INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES

Vol 13, Issue 12, (2023) E-ISSN: 2222-6990

The Comparison Budget Funding and Cost of Education between Malaysia and Indonesia

Rovinashinee Arumugam, Mohamad Zuber Abd. Majid, Marlissa Omar & Fathiyah Mohd Kamaruzaman

Faculty of Education, Universiti Kebangsaan Malaysia, Bangi, Selangor, Malaysia.

Corresponding Author Email: mzuber@ukm.edu.my

To Link this Article: http://dx.doi.org/10.6007/IJARBSS/v13-i12/20222 DOI:10.6007/IJARBSS/v13-i12/20222

Published Date: 29 December 2023

Abstract

Education is one of the long rung investments for human resource development. In other word, this element is one of the crucial indicator for human capital development in this country. Next, the other element to be explores i.e. the education budget funding and cost of the education sector between Malaysia and Indonesia as both presenting a developing country in ASIAN. Thus, the objective of this study is to identify the interaction between economic growth, budget funding and cost of education in Malaysia and Indonesia. This research investigated by using secondary data from the year of 2011 until the year of 2020. The analysis data in this study using multivariate statistical with apply multiple linear regression to compare the results between Malaysia and Indonesia. These findings indicate that education budget and GDP; and the cost of education and GDP has negative relationship. The findings for Malaysia indicate that education budget and GDP has a negative relationship while the cost of education and GDP has positive relationship. This finding of study is valuable for researchers and policy maker to design and development of education policy toward sustainable of economics for developing countries.

Keywords: Education, Budget Funding, Cost of Education, Developing Country, Economic Growth, Sustainable Economics.

Introduction

In the current era of challenging in economic globalisation, the issue of education financing will remain important and the management of education finance will always be a great concern of any government. In order to cope with global education transformation, the education sector has persistently been granted the highest allocation of the budget by the Federal Government (Norfariza et al., 2018). According to Mercan & Sezer (2014), education has a crucial part in the socio-economic development of nations. On the one hand, it effectively serves its purpose by supplying the necessary qualitative and quantitative labour for the developmental process. On the other hand, through its role in producing and distributing knowledge, it motivates nations to adopt and advance modern manufacturing technologies and incorporate them into their production procedures. The positive impact of higher levels of education on labour productivity contributes to the competitiveness of nations and promotes a climate of openness. One of the primary factors contributing to differences in economic performance between developed and developing countries is variations in level of education.

Enhancements in academic performance are widely recognised as a crucial aspect of human capital. Such improvements have been found to yield substantial increments in personal earnings, while also positively impacting business productivity. Consequently, individuals benefit from higher wages and expanded employment prospects, while facing a lower risk to unemployment. The utilisation of education as a political tool in combating unemployment and poverty, particularly in developing nations, is notable due to its various dimensions. Therefore, in order to get optimal production, it is necessary to prioritise funding allocation. In order to effectively allocate and utilise budgetary funding, it is essential that the costs associated with education be equitably addressed and efficiently managed. In this study, we examine the relationship between budget funding, educational expenditure, and economic growth.

Economic Growth in Malaysia and Indonesia

Generally, economic growth is an increase in the production of economic goods and services in one period of time compared with a previous period. It also can be measured in the scale of data i.e. nominal or real data. Thus, to understand the trend of economic growth between Malaysia and Indonesia as present in Figure 1.

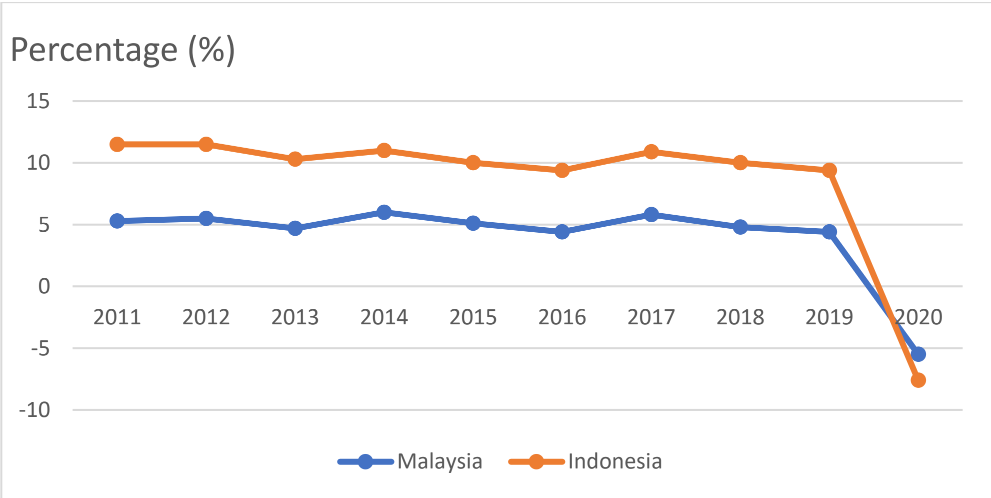

Figure 1: The percentage of economic growth between Malaysia and Indonesia.
Sources: The World Bank

The above diagram (see Figure 1) illustrates the flow of GDP (Gross Domestic Product) growth for Malaysia and Indonesia. The GDP growth rates of both countries show consistency across the period ranging from 2011 to 2020. In the year 2020, both Malaysia and Indonesia experienced a decline in their respective Gross Domestic Product (GDP) growth rates, with Malaysia recording a negative growth rate of -5.5% and Indonesia recording a negative growth rate of -2.1%. The cause of the decline is due to Covid-19 outbreak. However, in terms of comparing GDP growth, Indonesia has a higher rate than Malaysia.

Budget Funding in Malaysia and Indonesia

Normally, all the countries have planning in annually budget and funding. In context of budget is the projected cost of doing the work in a given fiscal year. Funding is the appropriated funds allotted to do the work for that fiscal year.

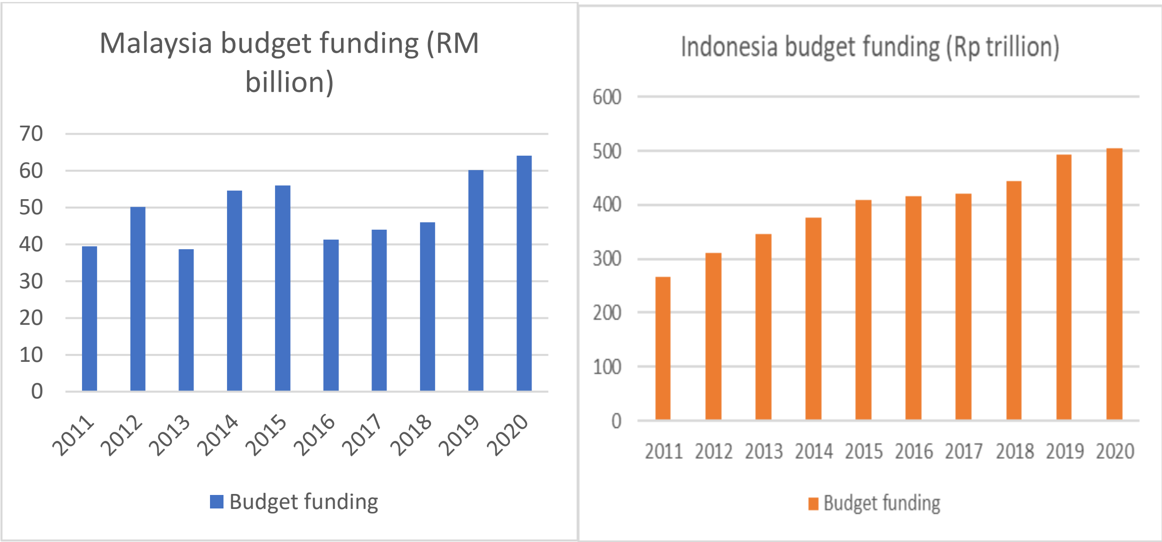

Figure 2: Budgeting funding Malaysia and Indonesia.
Sources: The Malaysia Ministry of Finance and CEIC data.

Based on the both figures Figure 2, Indonesia's budget funding have more consistent trend compared to Malaysia's budget funding. In Malaysia's budget funding, the lowest is in year 2013 whereas for Indonesia is in year 2011. However, the highest is in year 2020 for both countries.

Cost of Education in Malaysia & Indonesia

The cost of education is the one of crucial budget in investment in education. Normally, most of the country allocate more budgeting in this section to produced more human expertise in labor market. Thus, the line graph is illustrating the cost in education for both of country as follow.

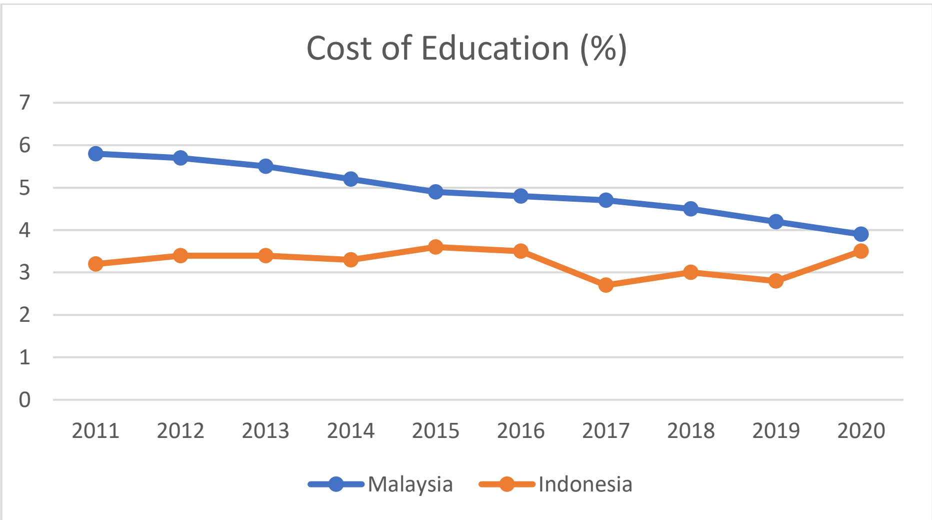

Figure 3: The trend cost of education spending in Malaysia and Indonesia.
Source: The World Bank

Based on the Figure 3, there is a downward trend observed in Malaysia's cost of education from the year 2011 to 2020. There was a significant decrease from 5.8% to 3.9%, indicating a substantial fall. In the case of Indonesia, there has been a general upward trend in costs, although a marginal decrease observed in the year 2017. However, both Malaysia and Indonesia have similar values for the cost of education in the year 2020, with Malaysia at 3.9% and Indonesia at 3.5%. Thus, this purposed of study to identify the relationship between budget funding, cost of education and economic growth in Malaysia and Indonesia.

Literature Review

Previous study in Malaysia Contexts

According to Norimah et al (2021), the primary objective of this research is to investigate the evidence of the hypothesis that education has a significant role in driving economic growth. The findings of the study indicate the presence of a long-term equilibrium relationship between government expenditure in education and economic growth in Malaysia during the period of post-crisis recovery. Therefore, it may be deduced that the economy experiences education-led growth in the aftermath of a tragedy. It is advisable to inform the government that increasing expenditure in the education sector is likely to result in enhanced economic growth in following years of a crisis, both in the immediate term and over an extended period. It is suggested that the financial element plays a significant role in influencing government expenditure on education following an economic crisis. The study implies that the development of national education programmes should involve thorough and careful financial planning in order to secure future success. This phenomenon is associated with the allocation of resources towards human capital development, specifically through investments in education at all levels, which holds significant importance in the context of long-term national planning. The precise financial planning for the development of human capital holds significant importance in order to ensure that the expenditures made effectively contribute to the sustained economic development of Malaysia over an extended period of time.

Educational institutions have a significant influence in the development of highly educated communities. The importance of investing in education and expanding possibilities for higher education has emerged as a central economic growth priority in various nations, including Malaysia. The findings indicate a statistically significant and favourable relationship between investment in education and the economic growth of Malaysia. This demonstrates that government expenditure on education is a significant determinant of economic growth. The analysis indicates that the variable of government spending on education is a significant and positive determinant of long-term economic growth in the country (Norimah, Emilda & Dayang 2016).

According to Yahya et al (2012), the commitment of Malaysia to the advancement of its educational sectors has been significant. This phenomenon is evident in the annual budget allocation of Malaysia. Malaysia has consistently committed a substantial portion of its budget on the education sector, with an upward trend observed during each budget year. This study centres its attention on the enduring relationship and causal connection between government expenditure in education and economic growth within the Malaysian economy. Enhanced educational standards have a positive impact on the efficiency and productivity of the work force, hence influencing long-term economic development. Moreover, it was stated that in the short term, there exists a reciprocal relationship between education and economic growth, whereby education has a causal effect on economic growth and vice versa. This discovery suggests that the quality of education plays a crucial role in enhancing a nation's economic growth and the capabilities of its human capital. Hence, it is recommended that the government increase its investment in the education sector as a means to enhance economic performance.

A long-term positive correlation has been found between public expenditure on education and the inflation rate. The increase in inflation has resulted in an increase in prices for various goods and services, including the expenses associated with schooling. The increased expenses associated with education necessitate government intervention through the allocation of additional funds to the education sector. The empirical results indicate that there exists a significant relationship between public education expenditure and economic indicators such as gross domestic product growth rate (GDP), unemployment rate (UNEM), and inflation rate (INF) over a prolonged period of time. Therefore, the government will possess the capacity to regulate its budgetary allocation through exercising control over these economic variables within the nation (Wong & Remali 2018).

According to Abd Rahman et al (2012), the present study indicates that the reforms in government funding have brought about a transformation in the approach to teaching and learning inside public universities in Malaysia. The evolving landscape of higher education has prompted public universities to adopt policies that prioritise achieving of government objectives. Higher education institutions should consider revising their funding allocation mechanisms to prioritise excellence in both teaching and research. The implementation of performance-based funding across all public universities in Malaysia is expected to foster a heightened sense of competitiveness among Malaysian academic institutions. Ultimately, the most important inquiry revolves around effectively addressing the challenges related to the preservation of the nature and scope of Higher Education Institutions in terms of their instructional and scholarly endeavours, which in turn can foster economic advancement.

Previous study in Indonesian Contexts

According Saptura (2018), education is often regarded as playing an essential role in enabling the advancement of a nation's civilization. High-quality education has the potential to foster the development of a society characterised by excellence, creativity, productivity, and ultimately, higher levels of well-being. The implementation of a national education system is crucial for the government to achieve equal access to education and to effectively manage educational processes in response to evolving local, national, and global needs. The education budget allocation system in Indonesia is significantly impacted by governmental policy. The provision of funds for education is based upon the effective administration of educational establishments, with budgetary allocations being required in accordance to national financial guidelines.

The higher education planning and budgeting system is characterised by a centralised approach, which facilitates the coordination, consolidation, and implementation of budgetary decisions in the sector. The Directorate General of Higher Education serves as the governing body responsible for overseeing the strategic planning and execution of higher education programmes. It has direct control over all state universities and maintains close collaboration with private universities across Indonesia. The synchronisation of higher education funding has a substantial impact on the quality of higher education in general (Priyono & Ahmad 2018).

According to Suwandru et al (2021), the findings indicate that there is a lack of significant relationship between public spending on education and both short-term and long-term estimations. The findings of this study suggest that the rise in funding allocated to education did not coincide with the implementation of policies that promote economic growth. There exists a positive but statistically insignificant correlation between an increase in education expenditure and economic growth. However, these two variables exhibit different trends, with a positive correlation observed in the long-term and a negative correlation observed in the short-term estimation. In the current study, it is seen that gross fixed capital formation has a positive correlation, while the labour variable demonstrates a negative correlation in both the short and long run. In conclusion, it is recommended that the Indonesian government take measures to effectively administer the education system in respect to the correlation between education expenditure and economic growth.

The Indonesian Government, at both the federal and regional levels, allocates substantial amounts in its budget. The allocation of funds for education, health, and infrastructure has witnessed a substantial increase on an annual basis. Nevertheless, it appears that the increase in government expenditure is not simultaneous with an enhancement in the quality of the output. The assessment of educational quality encompasses various variables, including the extent of engagement in both formal and informal educational initiatives. The test results indicate that there is a positive correlation between education spending and academic attainment (Wardhani et al., 2017).

According to Siagian & Arwansyah (2017), the findings indicate that there is a relationship between the expenses associated with schooling and the outcomes of the study. The findings of the study suggest a negative correlation between the costs of education and the quality of the results. However, there is a beneficial impact on the expenses associated with schooling, resulting in improved learning outcomes as a result of the intervening factors. Based on the aforementioned conclusions, it is advisable for the Government, both in its role as execution and policy controller, to allocate sufficient budgetary resources towards education and government expenditure. This allocation is crucial for enhancing productivity, particularly within the education sector, as it aligns with the overarching goal of economic development.

Methodology

This study using secondary data was collected from the resources of Malaysia Ministry of Finance and CEIC. The time series data for the variables obtained for a period of 10 years starting from the year 2011 to the year 2020. In this study, multiple linear regression model is used to analyse the relationship between three variables namely; (1) Gross domestic product (GDP), (2) Budget funding, and (3) Cost of education. This analysis uses Malaysia's and Indonesia's data as the subject of constant.

Multivariate Statistical Analysis

Multiple linear regression is a statistical methodology employed to predict the result of a variable by considering the values of two or more variables. Multiple regression, also referred to as multivariate regression, is a statistical technique that serves as an expansion of linear regression. The variable that is intended to be predicted is commonly referred to as the dependent variable, whereas the factors employed in predicting the value of the dependent variable are sometimes referred to as independent or explanatory variables (Taylor 2020).

Results and Discussion

The finding of study is divided by two categories namely; Malaysia and Indonesia are illustrating in Table 1 and Table 2 as follow:

Table 1

The relationship between budget funding, cost of education and economic growth in Malaysia

Method	**Multiple Linear Regression**			
	Dependent variable: GDP			
	Coefficient	**Std. Error**	**t-Statistic**	**Prob.**
BUDGET	-0.106412	0.140195	-0.759032	0.4726
EXPEND	2.352233	1.987561	1.183477	0.2752
C	-2.259835	15.16865	-0.148981	0.8858
R-squared	0.424510			
S.E. of regression	2.924975			
Mean dependent var.	4.050000			
Prob (F-statistic)	0.144588			

Based on the results above (see Table 1), for Malaysia, the findings showed that an increase of 1% in education budget funding will result in the decrease of 10.64% in Gross Domestic Product of Malaysia within the year 2011 to 2020. From this analysis, it was also informed that an increase of 1% in cost of education will result in 2.35% increase in GDP. These findings indicate that education budget and GDP has negative relationship while the cost of education and GDP has positive relationship.

Table 2

The relationship between budget funding, cost of education and economic growth in Indonesia

Method	**Multiple Linear Regression**			
	Dependent variable: GDP			
	Coefficient	**Std. Error**	**t-Statistic**	**Prob.**
BUDGET	-0.022842	0.008040	-2.840910	0.0250
EXPEND	-3.278624	1.966449	-1.667281	0.1394
C	24.31723	7.753883	3.136136	0.0165
R-squared	0.568393			
S.E. of regression	1.783502			
Mean dependent var.	4.590000			
Prob (F-statistic)	0.052821			

Based on the results in Table 2, for Indonesia, the findings showed that an increase of 1% in education budget funding will result in the decrease of 2.28% in Gross Domestic Product of Indonesia within the year 2011 to 2020. From this analysis, it was also informed that an increase of 1% in cost of education will result in 3.28% decrease in GDP. These findings indicate that education budget and GDP; and cost of education and GDP has negative relationship.

Conclusion

The study examines the allocation of funds for the education budget and the associated costs within the education system in Malaysia, while also drawing comparisons with the situation in Indonesia. The primary aim of this research is to determine the relationship between economic growth, allocation of funds for education, and the cost of education in Malaysia and Indonesia. This study examined the utilisation of secondary data ranging from 2011 through 2020. The results obtained for Malaysia suggest that there exists a negative relationship between the education budget and GDP, whilst a positive relationship is observed between the cost of education and GDP which is favourable to the study of (Norimah et al., 2021). For Indonesia, the results of this study suggest that there is a negative relationship between the education budget and GDP, as well as between the cost of education and GDP. Hence, the government, in its capacity as both an executor and a controller of policies, should commit adequate financial resources towards education and government spending. The allocation of resources has a critical role in improving productivity, specifically within the education sector, as it is in line with the larger objective of fostering economic development.

References

Ahmad, A. R., Farley, A., & Naidoo, M. (2012). Impact of the government funding reforms on the teaching and learning of Malaysian public universities. *Higher Education Studies*. 2(2): 114-124. Retrieved from: doi:10.5539/hes.v2n2p114 (4 August 2023)

CEIC. Indonesia Government Budget: Education. Retrieved from: https://www.ceicdata.com/en/indonesia/government-budget-by-sector/government-budget-education [5 August 2023]

Mercan, M., & Sezer, S. (2014). The effect of education expenditure on economic growth: the case of Turkey. *Procedia – Social and Behavioral Sciences*. 109(2): 925-930. Retrieved from: http://dx.doi.org/10.1016/j.sbspro.2013.12.565 (6 August 2023)

Ministry of Finance Malaysia. Budget. Retrieved from: https://budget.mof.gov.my/en/ [5 August 2023]

Radzi, N. M., Faizal, M. A., Ghani, S. S., & Afshari, M. (2018). Financial decentralization in Malaysian schools: strategies for effective implementation. The Malaysian Online Journal of Education Science. 1(3): 20-32. Retrieved from: https://files.eric.ed.gov/fulltext/EJ1086207.pdf (5 August 2023)

Priyono, D., & Ahmad. (2018). The implementation of higher education funding in Indonesia. *Open Access Library Journal.* 5: e4049. Retrieved from: https://doi.org/10.4236/oalib.1104049 (4 August 2023)

Saputra, A. (2018). Allocation of education budget in Indonesia. *Budapest International Research and Critics Institute-Journal*. 1(2): 142-148. Retrieved from: https://www.researchgate.net/publication/329967698_Allocation_of_Education_Budge t _in_Indonesia (4 August 2023)

Siagian, J. R., & Arwansyah, D. R. (2017). The impact of education cost and government spending the interest rate of Bank Indonesia Subtitle. In: *Proceedings of The 2nd Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2017)*, October 16-17, 2017, Medan City, North Sumatera, Indonesia (5 August 2023)

Suwandru, A., Alghamdi, T., & Nurwanto, N. (2021). Empirical analysis on public expenditure for education and economic growth: evidence from Indonesia. *Economies*. 9(4): 146. Retrieved from: https://doi.org/10.3390/economies9040146 (5 August 2023)

Taylor, S. (2020). Multiple linear regression. CFI Education Inc. Retrieved from: https://corporatefinanceinstitute.com/resources/data-science/multiple-linear-regression/ [6 August 2023]

The World Bank. GDP growth (annual %) – Malaysia. Retrieved from: https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=MY [5 August 2023]

The World Bank. GDP growth (annual %) – Malaysia. Retrieved from: https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=ID [5 August 2023]

The World Bank. Government expenditure on education, total (% of GDP). Malaysia & Indonesia. [5 August 2023]

Wardhani, R., Rossieta, H., & Martani, D. (2017). Good governance and the impact of government spending on performance of local government in Indonesia. *International Journal of Public Sector Performance Management*. 3(1): 77. Retrieved from: https://www.researchgate.net/publication/314139582_Good_governance_and_the_im pact_of_government_spending_on_performance_of_local_government_in_Indonesia (4 August 2023)

Yun, W. S., & Yusoff, R. (2018). The determinants of public education expenditure in Malaysia. *Jurnal Ekonomi Malaysia*. 52(2): 109-122. Retrieved from: https://www.researchgate.net/publication/328804051_The_Determinants_of_Public_E d ucation_Expenditure_in_Malaysia (5 August 2023)