

THE EFFICIENCY OF PUBLIC HIGHER EDUCATION INVESTMENT ON ECONOMIC GROWTH IN VIETNAM

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Abstract: *The purpose of this article is to evaluate the efficiency of public higher education investment in Vietnam's economic growth through data reports from the Ministry of Education and Training, Ministry of Finance, the General Statistics Office, and the primary investigation of the authors. The paper focuses on an in-depth analysis of the costs of investing in higher education, such as state budget spending on higher education, the impact of budget expenditure on growth, individual investment (household) investment in public higher education, social costs for higher education public study, and average social cost for one learner. From the above analysis, the authors will present employment status and the impact of the problem on both economic growth and the average income of workers by technical expertise.*

Besides, the authors will compare the situation of investment in higher education and the economic growth rate of Vietnam to some countries in Southeast Asia. From there, the authors will determine the limitations of this impact process. Based on that, the authors will propose some solutions to improve the efficiency of investment in public higher education for Vietnam's economic growth.

Keywords: *Investment efficiency, Higher education, Economic growth.*

1. INTRODUCTION

Economic growth and development is always the top goal of many countries in the world, including Vietnam. In order to have a developed economy, a civilized society requires a developed human resource in both physically and intellectually. In the context of the knowledge economy, the human element plays a significant role. Higher education is the critical force to shoulder that task, and also a breakthrough division of high-quality human resources in the country's socio-economic development strategy.

Determining the importance of higher education, Vietnam has many investment policies for higher education. This paper focuses on the effectiveness of higher education investment in economic growth in Vietnam.

2. LITERATURE REVIEW

Education in general and higher education in particular, is a form of investment (investment in developing human capital) (Hien, 2016). Investment efficiency is an economical category expressing a comparative relation between socio-economic results, objectives achieved from investment activities, and the costs to obtain those results in a certain period (Phuong & Hung, 2013).

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Higher education is a long-term and profitable investment guaranteed in the form of highly skilled labor resources and geared to the needs of social development, promoting economic growth and society quality improvement (Yogish, 2006). Discussing the relationship of education to economic growth, many studies such as Hong, 2019 assessed the level of education's contribution to Vietnam's economic development since the 2005 Education Law came into effect. The research results show a particular impact of education and policies to encourage education on economic growth. Alternatively, (Hung N. T., 2015) has affirmed that policies on investment in education and economic growth are positively related to each other. (Daiva, 2015) asserts in a study that economic growth and social welfare depend mainly on the quality of human resources. Thus, education policy is considered to have a significant impact on economic development. (Long & Nhan, 2018) validated the impact of education on economic growth by applying a neoclassical growth model with expanded Cobb-Douglas production function. The results show that a group of factors: the average number of years of schooling of the labor force, the budget expenditure for education, physical capital, labor force, have a statistically significant impact on economic growth. (Hung, 2016) studied the impact of human resources on Vietnam's economic growth. The study used the ARDL self-regression delay distribution method and Eviews software to process the data. (Tho, 2019) proposes major solutions and suggests macro policies to mobilize and effectively use resources to promote economic growth. (Vu, et al., 2012) discusses the impact of vocational and higher education on economic growth by using SGMM dashboard data and Estimations of simultaneous equations FE3SLS. The results show both types of higher education and vocational education have a two-way causal relationship with economic growth, but vocational education seems to have a more significant impact on economic growth than higher education. (Yan, et al., 2009) used unified analytic theory and the Granger experiment to test the relationship between higher education and economic growth. The results show that from 1978 to 2006, the relationship between the two sides was stable and lastingly equilibrium. Moreover, it shows that economic growth is the main reason for the development of higher education, but no significant figures are showing how important educational development contributes to economic growth. (Yu, et al., 2014) using the Johansen test, the Granger causality test, the impulse response function, variance analysis, and other empirical methods based on the spontaneous vector model. The results show a long-term and stable relationship between higher education investment, human capital investment, and economic growth. Specifically, higher education investment and human capital investment have a significant positive impact on economic growth. Higher education investment is the cause of economic growth, and investment in higher education can promote economic growth. (Stevanovic, et al., 2018) also shows a positive and statistically significant correlation between per capita GDP and national intellectual capital measures.

3. METHODOLOGY

In this article, in order to get an overview of the context of Vietnam in the issue of higher education investment efficiency for economic growth, the authors will conduct the study in the following steps.

Step 1. Aggregate data from the General Statistics Office and government information on the respective websites

Step 2. Collect and research the previous research documents to compare and draw out the research direction.

Step 3. Calculate state budget expenditure and the impact of state budget expenditure on higher education on GDP

$$\text{State budget} = \text{Central budget} + \text{Local budget}$$

$$\text{Proportion of state budget expenditure for higher education} = \frac{\text{Proportion of state budget expenditure for higher education}}{\text{Total state budget}} \times 100 \%$$

Step 4. Calculate social costs for higher education

Step 5. Present the status of employment by qualification.

Step 6. Compare Vietnam's average labor income and GDP with other countries.

Step 7. Present limitations and propose solutions that, according to the authors, are appropriate and highly practical to solve research problems.

4. RESULT & DISCUSSION

Vietnam is a country that attaches great importance to education, as in party congress and government documents resolutions, „investment in education is an investment for development.” In particular, in the era of technology 4.0, when the demand for high-quality human resources is always high, the Vietnamese government gradually focuses on investment in higher education.

Table 1. State budget expenditure and impact of state budget expenditure on higher education on economic growth

	2016	2017	2018	2019
Total state budget balance (billion USD)	54,63	59,67	65,36	70,09
Total state budget expenditure for education	8,4067	9,2474	9,8470	10,5245
Budget spending for higher education	0,84	0,89	0,98	1,05
The ratio between the budget expenditure on higher education and education	9,99	9,62	9,95	9,97
GDP (billion USD)	205,3	223,9	240,5	266,5
The ratio of budget expenditure for higher education to GDP	0,41	0,40	0,41	0,39

Source: the author's calculations based on Government Final Report

In the expenditure structure by the level of education, the proportion of expenditure on higher education is approximately 10%, which is only 0.39-0.41% of GDP. This low percentage directly affects the quality of training of higher education and vocational education, making it difficult to compete with other countries in the region and around the world. Meanwhile, the human resource from higher education are the ones directly playing an essential role in the economy, because it is responsible for well-trained human resources, with high efficiency (productivity) in companies (Naros, M-S; Simionescu, M.; 2019)

The assumption that the social costs of investment in higher education made up of two main sources: state budget investment and household investment, the average social investment for a learner is as follows:

Table 2. Social costs for higher education

	2017	2018	2019
Average state budget expenditure per learner (USD)	630	594	627
Proportion (%)	49	43	45
Average household expenditure per learner (USD)	656	787	766
Proportion (%)	51	57	55
Total	1286	1381	1393

Source: the author's calculations based on the data of the Ministry of Finance, government website information.

The capital structure for higher education also shows the effort of government support through state budget spending in the context of the limited state budget. The low proportion of state investment in higher education compared to households reflects that the state focuses on investment in low levels of education, such as high school, preschool, and primary school. In general, compared with advanced countries, the social investment cost for higher education in Vietnam is still low.

The primary purpose of higher education is to train high-quality human resources, fully meet the criteria of the business, and create jobs for workers.

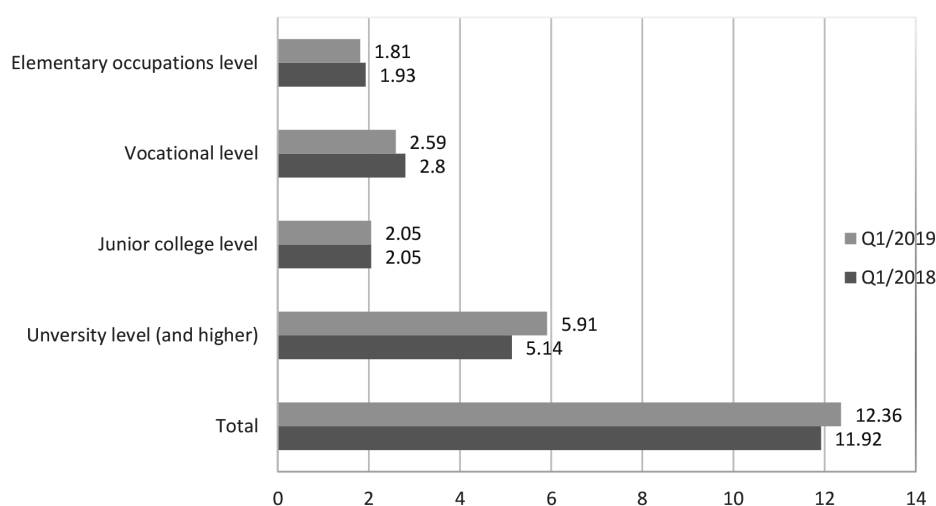


Chart 1. Employment status of employees. Unit: million people

Source: The Ministry of Labour Invalids and Social Affairs

Considering the statistics in the first quarter of 2019 and the same period in 2018, the author found that, among the total of 12.36 million people of working age, the highest number of employees belongs to people with university degrees. This number shows that market demand still prioritizes people with university degrees and above. At the same time, university graduates have a higher chance of employment than others.

On the other hand, the final result of higher education is the average income of the laborers. The following chart shows employees income as of 2019

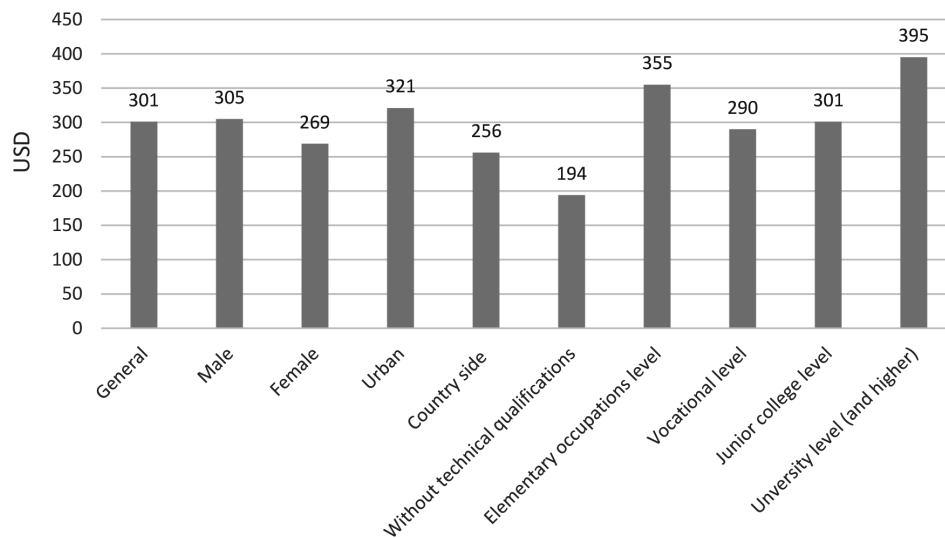


Chart 2. Average income of Vietnamese employees

Source: the author’s calculations based on data of the Ministry of Labor - Invalids and Social Affairs

In terms of gender structure, the average income of men is higher than that of women. In terms of the regional structure, urban areas have higher incomes than rural areas with a difference of approximately 60 USD. In terms of technical qualifications, people with university-level (or higher) have higher incomes than lower levels, and people without technical qualifications have a stunted income (194 USD). However, from an international perspective, the income of Vietnamese workers compared to other countries in Southeast Asia is lower as shown in the following table:

Table 3. Comparison of average income of workers in countries in Southeast Asia

Country	Basic salary (USD)
Vietnam	384-582
Singapore	2087-2927
Malaysia	959-1417
Philippines	502-725
Indonesia	397-571

Source: the author’s calculations based on street.com data

Except for Indonesia, which has a salary similar to Vietnam, employees in Singapore, Malaysia, and the Philippines are remarkably well paid. For example, the salary in the Philippines is currently about 1.5 times higher than Vietnam. The differences are even higher in the case of Malaysia (nearly three times) and Singapore (nearly six times).

This difference also varies by position, most prominently among graduates and staff. Specifically, the average salary of a newly graduated student in Vietnam is 250-387 USD, while this number in Singapore is 1,337-1,879 USD.

Human resource is a decisive factor in the realization of socio-economic goals, and it also determines the process of accelerating industrialization and modernization of the country in order to quickly integrate the Vietnamese economy with the region and the world. After all, it is people that are the most basic and essential element of the entire production force.

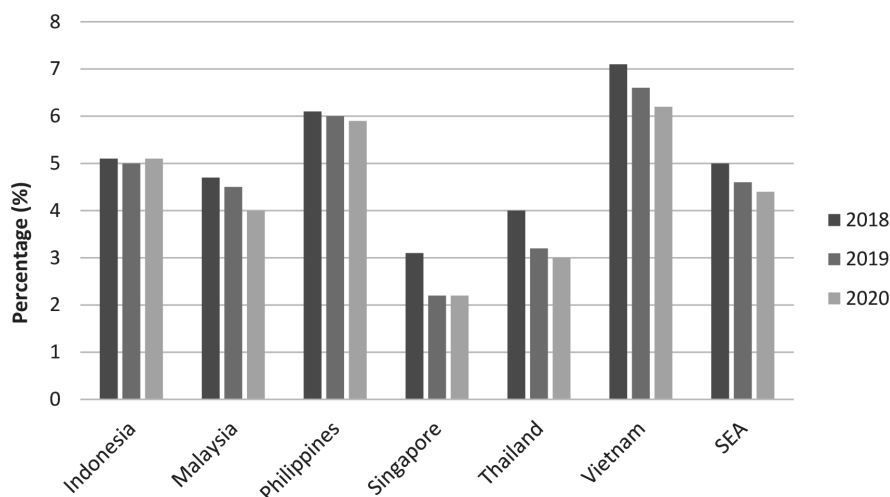


Chart 3. Vietnam's economic growth rate and regional countries

Source: Oxford Economics/Haver Analytics

According to the chart, the overall economic growth of Southeast Asia in the first half of 2019 only reached 4% compared to 4.5% in the same period of 2018. Only Vietnam and Philippines have a remarkable economic growth rate compared to the region.

5. CONCLUSION

1. Limitations

- a. Through the research process, the authors found that the effectiveness of investment in higher education and economic growth is not in the positive direction. Low investment in higher education does not entail slow growth. The role of human resources for higher education has not fully developed its capacity.
- b. The average income of laborers is still low compared to other countries in the region. The main reasons come from two factors: skills and attitude (discipline, lack of passion) (WB, 2012). The causes are:
 - i. Firstly, individual and household investments are formal, focusing on degrees instead of investment efficiency.
 - ii. Secondly, the training program has not yet adapted to the capacity of the learners; the schools are still not autonomous in terms of the curriculum; the content is theoretical and far from reality.
 - iii. Thirdly, the universities have not focused on vocational education and professional ethics for students.
- c. Higher education still depends too much on capital coming from the state budget and households and has not expanded to attract outside investment, and lacks autonomy.

2. Solutions

Based on the above limitations, the author proposes the following main solutions:

- a. Innovate investment in higher education towards cost-sharing, burden-sharing with the state through increasing tuition fees step by step. Change the method of funding to ensure quality and fairness.

- b. Increase the attraction of capital sources for higher education through the form of student credit, calling for investment from businesses, investment from the form of linking abroad advanced programs.
- c. Enhance the autonomy and accountability of universities. The university should be self-reliant in terms of personnel to have a qualified faculty of ethics. Promote academic autonomy to take the initiative and develop curricula suitable for students as well as international standards. Promote financial autonomy to determine tuition fees and reasonable allocation of the state budget.
- d. Develop the learners' capacity, focus on vocational education, and improve professional ethics for students, meeting the needs of socio-economic development.
- e. Study to adjust reasonable wage policy for employees because salary will be the primary motivation to promote the creative capacity and dedication of employees. At the same time, an excellent salary policy will retain talents and avoid brain drain.

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