia, 2015.
27) A. Mattalatta, R. Ilham, and S. Sumarni, "The impact of the development of Makassar New Port (MNP) in supporting sea tolls," Linguist. Cult. Rev., 5 (1) 37-45 (2021). doi:10.21744/lingcure.v5n1.1603.
28) D. Sugiyono, Educational Research Methods of Quantitative, Qualitative and R&D Approaches, 2013.
29) J. W. Creswell, Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 4th ed., Sage Publications, Thousand Oaks, CA, USA, 2014.
30) A. Field, Discovering Statistics Using SPSS, 4th ed., Sage Publications, London, UK, 2013.
31) BPS Makassar, Makassar in Figures 2022, Makassar Central Statistics Agency, Makassar, Indonesia, 2022.
32) E. Wanimbo, "Socio-economic life of farmer families in improving living standards (study in Father Village, Bogonuk District, Tolikara Regency, Papua Province)," J. Soc. Cult., 12 (3) 1-18 (2019).
33) A. Nurwindah, Description of Family Socioeconomic Status in Improving Student Learning Achievement at Madrasah Ibtidaiyah Negeri 3 Banyumas Karangsari Village, Kembaran District, Banyumas Regency, doctoral dissertation, IAIN, 2020.
34) P. Ricardianto, M. Thamrin, and Y. Pahala, "Determination of port facilities and container flow growth toward the development of Makassar Port, Indonesia," J. Econ. Manag. Entrep. Bus., 2 (2) 103-113 (2022). doi:10.52909/jemeb.v2i2.95.
35) Makassar New Port Management Agency (BPMNP), Makassar New Port Annual Report, 2020.
36) R. Damayanti, A. S. Chairunnisa, E. S. Manapa, E. A. Sampetoding, T. K. Chan, and M. Idrus, "Performance analysis of Terminal II of the New Makassar Container Port in supporting logistics distribution in South Sulawesi," Kapal, J. Ilmu Pengetah. Teknol. Kelaut., 20 (2) 238-250 (2023).

Cite: E. Lestari et al., "The Impact of Makassar New Port on the Optimization of Makassar City's Development". Evergreen, 13 (02) 779-787 (2026). https://doi.org/10.5109/7430654.

doi:10.14710/kapal.v20i2.53548.
37) M. F. A. Palinrungi, Analysis of Determining Roles for Makassar New Port (MNP) on Connectivity with Global Container Shipping Network, master's thesis, Erasmus Univ. Rotterdam, 2022. https://thesis.eur.nl/pub/64874/.
38) Boskalis, Makassar New Port Project Brief, Royal Boskalis Westminster N.V., 2021. https://boskalis.com/media/vvqpszsv/makassar-new-port.pdf.
39) F. Perroux, "Note on the notion of growth pole," Econ. Appl., 8 (1) 307-320 (1955).
40) C. Calderón and L. Servén, "Infrastructure and economic development in Sub-Saharan Africa," J. Afr. Econ., 19 (suppl_1) i13-i87 (2010).
41) T. Dos Santos, "The structure of dependence," Am. Econ. Rev., 60 (2) 231-236 (1970).
42) A. F. Yanuar, A. Kurniawati, S. Murtini, and R. Rindawati, "The impact of JIIPE international port development on the social economic conditions of the community in Manyarejo Village, Gresik Regency, Indonesia," J. Geogr. Geogr. Pengajarannya, 19 (2) 47-60 (2021). doi:10.26740/jggp.v19n2.p47-60.
43) D. North, Institutions, Institutional Change and Economic Performance, Cambridge Univ. Press, Cambridge, UK, 1990.
44) A. A. Pallis and G. K. Vaggelas, "A Greek prototype of port governance," Res. Transp. Bus. Manag., 22 49-57 (2017). doi:10.1016/j.rtbm.2016.12.003.
45) M. R. Brooks and A. A. Pallis, "Assessing port governance models: Process and performance components," Marit. Policy Manag., 39 (5) 377-403 (2012).
46) Makassar New Port, Capacity Building Program in Seaport Engineering and Operation at Makassar New Port, 2023.
47) A. M. Carruthers, "Developing Indonesia's maritime infrastructure: The view from Makassar," ISSUE, 4 (2016).
48) International Labour Organization, Employment, Growth and Basic Needs: A One-World Problem, ILO, Geneva, Switzerland, 1976.
49) R. Barro and X. Sala-i-Martin, Economic Growth, 2nd ed., MIT Press, Cambridge, MA, USA, 2004.
50) S. R. Tan, H. Jang, and J. Wood, eds., Economic Growth and Development in the Tropics, Routledge, Taylor & Francis Group, 2024.
51) P. Checkland, Systems Thinking, Systems Practice, John Wiley & Sons, Chichester, UK, 1981.
52) D. Aschauer, "Is public expenditure productive?" J. Monet. Econ., 23 (2) 177-200 (1989).