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Syarif Syahrul Rahman

*Department of Accounting, Universitas Tanjungpura, Pontianak, Indonesia*

[sysyahrulrahman21@gmail.com](mailto:sysyahrulrahman21@gmail.com)

Elok Heniwati

*Department of Accounting, Universitas Tanjungpura, Pontianak, Indonesia*

[elok.heniwati@yahoo.com](mailto:elok.heniwati@yahoo.com)

Syarif M. Helmi

*Department of Accounting, Universitas Tanjungpura, Pontianak, Indonesia*

[Syarif.m.helmi@ekonomi.untan.ac.id](mailto:Syarif.m.helmi@ekonomi.untan.ac.id)

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Syarif Syahrul Rahman\*, Elok Heniwati, Syarif M. Helmi

*Department of Accounting, Universitas Tanjungpura, Pontianak, Indonesia*

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## \*Corresponding Author:

[sysahrulrahman21@gmail.com](mailto:sysahrulrahman21@gmail.com)

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## Abstract

This study investigates the Influence of Green Innovation (GI) in mediating the effect of Ownership on profitability growth, based on the Resource-Based View (RBV) theory. Profitability growth is measured using Return on Assets (ROA) for companies listed in the LQ45 index during the 2018–2022 period, with purposive sampling. Data analysis was conducted using Panel Data Regression Analysis through EViews 12 software. The results show that Ownership does not have a direct impact on profitability growth, while GI has a significant influence. Ownership also significantly affects GI; however, GI does not mediate the relationship between Ownership and profitability growth. These findings suggest that although Ownership does not directly drive profitability growth, it promotes GI initiatives that do. Moreover, while GI significantly enhances profitability growth, it does not mediate the indirect effect of Ownership on this growth.

## Introduction

Profitability plays a crucial role in the sustainability and growth of companies (Singla, 2020). For business decision-makers, a deep understanding of profitability forms the basis for the development of long-term strategies (Augustine & Dwianika, 2019). In terms of resources, companies can achieve competitive advantages by possessing unique resources and values that are difficult for competitors to exploit (Barney, 1991). These resources can be divided into physical assets, such as tangible assets and financial assets, and intangible assets, such as reputation (brand), technical knowledge, and patents (Russo & Fouts, 1997). Return on Assets (ROA) serves as a fundamental metric for evaluating the efficiency of a company's asset utilization in generating profits (Alareeni & Hamdan, 2020). By quantifying the effectiveness with which a firm converts its assets into net income, ROA provides stakeholders with critical insights into the company's efficiency in resource management and investment allocation (Buallay, 2022).

Ownership structure is a critical element that influences a company's development and performance (Yang et al., 2024). Two primary dimensions of ownership structure, namely managerial ownership and institutional ownership, have a significant impact on a company's profitability (Nurkhin et al., 2017). A deep understanding of how these two forms of ownership interact and influence each other is essential for designing successful and sustainable business strategies (Rasubala & Van Rate, 2020). Managers who hold shares in the companies they work for have the potential to align their personal interests with the long-term success of the organization (Tang et al., 2018). This alignment can create strong incentives to enhance operational efficiency and optimize profitability (Zhang et al., 2019). Institutional ownership

involves shareholding by large entities such as pension funds, insurance companies, or investment managers (Wang & Wei, 2019). Institutional ownership often brings significant capital to the company and can provide financial stability and a long-term perspective (Singla, 2020). When institutions have substantial ownership, they can influence strategic decisions and play a role in guiding the company's focus towards sustainable profitability (Pangesti et al., 2022). Through the synergy between managerial and institutional ownership, companies can achieve an optimal balance between managerial individual interests and the long-term objectives established by institutional shareholders (Ali, 2019).

Previous research on the influence of ownership on profitability reveals mixed results regarding the impact of Institutional Ownership. Studies such as those by Ali (2019) and Yang et al. (2024) indicate a positive effect of Institutional Ownership and shareholding on profitability. Additionally, Singla (2020) highlights that family-owned construction and real estate companies are slightly more profitable than their non-family counterparts, with Institutional Ownership mitigating agency conflicts and influencing profitability. In contrast, other studies, including Pangesti et al. (2022) and Rasubala and Van Rate (2020), find no significant impact of company size and ownership structure on profitability, indicating a lack of consensus in the literature. Commonly, the studies demonstrating positive effects emphasize the role of Institutional Ownership in enhancing firm performance, while those reporting no effect suggest that factors such as family ownership dynamics and company size may dilute the influence of ownership on profitability. Overall, these varying findings underscore the complexity of the relationship between ownership structures and profitability, highlighting the need for further investigation into the contextual factors that may affect these outcomes.

Companies that can create innovative and sustainable products and services often gain a competitive advantage in an increasingly environmentally conscious global market (Asni & Agustia, 2022a). The growing consumer demand for eco-friendly products and services presents significant opportunities for companies adopting Green Innovation (GI) (Tariq et al., 2019). For instance, the energy sector is shifting its focus from fossil fuels to renewable energy sources (IEA, 2022). Global consumers are increasingly inclined to choose products and services with a smaller environmental footprint, incentivizing companies to develop innovative, environmentally friendly solutions. In Indonesia, environmental challenges like deforestation, pollution, and climate change exert considerable pressure on companies to adopt GI as part of their contributions to addressing these issues (Widiatami et al., 2023). Companies that adopt renewable energy technologies can lessen their reliance on expensive fossil fuels, resulting in long-term savings. Furthermore, businesses implementing sustainable practices are increasingly prioritized by consumers and investors, boosting sales and access to capital. However, this approach also presents challenges, such as the high initial investments required for research and development (R&D) and the implementation of green technologies, which can burden small and medium-sized enterprises. Additionally, transforming corporate culture and ensuring compliance with environmental regulations can be complex and costly, while the market for eco-friendly products may remain unstable, leading to uncertainties in future incomes.

Previous research exploring the relationship between Green Innovation and profitability growth presents mixed findings. Studies such as those by Maldonado-Guzmán et al. (2023) and Asni & Agustia (2022b) indicate a positive impact of Green Innovation on firm performance and financial performance, with evidence suggesting that it enhances return on assets (ROA) and return on equity (ROE), thereby providing a competitive advantage for firms. Furthermore, Khanchel et al. (2023) and Tariq et al. (2019) emphasize that Green Product Innovation Performance (GPIP) significantly correlates with higher profitability and lower financial risk, supporting the idea that adopting sustainable practices can lead to long-term financial benefits. However, contrasting findings also exist; for example, Michalski et al. (2023) report a negative relationship where higher firm performance may result in less investment in Eco-Innovation, as

managers prefer projects with more significant benefits and lower costs. Additionally, Rezende et al. (2019) find no significant link between the intensity of Green Innovation and financial performance in the same year. These varying results highlight the complexity of the relationship between Green Innovation and profitability, suggesting that while many studies support the benefits of green practices, others indicate potential limitations or counterproductive tendencies in certain contexts.

Sustainability and innovation are central to modern business, with the relationship between Ownership and Green Innovation being crucial (Yang et al., 2024). Both managerial and institutional ownership significantly influence strategic decisions, including investments in sustainable innovation (Augustine & Dwianika, 2019). Understanding how Ownership affects Green Innovation is essential for exploring its mediating role in the relationship between Ownership and profitability (Zhang et al., 2019). While Institutional Ownership can provide financial resources and support for sustainability initiatives, aligning corporate strategies with green investments, it also poses challenges, as institutional investors often expect short-term financial returns. This pressure can conflict with the long-term nature of Green Innovation, creating a dilemma for companies in balancing shareholder expectations with sustainable strategies.

Previous research has identified a significant positive correlations exist between institutional pressure and a company's green resources, as well as its impact on both exploratory and exploitative Green Product Innovation (GPI) (Huang & Chen, 2023). Green resources positively influence both GPI dimensions, with institutional pressure also having a significant indirect effect. Additionally, board size, independent commissioners, and ownership concentration positively and significantly affect Green Innovation (Asni & Agustia, 2022a). From a Resource-Based View (RBV) perspective, GI serves as a mediating factor between ownership and profitability growth, presenting both challenges and opportunities. Institutional ownership can offer substantial support for GI through financial resources and strategic influence, fostering investments in green technologies. However, companies face pressure to balance short-term profitability demands with long-term GI investments, which require significant operational and cultural changes. This study aims to investigate how company ownership structures, specifically institutional ownership, affect GI and the role of GI as a mediating factor influencing profitability. Focusing on companies within Indonesia's LQ45 index, the research seeks to provide valuable insights into sustainability practices in business, exploring how firms can leverage their ownership structures to enhance GI initiatives and profitability. The findings are expected to inform business leaders and policymakers in developing sustainable and profitable strategies.

## Literature Review

### Resource-Based View (RBV) Theory

The Resource-Based View (RBV) theory emphasizes the importance of a company's internal resources for achieving competitive advantage and performance (Russo & Fouts, 1997). It posits that unique and valuable resources, such as physical assets, human capital, and organizational capabilities, are essential for sustained competitive advantage. Key characteristics of valuable resources include being rare, inimitable, and non-substitutable.

RBV highlights the need for companies to identify, develop, and protect these resources, stressing the significance of knowledge management and organizational learning (Xie et al., 2016). It also identifies two fundamental assumptions: resource heterogeneity among firms differentiates their competitive advantages, and the complexity of resource exchanges can sustain these differences (Helfat & Peteraf, 2003).

An expanded view of RBV suggests that companies achieve competitive advantage not only through critical assets but also by developing new capabilities over time. Resources, defined

broadly to include assets and capabilities controlled by a company, can be both internal and external, influencing strategies aimed at enhancing efficiency and effectiveness (Barney, 1991; Kozlenkova et al., 2014). In this framework, ownership structures that prioritize green innovation can lead to a more sustainable competitive advantage, aligning profitability with environmental responsibility.

The Resource-Based View (RBV) theory provides a relevant framework for assessing profitability growth by considering the roles of institutional ownership and green innovation. In this context, institutional ownership serves as a strategic resource that supports green innovation, where long-term-oriented institutional investors can provide financial backing for sustainability initiatives. This, in turn, enables companies to implement innovative, sustainable practices that reduce costs and enhance operational efficiency. With green innovation as a strategic asset, firms not only comply with environmental regulations but also create long-term value that contributes to profitability.

### **The effect of Ownership on Profitability Growth**

In the context of ownership, majority shareholders often have greater access to strategic resources and the ability to direct the allocation of these resources efficiently. This can enhance the company's competitiveness and profitability. For instance, significant owners may be better positioned to make long-term investments in research and development (R&D), which can lead to product and process innovations that drive profitability growth.

Institutional ownership in companies presents significant challenges and opportunities for profitability growth, particularly from the perspective of the Resource-Based View (RBV) Theory. This theory emphasizes the importance of norms, values, and external institutional pressures that influence organizational behavior. Institutional investors, such as pension funds, insurance companies, and mutual funds, play a critical role in strategic decision-making. Previous research on the influence of ownership on profitability indicates that both institutional ownership and stock ownership have a positive impact on profitability (Ali, 2019). Other studies also demonstrate that institutional ownership significantly affects profitability (Yang et al., 2024). Findings from research conducted in India suggest that family-owned construction and real estate companies are slightly more profitable than non-family-owned counterparts; however, family firms tend to have lower market valuations due to misalignment between family ownership and institutional ownership. Institutional ownership mitigates agency conflicts, thus influencing the profitability of family businesses (Singla, 2020). Conversely, research in the food and beverage manufacturing subsector indicates that company size and institutional ownership do not impact profitability (Pangesti et al., 2022). Additionally, another study reveals that ownership structure does not significantly affect profitability (Rasubala & Van Rate, 2020).

H<sub>1</sub>: Institutional Ownership has a positive effect on Profitability Growth.

### **The Effect of Green Innovation on Profitability Growth**

The Resource-Based View (RBV) framework emphasizes the importance of unique, inimitable resources in achieving competitive advantage and improving firm performance (Barney, 1991). This study aims to investigate the influence of ownership structure on profitability, particularly by focusing on Green Innovation (GI). Previous research has sought to uncover the relationship between Green Innovation (GI) and profitability growth, revealing a positive impact of GI on firm performance (Maldonado-Guzmán et al., 2023). GI not only enables companies to produce more environmentally friendly products but also reduces pollutant emissions. Other studies have found significant effects of GI on financial performance, particularly in terms of Return on Assets (ROA) and Return on Equity (ROE), indicating that GI serves as a management strategy that provides competitive advantages in creating future value (Asni & Agustia, 2022b). Evidence

suggests that higher levels of Green Product Innovation Performance (GPIP) correlate with increased profitability and reduced financial risk (Tariq et al., 2019). Moreover, both Green Innovation Process and Green Innovation Product significantly predict company performance (Zhang & Walton, 2017), highlighting the importance for managers to understand the interdependencies among various forms of environmental innovation. While some findings support the notion that "being green is profitable," contrasting results indicate that higher firm performance may negatively impact Eco-Innovation, as managers tend to allocate resources to more significant and cost-effective projects (Michalski et al., 2023). Additionally, another study found no significant relationship between the intensity of Green Innovation and a company's financial performance in the same year (Rezende et al., 2019).

H<sub>2</sub>: Green Innovation has a positive effect on Profitability Growth.

### **The Effect of Ownership on Green Innovation**

Based on the Resource-Based View (RBV), Institutional Ownership can significantly drive Green Innovation by leveraging its financial capacity and strategic influence. Institutional investors, such as pension funds and insurance companies, often have a long-term sustainability focus, encouraging companies to adopt environmentally responsible practices. Their support pushes companies to invest in green products and processes, which reduces environmental impact and enhances operational efficiency and reputation. Previous research highlights a U-shaped relationship between family ownership and Green Innovation (GI), while institutional pressure positively correlates with green resources and innovations in both exploratory and exploitative Green Product Innovation (GPI) (Yang et al., 2024; Huang & Chen, 2023).

Additionally, factors such as board size, independent commissioners, and ownership concentration positively influence Green Innovation (Asni & Agustia, 2022a). With the long-term investment outlook of institutional investors, companies can invest in green technologies that require substantial capital and time to yield returns. As a result, Institutional Ownership helps companies develop energy-efficient innovations, reduce emissions, and create environmentally friendly products, suggesting that it positively influences Green Innovation by encouraging larger resource allocation towards green R&D and sustainable practices.

H<sub>3</sub>: Ownership has a positive effect on Green Innovation.

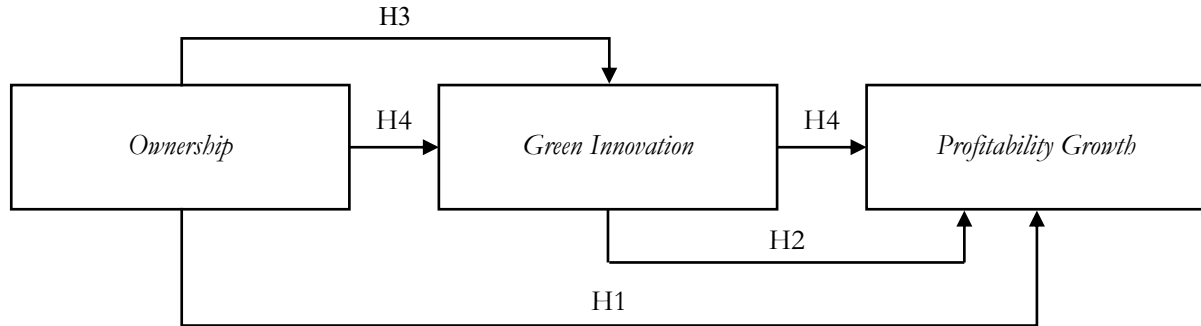
### **Green Innovation mediates the Effect of Ownership on Profitability Growth**

Based on the Resource-Based View (RBV) theory, this study proposes to examine the mediating role of Green Innovation in the relationship between ownership structure and company profitability. Ownership structure, as a strategic resource, can influence a company's ability and tendency to adopt Green Innovation, which in turn, impacts profitability (Asni & Agustia, 2022a). Green Innovation involves the development and implementation of sustainable and environmentally friendly practices, processes, and products, recognized for optimizing resource use, reducing operational costs, and enhancing product differentiation, thus contributing to increased profitability (Yi et al., 2023). Previous research has identified a U-shaped relationship between family ownership and Green Innovation, and significant positive effects of institutional pressure on exploratory and exploitative green product innovation (Yang et al., 2024; Huang & Chen, 2023).

In this context, the proposed hypothesis aims to evaluate Green Innovation as a mediating variable that helps to better understand how ownership structure affects profitability through the adoption of sustainable innovative practices. This hypothesis considers Green Innovation not only as an outcome of ownership strategies but also as a key factor that enhances a company's financial performance by improving efficiency, creating added value, and responding to market demands and environmental regulations. By exploring this relationship, the study seeks

to provide insights into the mechanisms through which ownership structure facilitates the adoption of Green Innovation and how these initiatives ultimately contribute to increased company profitability.

H4: Green Innovation mediates the effect of ownership on profitability growth.



**Figure 1.** Conceptual Framework

## Research Method

This research will examine the effect of Green Innovation in mediating the effect of ownership on profitability growth. The sampling method used is purposive sampling with specific criteria, namely companies listed in the LQ45 index that publish their annual reports on their official websites during the 2018-2022 period. As a result, the unit of analysis for this study consists of 23 companies with 5 years of observation.

In this context, the dependent variable is profitability growth, measured by the rate of Return on Assets (ROA Growth) from one period to another, indicating changes in the efficiency of asset use to generate profits. The independent variables include two main factors: 1) Ownership (OWN), which refers to the company's ownership structure, particularly institutional ownership involving large investors like pension funds; and 2) Green Innovation (GI), which reflects the company's innovation level in developing environmentally friendly products and processes. Referring to previous studies (Asni & Agustia, 2022b; Xie et al., 2019), Green Innovation (GI) is measured using eight items; four items represent process innovation and the other four represent product innovation. Each measurement item related to production processes and products is scored from 0 to 2, where "0" indicates no description of the indicator item, "1" signifies a simple description without implementation details (e.g., a detailed plan or related implementation process for Green Innovation), and "2" means there is a detailed description (e.g., numeric indicators, types of product/process innovations demonstrating appropriate environmental practices). The total score for each item is calculated, and the average item score represents GI. Additionally, Green Innovation serves as a mediating variable explaining how ownership influences profitability growth. Control variables, such as the Board of Directors (BoD), Board of Commissioners (BoC), and Company Size (measured by total assets), are included to minimize the impact of confounding factors on the relationship between the independent and dependent variables.

In this study, several key variables were measured using specific methodologies and sourced from annual reports and sustainability reports. Profitability, represented by Return on Assets (ROA), was calculated as the ratio of Earnings After Tax (EAT) to Total Assets. The growth of ROA was further assessed using the formula:

$$ROA\ Growth = \left( \frac{(ROA\ t - ROA\ t - 1)}{ROA\ t - 1} \right) \times 100\%$$

Following the approaches outlined by Alareeni and Hamdan (2020), Asni and Agustia (2022b), Tariq et al. (2019), and Wijaya and Darmawati (2023).

Ownership (OWN) was defined as the ratio of shares owned by institutional investors to the total shares outstanding, based on the methodologies described by Rasubala and Van Rate (2020), Yang et al. (2024), and Zhang et al. (2019). The measurement of Green Innovation (GI) was determined through eight specific items focused on resource efficiency, recycling, environmental campaigns, energy and waste reduction technologies, pollution prevention in product design, and the use of environmentally friendly materials, drawn from the Annual Report, Sustainability Report, and Corporate Social Responsibility Report. The Board of Directors (BOD) was evaluated based on the total number of board meetings held within the period, as indicated by Asni & Agustia (2022a), while the Board of Commissioners (BOC) was similarly assessed through the total number of commission meetings, referencing Wardati et al. (2021). Finally, the size of the company (SIZE) was measured using the natural logarithm of total assets, following the methodology proposed by Chouaibi et al. (2022).

The data obtained in this study will be processed using Panel Data Regression according to Ghozali and Ratmono (2020) by selecting the best model among the Common Effect Model, Fixed Effect Model, and Random Effect Model. since this research involves multiple independent variables, the study will employ multiple regression analysis with the following model:

$$Y = \alpha + \beta_1 X_1 + \beta_2 Z + e$$

## Results and Discussion

The analysis of the dataset, as presented in Table 2, highlights several key statistics across the variables. The mean Return on Assets Growth (Y\_ROAGG) is 0.0343, indicating slight profitability growth, while the Ownership variable (X1\_OWN) averages 0.7626, reflecting a predominance of institutional ownership. Green Innovation (X2\_GI) has a mean of 1.7717, showing a moderate level of implementation. Control variables reveal that the average size of the Board of Directors (CTRL1\_BOD) is 47.9652, and the Board of Commissioners (CTRL2\_BOC) averages 21.5478, with Company Size (CTRL3\_SIZE) around 3.06E+14, indicating substantial asset variations among firms. The skewness and kurtosis values suggest that Y\_ROAGG and X2\_GI distributions are negatively skewed, while control variables show positive skewness. The Jarque-Bera test results indicate non-normal distributions for all variables, necessitating the use of suitable regression models for further analysis.

**Table 2.** Descriptive Statistics

	ROAG	OWN	GI	BOD	BOC	SIZE
Mean	0.034269	0.762565	1.771739	47.96522	21.54783	3.06E+14
Median	-0.009180	0.931858	2.000000	40.00000	12.00000	9.00E+13
Maximum	5.609264	0.998149	2.000000	286.0000	92.00000	1.99E+15
Minimum	-9.588885	0.188584	0.125000	3.000000	3.000000	1.63E+13
Std. Dev.	1.515267	0.270659	0.356741	44.48121	18.51185	4.76E+14
Skewness	-1.317211	-0.792418	-2.200224	3.019991	1.414189	1.951632
Kurtosis	20.21623	1.900513	9.258354	13.99108	4.811063	5.679722
Jarque-Bera	1453.498	17.82777	280.4607	753.6584	54.04844	107.4118
Probability	0.000000	0.000135	0.000000	0.000000	0.000000	0.000000
Sum	3.940981	87.69502	203.7500	5516.000	2478.000	3.52E+16
Sum Sq. Dev.	261.7481	8.351202	14.50815	225557.9	39066.49	2.58E+31
Observations	115	115	115	115	115	115



**Table 3.** Chow Test and Lagrange Multiplier Test Result

Test of type	F - Value	P - Value	The right model
Chow Test (cross-section F-Test)	0.866492	0.6364	Common Effect Model
Chow Test (cross-section Chi-square)	22.784210	0.4140	
Lagrange Multiplier Test (cross-section random)	0.6553	0.2441	Common Effect Model

**Table 4.** Multicollinearity Test Result

	OWN	GI	BOD	BOC	SIZE
X1	1.000000	0.234261	-0.445729	-0.696293	-0.458125
X2	0.234261	1.000000	-0.073336	-0.095297	-0.002354
BOD	-0.445729	-0.073336	1.000000	0.759034	0.182334
BOC	-0.696293	-0.095297	0.759034	1.000000	0.446304
SIZE	-0.458125	-0.002354	0.182334	0.446304	1.000000

According to Table 3, the Chow Test results (F-value = 0.866492, P-value = 0.6364) indicate that the Common Effect Model is the appropriate model for the data. The Chi-square value from the Chow Test also supports this conclusion, with a value of 22.784210 and a P-value of 0.4140, confirming that there is no significant difference that would warrant using a Fixed Effect Model. The Lagrange Multiplier Test further confirms this, as the cross-section random F-value (0.6553) and P-value (0.2441) suggest that the Common Effect Model is the most suitable. Referring to Table 4, the Multicollinearity Test reveals that there is no serious multicollinearity issue among the variables. The correlation between institutional ownership (OWN) and green innovation (GI) is low at 0.234, indicating minimal multicollinearity. Most correlations between variables, such as OWN with board size (BOD) at -0.445 or OWN with board composition (BOC) at -0.696, are moderate, suggesting that the variables are distinct enough to avoid significant multicollinearity. The correlation between BOD and BOC is relatively high at 0.759, but this does not reach a critical level that would undermine the model's reliability. Overall, the test shows that multicollinearity is not a significant.

**Table 5.** Multiple Regression Test Result

Variable	Prediction	Coefitient	Significance	Note
OWN→ROAG	+	-1.204362	0.1440	Rejected
GI→ROAG	+	0.900561	0.0421	Accepted
BOD→ROAG		0.012693	0.0189	
BOC→ROAG		-0.014579	0.3916	
SIZE→ROAG		-0.193403	0.1574	Rejected
OWN→GI	+	0.308767	0.0117	Accepted
OWN→GI→ROAG	+			
Constant		3.631779		
R-Squared		0.114410		
Adjusted R-Squared		0.073786		
F-Statistic		2.816347		
Prob (F-Statistic)		0.019721		

According to the multiple regression analysis in Table 5, the relationship between Ownership (OWN), Green Innovation (GI), and Return on Assets Growth (ROAG) reveals several key findings. First, OWN does not have a significant direct effect on ROAG ( $p = 0.1440$ ), leading to the rejection of the hypothesis that ownership positively influences profitability growth. However, GI shows a significant positive impact on ROAG ( $p = 0.0421$ ), confirming that green innovation enhances firm profitability. Additionally, OWN significantly influences GI

( $p = 0.0117$ ), indicating that institutional ownership encourages the adoption of green innovation. While Board of Directors (BOD) positively and significantly affects ROAG ( $p = 0.0189$ ), Board of Commissioners (BOC) and Size (SIZE) do not show significant effects on profitability growth. The model explains about 11.44% of the variation in ROAG as indicated by the R-squared value, with an overall significance of the model ( $p = 0.0197$ ). In summary, while ownership does not directly impact profitability, it plays an indirect role by influencing green innovation, which is critical for improving profitability growth.

### **The effect of Ownership on Profitability Growth**

Ownership does not have a significant effect on profitability growth. This lack of significance indicates that institutional ownership does not sufficiently enhance the efficiency of companies in generating profits from their assets over time. Based on the regression test, the coefficient of institutional ownership is -1.204362, with a p-value of 0.1440, indicating no statistically significant relationship. In the sample, the average ownership level is 0.762565 (76.26%), suggesting that most companies possess a high level of ownership. The median ownership is 0.931858 (93.19%), indicating that half of the companies have ownership levels above this value. The maximum ownership reaches 0.998149 (99.81%), reflecting nearly full ownership by PT. Indocement Tunggul Prakarsa Tbk in 2018, while the minimum ownership is 0.188584 (18.86%), showing very low ownership by PT. Wijaya Karya in 2022. The recorded standard deviation of 0.270659 indicates variation in ownership levels among the sampled companies.

According to the Resource-Based View (RBV), which emphasizes the importance of a company's internal resources and capabilities in achieving competitive advantage and superior performance, the findings suggest that institutional ownership may not directly contribute to profitability growth. This could be due to several factors, such as the monitoring and control role of institutional ownership rather than direct resource management affecting profitability, including management complexity, corporate policies, or differing market conditions. Similar results were reported by Pangesti et al. (2022), who found that institutional ownership does not impact profitability, and by Rasubala and Van Rate (2020), indicating that ownership structure does not significantly affect profitability.

### **The Effect of Green Innovation on Profitability Growth**

Green Innovation (GI) has been found to have a significant and positive effect on profitability growth. The regression result shows that the variable GI (X2\_GI) has a coefficient of 0.900561, with a significance level (p-value) of 0.0421, indicating that the effect is statistically significant at the 5% level. The positive coefficient for the variable X2\_GI indicates that an increase in Green Innovation initiatives correlates positively with the growth in company profitability. This means that the higher the level of green innovation implemented by a company, the greater the profitability growth that can be achieved. The research sample shows an average Green Innovation initiative score of 1.771739, indicating that the companies in the sample tend to adopt Green Innovation initiatives. The median GI value is 2.000000, suggesting that half of the companies have reached the maximum GI value. Additionally, the maximum GI value is also 2.000000, showing that some companies have fully implemented GI, while the minimum GI value is 0.125000, indicating the presence of companies that have not fully adopted GI. The recorded standard deviation of 0.356741 reflects variation in GI levels among the sampled companies.

The relevance to the Resource-Based View (RBV) theory can be seen in how Green Innovation meets the VRIN (Valuable, Rare, Inimitable, Non-substitutable) characteristics. Green Innovation enhances operational efficiency and reduces costs through the use of environmentally friendly technologies and more efficient processes, making it valuable. Not all companies have the ability to develop or implement effective green initiatives, rendering it rare.

The development of Green Innovation requires significant investment in research and development as well as specialized knowledge and skills, making it difficult to imitate. Furthermore, there are no alternatives that can fully substitute the benefits of Green Innovation in terms of environmental performance improvement and economic gain. By possessing resources like Green Innovation, companies can achieve sustainable competitive advantage that contributes to better financial performance.

These findings align with previous research indicating that Green Innovation positively affects Firm Performance (Maldonado-Guzmán et al., 2023). Green Innovation serves as a business strategy that not only allows companies to produce more environmentally friendly products but also reduces pollutant emissions. Other studies have also found that Green Innovation significantly impacts Financial Performance (Asni & Agustia, 2022b). The significant impact of GI on ROA and ROE suggests that the implementation of GI is viewed as a management strategy that provides a competitive edge in creating future value for the company.

Furthermore, earlier research has found a significant positive influence of Green Innovation on Financial Performance, statistically supporting the notion that Green Innovation can enhance a company's performance in the future, leading to higher sales growth and net profit (Khanchel et al., 2023). Similar results were revealed in previous studies, showing that Green Product Innovation Performance (GPIP) significantly affects a company's financial performance, with higher GPIP correlating to greater profitability and lower financial risk (Tariq et al., 2019). Other research has shown that both Green Innovation Process and Green Innovation Product positively and significantly predict company performance (Zhang & Walton, 2017). Additionally, previous findings have indicated that "it is profitable to be green," and this relationship strengthens with industry growth (Russo & Fouts, 1997).

### **The Effect of Ownership on Green Innovation**

Ownership has a significant and positive impact on Green Innovation. The regression results show that the variable Institutional Ownership (OWN) has a coefficient of 0.308767 with a p-value of 0.0117, indicating statistical significance at the 5% level. The average Institutional Ownership in the sample being 76.26%. This indicates that most companies exhibit a high level of Institutional Ownership, while the median of 93.19% reflects that half of the companies have concentrated ownership levels above this threshold. Institutional investors, such as investment firms, pension funds, and financial institutions, often prioritize sustainable business practices and have policies that encourage investment in environmentally friendly initiatives. This ownership structure creates positive pressure on company management to adopt and implement Green Innovation strategies, supported by their substantial financial resources that can fund significant upfront investments in green projects.

According to the Resource-Based View (RBV) theory, the ability to allocate resources for long-term sustainability initiatives is crucial for creating lasting value. Institutional Ownership enhances companies' capabilities in green technologies and environmentally friendly practices, thereby improving long-term performance. Institutional investors typically take a long-term investment approach, favoring Green Innovation initiatives that may require substantial initial investments but promise long-term benefits such as cost reductions and enhanced efficiency. This finding aligns with prior research, which indicates a positive correlation between institutional pressure and green resources, as shown in studies by Huang and Chen (2023), which highlighted that institutional pressure significantly influences both exploratory and exploitative Green Product Innovation (GPI). Furthermore, research by Yang et al. (2024) demonstrated a U-shaped relationship between family ownership percentages and Green Innovation, suggesting that concentrated ownership can enhance commitment to green initiatives. Additionally, Asni & Agustia (2022a) found that board size, independent commissioners, and ownership concentration positively and significantly impact Green Innovation. Overall, these results emphasize the critical

role of Institutional Ownership in fostering Green Innovation through financial support and strategic oversight, consistent with the existing literature on the subject.

### **Green Innovation mediates the Effect of Ownership on Profitability Growth**

Green Innovation (GI) has been shown to be unable to mediate the indirect relationship between Ownership and Profitability Growth. Although the individual paths are significant—Ownership positively affects GI (coefficient = 0.308767,  $p = 0.0117$ ) and GI positively influences profitability growth (coefficient = 0.900561,  $p = 0.0421$ )—the indirect mediation effect (Ownership → GI → Profitability Growth) is not statistically significant, as revealed by the mediation analysis. The Sobel test ( $z = 1.458$ ,  $p = 0.1445$ ) indicates that the mediating role of GI is statistically insignificant. The Resource-Based View (RBV) emphasizes that valuable, rare, inimitable, and non-substitutable internal resources (VRIN) provide a competitive advantage. The finding that GI does not mediate this relationship suggests that other internal resources, such as technology, brand equity, or employee skills, may play a more significant role in enhancing profitability. This research also indicates that GI, as a measure of governance, might not fully capture the complexities of the relationship between Institutional Ownership and profitability growth. This limitation could arise because GI does not encompass critical governance aspects relevant to the RBV context. The positive  $t$ -statistic suggests potential evidence for a mediating effect between the independent and dependent variables through the mediator.

These findings align with the research conducted by Huang and Huang (2024), which demonstrated that Institutional Pressure influences Green Innovation Adoption (GIA) and that the Top Management Team (TMT) serves as a mediator between Institutional Pressure and GIA. While GIA has been shown to improve a company's performance in environmental aspects, it does not significantly impact economic performance. This highlights the need for a more nuanced understanding of the governance dynamics at play, as other factors beyond Green Innovation may be crucial for driving profitability in the context of Institutional Ownership.

### **Conclusion**

The study reveals that while Institutional Ownership does not significantly impact Profitability Growth, it does positively influence Green Innovation, indicating that firms with higher ownership levels are more committed to sustainable practices. Green Innovation, in turn, has a positive and significant effect on profitability, suggesting that companies with stronger environmental initiatives perform better financially. However, Green Innovation does not mediate the relationship between Institutional Ownership and profitability, indicating that other factors may play a more critical role in enhancing profitability. These findings emphasize the need for firms to invest in Green Innovation and enhance board effectiveness, while also contributing to the Resource-Based View literature by highlighting the importance of internal resources. Limitations include unexplained variations in profitability and measurement challenges, suggesting the need for future research to explore additional influencing factors and develop more robust measurement tools.

### **References**

- Alareeni, B. A., & Hamdan, A. (2020). ESG impact on performance of US S&P 500-listed firms. *Corporate Governance (Bingley)*, 20(7), 1409–1428. <https://doi.org/10.1108/CG-06-2020-0258>
- Ali, M. (2019). Pengaruh kepemilikan institusional, kepemilikan saham publik, umur perusahaan, dan ukuran perusahaan terhadap profitabilitas dengan jumlah bencana alam sebagai moderasi. *Jurnal Magister Akuntansi Trisakti*, 6(1), 71–94.

<https://doi.org/10.25105/jmat.v6i1.5068>

- Amalia, E. (2023). Analisis pengaruh pengungkapan inovasi hijau terhadap profitabilitas pada perusahaan nonkeuangan. *ABIS: Accounting and Business Information Systems Journal*, 11(3), 285. <https://doi.org/10.22146/abis.v11i3.85680>
- Asni, N., & Agustia, D. (2022a). Does corporate governance induce green innovation? An emerging market evidence. *Corporate Governance (Bingley)*, 22(7), 1375–1389. <https://doi.org/10.1108/CG-10-2021-0389>
- Asni, N., & Agustia, D. (2022b). The mediating role of financial performance in the relationship between green innovation and firm value: Evidence from ASEAN countries. *European Journal of Innovation Management*, 25(5), 1328–1347. <https://doi.org/10.1108/EJIM-11-2020-0459>
- Augustine, Y., & Dwianika, A. (2019). Earnings management in indonesia: Determinant of company size, structure of managerial ownership and profitability on earnings management with asymmetry information and green intellectual capital as moderating variables. *South East Asia Journal of Contemporary Business, Economics and Law*, 19(5), 179–188.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Buallay, A. (2022). Sustainability reporting and agriculture industries' performance: worldwide evidence. *Journal of Agribusiness in Developing and Emerging Economies*, 12(5), 769–790. <https://doi.org/10.1108/JADEE-10-2020-0247>
- Chouaibi, S., Chouaibi, J., & Rossi, M. (2022). ESG and corporate financial performance: the mediating role of green innovation: UK common law versus Germany civil law. *EuroMed Journal of Business*, 17(1), 46–71. <https://doi.org/10.1108/EMJB-09-2020-0101>
- Ghozali, I., & Ratmono, D. (2020). Analisis multivariat dan ekonometrika teori, konsep dan aplikasi dengan Eviews 10. *Badan Penerbit Universitas Diponegoro*.
- Helfat, C. E., & Peteraf, M. A. (2003). The dynamic resource-based view: Capability lifecycles. *Strategic Management Journal*, 24(10) special issue, 997–1010. <https://doi.org/10.1002/smj.332>
- Huang, Y. C., & Chen, C. T. (2023). Institutional pressure, firm's green resources and green product innovation: evidence from Taiwan's electrical and electronics sector. *European Journal of Innovation Management*, 26(3), 636–664. <https://doi.org/10.1108/EJIM-04-2021-0217>
- Huang, Y.-C. and Huang, C.-H. (2024). Exploring institutional pressure, the top management team's response, green innovation adoption, and firm performance: evidence from Taiwan's electrical and electronics industry. *European Journal of Innovation Management*, 27(3), 800-824. <https://doi.org/10.1108/EJIM-03-2022-0126>
- IEA. (2022). *Peta jalan menuju emisi nol bersih pada sektor energi di Indonesia*. 1–14. [www.iea.org/t&c/](http://www.iea.org/t&c/)
- Khanchel, I., Lassoued, N., & Baccar, I. (2023). Sustainability and firm performance: the role of environmental, social and governance disclosure and green innovation. *Management Decision*, 61(9), 2720-2739. <https://doi.org/10.1108/MD-09-2021-1252>
- Kozlenkova, I. V., Samaha, S. A., & Palmatier, R. W. (2014). Resource-based theory in marketing. *Journal of the Academy of Marketing Science*, 42(1), 1–21. <https://doi.org/10.1007/s11747-013-0336-7>

- Maldonado-Guzmán, G., Garza-Reyes, J. A., & Pinzón-Castro, S. Y. (2023). Green innovation and firm performance: the mediating role of sustainability in the automotive industry. *Management of Environmental Quality: An International Journal*, 34(6), 1690-1711. <https://doi.org/10.1108/MEQ-02-2023-0058>
- Michalski, M., Montes-Botella, J. L., & Guevara Piedra, W. (2023). Eco-innovation and performance of SMEs in Ecuador. *Academia Revista Latinoamericana de Administración*, 36(3), 388-406. <https://doi.org/10.1108/ARLA-08-2022-0164>
- Nurkhin, A., Wahyudin, A., & Fajriah, A. S. A. (2017). Relevansi struktur kepemilikan terhadap profitabilitas dan nilai perusahaan barang konsumsi. *Jurnal Akuntansi Multiparadigma*, 8(1), 35-46.
- Pangesti, S. S. A., Titisari, K. H., & Dewi, R. R. (2022). Pengaruh ukuran perusahaan, struktur modal, likuiditas dan kepemilikan institusional terhadap profitabilitas. *Jurnal Riset Akuntansi (JUARA)*, 12(1), 125-139. <https://doi.org/10.36733/juara.v12i1.3200>
- Rasubala, T. M., & Van Rate, P. (2020). Pengaruh struktur modal, struktur kepemilikan dan good corporate governance terhadap profitabilitas perusahaan farmasi yang terdaftar di bursa efek Indonesia. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, 8(1), 232-241.
- Rezende, L. de A., Bansi, A. C., Alves, M. F. R., & Galina, S. V. R. (2019). Take your time: Examining when green innovation affects financial performance in multinationals. *Journal of Cleaner Production*, 233, 993-1003. <https://doi.org/10.1016/j.jclepro.2019.06.135>
- Russo, M. V., & Fouts, P. A. (1997). A resource-based perspective on corporate environmental performance and profitability. *Academy of Management Journal*, 40(3), 534-559. <https://doi.org/10.2307/257052>
- Singla, H. K. (2020). Does family ownership affect the profitability of construction and real estate firms? Evidence from India. *Journal of Financial Management of Property and Construction*, 25(1), 107-124. <https://doi.org/10.1108/JFMPC-08-2019-0067>
- Tang, M., Walsh, G., Lerner, D., Fitza, M. A., & Li, Q. (2018). green innovation, managerial concern and firm performance: An empirical study. *Business Strategy and the Environment*, 27(1), 39-51. <https://doi.org/10.1002/bse.1981>
- Tariq, A., Badir, Y., & Chonglertham, S. (2019). Green innovation and performance: moderation analyses from Thailand. *European Journal of Innovation Management*, 22(3), 446-467. <https://doi.org/10.1108/EJIM-07-2018-0148>
- Wang, X., & Wei, S. (2019). The monitoring role of institutional investors: Geographical proximity and investment horizon. *Studies in Economics and Finance*, 36(3), 517-546. <https://doi.org/10.1108/SEF-11-2017-0309>
- Wardati, S. D., Shofiyah, S., & Ariani, K. R. (2021). Pengaruh dewan komisaris, dewan direksi, komite audit, dan ukuran perusahaan terhadap kinerja keuangan. *Inspirasi Ekonomi Jurnal Ekonomi Manajemen*, 3(4), 1-10. <https://doi.org/10.32938/ie.v3i4.2015>
- Widiatami, A. K., Jati, K. W., Astuti, D. P., & Nurkhin, A. (2023). The impact of green innovation and environmental reporting on corporate performance. *IOP Conference Series: Earth and Environmental Science*, 1248(1), 136-145. <https://doi.org/10.1088/1755-1315/1248/1/012014>
- Wijaya, M. A., & Darmawati, D. (2023). Pengaruh karakteristik ceo terhadap profitabilitas perusahaan pada perusahaan teknologi yang terdaftar di BEI tahun 2018-2022. *Jurnal Ekonomi Trisakti*, 3(2), 3349-3362. <https://doi.org/10.25105/jet.v3i2.18084>

- Xie, E., Huang, Y., Peng, M. W., & Zhuang, G. (2016). Resources, aspirations, and emerging multinationals. *Journal of Leadership and Organizational Studies*, 23(2), 144–161. <https://doi.org/10.1177/1548051816633068>
- Xie, X., Huo, J., & Zou, H. (2019). Green process innovation, green product innovation, and corporate financial performance: A content analysis method. *Journal of Business Research*, 101(January), 697–706. <https://doi.org/10.1016/j.jbusres.2019.01.010>
- Yang, X., Shang, H., Li, W., & Lan, H. (2024). How does family ownership and management influence green innovation of family firms: evidence from China. *European Journal of Innovation Management*, 27(1), 170–192. <https://doi.org/10.1108/EJIM-01-2022-0033>
- Yi, Y., Zeng, S., Chen, H., & Shi, J. J. (2023). When does it pay to be good? A meta-analysis of the relationship between green innovation and financial performance. *IEEE Transactions on Engineering Management*, 70(9), 3260–3270. <https://doi.org/10.1109/TEM.2021.3079098>
- Zhang, D., Rong, Z., & Ji, Q. (2019). Green innovation and firm performance: Evidence from listed companies in China. *Resources, Conservation and Recycling*, 144(January), 48–55. <https://doi.org/10.1016/j.resconrec.2019.01.023>
- Zhang, J. A., & Walton, S. (2017). Eco-innovation and business performance: the moderating effects of environmental orientation and resource commitment in green-oriented SMEs. *R and D Management*, 47(5), E26–E39. <https://doi.org/10.1111/radm.12241>