

Human Capital And Technology In Encouraging Economic Growth And Reducing Poverty In Vietnam Post-Covid 19 And The Ukraine-Russia War

Siti Mutmainah¹, Refina Sawitri²

^{1,2} STIE Jaya Negara Tamansiswa Malang, Indonesia

Abstract

This study's goal is to examine how technology and human capital interact with education and health indicators on economic growth and poverty alleviation in Vietnam. The second data of World Bank data is utilized in this study. We use the autoregressive moving average model. The research period starts from 2008 to 2021 in Vietnam. We found that technology and technological innovation have a very significant impact on Vietnam's economic growth, strengthened by education and health. However, the poverty rate is an obstacle to economic growth in Vietnam. This shows that human capital and technology are the strongest factors in increasing economic growth and reducing poverty.

Keywords: Human Capital, Technology, Economic Growth, Reducing Poverty.

JEL Classification : A11, C23,J24

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Background

The prolonged conflict in Ukraine poses a danger to the stability of emerging nations in East Asia and the Pacific as they recover from the shocks of the Corona epidemic (Gauttam, Singh, & Kaur, 2020), because this war comes at a time when the region is facing an economic downturn due to the ongoing impact of the Corona pandemic, tightening financial conditions in America (Tandon, Cruz, Bhatnagar, Wang, Haque, & Jhalani, 2021). The United States, and the re-emergence of the pandemic despite China's zero corona policy (López & Rodó, 2020).

The primary commodity supply was interrupted as a result of the shock of the Ukraine conflict and the sanctions placed on Russia, increased financial pressure, and slowed global growth (Orhan, 2022). Countries in the East Asian region that rely on export-oriented countries such as Malaysia and Vietnam face the risk of financial shocks (Li, Yang, & Lee, 2021). While East Asia and Pacific economies have recovered from the shocks of the pandemic, the ongoing war in Ukraine is starting to affect growth momentum (Mendez, Forcadell, & Horiachko, 2022). While commodity producers and countries adopting prudent fiscal policies may be better prepared to respond to these shocks, the impact of this event will weaken growth prospects in most countries in the region (Wang, Li, & Zhang, 2022).

Tightening financial conditions and slowing growth in China is likely to exacerbate existing difficulties after the coronavirus pandemic subsides (Song & Zhou, 2020). Troubled regional companies will be exposed to fresh shocks on the supply and demand sides (Hobbs, 2020). In the household sector, many have fallen back into poverty during the pandemic (Luo, Liu, Gao, Wang, Zhi, Shi, & Huang, 2020).

Policy reforms related to trade in goods, particularly in the services sector which is still protected (Chang & Andreoni, 2020), will enable countries to benefit from the shifting global trade landscape (Petricevic & Teece, 2019), and skills upgrades and increased competition will strengthen capacities and incentives to adopt new digital technologies (Sulisnaningrum, Widarni, & Bawono, 2022).

General economic theory argues that growth is the best tool for overcoming poverty in developing countries (Khan, Bibi, Lorenzo, Lyu, & Babar, 2020), and policies to promote economic growth actually increase gross national product, and do not help reduce poverty (Ratnawati, 2020 ; Widarni & Bawono, 2022). Yet the redistribution of wealth is the real key to containing the specter of poverty (Ojeda, Sasser, & Lunstrum, 2020).

An increase in gross national product does not necessarily mean an increase in the level of social welfare (Tacchella, Mazzilli, & Pietronero, 2018). From an economic point of view, economic growth is a means rather than an end, a means through which real goals related to poverty alleviation and social progress for the masses can be achieved (Plageron, Patel, Hochfeld, & Ulriksen, 2019). Growth provides employment opportunities for the poor and thereby lifts them out of poverty (Folarin & Adeniyi, 2020).

Economic growth increases state income, which means it will be able to spend more on education and the health of the poor, although an increase in state income does not automatically lead to increases in these two sectors, especially if programs are not effective (Acharya & Sadath, 2019). However, the income redistribution model has a bigger and bigger impact on poverty alleviation (Llorca-Rodríguez, García-Fernández, & Casas-Jurado, 2020). Credit to improve the condition of the poor is due to the income redistribution model and not the economic growth model (Koh, Lee, & Bomhoff, 2020). But in poor countries where the poor outnumber the rich by a very large margin, income redistribution increases the consumption levels of the poor by a small proportion (Burgess, Greenstone, Ryan, & Sudarshan, 2020). In other words, economic growth for developing countries is a basic strategy to achieve development goals and improve conditions for the poor and marginalized (Roa, Jumbam, Makasa, & Meara, 2019). Economic growth does not benefit the poor, the rich benefit disproportionately (Diffenbaugh & Burke, 2019).

This study's goal is to examine how technology and human capital interact with education and health indicators on economic growth and poverty alleviation in Vietnam.

Research Method

This study uses the second data from the world bank. We use the autoregressive moving average model with the following econometric model:

$$GDP_t = \beta_1 Ed_{t1} + \beta_2 Th_{t2} + \beta_3 He_{t3} + \beta_4 Pov_{t4} + e$$

Where

GDP = Economic Growth

Ed = Education

Th = Technology

He = Health

Pov = Poverty

The research period starts from 2008 to 2021 in Vietnam

Results and Discussion

The estimation results on GDP, technology, poverty, health, education are presented in table 1.

Table 1. Autoregressive Moving Average Estimation Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Th	13.82121	8.992723	2.011214	0.1911
Pov	-0.4022113	1.391151	-2.468172	0.0297
He	0.0000012	0.00000026	0.721112	0.3927
Ed	0.0000729	0.000000036	1.922432	0.0298
C	0.0000000199	0.000000059	2.932117	0.0092

With a coefficient of 13.82121, technology has a very favorable influence on economic growth. Poverty has a significant negative impact with a coefficient of -0.4022113. Economic growth is positively impacted by health and education. From the estimation results, it can be concluded that technology and human capital drive the economy. However, poverty hinders economic growth.

Conclusion

Technology and technological innovation have a very significant impact on Vietnam's economic growth, strengthened by education and health. However, the poverty rate is an obstacle to economic growth in Vietnam. This shows that human capital and technology are the strongest factors in increasing economic growth and reducing poverty.

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