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THE IMPACT OF PER CAPITA INCOME, EXPECTED YEARS OF SCHOOLING, AND GOVERNMENT EDUCATION SPENDING ON THE GROSS ENROLLMENT RATIO IN HIGHER EDUCATION IN INDONESIA

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Abstract. *Higher education plays a vital role in human resource development and national competitiveness. However, Indonesia's Gross Enrollment Rate in Higher Education (GER-HE) remains relatively low and faces various structural and economic challenges. This study aims to analyze the influence of per capita income, expected years of schooling, and education expenditure on GER-HE in Indonesia. Using a quantitative approach and secondary data, the results show that both per capita income and education expenditure have a positive and significant effect on GER-HE, while expected years of schooling does not have a significant influence. These findings indicate that economic factors and fiscal policies play a major role in determining access to higher education, whereas educational expectations do not always translate into actual participation. Therefore, policies are needed to promote income equity, improve targeted education spending, and strengthen the transition from secondary to higher education in order to increase participation in a more inclusive and sustainable manner.*

Keywords: *Higher Education Access, Gross Enrollment Ratio, Education Expenditure, Socioeconomic Disparities*

INTRODUCTION

According to Law Number 20 of 2003, education is defined as a conscious and planned effort to create a learning process through which learners can optimally develop their potential. In other words, education aims not only to foster intellectual competence but also to build character, moral integrity, and relevant skills (Aplian *et al.,* 2019).

A nation's success in improving welfare and global competitiveness is highly dependent on the educational attainment of its population. Therefore, access to higher education becomes increasingly vital. Unfortunately, data reveal that Indonesia's Gross Enrollment Rate in Higher Education (GER-HE) remains relatively low compared to that of primary and secondary education levels, as well as in comparison to neighboring Southeast Asian countries.

Although the government has set ambitious targets to increase GER-HE, the achievement as of 2023 has only reached approximately 31%. This figure falls significantly short of the national target and remains below both the global average and that of ASEAN countries such as Thailand and Malaysia. The persistently low participation rate reflects unresolved structural and economic barriers.

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One of the key factors influencing the low GER-HE is the economic condition, particularly per capita income. Despite a general increase in income levels, this has not translated proportionally into improved access to higher education. Families with lower income levels often prioritize basic necessities, limiting opportunities to pursue tertiary education (Aurellin & Sentosa, 2023).

In addition, government expenditure on education constitutes a crucial variable. When the education budget decreases, support programs such as scholarships and tuition subsidies are also affected. Even when education spending increases, the unequal distribution across regions often results in underdeveloped areas failing to reap optimal benefits—ultimately hindering access to higher education.

The Expected Years of Schooling (EYS) also serves as an indicator of the population's ability to pursue long-term education. Although there has been a gradual upward trend in EYS over recent years, the pace of growth remains slow and has not significantly contributed to the increase in higher education gross enrollment rates (GER). This supports the notion that barriers to education stem not only from economic factors but also from the continuity of educational attainment itself.

Based on these phenomena, this study aims to analyze the influence of per capita income, expected years of schooling, and education expenditure on the Gross Enrollment Rate in Higher Education in Indonesia. The focus on GER provides a comprehensive overview of inclusive and equitable access to higher education and can serve as a foundation for formulating future policies to enhance participation in higher education.

LITERATURE REVIEW

The Gross Enrollment Ratio in Higher Education (GER-HE) is grounded in the Human Capital Theory developed by Becker (1993). This theory posits that education is a form of investment that enhances the quality of human resources by strengthening skills and knowledge. The higher an individual's level of education, the greater their potential contribution to productivity and economic growth. In the context of higher education, this theory suggests that access to advanced educational levels is significantly influenced by individual capacity as well as state policies that support equitable educational opportunities.

One of the key indicators within this framework is the GER-HE, defined as the ratio of enrolled students to the total population aged 19–23 years (Istiqomah et al., 2018:Rahmadina et al., 2021). The GER-HE serves as a primary measure of societal engagement in higher education and reflects the government's effectiveness in providing inclusive and equitable access. While an increase in GER-HE indicates an expansion of educational access (Azzahra & Hajarisman, 2022), regional disparities and economic constraints remain major challenges to achieving educational equity.

Theoretically, there are several factors that influence the Gross Enrollment Ratio in Higher Education (GER-HE). First, per capita income, as a representation of a region's economic welfare, significantly determines the capacity of individuals to finance higher education. Provinces with higher per capita income tend to have better GER-HE levels, as their populations possess greater purchasing power to meet educational needs. Moreover, economic growth theories such as the Solow-Swan model explain that increases in per capita income are driven by the accumulation of savings, investment, and population management, all of which ultimately affect access to education (Masniadi, 2012).

Second, educational indicators such as the Average Years of Schooling (AYS) are closely associated with higher education participation. The higher the AYS, the greater the likelihood that individuals will continue their education to the tertiary level (Bara et al., 2023). Regional disparities in AYS reflect inequalities in educational access, which are often shaped by the availability of educational facilities, affordability, and household socioeconomic conditions. Areas with comprehensive educational infrastructure, affordable schooling costs, and better living standards generally exhibit higher AYS, thus fostering broader participation in education.

Third, government spending on education plays a crucial role in ensuring equitable access to higher education. Budget allocations from both national and regional government budgets are used to support various initiatives such as scholarship programs, infrastructure development, and improvements in teaching quality (Wildan et al., 2022). Although policy mandates a minimum allocation of 20 percent for the education sector, the distribution and effectiveness of this expenditure remain challenging, particularly in remote areas where infrastructure and human resources are limited. Previous studies have shown that well-targeted and effective education spending can significantly improve GER-HE, accelerate social mobility, and reduce interregional economic disparities.

In conclusion, from a theoretical standpoint, GER-HE is strongly influenced by the interaction between economic conditions, social factors, and public policy. Human Capital Theory provides a critical foundation, emphasizing that investments in education yield not only individual benefits but also contribute substantially to sustainable national development.

METHOD

This study employs a quantitative approach, a method used to examine the relationships between variables in a measurable and objective manner by utilizing numerical data that can be statistically analyzed. The primary objective of this approach is to test hypotheses and generate findings that can be generalized. Data collection in this research is conducted through secondary data, which are obtained from various documented sources such as official government reports, publications from Statistics Indonesia (BPS), academic journals, and other documents relevant to the research focus. (Sugiyono, 2019).

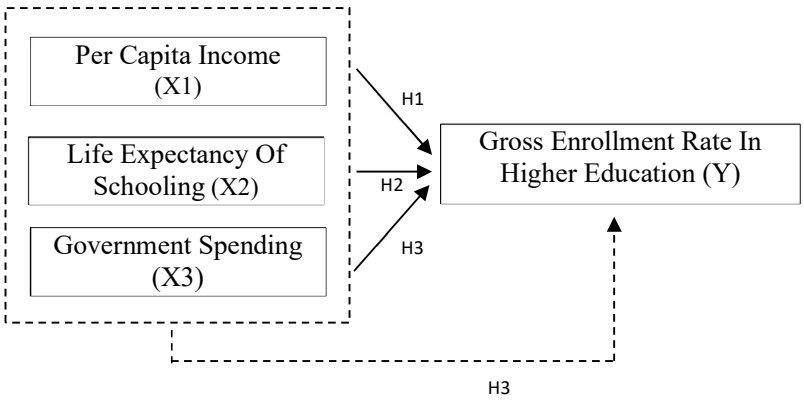

Figure 1. Research Framework Model

Based on the research framework, the following hypotheses are proposed:
H1: Per capita income has a significant positive effect on the gross enrollment rate in higher education.
H2: Life expectancy of schooling has a significant positive effect on the gross enrollment rate in higher education.
H3: Government spending on education has a significant positive effect on the gross enrollment rate in higher education.
H4: Per capita income, life expectancy of schooling, and government spending on education jointly have a significant positive effect on the gross enrollment rate in higher education.

RESULTS AND DISCUSSION

Tabel 1. Regresion Model Estimation

Variable	Coefficient	Std. Error	t-Statistic	Prob
C	0.647255	0.300924	2.150894	0.0325
X1	0.102648	0.029993	3,422366	0.0007
X2	-0.005310	0.007965	-0.666631	0.5057
X3	0.079648	0.013117	6.071984	0.0000
R-squared	0.959697			
Adjusted R-squared	0.953523			
F-statistic	155.4413			
Prob(F-statistic)	0.00000			

Sources: Processed with Eviews 14 (2025)

1. **The Influence of Per Capita Income on Gross Enrollment Rate in Higher Education.**

   The results of the t-test analysis indicate that per capita income has a significant impact on the Gross Enrollment Rate in Higher Education (GER-HE), with a t-value of 3.422 and a p-value of 0.0007. This value exceeds the critical t-table value of 1.968 and is below the 0.05 significance level, indicating that the hypothesis is accepted and that per capita income indeed contributes to the increase in GER-HE.

   This finding reinforces the results of previous research by Bara et al (2023) which showed that per capita income has a significant impact on GER-HE within the Geographically Weighted Regression (GWR) model in Indonesia. Likewise, Arshad & Seenprachawong (2019) found that in Pakistan, per capita income particularly affects women's participation in higher education. These results highlight that individual or household income is a key determinant in pursuing higher education.

   This situation can be explained through the perspective of the economics of education, where education is considered a long-term investment. However, for low-income groups, high tuition fees can pose a major barrier. Consequently, many high school graduates choose to enter the workforce immediately to meet daily economic needs rather than pursue higher education, which requires significant financial investment and offers returns only in the long term.

2. **The Influence of Expected Years of Schooling on Gross Enrollment Rate in Higher Education**

Berdasarkan Based on the t-test results, the calculated t-value is -0.667 with a probability value of 0.5057. This value is lower than the critical t-value and higher than the 0.05 significance level, indicating that the Expected Years of Schooling does not have a statistically significant effect on the Gross Enrollment Rate in Higher Education (GER-HE).

This finding is consistent with the study by Graham et al (2019) which suggests that expected years of schooling do not necessarily correspond with actual decisions to pursue higher education. Similarly, research by (Arofah & Rohimah, 2019) reinforces the notion that although the expected years of schooling theoretically represent the potential educational attainment of individuals, this potential is not always realized through actual participation in higher education.

Structural factors such as economic limitations, the quality of primary and secondary education, and the availability of access to higher education institutions tend to have a greater influence on the decision to continue education. In other words, while an individual may have aspirations for extended educational attainment, there is no guarantee they will pursue higher education if supporting factors are not adequately met.

3. The Influence of Education Expenditure on Gross Enrollment Rate in Higher Education

The t-test results indicate that education expenditure has a significant effect on the Gross Enrollment Rate in Higher Education (GER-HE), with a t-statistic of 6.072 and a probability value of 0.0000. This finding is statistically highly significant and supports the hypothesis that increased education spending can enhance public participation in higher education.

This study is consistent with the findings of Hajebi et al (2023) , who reported that in OECD countries, a 1% increase in education expenditure leads to a 0.39% rise in higher education participation. Similarly, Dahiri (2023) found that in the Indonesian context, education spending positively affects GER-HE, contributing an increase of 0.175%.

Substantively, government education spending plays a crucial role in improving educational infrastructure, teaching quality, and financial support programs such as scholarships and higher education subsidies. However, increased government expenditure does not necessarily reach all segments of society. In practice, many lower-middle-income families continue to face financial constraints, perceiving higher education as a financial burden rather than a long-term investment.

CONCLUSION AND RECOMMENDATIONS

This study reveals that per capita income and education expenditure exert a positive and significant influence on the Gross Enrollment Ratio in Higher Education (GER-HE) in Indonesia. In contrast, the Expected Years of Schooling does not demonstrate a significant effect, which may indicate the existence of transitional barriers between secondary and higher education. Accordingly, the government should promote income distribution equity and ensure more equitable and targeted allocation of education spending across regions, particularly to enhance the infrastructure, quality, and affordability of higher education. Moreover, strengthening the quality and relevance of primary and secondary education remains essential as a foundation for continuing to higher levels. Higher education institutions and educational stakeholders are also

expected to take an active role in expanding access through scholarship schemes, affirmative programs for disadvantaged regions, and innovations in distance learning to address geographic and socio-economic challenges. With policy synergy and strong commitment from multiple actors, the GER-HE is expected to increase in a more inclusive and sustainable manner.

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