



The Influence of Green Banking on Financial Inclusion and Sharia Banking Growth in Indonesia

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Abstract. *The banking industry has a very important role in a country's economy. One of the things related to the banking sector is operational activities towards the environment. The increasing environmental damage that occurs is a form of human indiscipline in managing natural resources. Therefore, efforts that banks can make to implement environmentally friendly practices in their operational activities are green banking by considering the 5P aspects, namely People, Planet, Partnership, Peace and Prosperity. Even though banks do not contribute directly to environmental pollution, sectors that carry out business activities cannot possibly operate if they do not have capital to finance their operations and one of the financial institutions that provides capital in the form of financing is banks. So, indirectly banks play an important role in environmental sustainability. This research aims to investigate the impact of green banking on financial inclusion and the growth of Islamic banking in Indonesia. The data analysis method employed is the Seemingly Unrelated Regression (SUR) method. The research approach is associative/quantitative, utilizing secondary data obtained and processed from annual reports and sustainability reports available on the official websites of the respective companies. Additionally, references from scientific journals and previous studies on selected Islamic banks are used. The sample includes PT. Bank Central Asia Sharia Tbk, PT. Bank KB Bukopin Sharia Tbk, PT. Bank Mega Sharia Tbk, PT. Bank Muamalat Indonesia Tbk, PT. Bank Panin Dubai Sharia Tbk, and PT. Bank National Retirement Savings Account Sharia Tbk, covering the period from 2019 to 2023.*

Keywords: *Green Banking, Financial Inclusion, Sharia Banking Growth, SUR.*

1. INTRODUCTION

Over time, the sharia economy in Indonesia can continue to grow rapidly. This growth is closely linked to the role of institutions that implement sharia principles, particularly sharia banks. These banks have made significant progress as public awareness and understanding of the importance of banking have increased. Sharia banks are now emerging and competing with conventional banks, which were previously known for using interest rates for their banking products. However, interest rates in banking can be a weakness in conventional banking. When Indonesia experienced a monetary crisis in 1998 which caused worsening economic conditions due to the high interest paid by banks to customers compared to the interest income received from customers or negative spread, as well as the depreciation of the rupiah exchange rate. Many conventional banks were liquidated due to the crisis, which had an impact on reducing public trust in conventional banking.

The sharia banking sector in Indonesia is currently witnessing positive growth, marked by the expansion of physical infrastructure through the establishment of additional branch offices across various regions. This growth is also reflected in the increase in assets, third-party funds, and financing provided. However, despite these advancements, a considerable segment of the Indonesian population remains unable to access banking services. The National Survey of Financial Literacy and Inclusion reported that in 2022, the sharia financial inclusion index in Indonesia was just 12.12% (Financial Services Authority, 2022).

Accessing formal financial services is challenging, especially for village residents, leading them to rely on informal financial institutions for borrowing and saving. This limited access is due to several factors: the mismatch between financial products and the needs of low income individuals, complicated banking procedures, lack of financial and banking education, high administrative costs, and the distant locations of banks from their residences. One way to assess the distribution of banking services is through the level of financial inclusion. Financial inclusion refers to the availability and utilization of affordable, high-quality, and sustainable financial products and services that meet the needs and capabilities of the community, ultimately enhancing their financial well-being (Financial Services Authority, 2023). At present, financial inclusion has become a crucial agenda, particularly for Indonesia, as the rate of sharia financial inclusion remains limited. Therefore, we must continue to be able to accelerate sharia financial inclusion with good collaboration between all parties to encourage a strong financial ecosystem that is in line with sharia principles so that it has superior potential in the growth of sharia banking.

As an archipelagic country situated on the equator, Indonesia is highly susceptible to the effects of global warming and climate change. Global warming, characterized by the rise in average temperatures in the earth's atmosphere, oceans, and land, is driven by the burning of fossil fuels such as coal, petroleum (which is processed into gasoline, kerosene, aviation fuel, lubricating oil), and similar non-renewable natural gases. The volume of CO₂ emissions per capita per year that occurs in Indonesia is quite fluctuating. The highest emissions were recorded in 2019, reaching 2.2 metric tons per capita (World Bank, 2022). Therefore, banks must apply green banking to their environmentally friendly operational activities. Green banking is a long-term business strategy which, apart from aiming for profit, also generates benefits for empowerment and environmental preservation. Green banking is a bank that operates in an environmentally friendly, environmentally conscious and efficient manner and considers environmental aspects in its business activities. Incorporating environmental considerations into business decision-making can mitigate the negative impacts of financial

institutions operations, allowing them to support corporate social responsibility and achieve sustainability goals (Siti Khodijah, 2023). The World Bank defines green banking as a financial institution that emphasizes sustainability in its business operations. Banks implementing the green banking concept can enhance their company output, gain a competitive edge, build a positive corporate identity, and strengthen their brand image while achieving their set targets. Various methods to adopt green banking include online banking, internet banking, green checking accounts, green loans, mobile banking, electronic banking services, and energy saving measures that support environmental sustainability programs (Putri et al., 2022).

This research centres on the variables of Green Banking namely, Green Financing, Green Products, and Green Services and their impact on Financial Inclusion (measured by Third Party Funds) and the Growth of Sharia Banking (measured by Assets) in Indonesia. This focus distinguishes it from other studies.

2. THEORETICAL BASIS

Green Banking

According to Islamic and Das's Green Banking theory, green banking is defined as an initiative aimed at promoting environmentally friendly operational practices and reducing the carbon footprint of banking activities through a dual approach. The first aspect involves transforming the banks internal operations to be greener, such as adopting renewable energy, automating processes, and implementing other measures to minimize the carbon footprint. The second aspect requires banks to engage in responsible financing by evaluating the environmental risks of potential projects and focusing on supporting initiatives that promote environmental sustainability (Mahardika, 2023). Green banking is a concept where banking institutions not only emphasize financial responsibility managing their operations to maximize shareholder profits but also prioritize environmental preservation and public welfare. This approach integrates three key pillars, known as the triple bottom line of banking accountability: environmental stewardship, social welfare, and economic performance. The goal is to ensure the long-term sustainability of both profits and the banking business itself. The underlying assumption is that by prioritizing environmental sustainability and supporting community well-being, the banking business can achieve enduring growth and profitability. According to Shaumya & Arulrajah, green banking is assessed through four dimensions: (1) Employee-related practices, which include environmental training and education, performance evaluations based on environmental criteria, and reward systems that recognize

environmental achievements. (2) Daily operational practices, which focus on reducing paper usage (paperless initiatives), utilizing energy-efficient equipment, managing waste and recycling, and adopting environmentally friendly banking procedures. (3) Customer-related practices, which involve offering environmentally friendly loans, supporting eco-friendly projects, providing sustainable company facilities, and conducting credit evaluations with an environmental focus. (4) Bank policies, which encompass managing branch offices in an eco-friendly manner, implementing green policies, forming environmentally responsible partnerships, incorporating sustainability into strategic planning, and making eco-conscious procurement decisions (Ningluthfi, 2024). Meanwhile, according to Handajani et al.,(2019) there are green banking indicators, namely: First, green products with digital banking indicators to reduce emissions, e-billing, use of information technology, product introduction, banking, transparency of available product features, costs, benefits and risks inherent through e-banking, financing environmentally friendly/renewable energy projects, and AMDAL document requirements in granting credit. Second, green operations with green office/green building indicators, material consumption efficiency (electricity, water, fuel), paper usage savings (paperless), management of processing and utilization of waste/recycling, provision of supporting infrastructure for activities, operations to save energy and initiation of greenhouse gas emission mitigation. Third, Green customer with indicators of customer education for online transactions (internet banking, telephone banking and SMS banking), use of information technology in providing services to customers online and responsive handling of customer complaints/complaints with the use of digital banking. Fourth, Green policy with indicators of advice, announcements and company regulations in order to minimize the impact of company operations on the environment, environmental development fund distribution policies and environment-related partnership programs, consideration of environmental aspects in strategic planning and business decision making, friendly banking commitments and policies environment, training and education policies related to environmental conservation for employees, the community and bank initiatives and involvement to encourage and train their employees regarding the green movement.

Financial Inclusion

According to the World Bank (2022) financial inclusion theory refers to ensuring that individuals and businesses have access to useful and affordable financial products and services, such as transactions, payments, savings, loans, and insurance, used responsibly and sustainably. The Financial Services Authority Regulation Number 76/POJK.07/2017 aims to

enhance financial inclusion by expanding public access to financial institutions, improving the provision of financial products and services tailored to community needs and capacities, increasing the utilization of these services, and ensuring their quality. Financial inclusion indicators include the number of account holders per capita and the frequency of account usage for saving, with drawals, transfers, and loans over the past year (Lestari, 2022). To assess the development of inclusive financial activities, several performance measures are used: (1) Availability/Access: Evaluates the accessibility of formal financial services in terms of affordability and price. (2) Use: Measures the actual usage of financial products and services, including their regularity, frequency, and duration. (3) Quality: Assesses whether financial products and services meet customer needs effectively, and (4) Welfare: Gauges the impact of financial services on the overall quality of life for users.

Growth of Sharia Banking

According to Kusumajaya, growth theory pertains to the changes in the total assets held by a company. These assets, which are integral to the company's operational activities, are expected to enhance operational outcomes, thereby boosting confidence and sending positive signals both to external stakeholders and internal parties. Gita Syardiana further suggest that company growth tends to yield higher returns, as it encompasses aspects that are advantageous for investors (Abdurrafi, 2020). Thus, the growth of Islamic banking can be evaluated by examining asset expansion. According to the Law of the Republic of Indonesia No. 21 of 2008 on sharia banking, Islamic banking encompasses all aspects related to sharia banks and sharia business units, including their institutions, business activities, and the methods and processes used in their operations (Financial Services Authority, 2008). According to the Sharia Banking Bureau (2008), key banking indicators include assets, fund accumulation, fund distribution, capital, and financial performance ratios. Islamic banks aim to align economic activities with Islamic principles, focusing on avoiding usury and transactions involving gharar (deception), which are both prohibited in Islam and harmful to the economy. Additionally, they strive to promote economic justice by balancing income through investment activities, thus reducing disparities between capital owners and those seeking funds. Islamic banks also seek to improve the quality of life by expanding business opportunities, especially for the poor, and supporting productive activities that foster business independence. They address poverty, which is a significant concern in developing countries, and work to maintain economic and monetary stability while minimizing reliance on conventional banks for Muslims (Abdullah, 2023).

3. RESEARCH METHOD(S)

This study employs an associative/quantitative research approach, designed to explore the nature and strength of relationships between two or more variables. The goal of this research is to identify and understand the patterns and forms of influence that these variables have on one another. Through this approach, the research aims to develop a theoretical framework that can explain, predict, and manage the observed phenomena. This framework will be instrumental in providing a structured understanding of the variables interactions and their implications for future studies and practical applications (Rusiadi et al., 2013). This research was conducted in Indonesia with research time using data from 2019-2023. The population for this research comprises sharia banking sector companies operating within sharia commercial banks that are officially registered with the Financial Services Authority. For the sample selection, a purposive sampling method was employed. This technique involves deliberately choosing data sources based on specific criteria and considerations relevant to the study's objectives. By using purposive sampling, the research aims to ensure that the selected sample aligns closely with the research focus and provides pertinent insights into the sharia banking sector (Sugiyono, 2022). The samples taken in this research were based on several criteria, namely: sharia banking sector companies in sharia commercial banks registered with the Financial Services Authority in the 2019-2023 period, companies that remained independent (did not carry out mergers) in the 2019-2023 period, companies that had publishing annual reports and sustainability reports in the 2019-2023 period, and companies that have been established in several provinces that are not only found in one province in the 2019-2023 period. So, the sample companies selected according to the research criteria are PT. Bank Central Asia Sharia Tbk, PT. Bank KB Bukopin Sharia Tbk, PT. Bank Mega Sharia Tbk, PT. Bank Muamalat Indonesia Tbk, PT. Bank Panin Dubai Sharia Tbk, and PT. Bank National Retirement Savings Account Sharia Tbk.

The research variables and operational definitions in this research are: Green Financing is financing specifically provided to fund long-term development projects that are environmentally responsible (Setiawan, 2021). Green Products refer to electronic, digital-based solutions designed to facilitate access to information, execute transactions, and support seamless trading activities. These products enhance accessibility for non-cash transactions through devices such as cellphones, smartphones, and internet networks, making financial activities more convenient and efficient. Green Services, on the other hand, encompass banking services provided through electronic terminals or Automated Teller Machine (ATM).

These services enable users to perform various banking functions, including cash withdrawals, cash deposits, transfers, and other transactions, all without the need for traditional in-person interactions. The aspect of financial inclusion examined in this study focuses on third-party funds. These funds, sourced from the broader community, can take the form of checking accounts, savings accounts, and time deposits, representing different ways individuals and businesses engage with financial institutions (Rosdiana, 2023). The growth of sharia banking that this research examines is reflected in the changes in total assets, whether increases or decreases, experienced by sharia banking institutions over a specified period. This study utilizes panel data, which integrates both time series and cross-sectional data to provide a comprehensive view of the trends and patterns in sharia banking over time. Data collection for this research involves a documentation study approach, where information is gathered and processed from existing sources relevant to the study. Specifically, the research relies on secondary data sourced from annual reports and sustainability reports of sharia banking companies in Indonesia for the period of 2019-2023. This data is obtained from the official websites of the companies, as well as from scientific journals and previous research studies, to ensure a thorough and accurate analysis of the sector's growth.

The data analysis method employed in this research is the Seemingly Unrelated Regression (SUR) method. The SUR model is a type of regression analysis that involves multiple regression equations, which are interrelated. This approach is particularly useful for analyzing panel data combination of cross section and time series data where not all regression assumptions may be satisfied. To address the challenges of unmet assumptions in panel data regression analysis, this research utilizes the Seemingly Unrelated Regression (SUR) method. Introduced by Zellner in 1962, the SUR model is an extension of multivariate regression and falls under the category of linear regression. It consists of multiple independent systems of equations, each of which includes various variables. A key feature of the SUR model is that it accounts for interdependencies among errors across different systems, enhancing the accuracy and robustness of the regression analysis (Fitriana et al., 2020). The following is a conceptual framework Method Seemingly Unrelated Regression (SUR) namely:

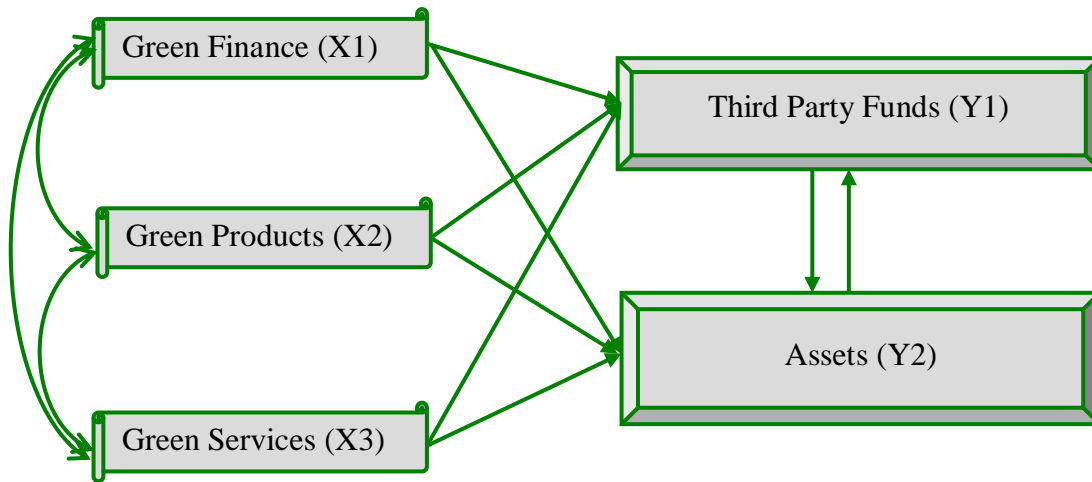


Figure 1. Conceptual Framework Method Seemingly Unrelated Regression (SUR)
Source: Author's analysis

Statistical Analysis

The formula for using the Seemingly Unresolved Regression (SUR) model is as follows:

a) Model Equations

Equation 1

$$DPK = f(GF, GP, GS, ASSETS)$$

Equation 2

$$ASSETS = f(GF, GP, GS, DPK)$$

b) Econometric Equations

Equation 1

$$\text{LogDPK} = a_0 + a_1 \text{Log}(GF) + a_2 \text{Log}(GP) + a_3 \text{Log}(GS) + a_4 \text{Log}(ASSETS) + e$$

Equation 2

$$\text{Log ASSETS} = b_0 + b_1 \text{Log}(GF) + b_2 \text{Log}(GP) + b_3 \text{Log}(GS) + b_4 \text{Log}(DPK) + e$$

c) Equations in the EVIEWS Program

Equation 1

$$DPK = C(10) + C(11) * GF + C(12) * GP + C(13) * GS + C(14) * ASSETS$$

Equation 2

$$\text{ASSETS} = C(20) + C(21) * \text{GF} + C(22) * \text{GP} + C(23) * \text{GS} + C(24) * \text{DPK}$$

Information :

DPK (Y1) = Third Party Funds

ASSETS (Y2) = Assets

GF (X1) = Green Financing

GP (X2) = Green Products

GS (X3) = Green Services

C = Constant

e = Error

4. FINDINGS AND DISCUSSION

The growth of Sharia Banking in Indonesia can be seen in the picture below:

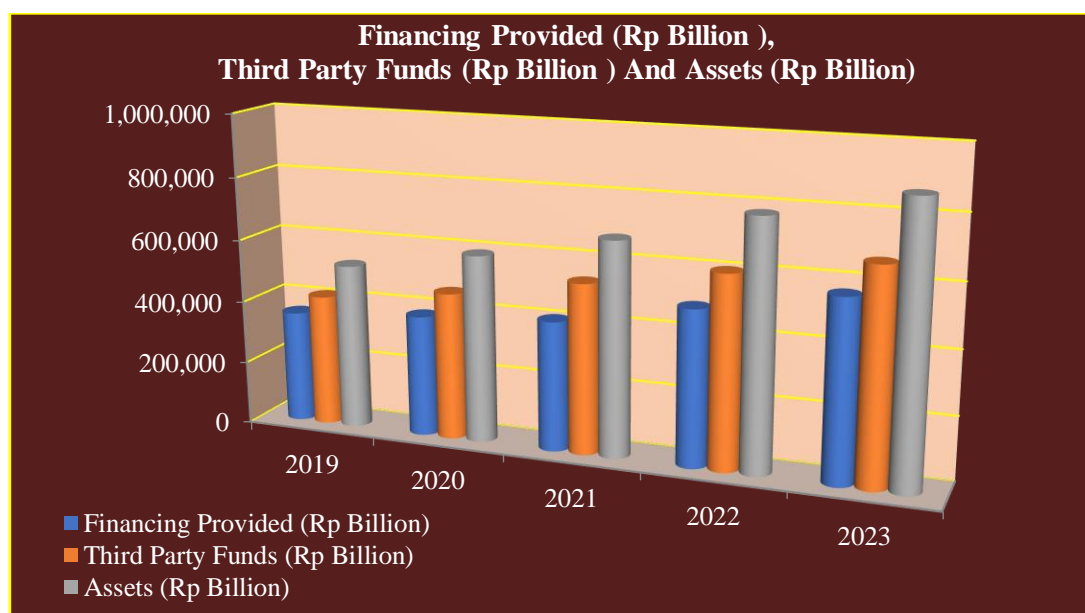


Figure 2. The Growth of Sharia Banking in Indonesia
Source: Financial Services Authority, (Author, 2024)

In the image above, it can be seen that the financing provided (Rp Billion) has increased from 2019 with a total of 355,182 until 2023 with a total of 568,436. Third party funds (Rp Billion) also increased from 2019 with a total of 416,558 until 2023 with a total of 669,249. On growth assets (Rp Billion) also increased which continues to occur from 2019 with a total of 524,564 until 2023 with a total of 868,986. If we look at this data, the sharia

banking sector in Indonesia is experiencing positive growth. However, there are still Indonesian people who cannot access banking services which can be seen in the sharia financial inclusion index data as follows:

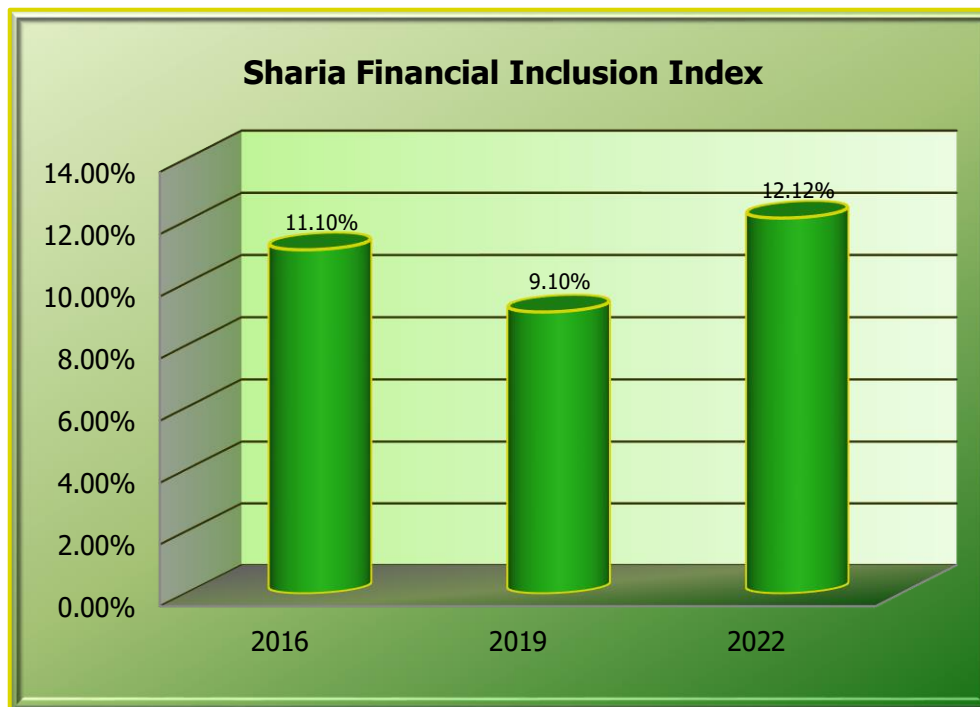


Figure 3. Sharia Financial Inclusion Index
Source: Financial Services Authority, (Author, 2024)

In the image above, it can be seen that the sharia financial inclusion index experiencing fluctuations. In 2016 sharia financial inclusion index amounted to 11.10%, in 2019 it decreased by 9.10% and in 2022 it experienced an increase namely 12.12%. Therefore, only 12.12% of the sharia financial inclusion index will occur in Indonesia in 2022.

Therefore, this research uses observed variables, namely Green Financing (GF), Green Products (GP), Green Services (GS), Third Party Funds and Assets with using quantitative data using the Seemingly Unrelated Regression (SUR) approach with companies that have been selected as Sharia Commercial Banks in Indonesia, namely PT. Bank Central Asia Sharia Tbk, PT. Bank KB Bukopin Sharia Tbk, PT. Bank Mega Sharia Tbk, PT. Bank Muamalat Indonesia Tbk, PT. Bank Panin Dubai Sharia Tbk, and PT. Bank National Retirement Savings Account Sharia Tbk. Data processing uses the E-Views 10 program, with the following results:

Table 1. Test Results Seemingly Unrelated Regression (SUR)

	Coefficient	Std. Error	t-Statistics	Prob.
C(10)	-695.7924	563.9096	-1.233872	0.2230
C(11)	-0.410984	0.091959	-4.469235	0.0000
C(12)	0.120947	0.105864	1.142469	0.2587
C(13)	-0.130235	0.126601	-1.028711	0.3086
C(14)	0.852258	0.018052	47.21229	0.0000
C(20)	816.3070	661.6977	1.233656	0.2231
C(21)	0.482730	0.101693	4.746921	0.0000
C(22)	-0.141869	0.124294	-1.141403	0.2591
C(23)	0.152832	0.148447	1.029538	0.3082
C(24)	1.173142	0.024848	47.21229	0.0000

Determinants of residual covariance 8396364.

Equation: $DPK=C(10)+C(11)*GF+C(12)*GP+C(13)*GS+C(14)*ASSETS$
Observations: 30

R-squared	0.987966	Mean dependent var	14652.17
Adjusted R-squared	0.986040	SD dependent var	13868.27
SE of regression	1638,559	Sum squared resid	67121880
Durbin-Watson stat	1.713608		

Equation: $ASSETS=C(20)+C(21)*GF+C(22)*GP+C(23)*GS+C(24)*DPK$
Observations: 30

R-squared	0.989891	Mean dependent var	20300.74
Adjusted R-squared	0.988273	SD dependent var	17752.53
SE of regression	1922,436	Sum squared resid	92393992
Durbin-Watson stat	1.714157		

Source: Data Analysis, Eviews 10

Based on the output results of the Seemingly Unrelated Regression (SUR) equation, it can be seen that there are 2 equations. The following is an explanation of each of the 2 equations, namely:

Equation Test Results 1

The first equation is the equation used to find out Seemingly Unrelated Regression Green Financing (GF), Green Products (GP), Green Services (GS) and Assets to Third Party Funds with the following equation:

$$DPK = C(10)+C(11)*GF+C(12)*GP+C(13)*GS+C(14)*ASSETS$$

$$DPK = -695.7924-0.410984*GF+0.120947*GP-0.130235*GS+0.852258*ASSETS$$

GF coefficient

The GF coefficient is observed to be -0.410984. This indicates that for every increase of 1 billion Rupiah in GF, the amount of DPK is expected to decrease by 0.410984 billion Rupiah. The probability value of 0.0000, which is less than the threshold of 0.05, signifies that GF has a statistically significant impact on DPK. Consequently, it can be concluded that GF exerts a significant and negative effect on DPK.

GP coefficient

The GP coefficient is recorded at 0.120947, indicating that an increase of 1 billion Rupiah in GP corresponds to a rise of 0.120947 billion Rupiah in DPK. However, with a probability value of 0.2587, which exceeds the significance level of 0.05, GP does not have a statistically significant impact on DPK. Therefore, it can be concluded that while GP has a positive effect on DPK, this effect is not significant.

GS coefficient

The GS coefficient is found to be -0.130235, indicating that for every 1 unit increase in GS, the DPK value is expected to decrease by 0.130235 units. Given the probability value of 0.3086, which is greater than the significance threshold of 0.05, GS does not exert a statistically significant influence on DPK. Therefore, it can be concluded that GS has a negative impact on DPK, but this effect is not significant.

ASSETS Coefficient

The ASSETS coefficient is recorded at 0.852258, indicating that a 1 billion Rupiah increase in ASSETS will lead to a 0.852258 billion Rupiah increase in DPK. The probability value of 0.000, which is less than the significance level of 0.05, demonstrates that ASSETS have a statistically significant impact on DPK. Thus, it can be concluded that ASSETS exert a positive and significant effect on DPK.

The estimation results reveal an R-squared value of 0.987966, indicating that GF, GP, GS, and ASSET account for 98.79% of the variation in DPK. This high R-squared value suggests that these variables collectively explain nearly 99% of the changes in DPK. The remaining 1.21% of the variation in DPK is attributed to factors not included in the model.

Equation Test Results 2

The second equation is the equation used to find out Seemingly Unrelated Regression Green Financing (GF), Green Products (GP), Green Services (GS) And Third Party Funds against Assets with the following equation:

$$\text{ASSETS} = C(20) + C(21) * \text{GF} + C(22) * \text{GP} + C(23) * \text{GS} + C(24) * \text{DPK}$$

$$\text{ASSETS} = 816.3070 + 0.482730 * \text{GF} - 0.141869 * \text{GP} + 0.152832 * \text{GS} + 1.173142 * \text{DPK}$$

GF coefficient

The GF coefficient is reported to be 0.482730, indicating that a 1 billion Rupiah increase in GF results in a 0.482730 billion Rupiah rise in ASSETS. The probability value of 0.0000, which is less than the significance threshold of 0.05, confirms that GF has a statistically significant impact on ASSETS. Therefore, it can be concluded that GF has both a positive and significant effect on ASSETS.

GP coefficient

The GP coefficient is observed to be -0.141869, indicating that a 1 billion Rupiah increase in GP will result in a decrease of 0.141869 billion Rupiah in ASSETS. With a probability value of 0.2591, which exceeds the significance level of 0.05, the impact of GP on ASSETS is not statistically significant. Consequently, it can be concluded that GP exerts a negative effect on ASSETS, but this effect is not significant.

GS coefficient

The GS coefficient is recorded at 0.152832, indicating that a 1 unit increase in GS will lead to an increase of 0.152832 units in ASSETS. Despite this positive relationship, the probability value of 0.3082, which is higher than the significance threshold of 0.05, suggests that the impact of GS on ASSETS is not statistically significant. Therefore, while GS has a positive effect on ASSETS, this effect is not significant.

DPK coefficient

The DPK coefficient is found to be 1.173142, indicating that an increase of 1 billion Rupiah in DPK will result in a corresponding rise of 1.173142 billion Rupiah in ASSETS. The probability value of 0.0000, which is less than the significance level of 0.05, demonstrates that DPK has a statistically significant impact on ASSETS. Consequently, it can be concluded that DPK exerts a positive and significant influence on ASSETS.

The estimation results reveal an R-squared value of 0.989891, indicating that GF, GP, GS, and DPK collectively account for 98.98% of the variation in ASSETS. This high R-squared value signifies that these variables explain nearly 99% of the changes observed in ASSETS. The remaining 1.02% of the variation in ASSETS is attributable to factors not included within the scope of the model.

Table 2. Test Results Data Normality

Components	Skewness	Chi-sq	df	Prob.
1	-0.923165	4.261164	1	0.0390
2	0.152385	0.116105	1	0.7333
Joints		4.377269	2	0.1121
Components	Kurtosis	Chi-sq	df	Prob.
1	4.152200	1.659456	1	0.1977
2	2.515358	0.293597	1	0.5879
Joints		1.953053	2	0.3766
Components	Jarque-Bera	Df	Prob.	
1	5.920621	2	0.0518	
2	0.409702	2	0.8148	
Joints	6.330323	4	0.1758	

Source: Data Analysis, Eviews 10

In this study, the normality of the data is assessed using the Skewness probability, Kurtosis probability, and Jarque-Bera probability values. If these values are greater than the significance level of 0.05, the data can be considered normally distributed. According to the table provided, the Skewness probability is 0.1121, the Kurtosis probability is 0.3766, and the Jarque-Bera probability is 0.1758, all of which exceed the 0.05 threshold. This indicates that the data conforms to a normal distribution.

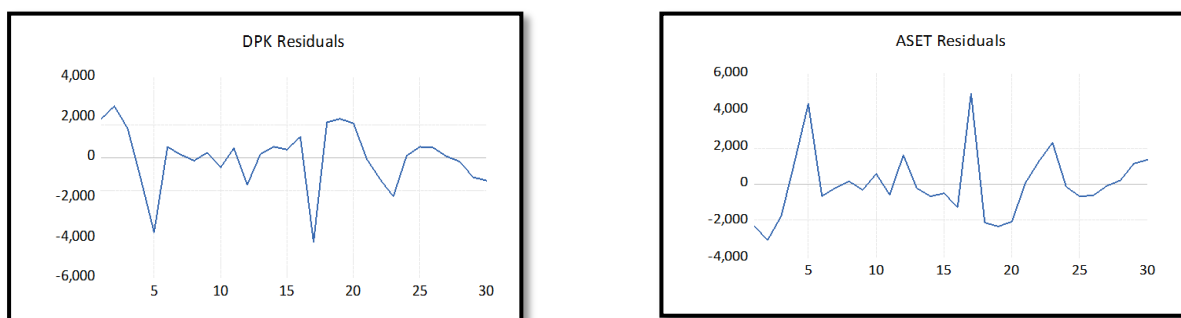


Figure 1. Graph of Data Heteroscedasticity The Results

Source: Data Analysis, Eviews 10

Based on the image above, it can be seen that the residual graphs for the DPK and ASSET variables form a pattern that is not constant, which means that the movement is random in positive (+) or negative (-) positions. This shows that the residual variance is homogeneous or free from heteroscedasticity problems.

Discussion

The Influence of Green Financing, Green Products and Green Services on Third Party Funds

The research findings indicate that Green Financing has a negative and significant impact on Third Party Funds. Specifically, as the amount of financing provided by banks increases, it also affects the level of Third Party Funds, leading to a corresponding increase. This observation aligns with the growing global emphasis on environmental issues, which has prompted banks to transform their practices and operations. Under the green banking framework, banks are expected to minimize their environmental impact and prioritize sustainability in their financing and operational activities. This approach extends beyond merely managing business operations to maximize profits for shareholders; it also encompasses a commitment to environmental preservation and the enhancement of social welfare (Salsabila et al., 2022). The results indicate that Green Products have a positive but statistically insignificant impact on Third Party Funds. This implies that while advances in technology can enhance banking efficiency such as allowing transactions to be conducted without visiting the bank, thereby reducing paper use there remains a significant disparity in access to banking products between urban and rural areas. Specifically, individuals in Frontier, Outermost, and Remote regions still face limited access to banking services, which hampers their ability to benefit from convenient and efficient transactions. Consequently, these findings reflect that the level of financial inclusion in Indonesia remains relatively low (Laila, 2022). On results *Green Services* negative and insignificant effect on Third Party Funds. This means that transactions carried out non cash (cashless) such as transfers and cash withdrawals can be carried out at ATM without having to queue longer as is done at tellers. However, transactions at ATM will be difficult if people don't understand how to use them, so they have to ask security or people around them, which can enable cyber crime to occur, such as not realizing that when they follow instructions from people around them who are going to commit a crime, the money will disappear in a moment. This only makes people worried and insecure (Nurwahidin, 2023).

The Influence of Green Financing, Green Products and Green Services on Assets

Based on the research results, it shows that Green Financing positive and significant effect on assets. This means that banks must always anticipate the potential for environmental pollution in customers business activities, so that they can control management for security or smooth financing payments. This shows that the role and responsibilities of sharia banking in

implementing green financing greatly influence the development of the sector that will be provided with financing. The greater the green financing that is channeled with good management, the greater the sharia banking assets will be in sustainable, environmentally friendly business activities (Suharto, 2023). On results *Green Products* negative and insignificant effect on Assets. This means that to be able to develop a banking business strategy based on green products, good infrastructure is needed to support it. A bank equipped with a robust risk management control system must ensure the highest levels of security and long term sustainability. It is crucial for the bank to not only implement a comprehensive security framework but also to continually enhance and maintain this system to effectively manage and mitigate risks. The bank's ability to sustain and optimize the control system over time is essential for protecting assets, maintaining operational integrity, and supporting long-term stability. However, the use of green products is still not optimal because there are still cases of breaches of customer funds and data, which is the reason why people are still hesitant to use green products. So, the income earned by banks is still not able to cover the costs incurred to carry out operational activities for environmentally friendly business activities to the maximum (Suparno, 2022). *Green Services* has a positive and insignificant effect on Assets. This means that if green services facilities, namely ATM machine, are spread across various locations, it will make it easier for people to be able to carry out transactions anywhere and anytime for an unlimited amount of time without having to make direct contact with a teller. However, if controlling the ATM system is not carried out regularly, it will reduce the level of public confidence in carrying out transactions, such as the problem of ATM card being swallowed in ATM machine, failure to make with drawals, namely the money taken cannot come out of the ATM machine but the account balance has been debited, and failure when making a transfer to another bank, the money transferred is not sent to the intended account number but the account balance has been debited to the point where it becomes a pending/unresolved transaction which occurs due to poor network problems. Therefore, income received from ATM transactions does not offset the assets used due to the large assets invested in ATM services (Tangiduk et al., 2024).

Influence of Third Party Funds and Assets

The relationship between Third Party Funds and Assets is both positive and significant, indicating that they influence each other in a meaningful way. As a bank successfully attracts more deposits, its asset base increases correspondingly. This implies that a higher capital inflow from third parties enhances the bank's capacity to expand its productive assets,

ultimately leading to greater profitability and increased value for share holders. Consequently, as sharia banks gather more deposits, they are able to channel a larger volume of financing, which generates income and contributes to the growth of their assets. This dynamic underscore the critical role of deposit collection in driving assets expansion and overall financial performance (Ariani et al., 2022).

5. CONCLUSION

Results from estimates Seemingly Unrelated Regression (SUR) can explain the Influence Green Financing, Green Products, Green Services and Assets against Third Party Funds that is Green Financing negative and significant effect on Third Party Funds. Green Products positive and insignificant effect on Third Party Funds. Green Services negative and insignificant effect on Third Party Funds. Assets have a positive and significant effect on Third Party Funds. With value R-squared (R^2) is 0.987966 which means Green Financing, Green Products, Green Services and Assets are able to explain Third Party Funds by 98.79% and the remaining 1.21% of Third Party Funds are influenced by other variables outside the estimates in the model. Where as Influence Green Financing, Green Products, Green Services and Third Party Funds on Assets can explain that Green Financing has a positive and significant effect on Assets. Green Products have a negative and insignificant effect on Assets. Green Services has a positive and insignificant effect on Assets. Third Party Funds have a positive and significant effect on Assets. With value R-squared (R^2) is 0.989891 which means Green Financing, Green Products, Green Services and Third Party Funds are able to explain 98.98% of ASSETS and the remaining 1.02% of ASSETS is influenced by other variables outside the estimates in the model.

In the results of the Data Normality Test, the Skewness probability value is $0.1121 > 0.05$, the Kurtosis probability value is $0.3766 > 0.05$, and the Jarque-Bera probability value is $0.1758 > 0.05$, which indicates that the research data is normal. For graph of data heteroscedasticity test results that the residual graph on Third Party Funds and Assets forms an inconstant pattern, which means that the movement is random in positive (+) or negative (-) positions, which indicates that the residual variation is homogeneous or free from heteroscedasticity problems.

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