THE RELATIONSHIP BETWEEN NATIONAL INCOME AND COMMUNITY EMPOWERMENT: A DEFENSE ECONOMICS PERSPECTIVE

HUBUNGAN ANTARA PENDAPATAN NASIONAL DAN PEMBERDAYAAN MASYARAKAT: PERSPEKTIF EKONOMI PERTAHANAN

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Abstract—Income inequality can hinder the relationship between national income and community empowerment. High inequality allows the rich to become richer while the poor struggle to escape poverty. This disparity limits access to public services, employment, and education, thereby obstructing empowerment. This study analyzes the relationship between national income and community empowerment from a defense economics perspective. It provides policy references for optimizing national income allocation to strengthen economic resilience as a non-military defense component. A quantitative correlational design was employed using Indonesia's time series data (2013–2022), with Gross Domestic Product (GDP) as the independent variable and the Human Development Index (HDI) as the dependent variable. Results indicate a significant positive correlation (r = 0.982, p < 0.05). However, while GDP more than doubled from 9,084 trillion rupiah (2013) to 19,588 trillion rupiah (2022), HDI increased only moderately from 68.31 to 72.91, suggesting diminishing returns. The study concludes that although national income positively influences empowerment, equitable distribution and broader economic access are essential to ensure welfare improvements. From a defense economics perspective, community empowerment should be reoriented as a strategic component of national economic resilience, integral to a comprehensive non-military defense system.

Keywords: Community empowerment, defense economics, economic development, income inequality, national income

Abstrak—*Ketimpangan pendapatan dapat menghambat hubungan antara pendapatan nasional dan pemberdayaan masyarakat. Ketimpangan yang tinggi memungkinkan orang kaya semakin kaya, sementara orang miskin berjuang keluar dari kemiskinan. Kondisi ini membatasi akses terhadap pelayanan publik, lapangan kerja, dan pendidikan, sehingga menghambat pemberdayaan masyarakat. Penelitian ini bertujuan menganalisis hubungan antara pendapatan nasional dan pemberdayaan masyarakat dari perspektif ekonomi pertahanan serta memberikan referensi kepada pemerintah dalam mengoptimalkan alokasi pendapatan nasional untuk memperkuat ketahanan ekonomi sebagai komponen pertahanan nirmiliter. Metode yang digunakan adalah pendekatan kuantitatif dengan desain korelasional, menggunakan data deret waktu Indonesia periode 2013–2022, dengan PDB sebagai variabel bebas dan Indeks Pembangunan Manusia (IPM) sebagai variabel terikat. Hasil penelitian menunjukkan adanya korelasi positif yang signifikan (r = 0,982; p < 0,05). Namun, peningkatan Produk Domestik Bruto (PDB) lebih dari dua kali lipat dari 9.084 triliun rupiah (2013) menjadi 19.588 triliun rupiah (2022) hanya diikuti oleh peningkatan IPM yang relatif moderat dari 68,31 menjadi 72,91, yang mengindikasikan diminishing returns (penurunan efektivitas). Penelitian ini menyimpulkan bahwa terdapat hubungan positif antara pendapatan nasional dan pemberdayaan masyarakat, tetapi peningkatan pendapatan nasional tidak otomatis menjamin peningkatan kesejahteraan masyarakat tanpa disertai pemerataan distribusi dan perluasan akses terhadap peluang*

ekonomi. Dalam perspektif ekonomi pertahanan, pemberdayaan masyarakat perlu diorientasikan kembali sebagai komponen strategis ketahanan ekonomi nasional yang merupakan bagian integral dari sistem pertahanan nirmiliter yang komprehensif.

Kata Kunci: *Pemberdayaan masyarakat, ekonomi pertahanan, pembangunan ekonomi, ketimpangan pendapatan, pendapatan nasional*

Pendahuluan

In an era of globalization characterized by geopolitical uncertainty and complex security challenges, understanding the relationship between national income and community empowerment is crucial, particularly from the perspective of defense economics. National income represents the total value of all goods and services produced within a country over a specific period, typically one year. The production, expenditure, and income approaches measure national income in different ways (Kamaroellah, 2018).

Community empowerment, as noted by Saputro et al. (2021), reflects the community's capacity to develop creative potential, manage resources, address problems independently, and participate in political processes within the state.

According to the Regulation of the Kementerian Dalam Negeri Republik Indonesia (2007) (Minister of Home Affairs of the Republic of Indonesia), Number 7 of 2007, on Community Empowerment Cadres. Community empowerment is a community development strategy that aims to improve the ability and independence in the life of society, nation, and state (Article 1, paragraph 8). Investments in defense infrastructure also have a significant impact on community empowerment. From the perspective of defense economics, a wise allocation of national income can help build a robust defense infrastructure, train human resources, and develop security technologies. However, the successful implementation of defense policy largely depends on the extent to which communities engage and support these initiatives. It can certainly stimulate local economic growth, create job opportunities, and enhance community empowerment (Turner & Clark, 2020).

From a defense economics standpoint, allocating national income wisely toward defense infrastructure, human resource development, and security technology can significantly contribute to community empowerment. Investments in defense not only strengthen resilience but also stimulate local economic growth, create

employment opportunities, and enhance social participation.

In the context of Indonesia, national income and community empowerment are interrelated fundamental aspects of economic development. As a developing country with high demographic and geographic complexity, Indonesia continues to face substantial challenges in ensuring inclusive empowerment. Human development indicators highlight ongoing disparities that require systematic and sustainable attention. Despite notable improvements in the past decade, the rate and equity of empowerment remain limited, especially in relation to strengthening national economic resilience.

Table 1. Development of Indonesia's Human Development Index (HDI) (2013-2022)

Year	HDI Value	Life Expectancy (Years)	Expected Years of Schooling (Years)	Average Years of Schooling	Expenditure per Capita per Year (in thousand rupiah)
2013	68.31	70.40	12.10	7.61	9,858
2014	68.90	70.59	12.39	7.73	9,90
2015	69.55	70.78	12.55	7.84	10,150
2016	70.18	70.90	12.72	7.95	10,420
2017	70.81	71.06	12.85	8.10	10,664
2018	71.39	71.20	12.91	8.17	11,059
2019	7192	71.34	12.95	8.34	11,299
2020	71.94	71.47	12.98	8.48	11,013
2021	72.29	71.57	13.08	8.54	11,156
2022	72.91	71.85	13.10	8.69	11,479

Source: Badan Pusat Statistik, 2022

This progress was driven by improvements across all constituent indicators: life expectancy increased from 70.40 to 71.85 years; expected years of schooling rose from 12.10 to 13.10 years; average years of schooling improved from 7.61 to 8.69 years; and per capita expenditure grew from Rp 9,858 to Rp 11,479 per year. However, a decline in per capita expenditure in 2020 likely reflects the adverse economic impact of the COVID-19 pandemic.

From the perspective of defense economics, this phenomenon becomes more complex. Hartley (2012) emphasizes that the modern economic concept involves not only resource allocation for traditional military defense but also encompasses national economic resilience, in which community empowerment plays a central role. Effective community empowerment enhances resilience, thereby reinforcing

the non-military dimensions of national defense.

Several previous studies have explored the relationship between economic growth and community empowerment. Hana & Pujiati (2023) found a positive correlation between national income and empowerment capacity in developing countries. Ullah et al. (2024), however, argue that growth in national income does not necessarily translate into stronger empowerment unless accompanied by effective distribution policies. Paun et al. (2021) add an economic security perspective, showing that equitable income distribution and higher empowerment levels contribute to stronger resilience against external shocks. While these studies offer valuable insights, they generally adopt a conventional development economics lens, with

limited integration of defense economics into the analysis. Moreover, Indonesia's unique context as an archipelagic nation with diverse demographic characteristics requires specific examination.

Nonetheless, several unanswered challenges remain regarding the transmission mechanism linking national income to community empowerment within a defense economics framework. Dunne & Uye (2009) examined the impact of defense expenditure on economic development, finding that higher defense spending can stimulate short-term economic activity but may also constrain budgets for empowerment programs in the long term. Similarly, Khamimah (2021) showed that community empowerment enhances local productivity and contributes to national income, though her study did not explicitly adopt a defense economics perspective.

Table 2. Comparison of Indonesia's Economic and Defense Indicators

Year	GDP (Trillion Rp)	GDP Per capita (Million Rp)	Defense Budget (trillion Rp)	Defense Budget to GDP Ratio (%)
2013	9,084	50,512	125.70	0.92%
2014	10,543	52,990	103.95	0.78%
2015	11,541	50,602	114.00	0.88%
2016	12,407	54,075	111.00	0.79%
2017	13,589	58,290	132.00	0.87%
2018	14,837	59,184	112.35	0.72%
2019	15,834	62,892	122.25	0.73%
2020	15,434	58,792	140.85	0.89%
2021	16,971	65,270	132.00	0.74%
2022	19,588	71,762	134.85	0.70%

Source: Badan Pusat Statistik, 2024; Macrotrends LLC, n.d.; O'Neill, 2024

Table 2 presents Indonesia's economic and defense trends from 2013 to 2022. During this period, Gross Domestic Product (GDP) increased significantly from Rp 9,084 trillion in 2013 to Rp 19,588 trillion in 2022. GDP per capita also rose from Rp 50,512 million to Rp 71,762 million over the same period. Meanwhile, the defense budget fluctuated but generally increased, from Rp 125.70 trillion in 2013 to Rp 134.85 trillion in 2022. However, the defense budget to GDP ratio declined from 0.92% to 0.70%, indicating that the pace of economic growth was faster than the increase in defense spending allocations.

Todaro & Smith (2015) argue that national growth does not always align with income equality or poverty reduction. Economic expansion often leads to widening social and economic disparities, even amid rapid macroeconomic growth. Therefore, redistribution and affirmative policies are necessary to ensure that the benefits of development are shared equitably across society.

In 2020, Indonesia was affected by the spread of COVID-19, which disrupted trade, investment, and tourism (Apriliana, 2022). Kamila & Rochmah (2023) showed that income levels correlate with the compliance of national health insurance participants in paying contributions, as individuals' ability to pay is influenced by their financial conditions.

Kartasasmita (1997) emphasized that community empowerment is vital in economic development, as without it, growth will only benefit elite groups. In line with this, Marha et al. (2022) note that one indicator of successful resource management for national defense is the extent to which defense capabilities align with national goals and objectives.

Economic development is commonly defined as a process that leads to a long-term increase in per capita income. According to Azis & Hasan (2018), this process has three key features: it is continuous, aims to raise per capita income, and results in sustained growth. Productivity is typically measured using Gross National Product (GNP) and GDP.

At the same time, cross-country comparisons rely on per capita income, calculated by dividing GNP by the total population. Countries with higher per capita incomes are generally more successful in terms of economic development. Furthermore, Schumpeter (as cited in Azis & Hasan, 2018), highlighted that economic growth is cyclical, alternating between prosperity and depression, and is primarily driven by

innovative entrepreneurs who mobilize resources to meet societal needs.

From a defense economics perspective, Hartley (2012) discusses the trade-off between defense and civilian spending. He argues that rising defense expenditures must be balanced with adequate protection for welfare and community empowerment programs to ensure inclusive economic development.

Chong & Calderón (2000) found that although higher national income typically creates more fiscal space for empowerment programs, their effectiveness depends heavily on government institutions and implementation capacity. This is especially relevant in Indonesia, where equally strong gains have not been matched by increases in community empowerment indicators, such as the HDI.

Accordingly, this study aims to investigate how national income allocation can be optimized to support community empowerment programs that enhance national economic resilience. It also explores alternative models to bridge the gap between macroeconomic growth and grassroots empowerment within a defense economics perspective. In doing so, this research contributes not only to the development of economic theory but also to the formulation of practical policies for strengthening non-military national defense through community empowerment.

Ultimately, in today's complex geopolitical and geoeconomic environment, national economic resilience has become a crucial factor in overall national defense. Supandi (2020) argues that in the era of hybrid conflict and economic warfare, community empowerment is not merely a development objective but also a strategic component of national defense. Thus, understanding the dynamics between national income and community empowerment through the lens of defense economics is crucial for shaping more integrated and effective policies.

Research Methods

This study employs a quantitative approach with a correlational research design (Sugiyono, 2021) to analyze the relationship between national income, proxied by Gross Domestic Product (GDP) as the independent variable (X_1), and community empowerment, represented by the Human Development Index (HDI), as the dependent variable (Y_1). This approach was chosen because it enables testing the correlation between variables.

The data used in this study are secondary time-series data for the period 2013–2022, sourced from:

1. Badan Pusat Statistik (2024) for Indonesian GDP data
2. O'Neill (2024) and Macrotrends LLC (n.d.) for additional supporting data

Research Variables:

1. Independent variable (X_1): National income, measured by GDP in trillion rupiah
2. Dependent variable (Y_1): Community empowerment, measured by the Human Development Index (HDI)

This study utilizes EViews version 13 for statistical data processing, as it offers superior capabilities in handling time-series data, provides comprehensive diagnostic tools for classical assumption testing, and features an intuitive interface for econometric analysis, compared to similar software such as SPSS or Stata (Ghozali, 2018).

Results and Discussion

This study uses national income as the independent variable (X_1) and community empowerment, as represented by the Human Development Index (HDI), as the dependent variable (Y_1). The data for these variables are presented in Table 3.

Table 3. Research Variables for the Period 2013–2022

Year	GDP (X_1) (Trillion Rp)	HDI (Y_1)
2013	9,084	68.31
2014	10,543	68.90
2015	11,541	69.55
2016	12,407	70.18
2017	13,589	70.81
2018	14,837	71.39
2019	15,834	71.92
2020	15,434	71.94
2021	16,971	72.29
2022	19,588	72.91

Source: Badan Pusat Statistik, 2022, 2024

Based on Table 3, GDP during the 2013–2022 period showed an overall increase in national income. Likewise, the Human Development Index (HDI) from 2013 to 2022 increased every year, indicating improvements in the welfare of the Indonesian population.

Based on the results of the descriptive statistical analysis of the study variables, the data are presented as follows:

Table 4. Descriptive Statistical Results of Research Variables

Statistik	X_1	Y_1
Mean	13,982.80	70.8200
Median	14,213.00	71.1000
Maximum	19,588.00	72.9100
Minimum	9,084.00	68.3100
Std. Dev.	3,180.518	1.5394
Skewness	0.131110	-0.3202
Kurtosis	2.221399	1.8235
Jarque-Bera	0.2812	0.7477
Probability	0.8688	0.6881
Sum	139,828.0	708.2000

Sum Sq. Dev.	91,041,264	21.3274
Observations	10	10

Source: Processed by the authors, 2025

Based on the descriptive statistics, Indonesia's GDP from 2013 to 2022 had an average value of 13,982.80 trillion Rupiah, with a minimum of 9,084.00 trillion in 2013 and a maximum of 19,588.00 trillion in 2022. The standard deviation was 3,180.52 trillion Rupiah, indicating substantial fluctuations during the decade. Meanwhile, the HDI averaged 70.82, with a minimum of 68.31 in 2013 and a maximum of 72.91 in 2022. The standard deviation was relatively low at

1.54, reflecting steady improvements in community development.

The Jarque-Bera test for normality showed probability values of 0.87 for GDP and 0.69 for HDI, confirming that both variables were normally distributed at the 5% significance level. This satisfies the classical assumptions required for further parametric analysis. Overall, the data indicate a consistent upward trend in both national income and HDI over the study period.

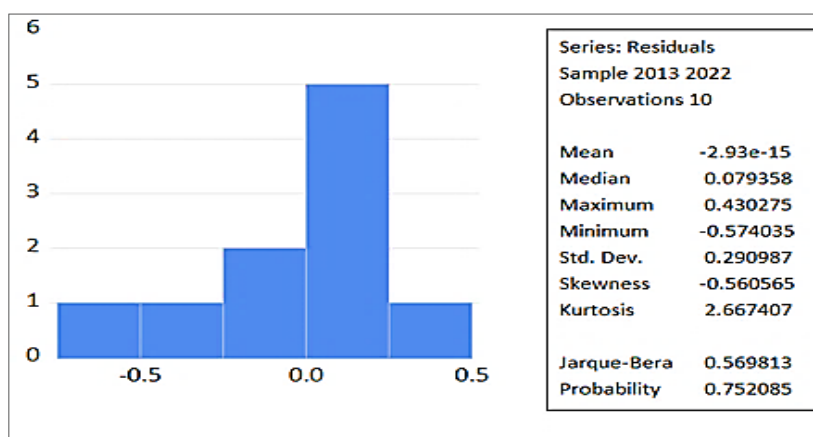**Classical Assumption Test**

Normality test

Figure 1. Normality Test Results
Source: Processed by the authors, 2025

Based on the EViews output, the model residuals have a mean close to zero (–2.93e-15), which is effectively zero, not –2.93 trillion. The distribution is centered around 0, with a slight left skew (skewness = –0.56) and a kurtosis of 2.67, indicating a slightly more peaked distribution than the

standard curve. The Jarque-Bera test shows a probability of 0.752, suggesting that the residuals are normally distributed and do not exhibit significant bias.

Heteroscedasticity Test

Table 5. Heteroscedasticity test results

Heteroskedasticity Test: Glejser			
Null hypothesis: Homoskedasticity			
F-statistic	2.2553	Prob.F (1, 8)	0.1715
Obs*R-squared	2.1992	Prob. Chi-Square (1)	0.1381
Scaled explained SS	1.4787	Prob. Chi-Square(1)	0.2240

Source: Processed by the authors, 2025

Table 5 presents the results of the Glejser heteroscedasticity test. The F-statistic is 2.2553 with a probability of 0.1715, the Obs*R-squared is 2.1992 with a probability of 0.1381, and the Scaled Explained SS is 1.4787 with a probability of 0.2240.

All probability values are greater than 0.05, indicating that there is insufficient evidence to reject the null hypothesis of homoskedasticity.

In other words, the residuals are evenly distributed across observations, suggesting that the model does not suffer from heteroscedasticity. This finding supports the reliability of the regression model for further analysis.

Autocorrelation Test

Table 6. Autocorrelation test results

Breusch-Godfrey Serial Correlation LM Test:			
Null hypothesis: No serial correlation at up to 2 lags			
F-statistic	4.8484	Prob.F (12, 6)	0.0558
Obs*R-squared	6.1776	Prob. Chi-Square(2)	0.0456

Source: Processed by the authors, 2025

Based on the results of the Breusch-Godfrey Serial Correlation LM Test, the F-statistic value is 4.8484 with a probability of 0.0558, and the ObsR-squared value is 6.1776 with a probability of 0.0456. Because the probability value for ObsR-squared is below the 0.05 threshold, there is sufficient evidence to reject the null hypothesis that assumes no serial correlation. This indicates that the model exhibits serial correlation up to a lag of two.

Pearson Correlation Test

Table 7. Pearson Correlation test results

Covariance Analysis: Ordinary		
Date: 04/21/25 Time : 21:56		
Sample : 2013-2022		
Included observations : 10		
Correlation	X1	Y1
Probability		
X1	1.0000	
	….	
Y1	0.9820	1.0000

0.0000	……..

Source: Processed by the authors, 2025

The results of the Pearson correlation test using the EViews application revealed a highly significant correlation between the national income variable (X1) and the community empowerment index (Y1). This is evidenced by a correlation coefficient of 0.9820 and a probability value of 0.0000 (p < 0.05), based on ten observations from 2013 to 2022. This statistical evidence confirms a strong positive association between the growth of national economic capacity and improvements in community empowerment in Indonesia. The expansion of economic productivity, as reflected in Gross Domestic Product (GDP), consistently contributes to the enhancement of community empowerment indicators.

These empirical findings substantiate the theoretical framework in defense economics, which posits that enhancing national economic capabilities can yield a substantial multiplier effect on community empowerment, a core component of national resilience. Economies. This connection highlights the importance of making strategic investments in both defense and local economies. Nations can enhance their overall stability and adaptability to new challenges by fostering innovation and teamwork. This approach enhances the military's readiness and fosters a stronger civil society, where economic growth facilitates better relationships among people. This dynamic, in turn, creates a virtuous cycle in which empowered communities are better equipped to support national efforts and respond to emergencies. In the end, the connection between economic growth and social empowerment is what will make the future stronger and more prosperous. Ultimately, this synergy strengthens the country, enabling it to navigate the complex global landscape more effectively. People often use rising national income as a sign of economic growth to see if a country is developing. National income is also a good way to measure how well-off a society is.

Njifen & Anemann (2023b) say that increasing national income through economic growth can make a country's defense stronger by creating more resources that help people grow. Defense spending is significant for the national economy because it can have a big effect on other parts of the economy and raise national income. This growth, in turn, helps communities become more

powerful by helping people learn new skills.

Economic growth refers to the long-term process of increasing per capita output in a country. It is commonly measured on a year-over-year basis using either Gross Regional Domestic Product (GRDP) for regional economies or GDP for national economies. GRDP is typically calculated at constant prices using a fixed base year to eliminate price fluctuations.

A country's economy is considered to be growing when its level of economic activity is higher than the previous year (Supandi, 2020). National income refers to the earnings of production factors used to produce goods and services in a given year. It can be measured through three approaches: expenditure, income, and production (value added). The expenditure approach, which sums consumption, investment, exports, and imports, is the most commonly used method for measuring GDP. In Indonesia, Law No. 17 of 2003 concerning State Finances stipulates that the State Budget (APBN) represents state financial management as part of governance, creating state rights and obligations measurable in monetary terms (Supandi, 2020).

GDP serves as a fundamental indicator of economic growth, representing the aggregate increase in national income or the expansion of goods and services output within one year. It measures real national income by calculating the total production of goods and services within a country's borders. When real income per capita rises year over year, this reflects increased income across the population and signals positive economic growth. This aligns with classical economic theory, especially Adam Smith's proposition that capital accumulation and productivity improvements are the main drivers of long-term sustainable growth (Suparmono, 2018).

However, economic growth alone does not guarantee an improvement in public welfare. Equitable income distribution is also crucial so that the benefits of development can be enjoyed by all (Edi, 2010). Community empowerment aims to enable individuals to achieve autonomy and self-determination. Indra (2023) describes this as fostering decision-making capabilities while reducing social barriers, thereby empowering individuals to act independently and take control of their lives. This process involves gradually building confidence and competence, enabling individuals to utilize their potential

and environmental resources to achieve self-sufficiency without external assistance.

Regulation of the Ministry of Home Affairs of the Republic of Indonesia (2007) on Community Empowerment Cadres stipulates that Village Community Empowerment Cadres (KPM) should be established to promote community initiative, participation, and self-help cooperation in village development. Article 10 of the regulation outlines the primary roles of KPMs as enablers, mediators, educators, planners, advocates, activists, and technicians, working alongside village governments to facilitate local development.

According to (Saba & Ngepah, 2019), allocating defense resources to community empowerment is an essential component of prudent defense policy, as it creates jobs and enhances skills. The field of defense economics provides valuable insights into the relationship between defense spending and community empowerment. Similarly, Floerkemeier et al. (2021) found that regional disparities in income significantly affect community welfare and empowerment, which in turn influence defense investment. Their study highlights the need for equitable policies to reduce inter-regional disparities and promote balanced national development.

Discussion in the Context of Defense Economics

Viewed from the perspective of defense economics, national income and community empowerment demonstrate a clear positive correlation. Higher national income facilitates broader community empowerment initiatives, which in turn reinforce national resilience. According to Yusgiantoro (2014), referencing the Britannica Encyclopaedia, defense economics examines the management of national economic resources related to military expenditure, wartime economic administration, and peacetime defense budgeting. This specialized field explores how economic resources can be strategically deployed to enhance a nation's defense capabilities while ensuring sustainable economic development.

Community empowerment contributes to strengthening a country's economic capacity through increased productivity, improved product quality, and expanded market access. Enhancing workforce skills is a key strategy to raise productivity (Wijaya, 2024). Improving infrastructure, such as communication and transportation

networks, also enhances market access, lowers production costs, and stimulates competitiveness.

Furthermore, approaches such as accreditation systems and the circular economy can further enhance productivity. These strategies collectively reinforce economic resilience, which is essential to withstand both internal and external threats (Surjantoro, 2023).

A nation's economic vigor, reflected in the scale of its national income, is directly linked to its defense capabilities. Greater national revenue enables governments to allocate more resources for defense and infrastructure development. According to the Sugiarto (2019), robust infrastructure, especially in transport and telecommunications, facilitates efficient goods distribution, educational access, and employment creation, ultimately strengthening national competitiveness and defense readiness through a cyclical link between economic growth and security.

Higher national income also allows for substantial investment in education and training. This enhances human capital quality and overall productivity because education improves skills and knowledge, thereby increasing labor competitiveness (Furqon, 2008). From a defense economics

perspective, this demonstrates the strategic linkage between economic resources and defense capabilities.

Based on data in Table 2, the ratio of Indonesia's defense budget to Gross Domestic Product (GDP) remained relatively stable at 0.7–0.9% during 2013–2022, despite an increase in absolute value from IDR 125.70 trillion in 2013 to IDR 134.85 trillion in 2022. The "peace dividend" phenomenon, proposed by Hartley (2012), suggests that countries maintaining defense spending at optimal levels while prioritizing economic development tend to achieve better growth in the Human Development Index (HDI). Indonesia seems to follow this pattern by keeping defense spending below 1% of GDP while steadily increasing both GDP and HDI.

However, while Indonesia's GDP more than doubled from IDR 9,084 trillion in 2013 to IDR 19,588 trillion in 2022, its HDI only rose from 68.31 to 72.91. This indicates diminishing returns of GDP growth on HDI improvement, consistent with Ranis et al. (2000), who observed a similar phenomenon in many developing countries. In a defense economics context, economic resilience built through community empowerment strengthens a country's strategic

posture, especially against non-traditional threats.

Indonesia must therefore balance investments in defense (essential for stability) with investments in sectors that directly improve HDI, such as education, health, and public infrastructure. Although defense spending increased nominally, its share of GDP declined from 0.92% in 2013 to 0.70% in 2022. According to Dunne & Tian (2015), excessive defense spending can suppress economic growth and constrain HDI, while insufficient spending risks undermining national security, a prerequisite for sustainable growth.

An anomaly occurred in 2020 during the COVID-19 pandemic: GDP declined from IDR 15,834 trillion in 2019 to IDR 15,434 trillion, but defense spending rose sharply to IDR 140.85 trillion (its highest during the period). HDI rose only slightly from 71.92 to 71.94. This suggests prioritization of security during crises, consistent with Dunne & Tian (2015), who noted that countries often increase defense spending in crises to maintain stability.

According to Sandler & Hartley (2007), the relationship between national income, defense spending, and community empowerment is complex and non-linear.

Proportional defense spending can have positive multiplier effects, creating jobs and fostering technological development, while excessive defense allocation may crowd out social sector investment and impede HDI growth. Despite relatively low defense spending (averaging 0.78% of GDP during the study period), Indonesia has consistently improved its GDP and HDI, indicating efficient resource utilization and a focus on social empowerment.

Research by Njifen & Anemann, 2023b) suggests that for resource-constrained developing countries like Indonesia, a balanced development strategy through dual-use defense industrialization can optimally enhance both national income and community empowerment. Indonesia is pursuing this strategy through defense industry development programs that also support the domestic economy.

Based on these findings, this study proposes an integrative model describing the dynamic relationship between national income and community empowerment within a defense economics framework. This model highlights a positive feedback cycle in which:

1. Rising national income funds community empowerment

programs and strengthens economic resilience.

2. Empowered communities enhance productivity and innovation, contributing to further national income growth.

3. Effective defense ensures stability, enabling investment and sustained economic growth.

This aligns with the "defense-welfare nexus" framework developed by Land & Hauck (2022), which emphasizes the complementary relationship between defense investment and welfare development. Here, community empowerment is no longer framed as competing with defense spending but as a vital component of non-military defense that reinforces national resilience.

Conclusion, Recommendation, and Limitations

Based on the analysis, a significant positive correlation was found between national income (measured by GDP) and community empowerment (measured by HDI) in Indonesia during the 2013–2022 period. The Pearson correlation coefficient of 0.9820 with a probability value of 0.0000 ($p < 0.05$) confirms the strong relationship between these variables. However, the more than twofold increase in GDP from 9,084 trillion rupiah in 2013 to 19,588 trillion rupiah in 2022 was accompanied by only a relatively moderate rise in HDI from 68.31 to 72.91. This indicates diminishing returns of GDP growth on HDI improvement.

From a defense economics perspective, Indonesia has maintained a relatively stable defense budget-to-GDP ratio, ranging from 0.7% to 0.9% during the study period, indicating a balanced approach between defense needs and socio-economic development. Despite having a relatively lower defense budget to GDP ratio compared to some neighboring countries, Indonesia has consistently managed to increase both GDP and HDI throughout the period.

Based on the regression analysis results, it is recommended that future studies expand the sample size and include a more diverse set of respondents to enhance the generalizability of the findings. Additionally, incorporating other relevant variables that may influence the dependent variable could provide a more comprehensive understanding of the relationships examined. Researchers are also encouraged to apply alternative analytical methods or models to validate and strengthen the robustness of the results. Ultimately, enhancing the

accuracy and consistency of data collection instruments will facilitate more reliable and valid outcomes in subsequent research.

This study has several limitations that should be taken into account when interpreting the results. The use of secondary data over a relatively short time span (2013–2022) may not fully capture the long-term dynamics of the relationship between national income and community empowerment. Additionally, the geographic focus is limited to the Indonesian context, so generalizing the findings to other countries with different socio-economic and geopolitical conditions should be done cautiously.

In this study, GDP was used to represent national income, and HDI was used to reflect community empowerment. While these choices make the analysis more practical, they do not fully capture the richness of both concepts. Future work would benefit from incorporating a broader set of indicators and more diverse methods, allowing for a deeper understanding of the complex ways in which income, empowerment, and national resilience interact, particularly within the field of defense economics.

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