

Improving Indonesia's export competitiveness through human capital investments

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ABSTRACT

This research was conducted to analyze the influence of education investment, health investment, HDI, and labor productivity on Indonesian exports of goods and services simultaneously or partially. This type of research is quantitative research. The samples in this research are an investment in education, investment value in health, HDI, labor productivity, and the value of Indonesian exports using time series data from 1994 to 2023. Analysis is used to calculate directly the magnitude of the influence of investment value in education, investment value in the health sector, HDI, labor productivity as the independent variable, and the value of Indonesian exports as the dependent variable. The findings in this research are that the investment value variables in the education sector and the investment value in the health sector have no significant effect on the value of Indonesian exports. The variable value of the Human Development Index and the value of Indonesian labor productivity have a positive and significant effect on the value of Indonesian exports. Meanwhile, in the simultaneous test of independent variables, the investment value of the education sector, the investment value of the health sector, the value of the Human Development Index, and the productivity of Indonesian labor have a positive and significant effect on the value of Indonesian exports.

Keywords: education, health, HDI, Productivity, labor, exports

I. INTRODUCTION

Indonesia achieved a trade surplus of USD 3.94 billion in April 2023. The surplus in March 2023 was approximately 39% higher than the previous achievement. This marked the 36th straight surplus, as indicated in the graph. The trade of commodities other than oil and gas generated the excess. The quality and capabilities of the workforce might be a determining factor for exports. Skilled workers must operate even the most advanced technological devices or tools. The workforce's quality can be assessed based on the human capital level. In August 2022, the Central Statistics Agency (BPS) released data indicating that the workforce comprised 143.72 million individuals. The labor force participation rate (TPAK) was reported to be 68.63% of the working-age population. The workforce declined by 291.4 thousand individuals (0.2%) compared to its position in February 2022.

Similarly, the TPAK fell by 0.43 percentage points compared to February 2022. However, compared to the position in August 2021, there has been a rise of 3.5 million individuals (equivalent to a 2.55% increase) in the workforce, and the TPAK has climbed by 0.83 percentage

points. The graph illustrates a positive correlation between the national workforce and population growth. In the past 5 years, the TPAK has experienced fluctuations. According to BPS, the working-age population (individuals over 15 years old) in August 2022 was 209.42 million. Of the total, 143.72 million individuals were classified as part of the workforce, comprising 135.3 million employed individuals and 8.43 million jobless individuals. A total of 65.8 million individuals who are of working age are not considered part of the workforce. This includes 15.6 million individuals currently attending school, 41.25 million individuals responsible for domestic duties, and 8.84 million individuals with other statuses.

Evaluations of investment and development in the education sector are based on factors such as the proportion of state spending allocated to education, the ratio of the education budget to the number of students, and the teacher-student ratio. An appeal is evaluated based on factors such as the cost of living index, quality of life survey, worker motivation survey, the influx of qualified workers from overseas, and other relevant indicators. Readiness is assessed by evaluating factors such as workforce expansion, the percentage of skilled workers, the extent of community education, and student proficiency as determined by the PISA exam. These diverse elements are subsequently quantified into a numerical score ranging from 0 to 100 points. Higher scores are considered to indicate greater competitiveness.

In 2023, using this approach, Indonesia achieved a Human Resources (HR) competitiveness score of 51.13 out of 100 points. Indonesia's ranking in the research conducted by IMD was fourth out of the five Southeast Asian countries examined, as indicated in the graph. According to IMD data, Indonesia's score is insignificant due to several variables, including a comparatively low education budget, a scarcity of teachers, and subpar student talent, as indicated by PISA test scores. Nevertheless, Indonesia's competitiveness is gradually advancing, but it has a relatively lower score than other ASEAN nations. Indonesia's human resources (HR) have experienced a fall in competitiveness because of the COVID-19 epidemic, and their strength is expected to recover only by 2023. The World Talent Ranking report, published by the Institute for Management Development (IMD), a Swiss research institution, provides evidence. The assessment of HR competitiveness by IMD is based on three key indicators: investment and development of domestic HR, the country's capacity to attract skilled HR from overseas, and the overall level of HR readiness. Indonesia's score has shown a notable improvement compared to 2022.

Based on IMD's assessment, Indonesia's education budget is projected to remain comparatively low in 2023, placing it at the 55th position out of 64 countries. Indonesia is now facing a shortage of instructors for secondary education, resulting in a teacher-student ratio that ranks 53rd out of 64 countries. Indonesian students' proficiency is lacking, as evidenced by their placement of 56th out of 64 nations in the IMD database according to the PISA exam.

Education, knowledge, health, and skills are constituent elements of human capital (Harnani et al., 2022). Human capital is crucial for facilitating the production of products and services and enhancing productivity (Viphindartin & Bawono, 2021). Apart from education, health also impacts human capital. Education and health are critical factors in driving economic growth as they enhance the capabilities and efficiency of the labor force (Prasetyo & Kistanti, 2020). Investing in human capital can be accomplished through investments in education and health. Enhanced education and optimal health conditions can significantly enhance the productivity of human resources, leading to a subsequent boost in a nation's economic growth. Investing in human capital can yield future dividends since ongoing enhancements in education and health can boost a country's productivity and growth (Baharin et al., 2020). The level of education among the Indonesian workforce remains significantly inadequate. In August 2023,

the Central Statistics Agency (BPS) recorded 139.85 million individuals in Indonesia who were part of the working population. The majority of the working population in the country consists of those who have completed elementary school education or lower. There were 51.49 million persons, which accounted for 36.82% of the total working population in the country. In August 2023, the number of employed individuals who had completed high school was 28.33 million, accounting for 20.25% of the total working population. Subsequently, the number of individuals who completed junior high school was documented at 24.85 million, constituting 17.77% of the whole labor force in Indonesia.

Meanwhile, 17.33 million Indonesian workers have graduated from vocational high schools. In August of this year, the proportion hit 12.40%. Simultaneously, the number of individuals with university degrees was documented at 14.44 million, constituting 10.32% of the overall employed population in the country. Ultimately, at its minimum, the number of individuals who have obtained a Diploma I/II/III is a mere 3.41 million or 2.44% of the population.

Indonesia has already implemented a community health insurance program called BPJS Kesehatan. Health insurance is a form of insurance designed to guarantee that individuals receive benefits related to healthcare (Susanti et al., 2022). Additionally, the community receives protection in fulfilling its fundamental health requirements as mandated by Law No. 40 of 2004, which pertains to the National Social Security System.

In 2021, the Central Statistics Agency (BPS) recorded a 1.26-point increase in the percentage of the Indonesian population with health insurance, reaching 69.62%. The prevalence of health insurance coverage among the population has risen since 2017. In 2017, the % of the population with health insurance was 59.41%. The percentage rose to 64.1% in 2018 and 65.88% in 2019. Subsequently, throughout the epidemic, there was a surge in tandem with a growing public consciousness regarding health. In 2020, the proportion of individuals with health insurance rose by 3.41 percentage points, reaching 69.29%. In 2021, it decreased slightly to 68.36%. The Human Development Index serves as an indicator of the level of education and health quality. According to the Central Statistics Agency (BPS) report, Indonesia's Human Development Index (HDI) reached 74.39 points in 2023. The figure experienced a 0.84% increase compared to the 2022 HDI of 73.77. Meanwhile, based on the pattern, Indonesia's HDI is projected to experience an average annual growth rate of 0.72% from 2020 to 2023.

BPS observed that the rise in HDI this year was propelled by expansion in its component metrics. In 2023, the life expectancy at birth (UHH) reached 73.93 years. This dimension experienced a growth rate of 0.31% compared to the previous year, which had a value of 73.70 years. In 2023, the average number of years of education for individuals aged 25 and older, known as the expected length of schooling (HLS), was 13.15 years. The figure had a 0.38% increase compared to 12.10 years in 2022. The average length of schooling (RLS) increased by 0.92% this year, reaching 8.77 years compared to 8.69 years in 2022. In 2023, the adjusted annual expenditure per capita was IDR 11.89 million. The value rose 3.66% compared to 2022, reaching IDR 11.47 million.

The remarkable economic advancement accomplished by Japan, Taiwan, and other Asian nations in the past decade exemplifies the significance of human capital in fostering prosperity (Wademere, 2023). Despite their limited capital and natural resources and unfair treatment from Western countries, these nations have achieved rapid economic growth due to their significant investment in human capital. This success has earned them the nickname Asian Tigers (Saleh et al., 2020).

According to data from the Ministry of Manpower (Kemnaker), Indonesia's worker productivity has grown over the past five years. Kemnaker defines labor productivity as the

relationship between the output of goods or services and the amount of labor employed, whether individual or collective, within a specific period. This ratio represents the extent to which labor contributes to economic activities. Kemnaker computes the national labor productivity by dividing the gross domestic product (GDP) by the total number of employed individuals. In 2018, Indonesia's productivity statistic reached IDR 82.56 million per worker yearly. In the subsequent year, the production metric had an upsurge. However, in 2020, it experienced a decline due to the Covid-19 epidemic. Productivity experienced a resurgence in 2021, with a peak of Rp86.55 million per worker per year in 2022, marking the most significant level achieved in the past five years. From 2018 to 2022, Indonesian worker productivity has experienced a cumulative growth of 4.8%.

II. LITERATURE REVIEW

International trade theory is a tool used to promote economic progress. Historically, international trade has been driven by the limited availability of resources within a country (Redmond & Nasir, 2020). One way to address this is to acquire these scarce resources from other countries through trade routes. Nevertheless, in the current period of globalization, the objective of international trade has evolved to acquire profits that will stimulate economic expansion (Korinek & Stiglitz, 2021).

Adam Smith introduced the theory of absolute advantage in England during the 18th century, coinciding with the Industrial Revolution. The underlying justification for this notion is that a nation's economic prosperity will be enhanced as it cultivates heightened expertise and effectiveness regarding worker engagement in production (Camagni, 2023). A country possesses an absolute advantage in manufacturing specific items if it can manufacture those goods at a lower cost than other countries. Consequently, the country will export if it can produce the goods at a lower cost than other nations (Liu et al., 2020).

In economic theory, investment is spending money to acquire capital goods and production equipment (Crouzet et al., 2022). This expenditure aims to replace existing capital goods and, more importantly, add new capital goods to the economy. These capital goods are then utilized to produce commodities and services in the future (Sokolik et al., 2022).

Investment refers to allocating resources toward activities to enhance an economy's productive potential (Sun et al., 2023). Export operations involve trading items by taking them from one country and selling them in another while adhering to relevant regulations. Exports refer to the aggregate value of products, insurance, and services that a country sells to another country within a specific year (Viphindartin & Bawono, 2021). The primary role of the export component in foreign trade is to generate profits and enhance national income, hence boosting output and accelerating economic growth. By achieving greater productivity, it is possible to disrupt the cycle of poverty and stimulate economic growth (Setterfield, 2021).

Exports refer to a wide range of commodities and services produced within a country and then sold to other countries (Carrasco & Tovar-García, 2021). From a spending standpoint, exports play a crucial role in determining Gross National Product (GNP). Therefore, any fluctuations in export values immediately impact people's income. Conversely, when a country has high exports, its economy becomes very susceptible to shocks or changes in the international market and global economy (Asafo-Adjei et al., 2021).

III. METHODS

This type of research is quantitative research. The data used is secondary data. Quantitative research is data measured on a quantitative scale, such as data from graphs, tables,

and reports related to problems (Sugiyono, 2017). The population in this study is the State of Indonesia, which means the population of investment value in education, health, HDI, labor productivity, and Indonesia's export value. The sample in this study is an investment in education, investment value in health, HDI, labor productivity, and Indonesia's export value using time series data from 1994 to 2023. This study uses secondary data techniques using time series data from 1994 to 2023. Time series data is collected, recorded, or observed over time sequentially. It will be analyzed using the multiple linear regression analysis method to test research on the value of investment in education, investment value in health, HDI, and labor productivity on Indonesia's export value. Analysis to directly calculate the magnitude of the influence of investment value in education, investment value in health, HDI, labor productivity as independent variables, and Indonesian export value as dependent variables can be written with the following analysis model:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + e$$

Description:

- Y = Value of Indonesian textile exports
- β_0 = Constant
- $\beta_1\beta_2$ = Regression coefficient of independent variables
- X1 = Education Investment
- X2 = Health investment
- X3 = HDI
- X4 = Labor Productivity
- e = Error

IV. RESULTS AND DISCUSSION

Multiple linear regression analysis measures the strength of the relationship between two or more variables (Ghozali, 2016). Also, it shows the direction of the relationship between the dependent and independent variables. Multiple linear regression analysis has independent variables (X) and dependent variables (Y). The multiple linear regression analysis results are in the SPSS version 25 output table.

Table 1. Results of Multiple Linear Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.567	.480		1.250	.804
Education Investment	.241	.323	.428	1.364	.185
Health Investment	.124	.257	.166	1.261	.219
HDI	.529	.428	.375	2.646	.024
Labor Productivity	.686	.596	.425	2.443	.011

Source: Primary data processed by SPSS, 2024

Multiple linear regression analysis was used to answer the research problems in this study. Based on multiple linear regression analysis, this analysis determines the dependence between independent variables (X) and related variables (Y). The following equation is produced:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

$$Y = 0.567 + 0.241X_1 + 0.124X_2 + 0.529X_3 + 0.686X_4 + e$$

Description:

- Y = Export Value

- X1 = Investment Value in the Education Sector
- X2 = Investment Value in the Health Sector
- X3 = HDI
- X4 = Labor Productivity Value

Based on the results of the multiple linear regression equation, each variable explains that:

1. Constant (α) = 0.567
 In the equation above, the constant value obtained is 0.567 (positive), which means that the investment value in the education sector, the investment value in the health sector, HDI, and the labor productivity value are equal to 0, then Indonesia's export value is equal to 0.567
2. Investment value regression coefficient education sector (b_1) = 0.241
 A positive regression coefficient value (directly proportional) means that if the investment value of the education sector (X1) is higher, it will trigger an increase in Indonesia's export value of 0.241, assuming other independent variables are constant
3. The regression coefficient of the investment value of the health sector (b_2) = 0.124
 A positive regression coefficient value (directly proportional) means that if the investment value of the education sector (X2) is higher, it will trigger an increase in Indonesia's export value of 0.124, assuming other independent variables are constant
4. The regression coefficient of the Human Development Index (b_3) = 0.529
 A positive regression coefficient value (directly proportional) means that if the Human Development Index (X3) is higher, it will trigger an increase in Indonesia's export value of 0.529, assuming other independent variables are constant
5. The regression coefficient of labor productivity value (b_4) = 0.686
 A positive regression coefficient value (directly proportional) means that if the labor productivity value (X4) is higher, it will trigger an increase in Indonesia's export value of 0.686, assuming other independent variables are constant

Hypothesis testing in this study uses multiple linear regression analysis. This analysis determines the effect of several independent variables (X) on the dependent variable (Y). Multiple linear analysis is carried out by testing the coefficient of determination (R^2), simultaneous statistical testing (f test), and partial testing (t-test). With the following specifications: The t-test is used to examine the significance of the relationship between variables X and Y and whether the independent variable (X) affects the related variable (Y) separately or partially (Roni & Djajadikerta, 2021). Hypothesis testing will be done using a significance level of 0.05 ($\alpha = 5\%$) or a confidence level of 0.95. The hypothesis is formulated as follows:

H0: $b_i = 0$

Ha: $b_i \neq 0$

The results of the partial test analysis (t-test) are as follows:

Table 2. Partial Test Results (t-Test)

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.567	.480		1.250	.804
	Education Investment	.241	.323	.428	1.364	.185
	Health Investment	.124	.257	.166	1.261	.219
	HDI	.529	.428	.375	2.646	.024
	Labor Productivity	.686	.596	.425	2.443	.011

Source: Primary data processed by SPSS, 2024

Based on the table above, it shows the results of the partial test (t-test) that:

1. The value of the education sector investment value table (X1) is seen from the significance level of 0.05 where $df = \text{number of samples} - \text{number of independent variables} - 1 = 30 - 4 - 1 = 25$; therefore, the t-table value at df 25 is 2.05954 while the calculated t-value of the education sector investment value (X1) is 1.364, meaning that the calculated t-value \leq t-table, namely $1.364 \leq 2.05954$. Furthermore, when viewed from the significance value of the results of the SPSS calculation, the sig. The value of the education sector investment value variable (X1) is 0.185 compared to $\alpha = 0.05$, the sig. Value. This is more significant than the value of $\alpha = 0.05$ ($0.185 \geq 0.05$), meaning that the investment value of the education sector does not significantly affect the value of Indonesian exports.
2. The value of the health sector investment value table (X2) is seen from the significance level of 0.05 where $df = \text{number of samples} - \text{number of independent variables} - 1 = 30 - 4 - 1 = 25$; therefore, the t table value at df 25 is 2.05954 while the calculated t value of the health sector investment value (X2) is 1.261 meaning that the calculated t value \leq t table is $1.261 \leq 2.05954$. Furthermore, when viewed from the significance value of the results of the SPSS calculation, the sig. The value of the health sector investment value variable (X2) is 0.219 compared to $\alpha = 0.05$, the sig. Value. This is more significant than the value of $\alpha = 0.05$ ($0.219 \geq 0.05$), meaning that the investment value of the health sector does not significantly affect the value of Indonesian exports.
3. The value of the Human Development Index (X3) table is seen from the significance level of 0.05 where $df = \text{number of samples} - \text{number of independent variables} - 1 = 30 - 4 - 1 = 25$; therefore, the value of the t table at df 25 is 2.05954 while the calculated t value of the Human Development Index (X3) is 2.646 meaning that the calculated t value \geq t table is $2.646 \geq 2.05954$. Furthermore, when viewed from the significance value of the results of the SPSS calculation, the sig. The value of the Human Development Index (X3) variable is 0.024 when compared to $\alpha = 0.05$, the sig. Value. This is more significant than the value of $\alpha = 0.05$ ($0.024 \leq 0.05$), meaning the Human Development Index value significantly affects Indonesia's export value.
4. The value of the labor productivity level value table (X4) is seen from the significance level of 0.05 where $df = \text{number of samples} - \text{number of independent variables} - 1 = 30 - 4 - 1 = 25$; therefore, the t table value at df 25 is 2.05954 while the calculated t value of the labor productivity level value (X4) is 2.443 meaning that the calculated t value \geq t table is $2.443 \geq 2.05954$. Furthermore, when viewed from the significance value of the results of the SPSS calculation, the sig. The labor productivity level value variable (X4) is 0.011 when compared to $\alpha = 0.05$, the sig. Value. This is more significant than the value of $\alpha = 0.05$ ($0.011 \leq 0.05$), meaning that the value of the labor productivity level significantly affects the value of Indonesian exports.

F test shows whether all independent or free variables included in the model have a joint effect on the dependent/related variables (Roni & Djajadikerta, 2021). This test also uses a significance level of 5% or 0.05. The results of calculating multiple linear regression analysis parameters using the SPPS version 25 program obtained the following results.

Table 3. Results of Simultaneous Statistical Tests (F Test)

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	123006131259.684	4	30751532814.921	39.924	.000 ^b
Residual	19256468566.636	25	770258742.665		

Total	142262599826.320	29
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Source: Primary data processed by SPSS, 2024

The first way is to compare the F table and F count values. The F table is obtained at 2.76 when viewed from the numerator $df = 4$ (number of independent and dependent variables - 1) and the denominator $df = 25$ (number of respondents - number of independent and dependent variables). The results show that the F count is greater than the F table ($39,924 \geq 2.76$), and when viewed from the significance value of the calculation results with SPSS, the significance value is $0.000 \leq 0.05$. This means that the independent variables significantly affect Indonesia's export value.

Determination coefficient test measures how far the model can apply the dependent variable (Roni & Djajadikerta, 2021). The determinant (R^2) reflects the ability of the dependent variable. The R^2 value shows how much influence the explanatory variable can have on the proportion of the total variation of the dependent variable. The higher R^2 value indicates how much proportion of the total variation of the dependent variable can be explained by the dependent variable. The (R^2) value can be seen from the printout results. The (R^2) value is between 0 and 1. The (R^2) value will be better if it approaches 1.

Table 4. Results of the Determination Coefficient Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.930 ^a	.865	.843	27753.53568

The SPSS version 25 software analysis reveals that the Adjusted R Square value is 0.843. This indicates that the combined investment value of the Education sector, the investment value of the health sector, the Human Development Index, and the level of labor productivity have a substantial impact on increasing Indonesia's export value, accounting for 84.3% of the variation. The remaining 15.7% is attributed to other variables not examined in this study.

The regression coefficient for the investment value variable in the education sector is 0.241. This indicates that for every rise in the investment value in the education sector, Indonesia's export value will grow by 0.241. The p-value of the investment value in the education sector is 0.185, which exceeds the threshold of 0.05. This indicates that the investment value variable in the education sector does not have a statistically significant impact on the increase of Indonesia's export value, assuming that other variables remain constant. Therefore, we can infer that the partial hypothesis has been disproven, specifically that the investment value in the education sector substantially impacts Indonesia's foreign exchange reserves.

This analysis aligns with the research before, which indicated that the investment value has a negligible impact on the exports of Indonesia's creative economy (Burhanudin et al., 2020). Based on the findings it has been demonstrated that a one-year rise in education leads to a 0.4% increase in the export of products and a 0.1% increase in the export of services (Islam et al., 2021). Furthermore, these findings indicate that the impact of educational investment on a country's export value is not substantial. Additional findings indicate that human capital does not have a considerably more significant impact on the export of services than the export of products (Amna Intisar et al., 2020).

In the same study, educational attainment do not typically significantly impact labor productivity increase (Surur et al., 2020). The regression coefficient for the health sector investment variable is 0.124. This indicates that for every rise in the investment value in the health sector, there would be a corresponding increase of 0.124 in the value of Indonesian exports. The

p-value of the health sector investment variable is 0.219, which is above the threshold of 0.05. This indicates that the health sector investment variable does not significantly impact the increase in Indonesian exports, provided other factors remain constant. The partial hypothesis suggesting that the investment value of the health sector has a significant impact on Indonesia's foreign exchange reserves has been disproven. This study aligns with the research conducted before, which found that the investment value has a negligible impact on the exports of Indonesia's Creative Economy (Burhanudin et al., 2020). This finding contradicts the common belief that the ongoing accumulation of human capital consistently enhances the workforce's quality (both tangible and intangible), leading to increased factor productivity and the development of comparative advantage in exporting. Trade can result in significant wage rises and substantial increases in skill premiums, promoting investment in human capital.

The regression coefficient for the HDI value variable is 0.529, indicating that any increase in the number of HDI values will result in a corresponding increase of 0.529 in Indonesia's export value. The p-value for the HDI variable is 0.024, which is less than the significance level of 0.05. This indicates that the HDI variable has a statistically significant impact on raising Indonesia's export value, assuming all other variables remain constant. Therefore, it may be inferred that the partial hypothesis, specifically that the HDI value has a noteworthy impact on Indonesia's foreign exchange reserves, is deemed valid. The findings of this study align with the research conducted before, which determined that the Human Development Index value has a noteworthy impact on Indonesia's Creative Economy Exports (Sulaiman et al., 2021). The Human Development Index (HDI) is a metric to assess education, health, and economic well-being in a given area. A higher HDI number indicates a higher level of human development in a particular location, whereas a lower HDI value suggests a lower level of human development in that area. The Central Statistics Agency (BPS) classifies the HDI value into four categories: low if the number is below 60, moderate if it falls between 60 and 70, high if it ranges from 70 to 80, and very high if it exceeds 80.

The economic sector depends on the intellectual capital and expertise of human resources (HR) as the primary driver of its economic activity (Saleh et al., 2020). The study conducted before discovered a direct correlation between trade openness and human development, as indicated by several indicators such as HDI, as recognized by UNDP (Gulcema, 2020). This demonstrates that more open economies have higher levels of Human Development Index (HDI). Correlation between openness, economic growth, and human development. A study revealed that the level of trade openness has the potential to impact both economic growth and human development (Amna Intisar et al., 2020).

The regression coefficient for the labor productivity variable is 0.686, indicating that each additional unit of labor productivity will result in a 0.686 increase in Indonesia's export value. The p-value for labor productivity is 0.011, less than the significance level of 0.05. This indicates that labor productivity has a statistically significant impact on raising the value of Indonesian exports, provided all other factors remain constant. Therefore, it may be inferred that the partial hypothesis is supported, specifically that the value of labor productivity substantially impacts Indonesia's foreign exchange reserves. This analysis aligns with the research undertaken by Ramayani (2015), which found that productivity had a substantial impact on export growth. Enhancing labor productivity will undoubtedly stimulate the expansion of output in goods and services, hence fostering economic growth.

V. CONCLUSION

Based on the results of data analysis from the previous chapter, the following conclusions

can be drawn:

1. Variable X1 investment value in the education sector does not significantly affect Indonesia's export value.
2. Variable X2 investment value in the health sector does not significantly affect Indonesia's export value.
3. Variable X3 Human Development Index positively and significantly affects Indonesia's export value.
4. Variable X4 Indonesian labor productivity positively and significantly affects Indonesia's export value.
5. Independent variables such as investment value in the education sector, investment value in the health sector, Human Development Index value, and Indonesian labor productivity have a positive and significant effect on Indonesia's export value.

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