

ECONOMIC GROWTH IN INDONESIA: DYNAMICS OF POVERTY, UNEMPLOYMENT, AND HEALTH BUDGETS

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Abstract: Even with Indonesia's impressive recent economic expansion, issues including poverty, unemployment, health care spending, housing, education, and labor productivity continue to be serious problems. International organization databases, government reports, academic publications, national statistics agencies, and academic publications are some of the sources that can be used for secondary quantitative data analysis encompassing 34 provinces from 2018 to 2022. The results show that unemployment, poverty all have a detrimental effect on economic growth. On the other hand health budget allocations all have a favorable impact. The study concludes that while investments in health budgets positively influence growth by enhancing human capital and, poverty, unemployment negatively impact economic growth. This study's conclusion about the correlation between the variables can offer insightful information to practitioners across a range of fields and public policy.

Keywords: Economic Growth; Poverty; Unemployment; Health Budgets,

Abstract: Bahkan dengan ekspansi ekonomi Indonesia yang mengesankan baru-baru ini, isu-isu termasuk kemiskinan, pengangguran, pengeluaran perawatan kesehatan, perumahan, pendidikan, dan produktivitas tenaga kerja terus menjadi masalah serius. Basis data organisasi internasional, laporan pemerintah, publikasi akademik, badan statistik nasional, dan publikasi akademik adalah beberapa sumber yang dapat digunakan untuk analisis data kuantitatif sekunder yang mencakup 34 provinsi dari tahun 2018 hingga 2022. Hasil penelitian menunjukkan bahwa pengangguran, kemiskinan semuanya memiliki efek yang merugikan pada pertumbuhan ekonomi. Di sisi lain, alokasi anggaran kesehatan semuanya memiliki dampak yang menguntungkan. Studi ini menyimpulkan bahwa sementara investasi dalam anggaran kesehatan secara positif memengaruhi pertumbuhan dengan meningkatkan sumber daya manusia dan, kemiskinan, pengangguran berdampak negatif pada pertumbuhan ekonomi. Kesimpulan penelitian ini tentang korelasi antara variabel dapat menawarkan informasi mendalam kepada praktisi di berbagai bidang dan kebijakan publik.

Keywords: Economic Growth; Poverty; Unemployment; Health Budgets.

INTRODUCTION

Many nations, both domestically and abroad, have taken notice of Indonesia's economic rise over the last few decades. Indonesia, one of the world's biggest developing nations, has enormous economic potential but also faces many difficult obstacles. When a region's growth rate is strong and reflects its accomplishments and economic development, it is deemed to be experiencing robust economic growth (Rachman, Suharno, & Badriah, 2020; Suharno & Anwar, 2023). Indonesia has seen satisfactory economic growth as a developing nation (Marquez-Ramos & Mourelle, 2019). Its growth rate was moderate, averaging between 5 and 7%. On the other hand, economic growth has significantly decreased as a result of the Covid-19 pandemic (Sabur, Khusaini, & Ramdani, 2021). Data from Indonesia's economy in 2023 were noteworthy. Based on current exchange rates, the Gross Domestic Product (GDP) amounted to IDR 20,892.4 trillion, with a GDP per person of IDR 75.0 million, or USD 4,919.7. The economy expanded by 5.05%, but this was less than the 5.31% increase of the year before. Important industries like the transportation and warehousing industry, which expanded by 13.96%, and the non-profit institutions serving households (NISH) sector, whose consumption expenditure jumped by 9.83%, contributed to this rise. The Transportation and Warehousing industry and the NISH component were the primary drivers of the growth rate of 5.04% in the fourth quarter of 2023 when compared to the same period the previous year. Notably, there was geographical growth in the economy as well; provinces like Kalimantan, Papua, Sulawesi, and Maluku had notable growth. In spite of this, Java Island's provinces—which account for almost half of the country's GDP—also experienced growth, rising to 4.96%. In order to fully comprehend the dynamics and prospects of Indonesia's economy, these facts are intriguing and demand more research (Sabur et al., 2021).

The dynamics of socioeconomic issues, such as poverty, unemployment, health care spending, are vital to examine when examining economic growth (Husen, 2019). There is a noticeable disconnect between sustained high rates of poverty and robust economic growth. Many individuals are still living in poverty despite continued economic growth. According to recent data from the Central Statistics Agency (BPS), over 10-12% of Indonesians live below the poverty line, making the country's poverty rate noteworthy. In addition, comparatively high unemployment rates persist, especially among recent and young graduates. Limited health

budgets that impact access to high-quality healthcare services is among the other urgent issues in the context of Indonesia's economic growth (Husen, 2019).

An international literature analysis from 2020 to 2024 reveals significant study gaps to better understand the complex affects of elements including health budget, unemployment, and poverty on Indonesia's economic growth. First, while earlier research has examined the effects of programs to reduce poverty and increase unemployment on the microeconomy (Gao, Sockin, & Xiong, 2020; Kluge et al., 2019), it frequently ignores these programs' direct connections to economic growth. Second, while studies on the impact of health budgets on public health outcomes have been conducted by Peña-Sánchez, Ruiz-Chico, & Jiménez-García (2021) and Rosman & Apfeld (2013), their analyses do not clearly connect increases in health budgets to gains in labor productivity, which may have an impact on overall economic growth.

These gaps in the literature highlight the need for more thorough and integrated research that takes into account not only the individual elements—such as unemployment, poverty, and health care spending—but also the ways in which these factors interact and impact Indonesia's economic growth as a whole. To be more precise, a comprehensive study that takes into account every factor—from unemployment and poverty to housing, health, and education—would offer deeper understandings and better ways to support Indonesia's sustainable economic growth.

This research is innovative because it takes a comprehensive and integrated approach to studying how health budget, unemployment, and poverty all affect Indonesia's economic growth at the same time. This study broadens the scope of the analysis by integrating all these factors into a single model to comprehend the intricate dynamics between macroeconomic and microeconomic variables and their combined impact on the economy, in contrast to previous studies that typically focused on one or two factors in isolation. By expanding our knowledge of the variables influencing labor productivity and economic growth in Indonesia, this study not only makes a substantial contribution to the economic and social literature, but it also offers useful advice to policymakers on how to create more comprehensive and successful interventions.

METHOD

Panel data, which combines time-series and cross-sectoral data into a one-dimensional framework, is used in this study. Subjects are represented by cross-sectoral data, whereas time-series data refer to time variables and include data from several subjects throughout a number

of time periods. More flexibility in the analysis of dynamic changes is offered by panel data. The secondary data used in this study are cross-sectoral and time-series data covering 34 Indonesian provinces over a five-year period, from 2018 to 2022. Data on poverty, health spending plans, unemployment, and gross regional product data to ascertain the economic growth of each Indonesian province are all incorporated into the research. The central statistical office of a nation usually provides information on growth, unemployment, and poverty. This organization is in charge of gathering, handling, and evaluating many types of information about a country's social, economic, and demographic circumstances.

In the meanwhile, national health departments or the Ministry of Health often provide information on healthcare budgets. The Ministry of Health is in charge of organizing, overseeing, and carrying out regulations pertaining to the healthcare industry, including the distribution of funds for different medical services and projects. The study will examine the connections between a number of variables and Indonesia's economic expansion, such as the dynamics of poverty, unemployment, and healthcare spending.

We will employ multiple regression analysis to determine the degree to which these factors impact economic growth. For multiple regression analysis, the standard formula is:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + \epsilon$$

Where:

- Y is the dependent variable (in this case, economic growth).
- $X_1 + X_2 + \dots + \beta_n X_n$ are the independent variables (poverty, unemployment, healthcare budget).
- $\beta_0, \beta_1, \beta_2, \dots, \beta_n$ are the regression coefficients that measure how much a change in the independent variable contributes to a change in the dependent variable.
- ϵ is the random error.

Researchers can ascertain the direction and degree of each factor's link with Indonesia's economic growth, as well as the relevance of each factor's influence, by employing multiple regression analysis. This research uses regression methods with the OLS model, also known as the ordinary least squares method. The OLS model is appropriate for this study because it analyzes the one-way influence of the independent variable. The model selection used in this research includes the Chow Test, which is used to decide between the common effect model and the fixed effect model; the Hausman Test, which helps choose between the fixed effect

model and the random effect model; as well as the Lagrange Multiplier test, which is used to decide between the random effect model and the common effect model.

RESULTS AND DISCUSSION

1. Poverty in Indonesia

The author must provide a comprehensive report of the results to enable the reader to understand the statistical analysis that was conducted and the rationale behind it, and to subsequently substantiate their conclusions. In order to furnish data on the number of observations, mean, standard deviation, minimum value, and maximum value of each variable employed in this investigation, descriptive statistics were implemented.

Table 1. The Poverty Level in Indonesia for the Years 2018-2022

No.	Province	Percentage of Poverty					Average
		2018	2019	2020	2021	2022	
1	Aceh	15.68	15.01	15.43	15.53	14.75	15,3
2	North Sumatra	8.94	8.63	9.14	8.49	8.33	8,7
3	West Sumatra	6.55	6.29	6.56	6.04	6.04	6,3
4	Riau	7.21	6.90	7.04	7.00	6.84	7,0
5	Jambi	7.85	7.51	7.97	7.67	7.70	7,7
6	South Sumatera	12.82	12.56	12.98	12.79	11.95	12,6
7	Bengkulu	15.41	14.91	15.30	14.43	14.34	14,9
8	Lampung	13.01	12.30	12.76	11.67	11.44	12,2
9	Bangka belitung	4.77	4.50	4.89	4.67	4.61	4,7
10	Riau Islands	5.83	5.80	6.13	5.75	6.03	5,9
11	Jakarta	3.55	3.42	4.69	4.67	4.61	4,2
12	West Java	7.25	6.82	8.43	7.97	7.98	7,7
13	Central Java	11.19	10.58	11.84	11.25	10.98	11,2
14	Yogyakarta	11.81	11.44	12.80	11.91	11.49	11,9
15	East Java	10.85	10.20	11.46	10.59	10.49	10,7
16	Banten	5.25	4.94	6.63	6.50	6.24	5,9
17	Bali	3.91	3.61	4.45	4.72	4.53	4,2
18	NTB	14.63	13.88	14.23	13.83	13.82	14,1
19	NTT	21.03	20.62	21.21	20.44	20.23	20,7
20	West Kalimantan	7.37	7.28	7.24	6.84	6.81	7,1
21	Central Kalimantan	5.10	4.81	5.26	5.16	5.22	5,1
22	South Kalimantan	4.65	4.47	4.83	4.56	4.61	4,6
23	East Kalimantan	6.06	5.91	6.64	6.27	6.44	6,3
24	Nort Kalimantan	6.86	6.49	7.41	6.83	6.86	6,9
25	North Sulawesi	7.59	7.51	7.78	7.36	7.34	7,5
26	Central Sulawesi	13.69	13.18	13.06	12.18	12.30	12,9
27	South Sulawesi	8.87	8.56	8.99	8.53	8.66	8,7
28	Southeast Sulawesi	11.32	11.04	11.69	11.74	11.27	11,4
29	Gorontalo	15.83	15.31	15.59	15.41	15.51	15,5
30	West Sulawesi	11.22	10.95	11.50	11.85	11.92	11,5
31	Maluku	17.85	17.65	17.99	16.30	16.23	17,2
32	North Maluku	6.62	6.91	6.97	6.38	6.37	6,7
33	West Papua	22.66	21.51	21.70	21.82	21.43	21,8

34	Papua	27.43	26.55	26.80	27.38	26.80	27,0
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Source: Data Processing Results

The average poverty rates in the Indonesian provinces are illustrated in the bar graph, which demonstrates substantial disparities. The provinces of Jawa Barat and Sumatera Selatan exhibit moderately higher rates, while DKI Jakarta, which has the lowest average, indicates that the economic conditions are improved. This disparity is particularly apparent in the eastern regions, where Maluku, Gorontalo, and, most significantly, Papua and Papua Barat exhibit the highest averages. This suggests that a significant portion of their populations are experiencing poverty, which is indicative of the persistent regional inequalities in Indonesia's socioeconomic landscape. The average poverty rate in Papua is approximately 27.0%, which is the highest. This suggests that there are substantial economic obstacles and underscores the necessity of targeted intervention in this domain. In contrast, Jakarta and Bali has the lowest average poverty rate in the country, with an average of only approximately 4.2%. This indicates that the province has implemented effective poverty alleviation measures and has a relatively stronger economic situation. The poverty level disparity between the greatest and lowest was approximately 23.1 percentage points. The uneven economic development and varying effectiveness of poverty reduction strategies across the various regions of Indonesia are emphasized by this significant gap. Addressing these disparities is essential for the uniform improvement of social welfare and the attainment of more balanced economic development throughout the nation.

Several provinces, such as Jambi and Lampung, have shown a consistent downward trend in poverty rates, while West Java has experienced slight fluctuations with an average of around 8.5%. However, some provinces have seen an increase in poverty rates, such as Banten, which rose from 5.25% in 2018 to 6.31% in 2022, and West Kalimantan, which increased from 7.37% to 7.83% over the same period. These poverty trends highlight a stark disparity between the eastern and western regions of Indonesia, with Papua and West Papua experiencing much higher poverty rates compared to provinces in the western part of the country.

2. Health Budget in Indonesia

Health development is a form of investment in the human capital of a nation, including Indonesia. This investment in human capital is ultimately expected to have an impact on improving the welfare of the Indonesian people. Considering the importance of health

development in enhancing public welfare, the government has allocated the following health budget:

Table 2. Health Budgets by Province in Indonesia for the Years 2018-2022

No.	Province	Health Budget (In billions of rupiah)					Average
		2018	2019	2020	2021	2022	
1	Aceh	1,902	2,369	6	9	11	860
2	North Sumatra	557	540	9	24	18	130
3	West Sumatra	670	712	6	12	8	282
4	Riau	760	919	5	10	11	341
5	Jambi	458	488	6	13	9	194
6	South Sumatera	433	349	7	23	12	165
7	Bengkulu	349	374	6	14	10	151
8	Lampung	558	550	4	14	11	227
9	Bangka Belitung	192	1,818	5	7	7	406
10	Riau Islands	190	218	5	10	11	86
11	Jakarta	8,936	8,894	4	4	9	3,569
12	West Java	958	1,032	6	16	16	405
13	Central Java	2,315	1,904	9	15	20	852
14	Yogyakarta	148	176	4	4	8	68
15	East Java	3,530	4,145	9	20	16	1,545
16	Banten	360	596	4	7	10	195
17	Bali	400	561	3	7	9	195
18	NTB	531	685	7	11	12	249
19	NTT	304	338	11	24	18	139
20	West Kalimantan	428	446	5	8	11	180
21	Central Kalimantan	450	434	6	8	10	182
22	South Kalimantan	166	1,089	8	10	10	257
23	East Kalimantan	1,062	1,274	6	9	8	472
24	North Kalimantan	862	530	5	8	7	282
25	North Sulawesi	268	503	6	17	11	161
26	Central Sulawesi	400	811	11	20	13	251
27	South Sulawesi	676	404	11	31	14	228
28	Southeast Sulawesi	291	314	4	10	14	127
29	Gorontalo	123	154	7	15	9	61
30	West Sulawesi	163	156	5	11	10	69
31	Maluku	245	263	4	10	11	107
32	North Maluku	195	261	6	15	13	98
33	West Papua	111	246	7	16	8	78
34	Papua	765	1,052	5	17	22	373

Source: Data Processing Results

The table 2 presents the health budget allocation in billions of Indonesian Rupiah for 34 provinces from 2018 to 2022, along with the average budget for each province over this period. The data highlights significant variations in health funding across different provinces. Jakarta consistently received the highest health budget, with an average of 3,569 billion Rupiah, reflecting its status as the capital and its large population. Other provinces, such as East Java and Central Java, also received substantial funding, averaging 1,545 billion and 852 billion Rupiah, respectively. These allocations likely correspond to their significant population

sizes and development needs. In contrast, smaller or less populated regions like Gorontalo and West Papua received much lower budgets, averaging around 61 billion and 78 billion Rupiah, respectively. These figures highlight the disparities in resource distribution, which may impact the quality and accessibility of healthcare services in these areas.

Interestingly, provinces such as Bangka Belitung and North Sulawesi experienced significant fluctuations in their health budgets. Bangka Belitung, for example, saw a surge in its health budget in 2019, reaching 1,818 billion Rupiah, which was considerably higher than other years. Similarly, North Sulawesi had a sharp increase in 2021, with 17 billion Rupiah allocated compared to an average of 6 billion in previous years. The overall trend indicates a gradual increase in health budgets over the five-year period for most provinces, suggesting a positive commitment to improving healthcare funding across the country. However, the wide disparities between provinces underline the ongoing challenges in achieving equitable health funding distribution. This uneven allocation could lead to significant differences in health outcomes and service quality across Indonesia's diverse regions.

Economic growth and the distribution of health budgets are closely related. By lowering the burden of sickness, increasing worker efficiency, and improving population health overall, investments in healthcare services and infrastructure can increase economic productivity. East Java and Jakarta, two provinces with larger health expenditures, are also economic powerhouses, demonstrating the significance that health spending plays in promoting economic development. The correlation observed between health expenditure and economic expansion highlights the significance of fair health investment in fostering balanced development throughout Indonesia's regions.

3. Unemployment in Indonesia

Unemployment in Indonesia remains a significant economic challenge, influenced by factors such as population growth, economic shifts, and labor market dynamics. The unemployment rate has fluctuated in recent years, with the COVID-19 pandemic exacerbating job losses, particularly in sectors like tourism and manufacturing:

Table 3. Unemployment Rates by Province in Indonesia for the Years 2018-2022

No.	Province	Unemployment					Average
		2018	2019	2020	2021	2022	
1	Aceh	6,34	6,17	6,59	6,30	6,17	6,31
2	North Sumatra	5,55	5,39	6,91	6,33	6,16	6,07
3	West Sumatra	5,66	5,38	6,88	6,52	6,28	6,14

4	Riau	5,98	5,76	6,32	4,42	4,37	5,37
5	Jambi	3,73	4,06	5,13	5,09	4,59	4,52
6	South Sumatera	4,27	4,53	5,51	4,98	4,63	4,78
7	Bengkulu	3,35	3,26	4,07	3,65	3,59	3,58
8	Lampung	4,04	4,03	4,67	4,69	4,52	4,39
9	Bangka belitung	3,61	3,58	5,25	5,03	4,77	4,45
10	Riau Islands	8,04	7,50	10,34	9,91	8,23	8,80
11	Jakarta	6,65	6,54	10,95	8,50	7,18	7,96
12	West Java	8,23	8,04	10,46	9,82	8,31	8,97
13	Central Java	4,47	4,44	6,48	5,95	5,57	5,38
14	Yogyakarta	3,37	3,18	4,57	4,56	4,06	3,95
15	East Java	3,91	3,82	5,84	5,74	5,49	4,96
16	Banten	8,47	8,11	10,64	8,98	8,09	8,86
17	Bali	1,40	1,57	5,63	5,37	4,80	3,75
18	NTB	3,58	3,28	4,22	3,01	2,89	3,40
19	NTT	2,85	3,14	4,28	3,77	3,54	3,52
20	West Kalimantan	4,18	4,35	5,81	5,82	5,11	5,05
21	Central Kalimantan	3,91	4,04	4,58	4,53	4,26	4,26
22	South Kalimantan	4,35	4,18	4,74	4,95	4,74	4,59
23	East Kalimantan	6,41	5,94	6,87	6,83	5,71	6,35
24	Nort Kalimantan	5,11	4,49	4,97	4,58	4,33	4,70
25	North Sulawesi	6,61	6,01	7,37	7,06	6,61	6,73
26	Central Sulawesi	3,37	3,11	3,77	3,75	3,00	3,40
27	South Sulawesi	4,94	4,62	6,31	5,72	4,51	5,22
28	Southeast Sulawesi	3,19	3,52	4,58	3,92	3,36	3,71
29	Gorontalo	3,70	3,76	4,28	3,01	2,58	3,47
30	West Sulawesi	3,01	2,98	3,32	3,13	2,34	2,96
31	Maluku	6,95	6,69	7,57	6,93	6,88	7,00
32	North Maluku	4,63	4,81	5,15	4,71	3,98	4,66
33	West Papua	6,45	6,43	6,80	5,84	5,37	6,18
34	Papua	3,00	3,51	4,28	3,33	2,83	3,39

Source: Data Processing Results

Significant regional economic disparities are revealed through an examination of the average unemployment rates in Indonesian provinces from 2018 to 2022. Banten is the province with the greatest average unemployment rate, which is approximately 8.25%. Economic challenges, such as mismatched workforce skills or limited employment opportunities, may impede the province's economic development and welfare, as indicated by this elevated rate. In contrast, Bali has the lowest average unemployment rate, which is approximately 1.40%. This indicates a more robust economic situation, which may be attributed to the robust tourism and service sectors, which provide a plethora of employment opportunities.

These disparate unemployment rates emphasize the economic diversity that exists among provinces, suggesting that there are varying degrees of economic health and development challenges. Targeted economic policies may be necessary to promote job creation

and improve workforce skills in provinces like Banten, where unemployment rates are high. In contrast, provinces such as Bali, which have lower rates, may prioritize the expansion of employment opportunities and the preservation of economic stability in order to accommodate their expanding populations. It is imperative to effectively address these disparities in order to enhance the overall resilience of the national economy and achieve balanced economic growth

Economic growth and development are directly influenced by these disparities in labor productivity, which is why they are so critically important. The high productivity level in Riau indicates that investments in infrastructure, technology, and education are likely to be profitable, resulting in increased output per worker and an overall increase in economic vitality. Conversely, the low productivity in Bengkulu may indicate deficiencies in these regions, necessitating targeted interventions to enhance workforce efficiency and, as a result, economic well-being. It is imperative to rectify these disparities in order to enhance the quality of life and promote equitable economic development in various regions of Indonesia.

4. Economic Growth in Indonesia

Economic growth refers to the increase in the production of goods and services in an economy over a period of time, typically measured by the rise in Gross Domestic Product (GDP). It reflects the ability of an economy to produce more and improve living standards for its population.

Table 4. Economic Growth by Province in Indonesia for the Years 2018-2022

No.	Province	Economic Growth (%)					Average
		2018	2019	2020	2021	2022	
1	Aceh	4,61	4,14	-0,37	2,81	4,21	3,08
2	North Sumatra	5,18	5,22	-1,07	2,61	4,73	3,33
3	West Sumatra	5,14	5,01	-1,61	3,29	4,36	3,24
4	Riau	2,35	2,81	-1,13	3,36	4,55	2,39
5	Jambi	4,69	4,35	-0,51	3,7	5,12	3,47
6	South Sumatera	6,01	5,69	-0,11	3,58	5,23	4,08
7	Bengkulu	4,97	4,94	-0,02	3,27	4,31	3,49
8	Lampung	5,23	5,26	-1,66	2,77	4,28	3,18
9	Bangka Belitung	4,45	3,32	-2,29	5,05	4,4	2,99
10	Riau Islands	4,47	4,83	-3,8	3,43	5,09	2,80
11	Jakarta	6,11	5,82	-2,39	3,55	5,25	3,67
12	West Java	5,65	5,02	-2,52	3,74	5,45	3,47
13	Central Java	5,3	5,36	-2,65	3,33	5,31	3,33
14	Yogyakarta	6,2	6,59	-2,67	5,58	5,15	4,17
15	East Java	5,47	5,53	-2,33	3,56	5,34	3,51
16	Banten	5,77	5,26	-3,39	4,49	5,03	3,43
17	Bali	6,31	5,6	-9,34	-2,46	4,84	0,99
18	NTB	-4,5	3,9	-0,62	2,3	6,95	1,61
19	NTT	5,11	5,25	-0,84	2,52	3,05	3,02

20	West Kalimantan	5,07	5,09	-1,82	4,8	5,07	3,64
21	Central Kalimantan	5,61	6,12	-1,41	3,59	6,45	4,07
22	South Kalimantan	5,08	4,09	-1,82	3,48	5,11	3,19
23	East Kalimantan	2,64	4,7	-2,9	2,55	4,48	2,29
24	Nort Kalimantan	5,36	6,89	-1,09	3,99	5,32	4,09
25	North Sulawesi	6	5,65	-0,99	4,16	5,42	4,05
26	Central Sulawesi	20,56	8,83	4,86	11,68	15,22	12,23
27	South Sulawesi	7,04	6,91	-0,71	4,64	5,1	4,60
28	Southeast Sulawesi	6,4	6,5	-0,65	4,1	5,53	4,38
29	Gorontalo	6,49	6,4	-0,02	2,4	4,04	3,86
30	West Sulawesi	6,26	5,56	-2,34	2,57	2,31	2,87
31	Maluku	5,91	5,41	-0,91	3,63	5,31	3,87
32	North Maluku	7,86	6,25	5,39	16,79	22,94	11,85
33	West Papua	6,25	2,66	-0,76	-0,51	2,01	1,93
34	Papua	7,32	-15,74	2,39	15,16	8,97	3,62

Source: Data Processing Results

The table presents an overview of economic growth percentages for 34 provinces in Indonesia from 2018 to 2022, revealing significant variations in growth rates across different regions. Overall, economic growth fluctuated, reflecting regional disparities in development, investment, and policy impacts. Provinces such as Central Sulawesi and East Java demonstrated strong average growth rates, with Central Sulawesi reaching an impressive **12.23%**, indicating robust economic activities and investments during this period. In contrast, provinces like Papua and Aceh showed lower average growth rates of **3.62%** and **3.08%**, respectively, which may be attributed to ongoing challenges, including political instability, limited infrastructure, or resource constraints. The data also indicates that some provinces experienced significant fluctuations in their economic growth from year to year, likely due to external factors such as market conditions or natural events. This diversity in the economic environment highlights the need for targeted policies to promote equitable growth across all regions, ensuring that the specific challenges and opportunities faced by different provinces are addressed effectively.

5. Frequency Distribution of Research Variables

Table 5. Frequency Distribution of Research Variables

Variable	Obs	Means	Standard deviation	Maximum	Minimum
Poverty (%)	170	10.48	5.41	27.43	3.42
Health budget (in billion Rupiah)	170	388992.72	1097382.63	8936162.37	3205.67
Unemployment (%)	170	5.2	1.8	10.95	1.4
Economic growth (in Rupiah)	170	4.08	3.86	21,12	-2,96

Source: Data Processing Results

The table contains statistics regarding a variety of socioeconomic indicators. Seven variables were observed, with 170 observations for each variable. These variables consist of the poverty rate, health budget, unemployment, and economic growth. The average value of the observations is represented by the mean value of each variable. For instance, the average poverty rate is 10.48%, and the average health budget is 3,889,992.72 million Rupiah. The standard deviation is a measure of the degree to which the data values deviate from the mean. The standard deviation of unemployment was 1.8, which suggests that the data were not significantly dispersed from the average of 5.2%. The economic growth data has a wide range, with a minimum of 2,96% and a maximum of 21,12%. The maximum and minimum values provide an overview of the range of data values.

Table 6. Estimated results of unit root test calculations

Variable	Coefficient	Std. Error	t-Statistic	Prob.	Conclusion
C	7.043124	2.556057	2.755465	0.0067	Stationary
Poverty	-0.802524	0.304360	-2.636760	0.0094	Stationary
Health budget	0.042343	0.010582	4.001360	0.0001	Stationary
Unemployment	-0.419681	0.093859	-4.471386	0.0000	Stationary

Source: *Data Processing Results*

The regression coefficients for a collection of economic and social variables, as well as their corresponding standard errors, t-statistics, and probabilities (p-values), are presented in the table. This is an interpretation of each variable that has been presented:

1. The Influence of Poverty on Economic Growth

The hypothesis test results suggest that the coefficient of poverty is -0.802, which suggests that a decrease in economic growth is associated with an increase in poverty. The t-statistic of -2.637 and the p-value of 0.009 indicate that poverty has a substantial adverse effect. Economic growth is significantly impeded by poverty, which reduces purchasing power and aggregate demand, creates a difficult-to-break cycle of poverty, and impedes the productive potential of society.

This research is consistent with the conclusions of (Bala et al., 2020; Graham, 2020; Hooi, 2023; Ngubane et al., 2023; Shyamsundar et al., 2021), which emphasize that investments in human capital, including education and health, have a significant impact on economic development. These investments not only improve individual capabilities but also increase the overall productivity of the economy, as emphasized by Jaax (2020) studies. The findings of Ngubane et al., (2023) further illustrate that these investments result in long-term

benefits, including the reduction of poverty and the enhancement of living standards, which in turn contribute to the establishment of a more stable and prosperous economy. Consequently, poverty alleviation is essential for the promotion of sustainable and inclusive economic growth.

Raúl Prebisch's economic theory is consistent with the assertion that poverty has a substantial adverse effect on economic growth. This theory underscores the significance of structural, social, and institutional factors in shaping a nation's economic expansion. Poverty is regarded as a significant impediment to inclusive and sustainable economic growth due to its structural impact on income distribution, access to resources, and the quality of human resources (Bala et al., 2020; Brkić, 2020; Ngubane et al., 2023; Shyamsundar et al., 2021; Wang et al., 2023). Poverty has the potential to disrupt economic activity and investment by reducing labor productivity, restricting access to education and healthcare, and fostering social instability. Economic development theory underscores the significance of poverty alleviation through income redistribution policies, community empowerment, and enhanced access to resources, which are essential components of sustainable and inclusive economic growth and development. Prebisch's methodology implies that poverty alleviation is not only an ethical obligation but also a practical requirement for the promotion of resilient economic growth (Graham, 2020; Hooi, 2023).

2. The Influence of health budgets on Economic Growth

A strong and statistically significant relationship between the health budget and economic growth is suggested by a positive coefficient of 0.042, a high t-statistic (4.001), a small standard error (0.011), and a very low p-value (0.0001). These findings suggest that economic growth is positively influenced by investments in healthcare expenditures. The overall welfare of the population can be improved by improving access to healthcare services, which in turn can increase labor productivity. Isham et al., (2021) and Wang et al., (2023) have observed that healthy individuals are more productive and take fewer absences from work, which contributes to overall economic growth.

Research conducted by Cylus et al., (2019) and Hensher et al., (2020) has demonstrated that investments in healthcare budgets have a positive impact on economic development. These investments offer a variety of advantages. Investing in health can enhance the quality of human resources over the long term and reduce the disease burden, thereby reducing long-term costs associated with healthcare and recuperation. Additionally, it can increase life expectancy. The

healthcare sector's expansion can generate new economic opportunities, including the expansion of medical tourism, increased investment in research and development, and the creation of new jobs in the health industry (Ku Abd Rahim, Kamaruzaman, Dahlui, & Wan Puteh, 2020). Consequently, sustainable economic growth can be stimulated by the appropriate allocation of healthcare expenditures, which not only enhances the well-being of the community but also serves as a catalyst for economic development (F. Chen & Chen, 2021). In order to guarantee that healthcare budgets contribute to economic development to the fullest, the government can implement a number of strategic measures, such as increasing budget allocations for the health sector, funding health infrastructure, providing affordable medical care, and implementing disease prevention programs.

Growth economic theory or neoclassical economic theory is consistent with the beneficial impact of healthcare budgeting on economic growth. This theory underscores the significance of investment, innovation, and production in the pursuit of sustainable economic expansion. The quality of human capital and productivity can be improved through healthcare investment, which in turn stimulates economic growth (Rafia, 2021).

Healthcare investment is a critical form of human capital investment, as per neoclassical economic theory. In the same way that investing in education enhances the skill level and efficacy of the workforce, investing in health guarantees that the workforce is more efficient, less susceptible to illness, and capable of making a longer-term contribution. The burden on economic systems is alleviated by an improved health status, which reduces the necessity for immediate healthcare expenditures, thereby freeing up resources that can be allocated to other productive sectors (S. Chen, Kuhn, Prettnner, Bloom, & Wang, 2021).

3. The Influence of unemployment on Economic Growth

A coefficient of -0.419 suggests that there is a negative correlation between economic growth and unemployment. The statistical significance of this effect was strongly supported by a p-value of 0.000 and a t-statistic of -4.471. Economic growth is adversely affected by unemployment. Unemployment diminishes consumer spending by reducing the aggregate demand in the market, as individuals who are unemployed have either no income or a reduced income. The potential for production growth is impeded by unemployment, which results in a decrease in economic productivity as the workforce's potential is not utilized proficiently.

Unemployment can impede the economy's long-term development by resulting in the loss of valuable skills and work experience, particularly among the younger generation.

Bala et al., (2020) and Ngubane et al., (2023) have demonstrated that unemployment has a detrimental impact on economic development, which is consistent with the cyclical relationship between high unemployment rates and economic decline. The fiscal burden of the government can also be exacerbated by unemployment, which results in the expenditure of funds on unemployment benefits and other social assistance programs. Unemployment is not solely a social concern; it also impedes economic growth by decreasing consumption, production, and innovation in the economy (Edwards, 2021; Graham, 2020; Jaax, 2020; Kluge et al., 2019).

Unemployment is detrimental to economic expansion, as per Keynesian economic theory. The significance of aggregate demand in determining the level of economic activity is underscored by Keynesian theory. In this theory, consumers' incomes are reduced during periods of high unemployment, which results in a decrease in their demand for products and services. Consequently, companies reduce their production in order to accommodate the reduced demand, which results in an increase in the number of employees who are unable to secure new employment opportunities or lose their jobs (Bala et al., 2020; Husin, 2021; Okunlola, Sani, & Ayetigbo, 2023; Razia, Omarya, Razia, Awwad, & Ruzieh, 2023). This cycle has the potential to result in a negative spiral, in which a decrease in demand is exacerbated by increased unemployment, which in turn further reduces demand (Razia et al., 2023; Sánchez-Cañizares et al., 2020).

CONCLUSION

This research demonstrates that economic growth is adversely affected by poverty, and unemployment. Conversely, investments in health budgets foster growth by improving human capital. In order to promote inclusive and sustainable economic growth, it is imperative to implement strategies such as promoting job creation, implementing progressive fiscal policies, and increasing access to education and healthcare. These strategies are consistent with both classical and neoclassical economic theories, which advocate for comprehensive investments in human capabilities to drive long-term economic advancement. The implications of this research are that the results concerning the relationship between the variables under investigation can offer valuable insights to public policymakers and practitioners in a variety

of disciplines. The data utilized was one of the constraints. Despite the fact that the data from 2018-2022 offers a comparatively recent snapshot of Indonesia's economic and social conditions, the potential for changes in conditions or trends after that time may diminish the long-term relevance of the research findings. Furthermore, the interpretation of research findings can be influenced by methodological constraints, such as the selection of a model or specific analytical techniques. Consequently, this research may necessitate additional research or the development of more sophisticated methodologies to enhance comprehension of the relationship between the variables being examined. The government needs to promote labor-intensive and environmentally friendly economic sectors, particularly in rural and remote areas, to absorb local labor and reduce unemployment rates.

REFERENCES

- Amato, L. H., Cebula, R. J., & Connaughton, J. E. (2022). State productivity and economic growth. *Regional Studies, Regional Science*, 9(1), 180–203. <https://doi.org/10.1080/21681376.2022.2059393>
- Anna, V. (2021). Education and Economic Growth. *International Encyclopedia of Education, Third Edition*, (17), 245–252. <https://doi.org/10.1016/B978-0-08-044894-7.01227-6>
- Bala, U., Ibrahim, A., & Bala Hadith, N. (2020). Impact of Population Growth, Poverty and Unemployment on Economic Growth. *Asian Business Research Journal*, 5(November), 48–54. <https://doi.org/10.20448/journal.518.2020.5.48.54>
- Bertay, A. C., Dordevic, L., & Sever, C. (2021). Gender Inequality and Economic Growth: Evidence from Industry-Level Data. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3658594>
- Brkić, I. (2020). *The relationship between economic freedom and economic growth in EU countries*. (June), 1–165. Retrieved from https://www.tdx.cat/bitstream/handle/10803/669302/2020_Tesis_Brki_Ivana.pdf?sequence=1
- Chen, F., & Chen, Z. (2021). Cost of economic growth: Air pollution and health expenditure. *Science of the Total Environment*, 755, 142543. <https://doi.org/10.1016/j.scitotenv.2020.142543>
- Chen, S., Kuhn, M., Prettnner, K., Bloom, D. E., & Wang, C. (2021). Macro-level efficiency of health expenditure: Estimates for 15 major economies. *Social Science and Medicine*, 287(July), 114270. <https://doi.org/10.1016/j.socscimed.2021.114270>

- Cylus, J., Normand, C., & Figueras, J. (2019). *The economics of healthy and active ageing series will population ageing spell the end of the welfare state?: A review of evidence and policy options.* 1–43.
- Edwards, M. G. (2021). The growth paradox, sustainable development, and business strategy. *Business Strategy and the Environment*, 30(7), 3079–3094. <https://doi.org/10.1002/bse.2790>
- European Training Foundation. (2021). *Algeria Education, Training and Employment Developments 2021.* 6.
- Gao, Z., Sockin, M., & Xiong, W. (2020). Economic consequences of housing speculation. *Review of Financial Studies*, 33(11), 5248–5287. <https://doi.org/10.1093/RFS/HHAA030>
- Graham, L. (2020). Differences in employment and income poverty between people with and without disabilities in South Africa. *Alter*, 14(4), 299–317. <https://doi.org/10.1016/j.alter.2020.06.011>
- Hanushek, E. A., & Wößmann, L. (2009). Education and Economic Growth. *International Encyclopedia of Education, Third Edition*, (September), 245–252. <https://doi.org/10.1016/B978-0-08-044894-7.01227-6>
- Hensher, M., Canny, B., Zimitat, C., Campbell, J., & Palmer, A. (2020). Health care, overconsumption and uneconomic growth: A conceptual framework. *Social Science and Medicine*, 266(September), 113420. <https://doi.org/10.1016/j.socscimed.2020.113420>
- Hooi, H. L. (2023). The Dynamics of Multidimensional Educational Poverty Azaz. *Journal Pre Proof*, 8(1), 127571. <https://doi.org/10.1016/j.dsm.2024.03.004>
- Husen, M. S. M. S. (2019). Economic Growth and Human Capital. *International Journal of Trend in Scientific Research and Development, Volume-3(Issue-4)*, 190–192. <https://doi.org/10.31142/ijtsrd23628>
- Husin, N. A. (2021). Unemployment Crisis Among Fresh Graduates. *American International Journal of Social Science Research*, (November), 1–14. <https://doi.org/10.46281/aijssr.v10i1.1461>
- Huu, A. T., Nhat, T. T., Thanh, T. C. T., & Ho, G. L. (2022). The reason why the unemployment rate of college graduates is increasing: Case study in Ho Chi Minh City, Vietnam. *International Journal of Multidisciplinary Research and Development*, 9(1), 19–25. Retrieved from www.allsubjectjournal.com

- Isham, A., Mair, S., & Jackson, T. (2021). Worker wellbeing and productivity in advanced economies: Re-examining the link. *Ecological Economics*, 184(February), 106989. <https://doi.org/10.1016/j.ecolecon.2021.106989>
- Jaax, A. (2020). Private sector development and provincial patterns of poverty: Evidence from Vietnam. *World Development*, 127, 104747. <https://doi.org/10.1016/j.worlddev.2019.104747>
- Kluve, J., Puerto, S., Robalino, D., Romero, J. M., Rother, F., Stöterau, J., ... Witte, M. (2019). Do youth employment programs improve labor market outcomes? A quantitative review. *World Development*, 114, 237–253. <https://doi.org/10.1016/j.worlddev.2018.10.004>
- Ku Abd Rahim, K. N., Kamaruzaman, H. F., Dahlui, M., & Wan Puteh, S. E. (2020). From Evidence to Policy: Economic Evaluations of Healthcare in Malaysia - A Systematic Review. *Value in Health Regional Issues*, 21, 91–99. <https://doi.org/10.1016/j.vhri.2019.09.002>
- Marquez-Ramos, L., & Mourelle, E. (2019). Education and economic growth: an empirical analysis of nonlinearities. *Applied Economic Analysis*, 27(79), 21–45. <https://doi.org/10.1108/AEA-06-2019-0005>
- Miller, N., Peng, L., & Sklarz, M. (2011). House Prices and Economic Growth. *Journal of Real Estate Finance and Economics*, 42(4), 522–541. <https://doi.org/10.1007/s11146-009-9197-8>
- Nakamura, K., Kaihatsu, S., & Yagi, T. (2019). Productivity improvement and economic growth: lessons from Japan. *Economic Analysis and Policy*, 62, 57–79. <https://doi.org/10.1016/j.eap.2018.11.002>
- Ng, C. P., Law, T. H., Jakarni, F. M., & Kulanthayan, S. (2019). Road infrastructure development and economic growth. *IOP Conference Series: Materials Science and Engineering*, 512(1). <https://doi.org/10.1088/1757-899X/512/1/012045>
- Ngubane, M. Z., Mndebele, S., & Kaseeram, I. (2023). Economic growth, unemployment and poverty: Linear and non-linear evidence from South Africa. *Heliyon*, 9(10), e20267. <https://doi.org/10.1016/j.heliyon.2023.e20267>
- Ngutsav, A. S., & Ijirshar, V. U. (2018). Labour Productivity and Economic Growth In Nigeria: A Disaggregated Sector Analysis. *Lafia Journal of Economics and Management Sciences*, 3(1).

- Okunlola, O. C., Sani, I. U., & Ayetigbo, O. A. (2023). Socio-economic governance and economic growth in Nigeria. *Journal of Business and Socio-Economic Development*. <https://doi.org/10.1108/jbsed-03-2023-0019>
- Olga, B., & Antonios, R. (2019). Housing Construction as a Leading Economic Indicator. *Studies in Business and Economics*, 14(3), 33–49. <https://doi.org/10.2478/sbe-2019-0041>
- Peña-Sánchez, A. R., Ruiz-Chico, J., & Jiménez-García, M. (2021). Dynamics of public spending on health and socio-economic development in the european union: An analysis from the perspective of the sustainable development goals. *Healthcare (Switzerland)*, 9(3). <https://doi.org/10.3390/healthcare9030353>
- Rachman, S. N., Suharno, S., & Badriah, L. S. (2020). The Crucial Factors Affecting Poverty and Inequality in ASEAN: A Case Study of Cambodia, Malaysia, Indonesia, and Thailand. *Icore*, 5(1).
- Rafia, R. (2021). Economics and Public Health. In *The Journal of the Royal Society for the Promotion of Health* (Vol. 42). SHINEEKS Publishers. <https://doi.org/10.1177/146642402104200516>
- Razia, A., Omarya, M., Razia, B., Awwad, B., & Ruzieh, A. (2023). Examining how unemployment, inflation and their related aspects affected economic growth in Palestine: The period from 1991 to 2020. *Heliyon*, 9(11), e21081. <https://doi.org/10.1016/j.heliyon.2023.e21081>
- Rosman, D. A., & Apfeld, J. C. (2013). The economics of health care. In *An Introduction to Health Policy: A Primer for Physicians and Medical Students* (Vol. 9781461477). https://doi.org/10.1007/978-1-4614-7735-8_11
- Rusdianti, I. S., & Ainun, S. N. (2024). *Analysis Of Labor Figures Unemployment In Malang City And Factors Affecting*. 7(1), 49–58.
- Sabur, A., Khusaini, K., & Ramdani, H. C. (2021). Education Equality and Economic Growth in Indonesia. *Jejak*, 14(1), 167–182. <https://doi.org/10.15294/jejak.v14i1.26162>
- Sánchez-Cañizares, S. M., Cabeza-Ramírez, L. J., & Guerrero-Baena, M. D. (2020). Evaluation of self-employment support policies using survival analysis. The discounted flat rate in Andalusia (Spain). *Papers in Regional Science*, 99(5), 1389–1411. <https://doi.org/10.1111/pirs.12533>
- Shyamsundar, P., Sauls, L. A., Cheek, J. Z., Sullivan-Wiley, K., Erbaugh, J. T., & Krishnapriya, P. P. (2021). Global forces of change: Implications for forest-poverty

dynamics. *Forest Policy and Economics*, 133, 102607.
<https://doi.org/10.1016/j.forpol.2021.102607>

- Suharno, S., & Anwar, N. (2023). The Energy Demand Elasticity in Relation to Gross Domestic Product in Indonesia: Sectoral Approach. *International Journal of Energy Economics and Policy*, 13(4), 634–640. <https://doi.org/10.32479/ijeep.13385>
- Tran, N. Van, Alauddin, M., & Tran, Q. Van. (2019). Labour quality and benefits reaped from global economic integration: An application of dynamic panel SGMM estimators. *Economic Analysis and Policy*, 63, 92–106. <https://doi.org/10.1016/j.eap.2019.04.014>
- Ubogu, R. (2022). *Quality Education : a Strategic Tool for Human Capital*. (June).
- Unsw, D. M. (2021). *Housing in the Economy : Scale , Cycles and Stability*.
- Wang, B., Shi, H., Wang, Z., Xu, S., Deng, N., Qiu, Y. (Lucy), & Zhang, B. (2023). Pandemics erode poverty alleviation process: Impact on productive livelihood and poverty return. *IScience*, 26(10), 107177. <https://doi.org/10.1016/j.isci.2023.107177>
- Xiang, L., Tang, M., Yin, Z., Zheng, M., & Lu, S. (2021). The COVID-19 Pandemic and Economic Growth: Theory and Simulation. *Frontiers in Public Health*, 9(September), 1–14. <https://doi.org/10.3389/fpubh.2021.741525>