

The Dynamic of Costing in Education Toward Economic Growth: Perspective of Malaysia and Singapore

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Abstract

The education is viewed as a long-term investment that will yield high future production for a nation. In comparison to Singapore and Thailand, Malaysia has the greatest government spending on education as a percentage of GDP, according to the UNESCO Institute of Education Statistics. Thus, the purposed of this article to examine the relationship between the cost of education and the Gross Domestic Product for Malaysia and Singapore. This study uses secondary data with a quantitative approaches. The time series data apply for 10 years, starting the year 2013 to 2022. The resource of data extracted utilised from the World Bank. Next, this study applies simple linear regression to fulfil the research objectives. Finally, valuable finding exposed that Malaysia and Singapore have a negative relationship between the cost of education toward the Gross Domestic Product of the respective countries. This finding can use for future research identification toward the indicator of education and also country income based on education fields.

Keywords: Education, Budget Funding, Cost of Education, Malaysia Education, Economic Growth.

Introduction

Education is one of the most important sector because it produces more productive human capitals and promotes the economic growth of a country (Dao and Khuc, 2023). The East Asian countries have seen remarkable economic growth over the past three decades, which the World Bank dubbed "The East Asian Miracle." Malaysia, which went from being underdeveloped to having a recently industrialized economy, was one of the nations whose growth was hastened. The contribution of human capital through formal and informal education was credited for the swift economic expansion (Phoong et al., 2017).

Generally, every year Malaysia will allocate certain amount of money for education sector in the budget. It is proven that Malaysia started to invest into the education sector because the return rate of it is higher than expected. The government of Malaysia has been spending a lot of money on education. In comparison to Singapore and Thailand, Malaysia has the greatest government spending on education as a percentage of GDP, according to the UNESCO Institute of Education Statistics (Phoong et al., 2017). Education is viewed as a long-term investment that will yield high future production for a nation (Schuller, 2001). In fact, economists contended that the success of a nation's economic and social development will unquestionably depend on the sector of advanced education (Hari Sing et al. 2018). Therefore, the majority of industrialized and emerging nations place great emphasis on improving the educational sector. For Malaysia to become a nation of the highest caliber, it must continuously improve its educational system (Yahya et al., 2012).

Next, by allocation money for the education sector in the budget every year it is convenient for the Ministry of Education to plan on the spending and it helps to enhance the quality of the education system of our country (Ministry of Education, 2015). This funding is also has been used for the children who need education aid and also for the infrastructure of the schools and education related buildings. Education helps to improvise students' skills and knowledge and also increase the productivity of human capital. By increasing the productivity of human capital, the economy of the country gets better indirectly. Not only Malaysia, there are many countries out there who are investing into the education system to increase the productivity of human capital and to produce a better generation for the future (Norfariza et al., 2018). Additionally, Singapore has been chosen for this research because, in ASIAN stage of reputation is the number one country in providing a better education to the nations among the ASEAN countries. Singapore focuses on providing quality education system by providing trainings to the teachers and by enhancing their education system. Thus, the aim of this study to identify the relationship between the cost of education and the economic growth of Malaysia and Singapore.

The hypothesis in this article are purposed as follow

Hipotesis null (Ho 1): There is no significant relationship between the cost of education and economic growth of Malaysia.

Hipotesis null (Ho 2): There is no significant relationship between the cost of education and economic growth of Singapore.

Literature Review

The article that wrote by Phoong et al (2017), it investigates how Malaysia's economic growth is impacted by educational attainment. Examined specifically is how education at the primary, secondary, and university levels affects Malaysia's GDP. The association between the rates of enrolment for the three distinct education levels and changes in the GDP in Malaysia from 1984 to 2012 was estimated using a quantitative research design technique. Results indicate a strong correlation between economic growth and educational attainment. The impact of education at the tertiary level on Malaysia's GDP is determined to be greatest. Additionally, it has been discovered that primary and tertiary education and economic growth are positively correlated, whereas secondary education and economic growth are negatively correlated.

Another article that wrote by Yahya et al (2012), focuses on the long-term causality and relationship between government spending on education and the growth of the Malaysian economy. Time series data from reputable sources is used for the years 1970 to 2010. An estimation of the Vector Auto Regression (VAR) approach is used to attain the goal. The study's findings demonstrate that economic growth (GDP), fixed capital creation (CAP), labor force participation (LAB), and government investment on education (EDU) positively cointegrated with each other. The economic growth is a short-term Granger cause for the education variable, and vice versa, according to the Granger causality relationship. Additionally, this study has demonstrated how human capital, such as the education variable, influences Malaysia's economic growth.

An article by Rambeli et al (2016) explains that communities with high levels of education are produced in large part by educational institutions. Investment in education and the extension of possibilities for higher education have emerged as major economic development priorities in many nations, including Malaysia. This study, which spans the years 1970 to 2013, aims to determine how government spending and economic growth relate to one another. The results demonstrate a strong and favorable association between education spending and Malaysian economic growth by employing Cobb-Douglas Production Function in the development of Multiple Regression Linear Model. The results also imply that labor force and capital have a long-term impact on economic growth.

Lastly article wrote by Abdullah et al (2017), summarize the impact of jobs created by public education spending. This spending is crucial for creating jobs, recruiting qualified workers, and meeting the labor needs of various industries. In order to boost labor productivity and combat economic issues like unemployment and poverty, education is also viewed as a human capital investment. In other words, society views education as a source of prosperity. Based on the findings of this report, it is recommended that further research be done on the effects of government spending on employment and education. It is done with the intention of determining how much of an impact education can have on Malaysia's economic sector employment.

Methodology

This research uses secondary data with quantitative approached. The time series data were uses for 10 years from the year 2013 to 2022. A total of two variables has been used in this research, which are cost of education and the Gross Domestic Product for Malaysia and Singapore. Secondary data were used for this research and the data were extracted from the World Bank of Data. E-views 12 software has been used to analyses the data that was extracted for this research. Simple Linear Regression test were run to identify the relationship between the cost of education in Malaysia and Singapore towards the GDP of the respective country. Simple Linear Regression test is to calculate the association between one independent variables and one dependent variable, utilize simple linear regression. Generally, simple linear regression can be used to determine (1) How closely one independent variables are related to a single dependent variable and, (2) The dependent variable's value at a particular value of the independent variables.

Results and Discussion

The finding of study is illustrated in as follow:

Table 1

The relationship between cost of education and economic growth in Malaysia.

Method	Simple Linear Regression			
	<i>Dependent variable: GDP</i>			
	Coefficient	Std. Error	t-Statistic	Prob.
Cost	- 5.41	5.83	- 0.93	0.38
C	445.57	111.72	3.99	0.004
R-squared	0.10			
S.E. of regression	33.82			
Mean dependent var.	342.37			
Prob (F-statistic)	0.38			

Based on the results above (see Table 1), the findings show that 1% increase in the cost of education for Malaysia the Gross Domestic Product will decrease for -5.41%. These findings indicate that the relationship between the cost of education and the Gross Domestic Product for Malaysia is negative. This interesting finding explains that, if the increase in costs in education does not contribute to productivity in education will cause losses to investment in education. This finding clearly shows that Malaysia will face a skilled labor force constraint if investment in education is not fully optimized. One of the steps to optimize in education is that students can form well-rounded human capital personalities from the aspects of knowledge, hard skills and soft skills. All criteria of human development in education must be met, because it is an aspect of human productivity. This aspect is an element of investment linked to the cost of education.

Table 2

The relationship between cost of education and economic growth in Singapore.

Method	Simple Linear Regression			
	<i>Dependent variable: GDP</i>			
	Coefficient	Std. Error	t-Statistic	Prob.
Cost	- 6.80	2.84	- 2.39	0.04
C	487.08	55.40	8.79	0.00
R-squared	0.42			
S.E. of regression	43.18			
Mean dependent var.	358.54			
Prob (F-statistic)	0.04			

Based on the results above (see Table 2), the findings show that 1% increase in the cost of education for Singapore the Gross Domestic Product will decrease for – 6.804%. These findings indicate that the relationship between the cost of education and the Gross Domestic Product for Singapore is negative. The situation in Singapore is very different, due to the status of the country which is a developed country and has a stable currency status. Therefore, the findings in Singapore explain that investment in education will be unprofitable if the human resources produced are not optimal. Given the high cost of education and a small population, Singapore is one of the countries facing a shortage of skilled and semi-skilled

manpower. This situation will contribute to the increase in labour of migration from various countries covering the employment sectors in this country.

Conclusion

This study examines the relationship between the cost of education and Gross Domestic Product of Malaysia and compare it with the Singapore because Singapore is in the top for providing a better education system among the ASEAN countries. It is proven statistically that Malaysia is investing higher amount of money in education sector to provide a better education for the nations in order to increase the economy growth of the country. The results show that Malaysia and Singapore have a negative relationship between the cost of education and the Gross Domestic Product of the respective countries. The government and the related sectors should take initiative in enhancing the education system of Malaysia and more study should be conducted on Singapore education system. This can be a lesson to other countries.

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