

Research Article

Does Education Budget Influence School Dropout?

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The problem of dropping out of school is very common in Indonesia. To overcome this, the education budget is allocated through the School Operational Assistance (BOS) program and the Smart Indonesia Program (PIP). Previous studies have shown that the implementation of BOS and PIP has not been effective, and there has been controversy over the significance of BOS and PIP on school dropout rates. This study aims to examine the effect of the BOS budget and PIP budget on school dropout rates in Indonesia. The study uses quantitative research methods. Data were analyzed by multiple linear regression analysis, t-test, and f-test. The results of the study show that the dropout rate tends to fall, although statistically, the BOS and PIP budgets do not have a significant effect on the dropout rate. These findings suggest that the success of a program depends not only on a certain amount of funding but also on the quality of overall program implementation.

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1. INTRODUCTION

School dropouts are a common problem in developing countries [1]. For example, in Indonesia, dropout rates occur at all levels. The number of out-of-school children in Indonesia throughout the 2022/2023 school year is 76.834, consisting of 40.623 from Elementary School (SD), 13.716 from Junior High School (SMP), 10.091 from Senior High School (SMA), and 12,404 from Vocational High School (SMK) [2].

The Indonesian government has been allocated to solve the problem of dropping out of school. Since 2005 the government has distributed School Operational Assistance (BOS). BOS funds are given to students indirectly, namely through school institutions according to the number of students enrolled in the school [3, 4]. In 2013 the government distributed the Poor Student Assistance (BSM), which in 2014 was refined into the Smart Indonesia Program (PIP). PIP funds are handed over by the government directly to

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students who have Smart Indonesia Cards, through government-appointed banks [5, 6].

The allocation of the education budget to reduce school dropout rates through the BOS and PIP programs is relatively large and has been running for quite a long time. In 2022, from the education budget of IDR 542.83 trillion, the amount allocated to BOS is IDR 53.91 trillion, while for PIP it is IDR 8.24 trillion [7–9]. With the existence of BOS and PIP, access to education is expected to become more evenly distributed, school enrollment rates increase and dropout rates decrease [10–13].

Previous studies on the significance of BOS and PIP funds on school dropout rates in Indonesia have been conducted. For example, Rutfiana, Rahmawati, Saputri, and Amelia [14–17]. However, there are still research gaps. Previous studies have been limited to specific cities or provinces; have not been conducted for the whole of Indonesia; and have shown findings that are controversial with each other about how BOS and PIP affect school dropouts in Indonesia. The controversy over previous findings suggests that room for hypothesis testing is still open. Therefore, this study aims to analyze the effect of BOS and PIP funding budgets on school dropouts in Indonesia. The results of this study are expected to provide benefits for the development of theory and add information about preventing school dropouts.

2. METHODOLOGY/ MATERIALS

Following its purpose to test the influence of variables, this study uses quantitative methods. Data analysis consists of classical assumption tests and multiple linear regression analysis using EVIEWS which is very powerful in terms of statistical tests related to time series data. The potential problem of multicollinearity between variables is overcome by performing a Log transformation. After the requirements of the classical assumptions are met, a hypothesis test consisting of a t-test and an f-test is performed. Table 1 show Research Materials from 2014 until 2022.

3. RESULTS AND DISCUSSIONS

The results of the analysis of classical assumptions show that: 1) The normality test results showed the probability value of Jaque Bera (J-B) produced is $0.735 > 0.05$, so it can be assumed that the data is normally distributed; 2) The results of the multicollinearity test showed the centered VIF value of the two independent variables of $2.205999 < 10$, which means that the data did not contract the multicollinearity

TABLE 1: Research Materials.

Year	Number of School Dropouts	BOS Fund Budget (in trillion rupiah)	PIP Fund Budget (in trillion rupiah)
2014	416.410	23,29	4,32
2015	237.960	31,33	9,70
2016	187.828	43,33	9,68
2017	187.078	43,55	9,71
2018	103.229	44,37	9,71
2019	157.166	49,20	9,63
2020	83.724	51,59	9,64
2021	75.876	53,46	9,63
2022	76.834	53,91	8,24

Source: Ministry of Education and Culture, and Ministry of Finance, 2014-2022 [2, 18–22].

problem; 3) The results of the heteroscedasticity test show a significance value of $0.1098 > 0.05$ which means that the heteroscedasticity requirements are met; 4) The results of the autocorrelation test show that the value of Prob. Chi-Square (2) of $Obs \cdot R$ -squared is $0.9087 > 0.05$ then, it can be assumed that the autocorrelation requirements are met. Thus, if all the requirements of classical assumptions are met, then multiple linear regression analysis can be carried out.

TABLE 2: Multiple Linear Regression Analysis Results.

Variable	Coefficient	Std. error	T-Statistics	Prob
C	-32,88928	27,51528	-1,195310	0,2771
BOS	1,503842	1,218502	1,234173	0,2633
PIP	-0,098354	1,274904	-0,077146	0,9410
R-Square	0,337944			
Adjusted R-squared	0,117258			
F-Statistic	1,531337			
Prob (F-Statistic)	0,290192			

Source: data processed with Eviews9, 2023.

The regression analysis model produces the regression equation $Y = -32.889 + 1.503BOS + (-0.098) PIP$. The value of a negative constant (-32.88) does not matter as long as the requirements of the classical assumption have been met. The regression coefficient for the BOS variable showed a positive correlation of 1.503 to the dropout rate, but the effect was not statistically significant because the statistical t-probability value obtained was $0.263 > 0.05$. While the regression coefficient for the PIP variable

showed a negative correlation of -0.098 to the dropout rate, the effect was not statistically significant because the statistical probability t value obtained was $0.941 > 0.05$ the specified error limit. Furthermore, statistical F probability values of $0.290 > 0.05$ show that BOS and PIP funds have no significant effect on school dropout rates in Indonesia. This finding is in line with the findings of Rahmawati, and Saputri [15, 16]. On the contrary, this finding contradicts the findings of Rutfiana, and Amelia [14, 17].

The dropout rate in Indonesia tends to experience a downward trend. In 2014 the number of dropouts reached 416.410, while in 2022 the number dropped to 76.834 [2, 18]. In Table 2, the Adjusted R-Square value of 0.117 shows that the effect of education budgets through BOS and PIP funds on the dropout rate is 11.7%, while the rest (88.3%) is influenced by variables not included in this study.

Through the BOS and PIP programs, the government injects funds into poor schools and families to finance the implementation of education that is expected to prevent school dropouts. However, poor family economic and financial problems are not the only causes of school dropouts [1, 23]. In certain cases, dropping out of school can occur in students from families whose financial conditions are good. In addition to economic and financial factors, dropping out of school can also be influenced by other factors such as academics, physical health, and psychological well-being [24–26]. Lack of parental attention, low awareness and interest of students in education, teacher attitudes, and the influence of a poor friendship environment can influence a student's decision to quit school [14, 24–27]. Stress and fatigue that trigger a decline in academic achievement can also lead to dropping out of school [28]. Low self-awareness of educational values also contributes to school dropouts [29, 30]. Some children are not suited to formal education and are more interested in actions and challenges so schools are required to offer educational services that accommodate all types of students [30–32]. Several studies have suggested that the COVID-19 pandemic that has occurred for approximately two years has also had an impact on increasing school dropout rates in several countries [33–36]. That is, dropout is a complex issue that can be influenced by many other factors beyond economic factors that were not included in this study.

School dropout has a devastating impact on individuals, families, institutions, communities, and the country [37–41]. Fiscal stimulus through targeted education budgets can stimulate school enrollment rates, prevent dropouts, and return out-of-school children to education which in the long run promotes economic growth and eradicates poverty [1, 23]. According to Gooptu, if necessary, reallocation of education budgets can be done to solve the problem of school dropouts in developing countries. He suggested reallocating the higher education budget for the benefit of primary and secondary

school education. However, he stressed that budget reallocation should complement household and infrastructure investments in education. In addition, it must be ensured that the budget is used according to priorities and used to improve education services without increasing the fiscal deficit to potentially jeopardize macroeconomic stability. However, a large budget allocation does not guarantee the effectiveness of the use and success of the program objectives. There are many findings regarding technical obstacles in program implementation and misuse of aid funds such as weak data collection, late disbursement, and corruption [4, 12, 13, 29].

Based on our findings, although the effect was not statistically significant, we also found that the trend of dropout tends to decline since education budgets are directed specifically to finance dropout prevention programs. This shows that the large amount of funds allocated is not a determining factor for the success of the program. How effective the use of funds, the overall quality of program implementation, and parent, school, and community support for the program can be more determining factors for the success of dropout prevention.

4. CONCLUSION

The BOS budget and PIP budget have not been scientifically proven to have a significant effect on school dropout rates. The dropout rate may be influenced by other factors not addressed in the study. The allocation of the education budget to overcome school dropouts is still needed while taking into account efforts to improve community welfare, control the quality of school education services, family and community participation, and improve the performance of the BOS and PIP.

These findings contribute to unraveling the problem of dropping out. A suggested improvement is the strengthening of the internal audit function at the school level to prevent the use of funds that are not following regulations. Schools must also evaluate and pay attention to proposal updates so that the distribution of funds is on target and not hampered. Further research is recommended to use a stronger theoretical foundation and take other variables that have not been included in the study.

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