

Human Capital and International Trade in Indonesia

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Abstract

This study aims to determine the impact of human capital as reflected in education and health on Indonesian exports using secondary data from world banks using the moving average autoregression method. We find that the human capital investment made by the Indonesian government is going well and has a positive impact on Indonesia's international trade.

Keywords : International Trade, Indonesia, Human Capital

JEL Classification : C0, J24,J64

Background

Human capital is capital that is relative to the physical capital inherent in humans. The initial concept of human capital was initiated by Adam Smith regarding his idea that the entire population is human capital that drives the wheels of the economy including moving financial capital. Economist Theodore W Schultz, argues that human capital is a composition inherent in humans which includes knowledge, skills and health. In aggregate human capital is attached to the population because the population is a human being who occupies an area where all of the economic activities of the population reflect the economy of the area they occupy. Population knowledge, population skills and population health are very important human capital (Diebolt & Hauptert,2019).

The population is an economic driver of a country or region. Where the human capital of the population is capable of driving the economy supported by sufficient financial capital. To increase the human capital of the population, it is necessary to have educational institutions that educate the children of the population so that the next generation has sufficient human capital, including inheriting human capital from previous generations. In addition to educational institutions, health services are needed that can be reached by all residents, both in terms of price and distance (Laurent,2017).

Educational and training institutions supported by health service institutions are the core institutions in increasing the human capital of the population (Kidd,2020). People who are healthy, intelligent and have certain skills form a special competitiveness and Comparison Advantage in an economy that is able to compete in global competition and is able to produce and sell the work or production of the population in addition to meeting the needs of the population itself as well as meeting the needs of other residents so that trade between territory or trade between countries.

Human capital itself when linked with regional economies which discusses between regions and the comparative advantages of David Ricardo's theory and international trade become interconnected. Where human capital forms special skills that adapt to the environment to form a comparative advantage and create international trade (Cho,2013).

Literature Review

To increase the excellence of a region or country, the human capital investment includes investment in education and training, investment in health (Dyakova,2017). In education investment, it is necessary to provide learning facilities and infrastructures such as buildings, teaching equipment and good educational technology according to the needs of the field to be taught. Likewise, training facilities and infrastructure to improve certain skills.

In Indonesia, there is a compulsory education program in which all Indonesians have an obligation to study in formal schools and the cost of education is made affordable by all levels of society and is supported by the education program budget. Efforts to make compulsory education programs in Indonesia reach the entire population so that all residents have sufficient human capital (Suryadarma & Jones,2013).

Increased investment in training includes social, transmigration and labour services which facilitate the Indonesian population to improve their skills and spread the population to manage empty areas through the transmigration program. The agency is responsible for job training and job placement for Indonesian residents who register themselves as official state workers willing to be placed inside and outside the country. As well as being equipped with entrepreneurial knowledge and skills so that they can become independent as economic actors and improve the small and medium micro-economy which has long been the backbone of the Indonesian economy (Li,2015).

The efforts of the Indonesian government in order to nourish the Indonesian people, there are various programs that are very effective in maintaining public health, known as the community health centre. Community health centres are health programs that reach all corners of Indonesia so that people who need immediate health services can be served well and are affordable both in terms of price and distance. All these government efforts are going well with the poverty rate in Indonesia continuing to decline and the level of gross domestic product continuing to improve (Wood,2020).

Research Method

This study aims to determine the impact of human capital as reflected in education and health on Indonesian exports using secondary data from world banks using the moving average autoregression method with the following equation:

$$Nx_t = C_t + \beta_1 EI_{t1} + \beta_2 HI_{t2} + e_t$$

Where,

Nx = Export

C = Constant

EI = Educational Investment

HI = Health Investment

e = Error Term

All data is calculated in USD.

Result and Discussion

The estimation results are as follows:

$$NX = 1434290158.22 + 0.133739479688*EI + 0.744180799919*HI$$

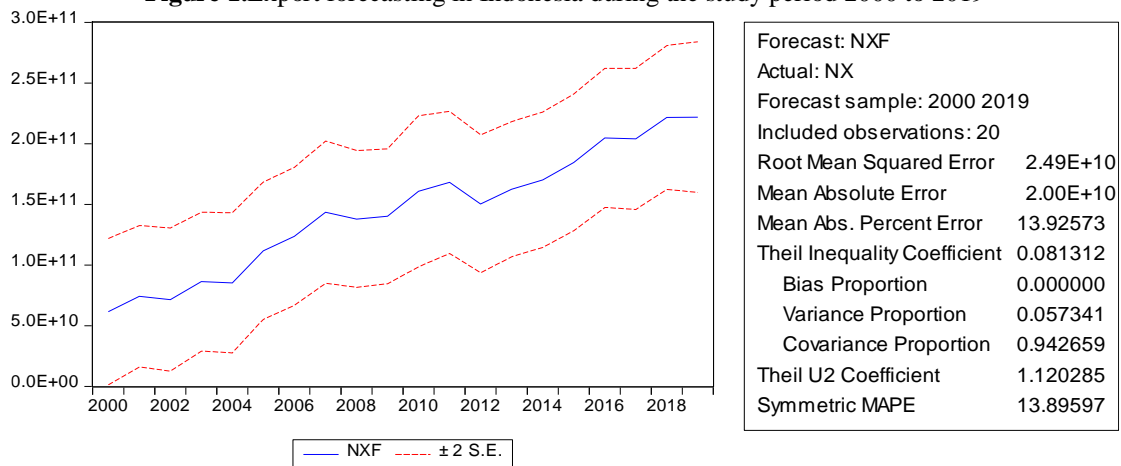
From the estimation results, investment in education and health in Indonesia has a positive relationship to exports. Where an increase of 0.13% national education investment and 0.74% improvement in health can increase exports by 1% Table 1 illustrates the estimation results as follows:

Table 1. Estimation Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1430000000	2210000000.00	0.064934	0.949
EI	0.133739	0.260007	-0.514369	0.6136
HI	0.744181	0.300838	2.473697	0.0242
R-squared	0.794838	Mean dependent var		144000000000.00
Adjusted R-squared	0.77	S.D. dependent var		56500000000.00
S.E. of regression	27000000000.00	Akaike info criterion		51.01647
Sum squared resid	1240000000000000000000.00	Schwarz criterion		51.16583
Log likelihood	-507.1647	Hannan-Quinn criter.		51.04563
F-statistic	32.93074	Durbin-Watson stat		0.65495
Prob(F-statistic)			0.000001	

Based on the estimation results described in Table 1., it can be seen that the R-square is quite high, namely 0.794838 so that the quantitative calculation results show the level of truth of 79%. This means that the possibility of an increase in exports from an increase in national education and health investment in Indonesia is 79%. Along with the increasing investment of the Indonesian government in the health and education sector, the impact on Indonesia's exports has increased relatively from year to year, which is shown in Figure 1. This shows that the Indonesian government's education and health programs are running quite well. Figure 1 illustrates the forecasting of the increase in Indonesian exports in Indonesia in the study period 2000 to 2019 as follows:

Figure 1. Export forecasting in Indonesia during the study period 2000 to 2019



Source : Author Computation

Based on the results of forecasting from 2000 to 2019, it can be seen that a graph of the increase in Indonesian exports nationally shows that the Indonesian government's human capital investment in the Indonesian population is going well and has a positive impact on Indonesian exports.

Conclusion

National human capital has an impact on increasing the production of goods and services. In addition to meeting domestic needs, it is also to meet the international market. The increase in exports by taking into account the Indonesian government's investment in the education and health sector which tends to increase from year to year indicates that the Indonesian government's program of investment in Indonesian human capital is running well and has a positive impact on Indonesia's international trade.

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