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The Influence of Key Sectors, Average Years of Schooling, and Labor Force Participation Rate on Poverty in Aceh Province Through Economic Growth

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Abstract

This research explores the potential role of key economic sectors, average schooling duration, and labor force participation rates in reducing poverty in Aceh Province. The study utilizes data from 2016 to 2022 and applies the Autoregressive Distributed Lag (ARDL) method to examine both short-term and long-term relationships between these variables and poverty reduction. The objectives of this study are to identify the impact of these factors on poverty levels and to assess their contribution to economic growth. The research findings indicate that in the long term, leading economic sectors, average schooling duration, and labor force participation positively influence economic growth. However, only average schooling duration significantly affects economic growth in the short term. Furthermore, the results demonstrate that long-term economic growth and labor force participation play a significant role in reducing poverty. In contrast, leading sectors and average schooling duration negatively influence poverty levels. In the short term, economic growth and leading sectors also negatively impact poverty. Moreover, the Sobel test confirms that economic growth mediates the influence of these variables on poverty reduction in the long term. In the short term, only average schooling duration serves as a mediator. The implications of this study highlight the importance of government efforts to develop critical economic sectors, improve the quality of education, and enhance workforce training to stimulate economic growth and reduce poverty in Aceh.

Keywords: Poverty, Economic Growth, Leading Sectors, Average Length of Schooling, Labor Force Participation Level, ARDL Panel Model.

INTRODUCTION

Although it has been the subject of debate throughout human history, poverty remains a global challenge that has not been fully solved despite the positive impact of economic globalization (Li & Zhang, 2022). Nelson Mandela emphasized that poverty results from human actions that can be overcome through appropriate measures, not just compassion but justice (Kalu

& Imoagwu, 2021). Poverty is not only limited to a lack of money but also a lack of resources that are essential for actualizing an individual's potential.

In the mid-1960s, Indonesia faced high poverty rates due to economic stagnation nearly half a century earlier. This led to widespread poverty and malnutrition, as well as an average life expectancy below 50 years with high infant mortality rates (Hall, 2021). Provinces such as Aceh show grave poverty disparities compared to the national average related to inadequate infrastructure, education, and health to improve human resources (Nurias et al., 2023).

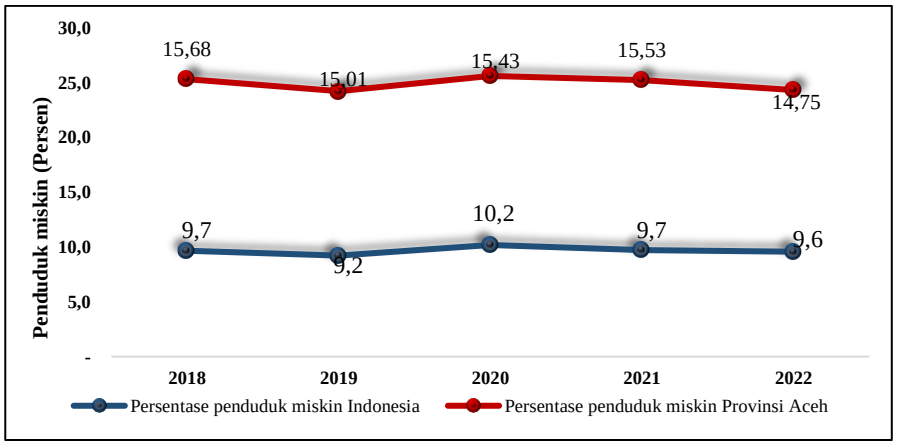

Figure 1. Percentage of Poor People

In 2019, the percentage of poor people in Indonesia reached 9.22 percent, or around 24.78 million people. In 2022, the poverty rate in Aceh was 14.75 percent, higher than the national average, although there was a slow decline. Aceh was declared the sixth poorest province in Sumatra by the Central Statistics Agency despite receiving a Special Autonomy fund of Rp8.03 trillion in 2018 that could have been used to alleviate poverty and empower the community.

Economic growth is an essential factor in getting out of the cycle of poverty because it reflects the development of development activities towards prosperity (Iskandar et al., 2022). Economic growth in developing countries is often measured by the increase in real GDP (Wardhana et al., 2021). It is considered effective in reducing poverty and improving the quality of life (Mulok et al., 2012). In 2021, Indonesia's economy contracted by 2.07%, while Aceh contracted by 0.37% in 2020 after two years of growth above 4% due to the COVID-19 pandemic. Leading sector-based strategies at the regional level are recommended to improve economic growth (Novita et al., 2017).

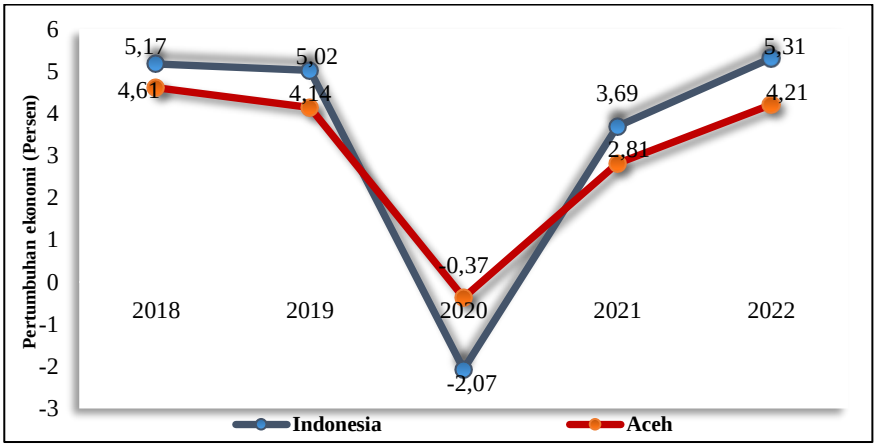

Figure 2. Percentage of Economic Growth

Figure 2 shows that Indonesia's economy contracted by 2.07 per cent in 2020, while Aceh contracted by -0.37 per cent after two consecutive years of growth above 4 per cent. The Covid-19 pandemic caused a sharp economic downturn and exacerbated poverty and income inequality (Bhatti & Ghouse, 2023). After the pandemic, Aceh's economy began to improve, with a growth of 4.21 per cent in 2022, while the national economy grew 5.31 per cent. Figure 2 shows that Aceh's economic growth has always been below the national average due to limited infrastructure, low investment, suboptimal quality of education, social and political impacts, ineffective management of natural resources, limited local economic empowerment, and lack of equitable development.

The economic potential of a region must be explored and utilized effectively to support economic development (Nurriyanti & Setyowati, 2024). This evaluation includes the current performance of economic sectors, the level of competition, and the potential for future development, including sectors that, although currently less competitive, can grow. In 2020, the impact of the COVID-19 pandemic resulted in a sharp decline in Aceh Province's GDP growth, with the Transportation and Warehousing sector contracting by -28.44%, triggered by a decline in industrial production, business closures, and a decline in public consumption.

Efforts to reduce poverty can be made through education, which is crucial in supporting economic activities (Cahyo et al., 2022). Education is the key to human resource production, accumulation, and distribution, which is increasingly important with technological changes, globalization, and demographics (Pegkas & Tsamadias, 2014). By improving skills and opening up more job opportunities for the poor, education can play a role in reducing poverty and inequality (Juliante, 2022); (Liu et al., 2021).

The average length of schooling in Aceh Province is always higher than the national average. In 2018, the average length of schooling in Indonesia was 8.17 years, while in Aceh, it reached 9.09 years. In 2022, the average length of schooling in Indonesia increased to 8.96 years, while Aceh recorded a figure of 9.44 years. This data shows Aceh's consistency in improving access and quality of education by the sustainable development goals (SDGs). The average length of

schooling is closely related to labour force participation, as higher levels of education strengthen the population's ability to participate in the labour market.

In economic theory, labour growth supports economic development by maintaining a balance between labour force participation and growth to keep the unemployment rate stable (Ul Haque et al., 2019). In 2021, Aceh Province's TPAK rose to 65.14 per cent, reflecting the increase in labour force participation after the post-COVID-19 pandemic economic recovery and the government's and private sector's efforts to create new jobs. The labour force participation rate, which has increased every year, reflects the increase in the number of workers. A large enough number of workers will support the increase in the production of goods and services in the production sector so that the added value of output in the production sector will increase economic growth (Junaidi et al., 2023).

After discussing variables related to poverty reduction in Aceh Province, it was concluded that poverty is influenced by factors that can be changed through policies and economic changes. Machmud (2016) emphasises the importance of managing macroeconomic indicators to achieve stable economic growth and reduce poverty. Therefore, research on leading sectors, the average length of schooling, and the level of labour force participation in economic growth and poverty are crucial in formulating effective policies. The objective of this research is to examine the impact of leading economic sectors, average schooling duration, and labor force participation rates on poverty reduction in Aceh Province. Specifically, the study aims to analyze both the short-term and long-term effects of these variables on economic growth and poverty alleviation, providing insights into how these factors contribute to the province's economic development. The benefits of this research are twofold. First, it offers valuable information for policymakers in Aceh and other regions with similar economic conditions, helping them design effective strategies to reduce poverty through targeted sectoral development, improved educational access, and increased workforce participation. Second, it contributes to the broader academic literature by expanding the understanding of how specific economic and social variables interact to influence poverty reduction, particularly in post-pandemic recovery contexts.

RESEARCH METHOD

This research covers 2016-2022 taken from 23 districts/cities in Aceh Province. This study uses celkulndelr data collected from the Statistics Pulsat Agency. Quantitative data is data in numbers that can be measured with a specific size and value (Silvia, 2020). The analysis methods used in this method are LQ analysis and ARDL panel data regression analysis. This study uses two methods, namely the Location Quotient (LQ) analysis approach, to identify leading economic sectors.

This analysis approach is used to determine the state of the base and non-base economy. The goal is to find out the advantages of each sector in the city. To obtain the LQ value using a method that refers to the formula put forward by Kuncoro (2004) as follows:

$$LQ = \frac{Si/Ni}{S/N}$$

Information:

LQ : Nilai Location Quotient
Si : Sector i GDP in the analysis area
S : Total GDP in the analysis area
Ni : GDP of Sector I in the reference area
N : Total GDP in the reference area

Criterion:

1. LQ value > 1, the base sector, means that commodity i in a region has a comparative advantage.
2. LQ value < 1, non-base sector, means that commodity i in an area has no advantages, its production is only enough to meet the needs of its region.

After finding the LQ value in an economic base sector will be analysed using descriptive and inferential methods, panel data regression analysis, and path analysis. The ARDL method, a dynamic model in econometrics, combines autoregressive (A.R.A.R.) and distributed lag (DL) to utilize past data of dependent variables in predicting future values, distinguishing between short-term and long-term responses (Jumhur, 2020).

This study uses this method to look at the role of the leading sector, Average length of school, and Labor Force Participation Rate towards poverty in Aceh Province. Second, looking at the role of the leading sector, Average length of school, Labor Force Participation Rate through Economic Growth as a Mediation for Poverty Alleviation in Aceh Province. According to Gujarati & Porter (2012), the model of multiple linear regression equations can generally be formulated as follows:

Equation model 1:

to analyze the influence of leading sectors, average length of schooling and Labor Force Participation Rate on Economic Growth in Aceh Province in the short and long term.

$$\Delta EG_t = \alpha_0 + \sum_{i=1}^{n} \alpha_{1i} \Delta EG_{j,t-i} + \sum_{i=1}^{n} \alpha_{2i} \Delta LS_{j,t-i} + \sum_{i=1}^{n} \alpha_{3i} \Delta AVS_{j,t-i} + \sum_{i=1}^{n} \alpha_{4i} \Delta LFP_{j,t-i} + \beta_{11} EG_{j,t-i} + \beta_{21} LS_{j,t-i} + \beta_{31} AVS_{j,t-i} + \beta_{41} LFP_{j,t-i} + u_{j,t}$$

Equation model 2:

to analyze the effects of economic growth, leading sectors, average length of schooling and Labor Force Participation Rate on Poverty in Aceh Province in the short and long term.

$$\Delta POV_{j,t} = \alpha_0 + \sum_{i=1}^{n} \alpha_{1i} \Delta POV_{j,t-i} + \sum_{i=1}^{n} \alpha_{2i} \Delta EG_{j,t-i} + \sum_{i=1}^{n} \alpha_{3i} \Delta LS_{j,t-i} + \sum_{i=1}^{n} \alpha_{4i} \Delta AVS_{j,t-i} + \sum_{i=1}^{n} \alpha_{5i} \Delta LFP_{j,t-i} + \beta_{11} POV_{j,t-1} + \beta_{21} EG_{j,t-1} + \beta_{31} LS_{j,t-i} + \beta_{41} AVS_{j,t-i} + \beta_{51} LFP_{j,t-i} + u_{j,t}$$

Where POV poverty is poverty measured using percentages. EG is the GDP growth rate on the basis of constant prices, AVS is the average length of schooling measured in years, and LFP is

the Labor Force Participation Rate. In the study using ARDL panel data and in the selection of models, three tests can be carried out: *the Stationary Test*, the *Optimal Lag Test, and the Cointegration Test*. Furthermore, this study also conducted a hypothesis test, namely a t-test, to see the influence given.

RESULT AND DISCUSSION

Descriptive Statistics

Descriptive statistics provide an overview of the data, including dependent and independent variables such as top sectors, average length of schooling, and Labor Force Participation Rate. The data analyzed included mean, median, minimum, maximum, standard deviation, and number of observations for each variable. The total observations used in this study are 161, as seen in Table 2 which contains the results of descriptive statistical tests from 2016 to 2022.

Table 1. Descriptive Statistics

	POV (Percent)	EG (Percent)	LQ (Index)	AVS (Year)	LFP (Percent)
Mean	16.05752	3.585031	1.004839	9.276460	65.31261
Median	15.95000	3.980000	1.047213	9.020000	63.64000
Maximum	22.11000	13.23000	1.907415	13.03000	86.36000
Minimum	6.900000	0.050000	0.034300	6.880000	54.27000
Std. Dev.	3.595997	1.718851	0.487205	1.231657	6.541510
Observations	161	161	161	161	161

Source: Data processed, 2024.

Information
POV : Poverty
EG : Economic Growth
LQ : Location Question
AVS : average years of schooling
LFP : Labor Force Participation

Overall, this study used a consistent number of observations, namely 161 data for all five variables. The average poverty rate in Aceh Province is 16,057 percent, with maximum and minimum values of 22,110 percent and 6,900 percent, respectively. Economic growth has an average of 3,585 percent, while the leading sector (LQ) has an average of 1.0048. The average length of schooling reached 9,276 years, and the labor force participation rate reached 65,312 percent. The Central Statistics Agency noted a decline in the number of poor people in Aceh Province in recent years. Although this decline is slow, it shows progress in reducing poverty since before the pandemic. This also indicates a decrease in expenditure inequality among the poor.

Stationary Test Results

The first step is to test the stationarity of all the variables used. The data is declared to pass the ADF test if each variable's probability value is less than 10%. If at level (0) the probability

value is more than 10%, an ADF test at level 1 (first difference) or 2 (second difference) is necessary. The results of the Stationary Test can be seen in Table 2.

Table 2. Test Results for Determining the Best Panel Model

Variable	Tingkat Level	T-Statistics	Probability	Conclusion
POV	Level 1st different	34.2283 133.869	0.8997 0.0000***	1st different
EG	Level	97.2247	0.0000***	Level
LQ	Level	78.1953	0.0021**	Level
AVS	1st different	121.066	0.0000***	1st different
LFP	Level	75.6336	0.0038**	Level

Note: *** and ** show significant at 1% and 5% confidence levels, respectively.

Source: Data processed by Eviews, 2024

The results of the stationarity test in Table 2 show that the five variables in this study have stationarity at different levels. Poverty and average length of schooling showed stationarity at the level of 1st difference. Meanwhile, economic growth, leading sectors, and labor force participation levels show stationarity at the level level.

Determination of Optimal Lag

In the interest of further stage analysis, an optimal lag must be performed. The optimal lag determination aims to determine how much lag is used in the *Granger Causality Test estimation*. The following are the results of the optimal lag test for Model 1 and Model 2, shown in Table 3.

Table 3. Optimum Lag Test Results

	MODEL	Logl	AIC*	BIC	HQ	Specification
POV	1	288.109279	-1.815022	0.902738	-0.711501	ARDL (1, 1, 1, 1, 1)
EG	1	-77.411462	2.427472	4.685892	3.344482	ARDL (1, 1, 1, 1)

Source: Data processed by Eviews, 2024

Table 3 shows the results of the optimal lag test for Model 1 and Model 2 with the Akaike Information Criteria (AIC). Model 1 is optimal on ARDL lag (1, 1, 1, 1, 1), while Model 2 is optimal on ARDL lag (1, 1, 1, 1). These lags will be used in the ARDL estimation process for each model.

Cointegration Test

The cointegration test in this study was used to determine whether the relationship between the variables in the study is similar in movement and stability or whether it is long-term. A variable is cointegrated when the probability value is less than the significance level.

Table 4. Co-Integration Test Results

	t-Statistic	Prob.
ADF	-6.118	0.0000
Residual variance	0.336	
HAC variance	0.282	

Source: Data processed by Eviews, 2024

Based on the Kao Cointegration Test results in Table 4, the probability value obtained is 0.0000, indicating that each variable in the equation model is cointegrated at a significance level of 5%. This confirms that the variables used in this study have a long-term relationship.

Table 5. Determination of Leading Sectors Based on Regencies/Cities of Aceh Province

GDP Sector	Selected range		
	11 - 15	6 - 10	1 - 5
Agriculture, Forestry, and Fisheries	**********	-	-
Mining and Quarrying	-	-	****
Processing Industry	-	******	-
Electricity and Gas Procurement	-	*****	-
Water Procurement, Waste Management, Waste and Recycling	-	*******	-
Construction	-	********	-
Wholesale and Retail Trade; Car and Motorcycle Repair	-	*******	-
Transportation and Warehousing	-	******	-
Provision of Accommodation and Meals	-	*******	-
Information and Communication	-	******	-
Financial Services and Insurance		**********	
Real Estate	-	-	****
Corporate Services			*****
Government, Defense and Compulsory Social Security Administration	-	********	-
Educational Services	-	*********	-
Health Services and Social Activities	-	********	-
Other Services	-	*******	-
Description: the sign (*) represents the selected Regency/City			

Source: BPS Aceh Province (processed), 2024.

Based on Table 5, the Agriculture, Forestry, and Fisheries sector is the most dominant sector compared to several other sectors, and it is considered the leading sector of Regencies/Cities in Aceh Province. So, this study decided to use the index value of the superior sectors of Agriculture, Forestry, and Fisheries.

Autoregressive Distributed Lag (ARDL)

With cointegration, the ARDL method analyses data by paying attention to short-term and long-term information. Model 1 of this study will estimate the influence of leading sectors, average length of schooling, and labor force participation rate on economic growth. The estimated results for both periods are shown in Table 6.

Table 6. Long-Term and Short-Term Results of the influence of Leading Sectors, average length of schooling and Labor Force Participation Rate Towards Economic Growth

	Variable	Coefficient	Std. Error	t-Statistic	Prob.
	D(LQ)	5.0281	7.1142	0.7067	0.4822
Short Run	D(LAVS,2)	6.0727	2.1673	2.8018	0.0067*
	D(LFP,2)	-0.0183	0.0610	-0.2997	0.7653
	COINTEQ01	-1.0725	0.2429	-4.4142	0.0000***
	C	0.5697	0.2822	2.0185	0.0476**
	(LQ,2)	2.8319	1.3774	2.0558	0.0438**
Long Run	(LOGAVS)	7.9118	0.2423	32.643	0.0000***
	(LFP)	0.0189	0.0031	6.0842	0.0000***
Root MSE	1.094932	Mean dependent var		-0.112360	
S.D.S.D. dependent var	4.849426	S.E.S.E. of regression		1.828201	
Akaike info criterion	2.187479	Sum squared resid		220.5931	
Black criterion	4.249231	Log likelihood		-83.24807	
Hannan-Quinn criter.	3.023133				
Note: ***, **, and * indicate significant at the 1%, 5%, 10% level.					

Source: Data processed by Eviews, 2024

The results of the estimate in Table 6 show that the leading sector is not significant in the short term but significant in the long term to economic growth in the Regency/City of Aceh Province, with a coefficient of 2,831 and a probability of 0.04 < 0.05. A 1 percent increase in leading sectors can increase economic growth by 2,831. The average length of schooling is significant in the short term (coefficient 6,072, probability 0.006 < 10 percent) and in the long term (coefficient 7,911, probability 0.000 < 5 percent), showing that an increase of 1 percent can increase economic growth. The labor force participation rate has no effect in the short term. However, it is significant in the long term (coefficient 0.0189, probability 0.0000 < 0.05), so an increase of 1 percent can increase economic growth by 0.0189 percent in Aceh.

Table 7. Long-Term Results and Short-Term Growth Influences Economy, Featured Sectors, Average Length of Schooling and Participation Rate The Labor Force Against Poverty

	Variable	Coefficient	Std. Error	t-Statistic	Prob.
	C	-0.0589	0.0614	-0.9593	0.3494
Short Run	D(EG,2)	-0.1022	0.0566	-1.8056	0.0868*
	D(LQ)	-24.065	13.599	-1.7695	0.0928*
	D(AVS,3)	0.6931	1.2721	0.5448	0.5922
	D(LFP,3)	0.0011	0.0351	0.0326	0.9743
	COINTEQ01	-1.5563	0.3993	-3.8969	0.0010
	(EG)	-0.0187	0.0033	-5.5386	0.0000***
Long Run	(LQ,2)	-4.0618	0.2295	-17.692	0.0000***
	(LOGAVS,2)	-1.7316	0.0864	-20.027	0.0000***
	(LFP,2)	0.0222	0.0034	6.4899	0.0000***
Root MSE	0.3712	Mean dependent var		-0.2870	

S.D.S.D. dependent var	1.6684	S.E.S.E. of regression	1.0806
Akaike info criterion	-1.4923	Sum squared resid	22.187
Black criterion	1.2254	Log likelihood	262.13
Hannan-Quinn criter.	-0.3888		
Note: ***, **, and * indicate significant at the 1%, 5%, 10% level.			

Source: Data processed by Eviews, 2024.

In Model 2 on poverty in Aceh Regencies/Cities, economic growth has an effect in the short term with a probability of 0.008 < 10 percent and a coefficient of -0.1022, which means that every 1 percent increase in economic growth reduces poverty by -0.1022. In the long term, economic growth also has a negative effect on poverty with a probability of 0.000 < 5 percent and a coefficient of -0.0187. Meanwhile, the leading sector has an influence on poverty in Aceh with a coefficient of -24,065 and a probability of 0.092 > 10 percent in the short term. In the long term, the leading sector also has a significant negative influence on poverty with a coefficient of -4.0618 and a probability of 0.000 < 1 percent, meaning that every 1 percent increase in the leading sector can reduce the poverty rate in Aceh by -4.0618.

The average length of schooling has no short-term effect on poverty in Aceh Regencies/Cities. However, in the long term, the average length of schooling has a negative effect on poverty with a probability of 0.000 < 0.05 and a coefficient of -1.7316. Meanwhile, the Labor Force participation rate has a positive influence on poverty in the long term, with a probability of 0.000 < 1 percent and a coefficient of 0.0222.

Table 8. Data Regression of ARDL Panel Mediation Variables on Poverty

Variable	Prob. Value					
	Short Run			Long Run		
	Coeffiecient	**T-Statistic**	**Prob.**	**Coeffiecient**	**T-Statistic**	**Prob.**
Cointeq	-1.0725	-4.4142	0.0000			
	-1.5563	-3.8969	0.0010	-0.0187	-5.5386	0.0000
Note: ***, **, and * indicate significant at the 1%, 5%, 10% level						

Source: Data processed by Eviews, 2024

The variable "Cointeq" with a coefficient of -1.0725, t-statistic -4.4142, and a probability of 0.0000 indicates the existence of cointegration, confirming that economic growth has a significant effect on reducing poverty in both the short and long term. The results of the estimation of the ARDL panel cointegration for the effect of economic growth on poverty show a coefficient of -1.5563 with a t-statistic of -3.8969 and a probability of 0.010 in the short term.

Table 8 Labor Force Participation Rate

Mediation	Prob. Value			
	Short Run		Long Run	
	S-Statistic	**Prob.**	**S-Statistic**	**Prob.**
LS → EG → POV	0.0564	0.9549	-3.664	0.0002***

Mediation	Prob. Value			
	Short Run		Long Run	
	S-Statistic	Prob.	S-Statistic	Prob.
AVS → EG → POV	-1.5177	0.0645	5.4704	0.0000***
LFP → EG → POV	0.0556	0.4778	4.1006	0.0000***

Discussion

The results of model 1 estimation show that in the short term, the leading sector is not significant to economic growth in Aceh Regencies/Cities, with a probability of 0.4822 > 0.05 and a coefficient of 5.0281. These findings are in line with previous research from Bouhajeb (2015), which highlights the lack of efficiency of the agricultural sector in driving economic growth, and Ceesay et al. (2021), which found the negative impact of the agricultural sector in the short term in the Gambia. Research Wang et al. (2010) also shows that the declining agricultural sector is not significant in boosting China's economic growth in the short term.

The results of long-term estimates show that the leading sectors of Agriculture, Forestry, and Fisheries are significant to economic growth in Aceh Regencies/Cities, with a probability of 0.043 < 0.05 and a coefficient of 0.831. These findings are in line with research Rasheed (2023) and Briones (2017) which emphasizes the importance of agricultural sector productivity for long-term economic growth. In addition, the agricultural sector is recognized as a source of food security, poverty alleviation, employment providers, and economic drivers Gina et al., 2023); (Wang et al., 2010).

The average length of school is considered an essential social institution in the development mechanism of a country. The results of the estimation show that in the short term, the average length of schooling has a coefficient of 6.0727 and a probability of 0.006. In contrast, in the long term it has a coefficient of 7.9118 with a probability of 0.0000, showing a positive impact on economic growth in the Provincial Regency/City. This discovery is supported by research such as de Pleijt (2018) which highlights the role of education in improving economic development through innovation and mindset change. The same thing was also conveyed by Pal (2023) which shows that higher education contributes significantly to increasing productivity, technological advancement, and strengthening the economy, which has a direct impact on the welfare of the country.

Productivity: The participation rate of the labor force plays a vital role in its influence on contemporary economic growth. In this study, the Labor Force participation rate has no significant effect on economic growth in the short term, with a coefficient of -0.0183 and Prob. 0.77653. However, in the long term, the Labor Force Participation Rate has a significant favourable influence on economic growth in Aceh Regencies/Cities, as evidenced by a coefficient of 0.0189 and a Probability of 0.000 < 0.05 significant levels. Research such as Eludire (2023) shows that labor force participation has a significant positive impact on economic growth in both developed and developing countries. Other research such as Yakubu & Akanegbu (2020) also emphasized

that the relationship between TPAK and economic growth tends to be positive in general, with the increase in TPAK being an essential factor in encouraging economic growth.

In Model 2 (Poverty Equation Model), economic growth has a negative influence in the short and long term on poverty in Regencies/Cities of Aceh Province. In the short term, a coefficient value of -0.1022 and a probability of 0.0868 indicate that this influence is significant at a significance level of 10 percent. Meanwhile, in the long term, the probability is 0.0000 with a coefficient of -0.0187, confirming that economic growth has a more substantial negative impact in reducing poverty levels. Research such as conducted by Witra Agatha & Uliensyah (2021) in Papua Province also found that economic growth has a significant negative effect on poverty, along with the results of Prasetya & Sumanto (2022) which shows a negative relationship between economic growth and poverty. Other research by A, Kadek Novita (2015) It also indicates that economic growth has a significant direct influence on reducing poverty, making economic growth an effective mediator in efforts to reduce poverty levels.

The leading sectors of Agriculture, Forestry and Fisheries in the short term have a negative influence on poverty, with a coefficient of -24.065 and a probability of 0.0928. However, the probability does not reach the 10% significance level. In the long term, this sector continues to have a negative effect on poverty with a coefficient of -4.0618 and a probability of 0.000, showing high significance. Research from Naukoko et al. (2019) in North Minahasa Regency supports these findings by showing that the industrial sector is the most important in reducing poverty in the area.

The average length of schooling in the short term does not affect poverty, with a coefficient of 0.693 and a probability of 0.592. However, in the long term, this variable has a significant negative influence on poverty, with a coefficient of -1.731 and a probability of 0.000, showing a strong effect in reducing poverty rates. Policies related to average length of schooling are also implemented in China to overcome poverty, in line with research by (Eryong & Xiuping, 2018)

The Labor Force participation rate in the short term does not affect poverty, with a probability of 0.259 and a coefficient of -0.0426. However, in the long term, this variable has a significant favourable influence on poverty, with a coefficient of 0.1898 and a probability of 0.000, suggesting that an increase in the level of labor force participation can increase poverty. Study by Roe et al. (2023) and Langoday & Man (2024) It also supports these findings by suggesting that low labor force participation rates can lead to increased poverty.

CONCLUSION

This study analyzes the influence of leading sectors, average school duration, and labor force participation rate on poverty in Aceh Province through economic growth using panel data from 23 districts/cities from 2016 to 2022. The results of the study show that the Agriculture, Forestry, and Fisheries sectors are dominant in improving the economy. In the short term, only the average length of schooling has a positive effect on economic growth. In contrast, the top sectors and the level of labor force participation have no effect. However, in the long term, these three variables together contribute positively to economic growth. The results of the second model test

show that both in the short and long term, economic growth and superior sectors affect poverty in Aceh Regencies/Cities.

This condition shows that every increase has an impact in reducing poverty. The average length of schooling and the level of labor force participation do not affect poverty in Aceh in the short term, but have an effect in the long term. This suggests the contribution of other variables in reducing poverty is still weak in the short term and takes longer for a significant effect. The results of the Sobel test show that in the short term, only the average length of schooling is mediated by economic growth to poverty. However, in the long term, economic growth is able to mediate the influence of leading sectors, average length of schooling, and the level of labor force participation in poverty in Aceh, demonstrating the important role of economic growth as a mediator.

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