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THE IMPACT OF ISLAMIC BANK FINANCING ON SECTORAL GROWTH IN ACEH PROVINCE

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Abstrak

Penelitian ini bertujuan untuk mengkaji dampak pembiayaan perbankan syariah terhadap pertumbuhan tiga sektor ekonomi utama di Provinsi Aceh, yaitu pertanian, kehutanan, dan perikanan; perdagangan grosir dan eceran; serta manufaktur. Sektor-sektor ini memainkan peran strategis dalam pembangunan ekonomi regional, terutama setelah diberlakukannya Qanun Lembaga Keuangan Syariah (LKS) pada tahun 2018. Meskipun pembiayaan syariah terus tumbuh, masih ada pertanyaan mengenai efektivitasnya dalam mendorong pertumbuhan ekonomi sektoral. Penelitian ini menggunakan pendekatan kuantitatif dengan data deret waktu triwulanan yang diperoleh dari Otoritas Jasa Keuangan dan Badan Pusat Statistik untuk periode 2016–2023. Model Autoregressive Distributed Lag (ARDL) diterapkan untuk menganalisis hubungan jangka pendek dan jangka panjang antara pembiayaan syariah dan pertumbuhan sektoral. Temuan menunjukkan bahwa pembiayaan syariah memiliki dampak jangka panjang yang positif dan signifikan terhadap sektor perdagangan grosir dan eceran. Sebaliknya, tidak ditemukan dampak yang signifikan terhadap sektor pertanian, kehutanan, dan perikanan maupun sektor manufaktur. Hasil ini menunjukkan bahwa efektivitas pembiayaan syariah bervariasi antar sektor. Oleh karena itu, diperlukan strategi pembiayaan yang lebih terarah dan spesifik sektor untuk meningkatkan kontribusi perbankan syariah terhadap pertumbuhan ekonomi yang berkelanjutan dan inklusif di Provinsi Aceh.

Kata Kunci: Islamic Bank Financing, Sectoral Economic Growth, ARDL Model

Abstrak

This study aims to examine the impact of Islamic bank financing on the growth of three key economic sectors in Aceh Province, namely agriculture, forestry, and fisheries; wholesale and retail trade; and manufacturing. These sectors play a strategic role in regional economic development, particularly following the implementation of the Islamic Financial Institutions (LKS) Qanun in 2018. Despite the continuous growth of Islamic financing, questions remain regarding its effectiveness in stimulating sectoral economic growth. This study employs a quantitative approach using quarterly time-series data obtained from the Financial Services Authority and Statistics Indonesia for the period 2016–2023. The Autoregressive Distributed Lag (ARDL) model is applied to analyze both short-run and long-run relationships between Islamic financing and sectoral growth. The findings reveal that Islamic financing has a positive and significant long-run effect on the wholesale and retail trade sector. In contrast, no significant impact is found on the agriculture, forestry, and fisheries sector or the manufacturing sector. These results suggest that the effectiveness of Islamic financing varies across sectors. Therefore, more targeted and sector-specific financing strategies are required to enhance the contribution of Islamic banking to sustainable and inclusive economic growth in Aceh Province.

Keywords: Pembiayaan Perbankan Syariah, Pertumbuhan Ekonomi Sektoral, Model ARDL

INTRODUCTION

Economic development is an integral component of national development aimed at improving public welfare through strengthening production capacity, increasing income, and ensuring equitable distribution of development outcomes. One of the key indicators used to assess the success of economic development is sectoral growth, which reflects the performance of various economic sectors that contribute to the Gross Regional Domestic Product (GRDP). Sectoral growth not only illustrates a region's ability to generate economic value added but also demonstrates the productivity level, competitiveness, and capacity of economic sectors to absorb labor. Therefore, the success of regional economic development is highly dependent on the ability of leading sectors to maintain and enhance their contribution to the regional economy.

In Aceh Province, the economic structure is primarily supported by several key sectors that serve as the main drivers of regional economic growth, namely the agriculture, forestry, and fisheries (AFF) sector, the wholesale and retail trade (WRT) sector, and the manufacturing industry (MI) sector. These sectors make significant contributions to the formation of Aceh's Gross Regional Domestic Product while also serving as the primary source of livelihood for a large proportion of the population. The agriculture, forestry, and fisheries sector occupies a strategic position due to the abundance of natural resources and its role as the backbone of rural economies. Meanwhile, the wholesale and retail trade sector plays a vital role in distributing production outputs and facilitating economic activities across regions. The manufacturing industry sector contributes by increasing the value-added of products through the transformation of raw materials into goods with higher economic value. Nevertheless, the optimization of these sectors remains constrained by various structural and institutional challenges that hinder their growth (Srihidayati, 2022).

One of the major challenges facing economic sectors in Aceh is limited access to adequate financing. Capital is a crucial factor of production that supports business expansion, productivity enhancement, technological development, and innovation across economic sectors. Limited access to financing restricts business actors from increasing production capacity and expanding market reach. This issue is particularly important considering that the majority of economic actors in Aceh consist of micro, small, and medium enterprises that often face capital constraints and limited access to formal financial institutions. From the perspective of economic growth theory, capital accumulation is one of the primary determinants of increased output and productivity. Therefore, the availability of an effective financing system is a strategic instrument for promoting real sector growth and strengthening the regional economic foundation.

In this context, Islamic financial institutions, particularly Islamic banks, play an increasingly important role in supporting Aceh's economic development. The implementation of the Islamic Financial Institutions Qanun has accelerated the transformation of the regional financial system toward a fully Sharia-compliant framework. This policy has positioned Aceh as the only province in Indonesia implementing a comprehensive Islamic financial system. Islamic banks function not only as financial intermediaries but also as instruments of economic development that are expected to connect the financial sector with the real sector through

financing mechanisms consistent with Islamic principles. The characteristics of Islamic financing, which are based on profit-and-loss sharing, partnership, justice, and risk-sharing principles, are believed to possess greater potential for stimulating productive economic activities compared to interest-based financing systems.

Numerous studies have demonstrated that the development of the Islamic financial sector is closely associated with economic growth and real sector development. Research conducted by Beck et al. (2013) found that Islamic banks exhibit relatively greater stability in supporting economic activities than conventional banks, particularly during periods of economic uncertainty. Furthermore, Furqani and Mulyany (2009) identified a significant long-run relationship between Islamic banking development and economic growth in Malaysia. Similarly, Abduh and Omar (2012) reported that the development of the Islamic banking sector contributes positively to long-term economic growth. These findings suggest that Islamic financing can serve as an important instrument in strengthening economic growth through the enhancement of real sector activities.

Empirical studies focusing specifically on sectoral growth also indicate that economic factors affect sectors differently. Research by (Pusra et al., 2021), which utilized panel data from 23 regencies and municipalities in Aceh Province during the period 2010–2019, revealed that the agriculture, trade, construction, and manufacturing sectors have a negative and significant effect on poverty levels. These findings imply that increased contributions from these sectors can improve public welfare through job creation and income generation. Furthermore, (Doytch & Narayan, 2021) demonstrated that renewable energy has varying impacts on sectoral growth across different groups of countries. Renewable energy was found to stimulate service sector growth in developed countries and manufacturing sector growth in developing countries. Meanwhile, (Rahman et al., 2019) identified private investment, government policies, infrastructure, technological access, and political and economic stability as the key determinants of industrial sector growth.

Several other studies further emphasize the importance of financing access for economic sector development. Levine (2005) argued that financial sector development contributes to economic growth through improved resource allocation efficiency and savings mobilization. Demirgüç-Kunt and Maksimovic (1998) found that access to external financing significantly influences firm and business sector growth. Likewise, Caporale et al. (2015) demonstrated that financial sector development promotes economic growth by expanding productive investment. These findings indicate that the effectiveness of financial systems in channeling financing is a crucial determinant of successful sectoral economic development.

Despite the continuous increase in Islamic bank financing in Aceh, improvements in financing have not been uniformly accompanied by enhanced performance across all economic sectors. Various challenges remain regarding financing effectiveness, the suitability of financing products for sectoral needs, and the optimal distribution of financing resources. Certain sectors receive relatively larger financing allocations than others, potentially creating disparities in

sectoral economic growth. This condition suggests that increasing financing volumes alone is insufficient to guarantee improvements in real sector performance unless financing is distributed appropriately and aligned with the characteristics of each economic sector.

To date, empirical studies specifically examining the impact of Islamic bank financing on the growth of the agriculture, forestry, and fisheries sector, the wholesale and retail trade sector, and the manufacturing industry sector in Aceh Province remain limited. Most previous studies have focused on the relationship between Islamic financing and aggregate economic growth, thereby failing to explain the sector-specific effects of Islamic financing. In the context of the implementation of the Islamic Financial Institutions Qanun, sectoral analysis is particularly important for evaluating policy effectiveness and identifying the sectors that benefit most from the development of the Islamic banking industry.

Based on the foregoing discussion, this study aims to analyze the impact of Islamic bank financing on the growth of the agriculture, forestry, and fisheries sector, the wholesale and retail trade sector, and the manufacturing industry sector in Aceh Province. This research is expected to contribute theoretically by enriching the literature on the relationship between Islamic financing and sectoral growth, while also providing practical contributions for regional governments, regulators, and the Islamic banking industry in formulating financing policies that are more effective, inclusive, and oriented toward strengthening productive sectors. Accordingly, this study seeks not only to answer the question of whether Islamic financing influences sectoral growth in Aceh but also to provide empirical evidence for the development of a financial system that is better equipped to support sustainable regional economic development.

METHOD

This study employs a quantitative approach using quarterly time-series secondary data covering the period from 2016 to 2023. The data were obtained from the Indonesian Financial Services Authority (Otoritas Jasa Keuangan/OJK), which provides information on Islamic bank financing by business sector, and from Statistics Indonesia (Badan Pusat Statistik/BPS), which supplies sectoral Gross Regional Domestic Product (GRDP) data for Aceh Province. The study focuses on three major economic sectors: agriculture, forestry, and fisheries (AFF); wholesale and retail trade (WRT); and manufacturing industry (MI).

The independent variable in this study is Islamic bank financing, while the dependent variable is sectoral economic growth, measured by quarterly changes in the GRDP value of each sector. The data were processed and analyzed using EViews software. To examine both the short-run and long-run relationships between Islamic financing and sectoral growth, the study applies the Autoregressive Distributed Lag (ARDL) model. The analytical procedure consists of several stages, including data stationarity testing using the Augmented Dickey-Fuller (ADF) test, optimal lag length selection, cointegration analysis through the Bounds Testing approach, and estimation of both long-run and short-run relationships among the variables (Winarno, 2015).

The use of the ARDL model is particularly appropriate because it allows the estimation of dynamic relationships among variables with different orders of integration, provided that

none of the variables is integrated of order two, I(2). Through this approach, the study seeks to provide empirical evidence on the extent to which Islamic bank financing contributes to the growth of key economic sectors and supports regional economic development in Aceh Province.

RESULTS AND DISCUSSIONS

Results

Descriptive Statistics

Descriptive statistics are employed to provide an overview of the characteristics of the data used in this study, including the mean, maximum value, minimum value, and standard deviation of each variable. This analysis aims to examine the distribution and central tendency of the variables, thereby offering an initial understanding of the data patterns before conducting further analysis. Table 5 presents a summary of the descriptive statistics for all variables included in this study.

Tabel 1. Statistik Deskriptif

Statistic	AFF Financing (IDR Billion)	WRT Financing (IDR Billion)	MI Financing (IDR Billion)	AFF Growth (%)	WRT Growth (%)	MI Growth (%)
Mean	942.396	2,564.942	519.719	1.456	1.196	0.665
Median	330.260	1,425.450	298.740	1.050	0.855	1.125
Maximum	2,623.410	5,591.150	1,371.460	15.740	15.060	17.680
Minimum	41.020	334.400	20.440	-8.410	-10.500	-13.560
Std. Dev.	944.614	2,082.908	432.461	4.869	5.077	8.581
Observations	32	32	32	32	32	32

Source: E-views 10, adapted by the author (2025)

Unit Root Test Results

Stationarity Test

The stationarity test is conducted to determine whether time-series data exhibit constant mean, variance, and covariance over time. If the data are non-stationary, they generally contain long-term trends that may lead to biased or spurious regression results. Therefore, stationarity testing is a crucial prerequisite before performing time-series regression analysis. Several commonly used methods for testing stationarity include the Augmented Dickey-Fuller (ADF) test, Phillips-Perron (PP) test, and Levin-Lin-Chu (LLC) test. In this study, the ADF and PP tests are employed to examine the stationarity properties of the variables. The test results indicate that some variables are stationary at their level form, while others become stationary only after first differencing. Variables that are stationary at the same level satisfy the requirements for further analysis, whereas variables that are stationary after first differencing require transformation before being included in the model. Detailed results of the unit root tests are presented in the following table.

Tabel 2. Hasil Unit Root Test

Variables	Inclue in test quation	Augmented Dicky Fuller (ADF)				Phillips-Perron (PP)			
		I(0)		I(1)		I(0)		I(1)	
		t-stat	p-value	t-stat	p-value	t-stat	p-value	t-stat	p-value
Log (PSPK)	Const	0,856	0,788	-7,047	0,000	0,792	0,807	-7,057	0,000
	Const & trend	-2,023	0,567	-6,972	0,000	-2,063	0,545	-6,984	0,000
Log (PSPBE)	Const	-0,978	0,749	-4,636	0,001	1,026	0,731	-4,667	0,001
	Const & trend	-1,709	0,722	-4,604	0,005	-1,812	0,674	-4,647	0,004
Log (PSIP)	Const	-2,262	0,190	-6,192	0,000	-2,304	0,177	-6,229	0,000
	Const & trend	-3,669	0,040	-6,386	0,000	-3,669	0,040	-6,404	0,000
PEPKP	Const	-4,904	0,001	-6,020	0,000	-11,233	0,000	-28,567	0,000
	Const & trend	-4,662	0,004	-5,330	0,001	-10,701	0,000	-33,350	0,000
PEPBE	Const	-10,565	0,000	-6,275	0,000	-10,422	0,000	-40,102	0,000
	Const & trend	-10,630	0,000	-6,165	0,000	-10,830	0,000	-49,370	0,000
PEIP	Const	-7,845	0,000	-5,025	0,001	-16,815	0,000	-22,590	0,000
	Const & trend	-7,687	0,000	-4,869	0,004	-16,834	0,000	-21,996	0,000

Source: Author's calculations using E-Views, 2025

Based on Table 2, the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) test results show mixed stationarity among the variables. Log(PSPKP), Log(PSPBE), and Log(PSIP) are non-stationary at level but become stationary after first differencing, indicating they are integrated of order one, I(1). In contrast, PEPKP, PEPBE, and PEIP are stationary at level, meaning they are integrated of order zero, I(0). This combination of I(0) and I(1) variables justifies the use of the Autoregressive Distributed Lag (ARDL) approach. The next step is to test for cointegration to examine the existence of a long-run relationship among variables. This is conducted using the Bounds Testing approach by comparing the F-statistic with the upper and lower critical values. If the F-statistic exceeds the upper bound, cointegration is confirmed; if it is below the lower bound, no cointegration exists. The results are presented in Table 3.

Tabel 3. Hasil ARDL Bound Test Pepkp = F(lpspkp)

Model selection method: Akaike info criterion (AIC) (4, 3)		K	F-Statistik
Pepkp = F(lpspkp)		1	2.975893
Signifikansi	Nilai Kritis (Critical Value)		
	Lower Bound I(0)	Upper Bound I(1)	
10%	3,02	3,51	
5%	3,62	4,16	
2,5%	4,18	4,79	
1%	4,94	5,58	

Sumber: Hasil kalkulasi penulis menggunakan E-Views, 2025

Based on Table 3, the F-statistic value of 2.976 is lower than the critical value at the 10% significance level (3.02). Therefore, there is insufficient evidence to support the existence of cointegration between PEPKP sector growth and Islamic financing in the LPSPKP sector. This implies that there is no statistically significant long-run relationship between the two variables based on the ARDL Bounds Test. However, the ARDL analysis is still conducted to examine the short-run dynamics between the variables. The best model selected based on the Akaike Information Criterion (AIC) is ARDL(4,3), with an Adjusted R^2 of 0.850. This indicates that approximately 85% of the variation in PEPKP can be explained by the model (see Table 4).

Table 4. Long-term and short-term financing estimates for the forestry and fisheries sectors

Variables	Coefficient	Std. Error	t-Statistic	p-value
Long-run effects				
C	1,974	1,329	1,486	0,154
LPSPKP	-0,078	0,213	-0,367	0,718
Short-run effects				
D(PEPKP(-1))	0,430	0,623	0,690	0,498
D(PEPKP(-2))	-0,043	0,464	-0,093	0,927
D(PEPKP(-3))	-0,397	0,242	-1,642	0,117
D(LPSPKP)	0,661	1,836	0,360	0,723
D(LPSPKP(-1))	-1,820	1,761	-1,336	0,314
D(LPSPKP(-2))	-5,098	1,782	-2,860	0,010
CointEq(-1)*	-2,327	0,741	-3,141	0,005
R-squared	0,883			
Adjusted R^2	0,850			
F-statistic	4,926			
Prob(F-stat)	0,002			
DW	1,976			
Normalitas residual				
J-B	1,518(0,468)			
Breusch-Godfrey Serial Correlation LM Test:				
F-statistic	0,271(0,766)			
Obs*R-squared	0,866 (0,648)			
Heteroskedasticity Test: ARCH				
F-statistic	1,323 (0,291)			
Obs*R-squared	10,017 (0,264)			
Ramsey RESET Test				
t-statistic	3,349 (0,004)			
F-statistic	11,216 (0,004)			

Source: Author's calculations using E-Views, 2023
Numbers in parentheses ( ) are p-values.
*) **) ***) indicate significance at the 90%, 95%, and 97.5% confidence levels.

The long-run estimation results show that LPSPKP does not have a statistically significant effect on PEPKP (coefficient = -0.078; p-value = 0.718). This indicates that there is no meaningful long-term relationship between Islamic financing and the growth of the agriculture, forestry, and fisheries sector. Although the relationship is negative in direction, it is not statistically or economically significant. In the short run, the variable D(LPSPKP(-2)) is significant at the 97.5% level (coefficient = -5.098; p-value = 0.0100), indicating that financing

from two periods earlier has a negative impact on PEPKP. The error correction term, CointEq(-1), is also statistically significant (coefficient = -2.327; p-value = 0.005), suggesting the presence of an error correction mechanism even though the long-run relationship is not supported by the Bounds Test. Overall, the model satisfies classical assumption tests; however, there is an indication of possible model misspecification based on the Ramsey RESET test. In general, Islamic bank financing does not show a significant effect on sectoral growth, except in the short run at the second lag, which may reflect delayed utilization or inefficient allocation of funds.

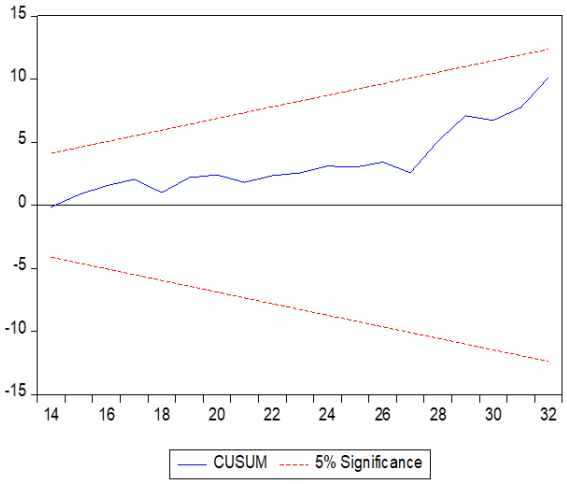

Figure 1a. CUSUM Plot

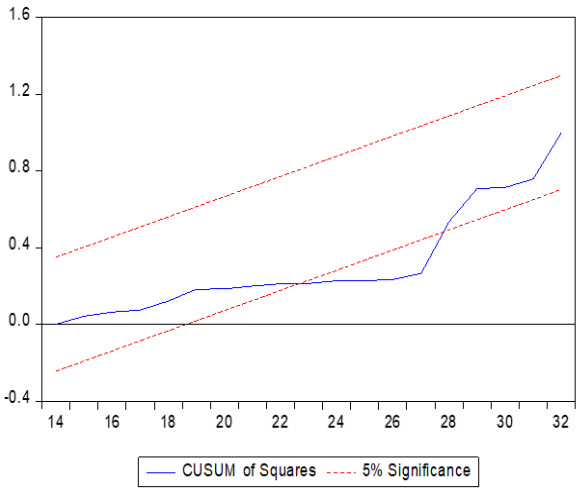

Figure 1b. CUSUMS Square Plot

Figures 1a and 1b above show the CUSUM and CUSUM Square plots for the ARDL estimation model. Both plots fall within the 5% significance threshold. This indicates that the coefficients derived from the ARDL model, as discussed in the previous section, are stable and meet the criteria for estimation reliability. Thus, the explanation and analysis of the dynamic functional relationship between the growth of the agriculture, forestry, and fisheries sectors and Islamic bank financing can be considered accurate and precise with a 95% confidence level.

Tabel 5. Hasil ARDL Bound Test Pepbe = F(lpspbe)

Model selection method: Akaike info criterion (AIC) (3, 4)		K	F-Statistik
Pepbe = F(lpspbe)		1	16,836
Signifikansi	Nilai Kritis (Critical Value)		
	Lower Bound I(0)	Upper Bound I(1)	
10%	3,02	3,51	
5%	3,62	4,16	
2,5%	4,18	4,79	
1%	**4,94**	**5,58**	

Sumber: Hasil kalkulasi penulis menggunakan E-Views, 2025

Based on the table, the F-statistic value of 16.836 is greater than the upper critical bound of 4.79 at the 97.5% confidence level, indicating the presence of cointegration between PEPBE and LPSPBE variables. This implies that, in the long run, Islamic bank financing in the wholesale and retail trade sector has a significant effect on sectoral growth. The best-fitting ARDL model is

ARDL(3,4), selected based on the lowest Akaike Information Criterion (AIC), with an Adjusted R^2 of 0.907 (Table 10). The long-run estimation results show that a 1% increase in Islamic financing leads to a 0.566% increase in sectoral growth (coefficient = 0.566; p-value = 0.010), which is statistically significant at the 99% confidence level. This finding supports the argument that Islamic financing, as a form of long-term investment, has the potential to sustainably promote sectoral growth. However, in the short run, Islamic financing shows a negative effect on sectoral growth. This may be due to delays in the utilization of funds. Nevertheless, the significant error correction mechanism indicates that the sector adjusts back toward long-run equilibrium, where the overall impact of financing remains positive.

Table 6. Long-term and short-term financing estimates for the wholesale and retail trade sector

Variables	Coefficient	Std. Error	t-Statistic	p-value
Long-run effects				
C	-2,519	1,483	-1,699	0,106
LPSPBE	0,566	0,198	2,854	0,010
Short-run effects				
D(PEPBE(-1))	1,269	0,332	3,822	0,001
D(PEPBE(-2))	0,610	0,167	3,661	0,001
D(LPSPBE)	-7,326	2,901	-2,525	0,025
D(LPSPBE(-1))	-10,138	3,303	-3,069	0,006
D(LPSPBE(-2))	-2,309	2,583	-0,894	0,383
D(LPSPBE(-3))	-7,713	2,425	-3,184	0,005
CointEq(-1)*	-3,1670	0,424	-7,471	0,000
R-squared	0,928			
Adjusted R^2	0,907			
F-statistic	8,340			
Prob(F-stat)	0,000			
DW	2,066			
Normalitas residual				
J-B	0,846(0,655)			
Breusch-Godfrey Serial Correlation LM Test:				
F-statistic	2,159(0,146)			
Obs*R-squared	5,671(0,059)			
Heteroskedasticity Test: ARCH				
F-statistic	2,783 (0,032)			
Obs*R-squared	15,107 (0,057)			
Ramsey RESET Test				
t-statistic	1,244 (0,229)			
F-statistic	1,548 (0,229)			

Source: Author's calculations using E-Views, 2023
Numbers in parentheses ( ) are p-values.
*) **) ***) indicate significance at the 90%, 95%, and 97.5% confidence levels.

Short-run estimation results show that Islamic financing in the wholesale and retail trade sector has mixed effects. At lag 1 (D(LPSPBE(-1))) and lag 3 (D(LPSPBE(-3))), the coefficients are -10.138 (p =

0.006) and -7.713 (p = 0.005), respectively, indicating statistically significant negative effects. However, at lag 2, the effect is not statistically significant (coefficient = -2.309; p = 0.383). These results suggest a short-run negative impact, likely due to delays in the distribution or utilization of financing funds. On the other hand, the lagged values of PEPBE at lag 1 and lag 2 (coefficients of 1.269 and 0.610; p = 0.001 and 0.002) show positive and significant effects, indicating that previous sectoral growth positively influences current growth. The error correction term (CointEq(-1)) is highly significant (coefficient = -3.167; p < 0.0001), confirming a strong adjustment mechanism toward long-run equilibrium after short-run deviations. Overall, Islamic financing has a negative impact in the short run but a positive and significant effect in the long run on the wholesale and retail trade sector. This suggests that Islamic financing can effectively promote sectoral growth when properly managed and directed toward productive economic activities.

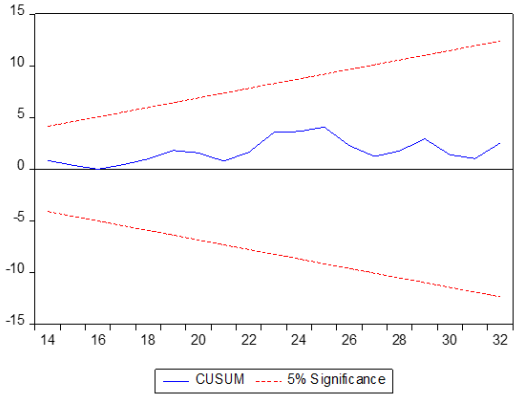

Figure 2a. CUSUM Plot

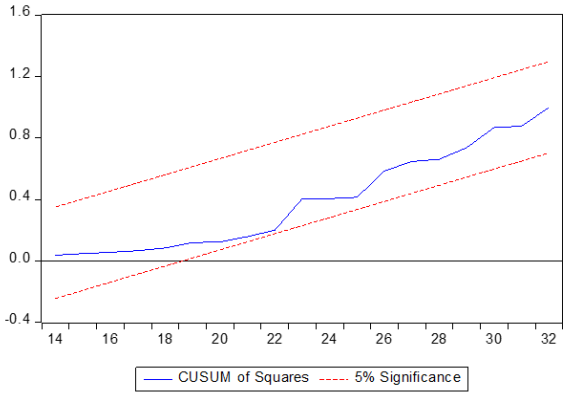

Figure 2b. CUSUMS Square Plot

Figures 2a and 2b above show the CUSUM and CUSUM Square plots for the ARDL estimation model. Both plots fall within the 5% significance threshold. This indicates that the estimated coefficients produced by the ARDL model, as discussed in the previous section, are considered stable and meet the criteria for estimation reliability. Therefore, the explanation and analysis of the dynamic functional relationship between growth in the wholesale and retail sectors and sharia financing in the wholesale and retail sectors are considered to have good accuracy and precision with a 95% confidence level.

Tabel 7. Hasil ARDL Bound Test Peip = F(lpsip)

Model selection method: Akaike info criterion (AIC) (3, 0)		K	F-Statistik
Peip = F(lpsip)		1	19.76
Signifikansi	Nilai Kritis (Critical Value)		
	Lower Bound I(0)	Upper Bound I(1)	
10%	3,02	3,51	
5%	3,62	4,16	
2,5%	4,18	4,79	
1%	4,94	5,58	

Source: Author's calculations using E-Views, 2025

Based on Table 11, the F-statistic value of 19.760 is greater than the upper critical limit of 5.58 at a 99% confidence level, indicating the presence of cointegration between the growth of

the manufacturing sector (PEIP) and Islamic financing in that sector (LPSIP). This means that, in the long run, changes in Islamic financing have the potential to influence the growth of the manufacturing sector. The best ARDL model selected based on the AIC is ARDL(3,0), with an Adjusted R^2 of 0.8058, meaning the model explains approximately 81% of the variation in PEIP. However, the long-run estimation results show that the LPSIP coefficient of 0.0100 is not significant (p = 0.833), so the impact of Islamic financing on sector growth has not been statistically proven. The constant coefficient is also not significant (p = 0.968). Nevertheless, the positive direction of the coefficient is consistent with the theory that Islamic financing is productive and has the potential to drive real sector growth in the long run

Table 8. Long-term and short-term financing estimates for the Manufacturing Sector

Variables	Coefficient	Std. Error	t-Statistic	p-value
Long-run effects				
C	-0,115	2,834	-0,041	0,968
LPSIP	0,099	0,468	0,213	0,833
Short-run effects				
D(PEIP(-1))	1,208	0,252	4,800	0,000
D(PEIP(-2))	0,557	0,150	3,723	0,001
CointEq(-1)*	-2,825	0,353	-8,014	0,000
R-squared	0,820			
Adjusted R^2	0,806			
F-statistic	6,321			
Prob(F-stat)	0,001			
DW	2,064			
Normalitas residual				
J-B	1,049(0,591)			
Breusch-Godfrey Serial Correlation LM Test:				
F-statistic	0,243(0,786)			
Obs*R-squared	0,628(0,731)			
Heteroskedasticity Test: ARCH				
F-statistic	0,754(0,565)			
Obs*R-squared	3,239(0,519)			
Ramsey RESET Test				
t-statistic	1,298(0,207)			
F-statistic	1,686(0,207)			

Source: Author's calculations using E-Views, 2023
Numbers in parentheses ( ) are p-values.
*) **) ***) indicate significance at the 90%, 95%, and 97.5% confidence levels

In the short run, the variables D(PEIP(-1)) and D(PEIP(-2)) have significant effects on PEIP, with p-values of 0.000 and 0.001, respectively, indicating strong short-term dynamics within the manufacturing sector. The error correction term, CointEq(-1), has a coefficient of -2.825 with a p-value of 0.000, suggesting a rapid and statistically significant adjustment mechanism toward long-run equilibrium. Although the long-run coefficient of LPSIP on PEIP is not statistically significant, the existence of a significant error correction mechanism provides evidence of a long-run structural relationship between the variables. This implies that Islamic

financing has not yet demonstrated a direct and significant long-term impact on the growth of the manufacturing sector. However, the sector exhibits highly active short-run dynamics and is supported by a strong adjustment process toward equilibrium. Overall, Islamic financing has the potential to serve as an instrument for promoting growth in the manufacturing sector if it is managed more effectively and directed toward productive activities. Although its impact is not yet directly observable in the long run, the sustainability and efficiency of financing remain crucial factors in supporting future growth in the manufacturing industry sector.

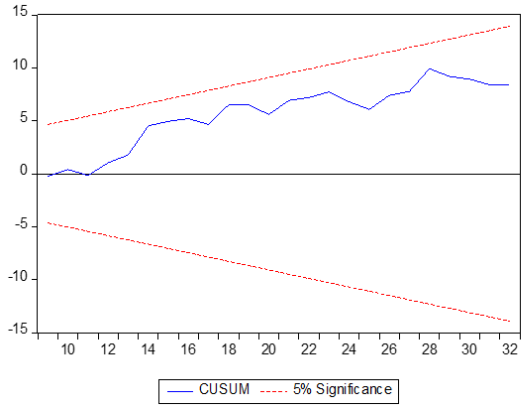

Figure 3a. CUSUM Plot

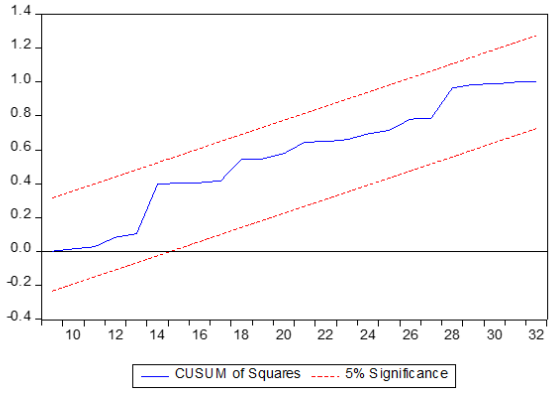

Figure 3b. CUSUMS Square Plot

Figures 3a and 3b above show the CUSUM and CUSUM Square plots for the ARDL estimation model. Both plots fall within the 5% significance level. This indicates that the estimated coefficients produced by the ARDL model, as discussed in the previous section, are considered stable and meet the standards for estimation reliability. Therefore, the explanation and analysis of the dynamic functional relationship between growth in the manufacturing sector and sharia financing in the manufacturing sector are believed to have good accuracy and precision with a 95% confidence level.

Discussions

The Impact of Sharia Financing on the Agriculture, Forestry, and Fisheries Sectors

Sharia financing is a financial instrument based on Islamic principles that aims to support productive economic activities, including the agriculture, forestry, and fisheries (AFF) sectors. This study uses the ARDL and Bound Test approaches to analyze the relationship between Islamic bank financing and the growth of the AFF sector in Aceh. The results of the Bound Test indicate that there is no significant long-term relationship, with an F-statistic value of 2.976 < the critical value of 3.02 (10% significance level). However, in the short term, Sharia financing from two quarters prior has a significant negative impact on the growth of this sector (coefficient -5.098; p=0.010).

The PKP sector is known for its high risk and seasonal business cycles, so the impact of financing is not immediately apparent. Additionally, misallocation of funds and the low technical capacity of business operators also act as barriers. Nevertheless, a significant error correction coefficient (-2.327) indicates the presence of an adjustment mechanism toward long-term

equilibrium. These findings indicate that Islamic financing has not been effective in optimally driving growth in the PKP sector. Previous research also supports this. A study by emphasizes the importance of integrating financing with business mentoring, while Nasution suggests innovative contracts such as salam, muzara'ah, and ijarah to align with the characteristics of the agricultural sector. Therefore, improving the effectiveness of Islamic financing in the PKP sector requires a community-based approach, technical training, adjustments to the timing of fund disbursement, and education on Islamic financial literacy. This approach is expected to bridge the gap between the availability of funds and the sector's productivity.

The Impact of Sharia Financing on the Wholesale and Retail Sectors

The wholesale and retail sectors in Aceh Province play a crucial role in supporting the region's economic dynamics. An analysis using the Bound Test indicates a significant long-term relationship between Sharia financing and the growth of these sectors (F-statistic = 16.836 > critical value of 5.58 at the 1% significance level). Long-run estimates indicate that Islamic financing has a positive and significant effect, with a coefficient of 0.566 ($p = 0.010$), meaning that a 1% increase in financing contributes to sector growth of 0.566%. However, in the short term, negative effects were found in the first and third lag periods (coefficients of -10.138 and -7.713; $p < 0.01$), indicating a delay in the utilization of funds. This is likely due to administrative processes or a time lag between disbursement and productive activities. Nevertheless, the error correction coefficient of -3.167 (significant) indicates a strong adjustment mechanism toward long-term equilibrium.

These findings reinforce the results of studies stating that Sharia contracts such as *mudharabah* and *murabahah* align with the needs of the trade sector, particularly MSMEs. To enhance their effectiveness, Sharia financing requires support through accelerated disbursement, business mentoring, and the digitization of financial systems. Thus, the trade sector has the potential to become a key driver of sustainable regional economic growth.

The Impact of Sharia Financing on the Manufacturing Sector

The manufacturing sector plays a strategic role in increasing the value added of commodities and supporting regional economic growth. The results of the Bound Test cointegration test indicate a long-term relationship between Sharia financing and this sector, with an F-statistic value of 19.760 > 5.58 at a 1% significance level. However, the long-run estimates indicate that the effect of Islamic financing is not statistically significant (coefficient 0.099; $p = 0.833$). This suggests that while a structural relationship exists, the direct impact of financing on sectoral growth is not yet strong. In the short run, there is a significant positive dynamic. Sector growth at the first and second lags shows a strong influence on current growth ($p < 0.01$), and the error correction coefficient (ECT) of -2.825 ($p = 0.000$) indicates a rapid adjustment mechanism toward long-term equilibrium.

Thus, although the direct impact of financing is not yet significant, this sector demonstrates the ability to recover and grow sustainably. These findings are reinforced by a study that found that Islamic financing has not yet had a significant impact on the industrial sector in the short term, contributing only 0.14% to the IPI in the VAR test. This reflects the need for time and specific strategies to drive the tangible impact of financing. To enhance effectiveness, Islamic financing in the manufacturing sector should be directed toward projects with direct economic effects. Schemes such as istisna', salam, and ijarah are considered suitable for the manufacturing or agro-industrial sectors. Additionally, collaboration with industrial cooperatives or village-owned enterprises (BUMDes), along with the implementation of the musharakah mutanaqisah model, can strengthen access to inclusive and productive financing.

CONCLUSION

This study examines the impact of Islamic bank financing on the growth of three key economic sectors in Aceh Province, namely agriculture, forestry, and fisheries; wholesale and retail trade; and manufacturing. The findings reveal that Islamic financing has not exerted a significant influence on the growth of the agriculture, forestry, and fisheries sector in either the short run or the long run. This suggests that financing allocation alone is insufficient to stimulate sectoral growth without complementary measures such as technical assistance, capacity building, and improved financing accessibility for productive activities. In contrast, the wholesale and retail trade sector demonstrates a positive and statistically significant long-run response to Islamic financing. This result indicates that Islamic banking plays an effective role in supporting commercial activities and expanding economic opportunities within the sector. Although short-run fluctuations are observed, the long-run effect remains positive, highlighting the sector's ability to absorb and utilize financing productively. For the manufacturing sector, the results indicate the existence of adjustment dynamics toward long-run equilibrium; however, Islamic financing has not yet shown a direct and significant impact on sectoral growth. The complex nature of manufacturing activities, which often require substantial capital investment and longer production cycles, may explain this outcome. Overall, the effectiveness of Islamic financing in Aceh is sector-specific, with the most substantial impact observed in the wholesale and retail trade sector. Therefore, more adaptive, targeted, and integrated financing strategies are needed to enhance the contribution of Islamic banking to broader and more sustainable regional economic growth.

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