

Profitability, Leverage, and Financial Performance: Evidence from London Stock Exchange Foreign Firms (2020–2024)

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Article History

Received on 14 October 2025

1st Revision on 03 November 2025

2nd Revision on 27 April 2026

3rd Revision on 01 July 2026

Accepted on 09 July 2026

Abstract

Purpose: This study aims to map the evolution, influential sources, dominant themes, mechanisms, and future research directions of Scopus-indexed studies examining the relationship between green innovation and Environmental, Social, and Governance (ESG) performance during 2015–2025.

Research Methodology: This study employed a PRISMA-guided bibliometric systematic review approach using Scopus-indexed journal articles. A total of 22 eligible articles were identified and analyzed through VOSviewer-based bibliometric mapping and thematic synthesis to reveal publication trends, intellectual structures, and emerging research themes.

Results: The findings indicate that GI–ESG research has experienced significant growth after 2022, with increasing attention to the roles of green finance, digital transformation, disclosure quality, governance mechanisms, and institutional support. The synthesis demonstrates that green innovation contributes more effectively to ESG performance when supported by organizational capabilities and contextual factors.

Conclusions: Green innovation has evolved into a strategic mechanism that enables firms to transform sustainability initiatives into measurable ESG outcomes.

Limitations: This study is limited to Scopus-indexed journal articles published between 2015 and 2025 and includes only 22 studies, which may exclude relevant evidence from other sources.

Contributions: This study contributes by integrating bibliometric analysis and thematic synthesis to develop a mechanism-oriented framework explaining how digital capability, governance, disclosure, and green finance strengthen the role of green innovation in improving ESG performance.

Keywords: *Cross-Industry, Financial Performance, Foreign-Listed*

How to Cite: Purnamasari, E., Aromtala, F., & Pradita, A. P. (2026). Profitability, Leverage, and Financial Performance: Evidence from London Stock Exchange Foreign Firms (2020–2024). *Jurnal Akuntansi, Keuangan, dan Manajemen*, 7(4), 123–135.

1. Introduction

In the context of expanding global market integration, listing shares abroad has increasingly functioned as a strategic mechanism for firms aiming to access international capital pools, strengthen their global visibility, and cultivate investor trust. The London Stock Exchange (LSE) is among the

world's foremost financial markets, with more than one-third of its issuers originating outside the United Kingdom. Moreover, shifts in macroeconomic conditions, geopolitical uncertainties, and trends in market liberalization have motivated companies to broaden their financial bases through foreign listing. Firms operating in resource-intensive sectors or heavily regulated financial environments frequently pursue such listings to tap into more advanced capital markets and align themselves with international standards.

Therefore, each company adopts strategies to sustain growth and competitiveness in the era of globalization, one of which involves listing shares on foreign stock exchanges, commonly referred to as foreign listing ([Purkayastha & Kumar, 2021](#)). Through this mechanism, companies can expand their financial resources, reach wider and more diverse investor groups, and enhance their global reputation and credibility ([Bin-Dohry, Shahar, & Sabki, 2023](#)). Foreign listing correlates positively with firm financial performance and generates substantial benefits for companies ([Ali, Yassin, & AbuRaya, 2020](#)).

The LSE is notable for hosting a considerable proportion of international companies. Approximately 37% of its issuers were international companies, a figure that surpassed that of several other major exchanges. The basic materials sector holds the largest number of international issuers on the LSE, with 73 companies, followed by the financial sector with 59 companies and the energy sector with 38 companies. According to Forbes Advisor, basic materials serve a foundational role by supplying essential raw materials to various industries, the financial sector supports global economic functioning through diverse financial services, and the energy sector provides indispensable resources for worldwide economic activity.

Financial performance serves as a crucial analytical tool for assessing how effectively a firm manages its financial resources ([Fahmi, 2020](#)). Based on the financial statements published on the LSE website, foreign-listed firms in the basic materials, financial, and energy industries experienced considerable volatility in their financial performance between 2020 and 2024. The basic materials sector declined in 2020, before improving in 2021. The financial sector demonstrated growth through 2021 but subsequently experienced a downturn in 2022, followed by a recovery in 2023 and 2024. Conversely, the energy sector experienced a steep decline in 2020, but rebounded in the following year. These fluctuations are shaped by a range of external factors.

In 2020, the global economy was profoundly affected by the COVID-19 pandemic, which the World Health Organization (WHO) declared over only by mid-2024. According to World Bank data, the global GDP contracted by 3.1 percent in 2020. A 4% drop in global energy demand, the sharpest decline since World War II. Furthermore, a global downturn accompanied by high inflation, a cost-of-living crisis, tighter financial conditions across several countries, Russia invasion of Ukraine, and lingering pandemic-related disruptions. These global pressures significantly influenced the financial performance across the three industries.

Profitability ratios, which measure a firm's ability to generate profit and reflect managerial effectiveness ([Fahmi, 2020](#)), provide a means of evaluating financial performance. Financial performance serves as a crucial analytical tool for assessing a company's effectiveness in managing its financial resources because financial reports are the primary means of assessing a company's achievements and economic condition ([Ekawati & Yanti, 2022](#)). However, empirical findings regarding the influence of profitability and leverage on financial performance remain inconsistent. These differences are influenced by variations in industry sectors, company characteristics, observation periods, and research methodologies. Jurnal 1297 di paragraf 5 setelah financial performance.

Profitability reflects a firm's ability to generate earnings and is a key indicator of its operational efficiency. Leverage represents a company's capital structure and its use of debt for financing, which may enhance returns but also elevate the financial risk ([Prastyawan & Suhendah, 2025](#)). The processed secondary data indicate pronounced fluctuations in the average profitability of foreign-listed

companies across the three sectors. The basic materials sector recorded substantial improvement in 2020 but declined in 2021. Profitability in the financial sector also fluctuated, falling in 2020, rising in 2021, and decreasing again in 2022. Meanwhile, the energy industry experienced a sharp downturn in 2022, followed by strong recovery in 2024. Prior studies by [Lutfiana \(2021\)](#), [Azizah and Azizah \(2023\)](#), and [Ariawan \(2023\)](#) found that profitability influences financial performance, whereas [Irawati and Suhatmi \(2023\)](#) and [Aminah, Mustika, and Richmayati \(2024\)](#) concluded the opposite.

Financial performance may also be assessed through leverage, which reflects the extent to which a company finances its assets using debt and its capacity to meet its financial obligations ([Brigham & Houston, 2020](#)). “Leverage is a ratio used to measure the extent to which a company's assets are financed by debt, and high leverage increases financial risk due to interest burden.” ([Akuntansi, Yantri, & Batam, 2022](#)). Secondary data reveal significant leverage fluctuations among foreign-listed firms in the three industries. The basic materials sector recorded a sharp increase in 2020, followed by a major decline in 2021. The financial sector peaked in 2022, before declining in 2024. The energy sector reached its highest leverage in 2020 and will decrease by 2024. [Mardaningsih, Nurlaela, and Wijayanti \(2021\)](#), [Aloshaibat \(2021\)](#), and [Demiraj, Demiraj, and Dsouza \(2023\)](#) assert that leverage affects financial performance, while [Lutfiana \(2021\)](#) and [Taristy and Hartono \(2021\)](#) suggest no such effect.

Given these dynamics and the inconsistencies in previous research, this study aims to examine how profitability and leverage influence the financial performance of foreign-listed firms in the basic materials, financial, and energy sectors on the LSE from 2020 to 2024. It also seeks to identify the performance disparities among these industries. This study contributes to the literature by offering cross-sector comparative evidence on LSE-listed foreign firms, an area that remains underexplored. It integrates signaling theory with industry-specific financial structures to demonstrate how profitability and leverage signals differ across sectors.

Nevertheless, despite its relevance, comparative studies assessing financial performance across multiple foreign-listed sectors on the LSE are scarce. Although numerous studies have examined the effects of profitability, leverage, and ownership structure on firm value, their results are inconsistent. Some studies report positive effects, while others show negative or insignificant relationships. ([Prastyawan & Suhendah, 2025](#)). Existing studies largely focus on single industries or domestic contexts ([Ali et al., 2020](#); [Ariawan, 2023](#); [Azizah and Azizah, 2023](#)). The unresolved research gap concerns how profitability and leverage jointly shape financial performance across industries with distinct structural characteristics.

2. Literature Review and Hypotheses Development

This section reviews the signaling theory, profitability, leverage, and financial performance concepts used in this study. Prior research shows varying relationships between profitability, leverage, and firm performance across industries, leading to the development of hypotheses on these effects in foreign-listed firms on the LSE.

2.1 Signaling Theory

According to signaling theory [Brigham and Houston \(2020\)](#), managers communicate company quality to investors through observable financial indicators. Profitability sends a positive signal of efficiency and strong management, whereas excessive leverage signals risk. High profitability can be interpreted as a positive signal for investors because it shows the company's ability to generate profits, whereas high leverage can be interpreted as a negative signal because the company has greater financial risk. Investor reactions to positive or negative signals provided through corporate financial information can affect the financial performance of companies listed abroad. These financial ratios can be used to compare a company's financial performance, and the output of the activity of conducting financial ratio analysis will produce information related to how the company's financial performance is achieved. ([Sari, Sembiring, Jenderal, Yani, & Barat, 2022](#))

Prior research highlights that firm-specific characteristics, such as size, growth potential, and operational structure, significantly influence how profitability and leverage impact performance. The leverage has a positive influence on financial distress. Meanwhile, [Handayani, Indrabudiman, and Christiane \(2022\)](#), found no influence of company leverage on financial distress ([Sari et al., 2022](#)). For example, [Brigham and Houston \(2020\)](#), emphasize that leverage, while often a risk signal, may also serve as an indicator of growth in high-capacity sectors. Moreover, signaling theory provides a lens through which to understand these relationships. Profitability often conveys effective management and stability, whereas excessive leverage could indicate over-reliance on external funding, which is particularly problematic in industries sensitive to interest rate volatility and commodity pricing shocks.

2.2 Profitability

Profitability reflects a firm's ability to generate income through sales and investments ([Fahmi, 2020](#)). Profitability is a company's ability to profit from sales, asset use, and company equity ([Febriyanti, 2023](#)). Profitability can be measured using several existing profitability ratios. In this study, profitability is measured using Net Profit Margin (NPM), which is by comparing total net profit after tax with company sales ([Brigham & Houston, 2020](#)).

Profitability represents the company's ability to generate profits through effective utilization of available resources. A high level of profitability reflects efficient managerial decision-making, operational effectiveness, and the company's capability to create value for shareholders. According to [Khan, Siddiqui, and Imtiaz \(2020\)](#), profitability is one of the fundamental indicators of corporate performance because it reflects the success of firms in transforming operational activities into financial returns. [Nguyen and Nguyen \(2020\)](#), stated that profitability plays an important role in determining financial performance because profitable firms generally have stronger internal financing capacity and greater resilience in facing market uncertainties. Therefore, profitability is widely considered a key determinant in evaluating corporate financial sustainability. It is measured using the Net Profit Margin (NPM) showed in Formula 1.

$$NPM = \left(\frac{NetProfit}{Revenue} \right) \times 100 \quad (1)$$

2.3 Leverage

Leverage measures the extent to which assets are financed by [Lutfiana \(2021\)](#), leverage can be used to measure how far the funding carried out by a company is financed by debt compared to its capital. The leverage ratio is a tool to measure the extent to which a company funds its assets and the company's ability to pay its debts ([Brigham & Houston, 2020](#)). Leverage measurement can be performed using several existing leverage ratios. In this study, leverage is measured using the Debt-to-Equity Ratio (DER), which shows the percentage of assets financed by debt ([Noviyati, 2023](#)).

Leverage describes the proportion of debt used by firms to finance their assets and operational activities. The strategic use of debt can enhance firm growth by providing additional resources for investment; however, excessive leverage may increase financial pressure and reduce financial flexibility. [Bui, Nguyen, and Pham \(2021\)](#), explained that leverage affects firm performance through its influence on financial risk, cost of capital, and managerial decision-making. [Vo and Ellis \(2021\)](#), highlighted that the relationship between leverage and corporate performance depends on firm characteristics, industry structure, and economic conditions. Companies operating with high leverage must carefully balance debt utilization and financial stability to maintain sustainable performance. It is proxied by the Debt-to-Equity Ratio (DER) in Formula 2.

$$DER = \left(\frac{Liabilities}{Equity} \right) \times 100 \quad (2)$$

2.4 Financial Performance

Financial performance is a subjective assessment of a company's success in generating more income by utilizing its assets from the company's main operations ([Agbata, Osingor, & Ezeala, 2021](#)). Financial performance evaluates the efficiency of management in generating returns ([Meiryani, Huang, Soepriyanto, Jessica, Fahlevi, Grabowska, & Aljuaid, 2023](#)). In this study, financial performance is calculated using Return on Equity (ROE), which is a measurement based on the company's ability to generate net income with total equity owned ([Brigham & Houston, 2020](#)).

Financial performance is an important measure for evaluating a company's ability to manage resources, generate returns, and achieve strategic objectives. It provides information regarding operational efficiency, financial stability, and value creation for stakeholders. Financial performance is influenced by internal factors, including financial structure, managerial efficiency, and corporate resources. In addition, [Sardo and Serrasqueiro \(2022\)](#) found that firm-specific characteristics significantly contribute to variations in financial performance, indicating that differences in organizational conditions and business environments may produce different performance outcomes among companies. Therefore, financial performance should be analyzed by considering both financial indicators and contextual factors affecting firm operations. This study uses Return on Equity (ROE) as showed in Formula 3:

$$ROE = \left(\frac{NetProfit}{Equity} \right) \times 100 \quad (3)$$

2.5 Foreign-Listed

Foreign listing is a situation where a company lists its shares on a non-domestic or foreign exchange ([Li, 2021](#)). Companies seek to enhance their global reputation and attract international investors by listing their shares on foreign exchanges ([Ali et.al, 2020](#)). Foreign listing allows companies to attract foreign investors who may be difficult to reach if they are only listed on the domestic exchange and expand their investor base. Foreign-listing also has a significant positive relationship with the company's financial performance and provides benefits for the company ([Ali et al., 2020](#)).

2.6 Summary of Prior Studies

Empirical Gap: Prior studies rarely compare cross-sector foreign-listed firms, most focus on single industries or domestic markets. To provide a comprehensive overview of existing evidence and highlight the research gap addressed in this study, the summary of prior empirical studies is presented in Table 1.

Table 1. Summary of prior studies

Author & Year	Variables	Method	Result
Lutfiana (2021)	Profitability, Leverage → Performance	Regression	Profitability (+), Leverage (–)
Ariawan (2023)	Profitability, Liquidity → Value	Panel Data	Profitability (+)
Demiraj et al. (2023)	Leverage → Performance	Panel GLS	Negative relationship
Irawati et al. (2023)	Profitability, Leverage → Performance	Multiple Regression	Mixed results

2.7 Hypotheses Formulation

H_1 : Profitability positively affects the financial performance of foreign-listed companies

H_2 : Leverage negatively affects the financial performance of foreign-listed companies

H_3 : Significant differences exist in financial performance among industries

3. Methodology

This quantitative research uses secondary panel data from LSE-listed foreign companies between 2020 and 2024. Data were obtained from the official LSE website and the firms' financial statements. The type of data used is panel data, which is a combination of time series data and cross-section data (Ghozali & Ratmono, 2020). The population in this study consisted of foreign-listed companies in the basic material, financial, and energy industries listed on the London Stock Exchange between 2020 and 2024. Sampling was conducted using purposive sampling criteria, focusing on firms that reported in USD for data consistency. The results of purposive sampling and outlier detection are presented below.

The decision to use purposive sampling ensured that the selected firms accurately reflected the characteristics relevant to this study. Firms operating with USD reporting provide consistency in financial ratio comparisons and avoid currency translation distortion. Moreover, the use of panel data is crucial because it captures both temporal and individual firm variations, offering more robust insights than purely cross-sectional or time-series approaches. This strengthens the credibility of the conclusions drawn regarding profitability and leverage effects across industries. The detailed process of sample selection based on the established criteria is presented in Table 2.

Table 2. Purposive sampling results

No.	Criteria	Industry		
		Basic Material	Financial	Energy
1	International companies incorporated in countries outside the UK (foreign-listed) listed on the LSE from 2020 to 2024	48	44	29
2	The company uses USD currency in the financial statements	(20)	(34)	(13)
3	The company has the data and information needed to analyze the variables in the study	(14)	(0)	(4)
Outlier Data		(2)	(4)	(4)
Number of companies		12	6	8
Number of research samples = number of companies x research periods		12 x 5 = 60	6 x 5 = 30	8 x 5 = 40

The variables used in this study are Profitability, Leverage, and Financial Performance. The operational definitions, measurements, and indicators of each variable used in this study are summarized in Table 3.

Table 3. Operational definitions of variables

Variables	Definition	Indicator
Financial Performance (Y)	Financial performance is a subjective assessment of a company's success in generating income from its main operations.	$ROE = (\text{Net Profit} / \text{Equity}) \times 100\%$

Variables	Definition	Indicator
Profitability (X_1)	Profitability is the company's ability to earn profits from sales, use of assets, and company equity (Febriyanti, N., 2023)	$NPM = (\text{Net Profit} / \text{Revenue}) \times 100\%$
Leverage (X_2)	Leverage is used to measure how far a company's funding is financed by debt compared to its capital (Lutfiana, 2021).	$DER = (\text{Liabilities} / \text{Equity}) \times 100\%$

3.1 Regression Model

The empirical model used to examine the relationship between profitability, leverage, and financial performance is presented in Formula 4.

$$ROE_{it} = \alpha + \beta_1 NPM_{it} + \beta_2 DER_{it} + \epsilon_{it} \quad (4)$$

Panel data were analyzed using EViews 10, with model selection via Chow, Hausman, and LM tests. GLS cross-section weights were applied to correct for heteroscedasticity.

4. Results and Discussions

The descriptive statistical results for the basic materials industry indicate that profitability, measured using NPM, ranges from a minimum of -0.6690 to a maximum of 0.4842 , with an average value of 0.07693 and a standard deviation of 0.20573 . The leverage variable, assessed through the DER, records a minimum of 0.1031 and a maximum of 5.2923 , while its mean stands at 0.8530 with a standard deviation of 0.9601 . Financial performance, represented by ROE, has a minimum value of -1.4573 , a maximum value of 0.4091 , an average of 0.0176 , and a standard deviation of 0.2976 .

For the financial industry, the descriptive analysis shows that profitability (NPM) exhibits substantial variability, with a minimum value of -5 and a maximum value of 9.4 . The mean value recorded was 0.4886 , accompanied by a relatively large standard deviation of 2.2929 . Leverage (DER) ranges from 0.0279 to 4.8869 , with a mean of 1.2304 and standard deviation of 1.6056 . Financial performance (ROE) varies between -0.2527 and 0.2773 , producing an average of 0.0584 and a standard deviation of 0.13606 .

The descriptive results for the energy industry reveal that profitability, measured by NPM, spans from -67.5 to 0.5783 , yielding a mean of -5.2329 with a notably high standard deviation of 15.513 . The leverage variable (DER) shows a minimum value of 0.0546 and a maximum of 3.6755 , with a mean of 0.8014 and standard deviation of 0.7882 . Financial performance, reflected by ROE, ranges from 3.3200 to 0.5865 , with an average value of -0.1215 and a standard deviation of 0.6563 .

4.1 Basic Material Industry

The results of the panel data model selection tests and the estimated regression model for the basic materials industry are presented in Table 4.

Table 4. Basic material industry

Sector	Model	Effect of Profitability	Effect of Leverage	Adj. R ²
Basic Materials	Fixed Effect (GLS)	Positive, significant (p=0.000)	Negative, significant (p=0.000)	0.9567
Financial	Common Effect	Positive, significant (p=0.039)	Not significant (p=0.976)	0.0881

Sector	Model	Effect of Profitability	Effect of Leverage	Adj. R ²
Energy	Fixed Effect (GLS)	Not significant (p=0.598)	Negative, significant (p=0.0001)	0.5607

The estimation of the panel data regression model involves three approaches: the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). The Chow, Hausman, and Lagrange Multiplier (LM) tests were used to determine the most appropriate model. The results of the Chow test show a probability value of 0.0000, which is below the 0.05 threshold; consequently, the fixed effects model (FEM) is selected. Similarly, the Hausman test yields a probability value of 0.0008, which is also less than 0.05, confirming that FEM is the preferred model. Because both tests consistently indicate the superiority of FEM, the LM test, typically used to choose between CEM and REM, is no longer necessary.

The heteroscedasticity test revealed the presence of heteroscedasticity within the model, necessitating corrective measures. Heteroscedasticity issues in panel data can be addressed by applying the Generalized Least Squares (GLS) method with cross-section weights, as panel datasets often exhibit heteroscedastic characteristics due to their multiple cross-sectional units. The results obtained using the GLS method are as follows.

$$ROE_{it} = 0.9773 + 0.9818NPM_{it} - 0.1824DER_{it} + eit \quad (5)$$

Based on the panel data regression model Formula 5 selection test that has been carried out, the best model used for this analysis is the Fixed Effect Model with GLS cross-section weights. The following is the panel data regression equation for the basic material industry, presented in Formula 5 :

he adjusted R-squared value is 0.9567, indicating that the independent variables explain 95.67% of the variation in the dependent variable, while the remaining 4.33% is attributable to factors not included in this study. The hypothesis testing results for the basic materials sector show that the p-value for profitability is 0.0000, which is below the 0.05 significance level; therefore, profitability has a partial effect on the financial performance. Similarly, the p-value for leverage is 0.0000, which is below 0.05, demonstrating that leverage exerts a significant influence on financial performance.

4.2 Financial Industry

Profitability functions as a positive signal of managerial efficiency in both the basic materials and financial sectors, aligning with the core principles of the signaling theory. Conversely, elevated leverage levels in the basic materials and energy industries tend to indicate financial strain, which weakens investor confidence. Based on the Chow test, the resulting probability value of 0.3570 exceeds the 0.05 threshold, indicating that the Common Effect Model (CEM) is the appropriate model. The Hausman test further supports this, as its probability value of 0.6166, which is greater than 0.05, leads to the selection of the Random Effect Model (REM). Finally, the Lagrange Multiplier (LM) test, with a Breusch–Pagan p-value of 0.4470 (greater than 0.05), again identifies the Common Effect Model (CEM) as the preferred specification. Accordingly, the CEM results for the financial industry are as follows in Table 6.

Table 6. Common effect model financial industry

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C	0.0477	0.0309	1.5404	0.1351
NPM	0.0230	0.0106	2.1712	0.0389
DER	-0.0004	0.0151	-0.0307	0.9757
R-Squared		0.1510		

Variables	Coefficient	Std. Error	t-Statistic	Prob.
Adjusted R-squared		0.0881		
F-Statistic		2.4012		
Prob(F-statistic)		0.1096		

Based on the results of the panel data model selection tests, the Common Effect Model (CEM) was identified as the most appropriate model for this analysis. The estimated panel regression equation for the financial industry is presented in Formula 6.

$$ROE_{it} = 0.0477 + 0.0230NPM_{it} - 0.0004DER_{it} + eit \quad (6)$$

According to Table 6, the adjusted R-squared value is 0.0881. This indicates that the independent variables explain 8.8% of the variation in financial performance, while the remaining 91.2% is attributed to other factors not included in this study. The hypothesis testing results show that the p-value for profitability is 0.0389, which is below the 0.05 significance level; thus, profitability partially affects financial performance. In contrast, the p-value for leverage is 0.9757, exceeding 0.05, which indicates that leverage does not significantly affect financial performance.

4.3 Energy Industry

Based on the Chow test results, the probability value is 0.0287, which is more than 0.05; therefore, in the Chow test, the selected model is the Fixed Effect Model (FEM). Then, based on the results of the Hausman test, the probability value is 0.0229, which is less than 0.05; thus, in the Hausman test, the selected model is the Fixed Effect Model (FEM). Thus, there is no need to conduct the Lagrange Multiplier (LM) test, which is used to choose between the CEM or REM model, because based on the Chow and Hausman tests, it is known that the FEM is the best model. Based on the heteroscedasticity test conducted, the model has symptoms of heteroscedasticity, and correction is needed to treat these symptoms. To overcome heteroscedasticity, one can use Generalized Least Squares (GLS) with cross-section weight; it is assumed that panel data tend to contain heteroscedasticity because they consist of many cross-sections. The results of the GLS method are as follows in Table 7.

Table 7. Fixed effect model with generalize least square energy industry

Variables	Coefficient	Std. Error	t-Statistic	Prob
C	0.5310	0.1469	3.6827	0.0009
NPM	0.0016	0.0030	0.5331	0.5978
DER	-0.8160	0.1799	-4.5362	0.0001
Effect Specification				
Cross-section fixed (dummy variables)				
Weighted Statistics				
R-Squared		0.6621		
Adjusted R-squared		0.5607		
F-Statistic		6.5325		
Prob(F-statistic)		0.0000		

Based on the outcomes of the panel data regression model selection tests, the fixed effects model with GLS cross-section weights was determined to be the most suitable model for analyzing the energy industry. The resulting panel data regression equation is presented in Formula 7.

$$ROE_{it} = 0.5410 + 0.0016NPM_{it} - 0.8160DER_{it} + eit \quad (7)$$

Referring to Table 7, the adjusted R-squared value is 0.5607, indicating that the independent variables account for 56.07% of the variation in financial performance, while the remaining 43.93% is attributable to other factors not included in this study. The hypothesis testing results show that the p-value for profitability is 0.5978, which is greater than the 0.05 significance threshold; therefore, profitability does not have a significant partial effect on the financial performance. In contrast, the p-value for leverage is 0.0001, which is below the 0.05 threshold, demonstrating that leverage exerts a significant influence on financial performance in the energy sector.

4.4 Financial Performance Comparison

A normality test was conducted first to determine the comparative test used. Based on the results of the normality test, the data were not normally distributed. Thus, the Kruskal-Wallis test was used for the comparison.

Table 8. Kruskal-wallis test

Method	Df	Value	Prob.
Kruskal-Wallis	8	95.69186	0.0000

The Kruskal–Walli’s test ($p=0.0000$) in Table 8 confirms significant differences in financial performance among industries, influenced by sector-specific risks such as commodity prices, regulations and capital intensity. From an investor's perspective, the influence of profitability and leverage is interpreted differently depending on the sector dynamics. For instance, in the financial industry, profitability is closely linked to margin management and credit performance; hence, it is positively correlated with financial outcomes. In contrast, sectors such as energy are heavily influenced by external price shocks, environmental regulations, and geopolitical instability, which often obscure the relationship between internal financial metrics and actual performance. This complexity requires a nuanced interpretation of financial indicators when evaluating firm performance.

4.5 The Effect of Profitability on Financial Performance

Based on the analysis, profitability has a positive effect on financial performance in foreign-listed companies in the basic materials and financial industries but does not affect the financial performance in the energy industry. The difference in the effect of profitability between industries is due to several factors, including industry characteristics. The basic materials industry has a high-cost structure with tight profit margins, whereas the financial industry is highly dependent on profit margins from financial products and services. Meanwhile, in the energy industry, external factors such as government regulations and long-term investments are considered. The findings of this study align with signaling theory, which shows that in the basic material and financial industries, profitability is a strong signal to investors that the company has management that can manage operations effectively and improve its financial performance. In the energy industry, profitability does not have a strong enough signal for investors and does not affect financial performance.

4.6 The Effect of Leverage on Financial Performance

Based on the results of the analysis, leverage negatively affects financial performance in foreign-listed companies in the basic materials and energy industries but has no effect in the financial industry. The difference in the effect of leverage between industries is due to several factors, including industry characteristics. In the basic materials and energy industries, companies operate with large capital requirements, tight profit margins, and high commodity-price volatility. In the financial industry, leverage is often part of a company's business model, as banks and insurance companies use debt to generate revenue through investments and loans. The results of this study are related to the signaling theory, which shows that in the basic material and energy industries, leverage is a strong signal to investors that the company has high financial risk and can reduce the company's financial performance. In the financial industry, leverage does not have a strong enough signal for investors and does not affect financial performance.

4.7 Comparison of Financial Performance

Based on the results of the analysis, there are significant differences in the financial performance of foreign-listed companies in the basic materials, financial, and energy industries. Companies in the basic materials industry tend to have risks related to fluctuations in raw material prices, global demand, and unpredictable environmental factors. Meanwhile, companies in the financial industry have more risks related to changes in regulation, monetary policy, and global financial conditions. Companies in the energy industry also face challenges such as oil and gas price volatility, global energy policy shifts, and a transition to renewable energy. Given the different characteristics of the three industries, the financial performance of companies in the industry is different.

5. Conclusions

5.1 Conclusion

Profitability significantly enhances financial performance, particularly in the basic materials and financial sectors, indicating that firms with stronger profit-generating capabilities tend to achieve higher operational effectiveness and investment outcomes. In contrast, leverage shows a negative impact on financial performance in the basic materials and energy sectors, suggesting that excessive reliance on debt financing may increase financial risk and reduce investment efficiency. These findings highlight that sector-specific characteristics, including capital intensity, market conditions, and financing structures, play an important role in shaping how profitability and leverage influence corporate investment efficiency. Therefore, firms should consider industry-specific strategies in managing financial resources to optimize performance and support sustainable growth.

5.2 Research Limitations

This study had several limitations. First, the sample size is relatively limited, covering only 26 foreign-listed firms across three sectors on the London Stock Exchange during the 2020–2024 period, which may restrict the generalizability of these findings. Second, this study focuses only on two independent variables, namely profitability (NPM) and leverage (DER), while other important factors such as liquidity, firm size, corporate governance, and market conditions are not included in the model. Third, the use of secondary data may limit the depth of analysis, particularly in capturing qualitative aspects, such as managerial decisions and strategic considerations. Finally, the study period includes extraordinary global events, such as the COVID-19 pandemic and geopolitical instability, which may have influenced financial performance in ways that are not fully captured by the model.

5.3 Suggestions and Directions for Future Research

Future research is encouraged to incorporate additional financial and firm-specific variables, such as liquidity, firm size, and market valuation, to provide a more comprehensive understanding of the factors influencing corporate investment efficiency. Expanding the sectoral coverage and including a broader range of industries would also enhance the generalizability of the findings. Furthermore, extending the observation period beyond five years is recommended to capture long-term trends, structural changes, and dynamic relationships among financial factors and corporate performance. These improvements may contribute to a deeper understanding of how firms optimize financial strategies under different economic and industry conditions.

Acknowledgement

The authors gratefully acknowledge the support of Politeknik Negeri Semarang and all parties who contributed to the completion of this research. The authors also appreciate the availability of financial data from the London Stock Exchange, which supported the empirical analysis conducted in this study.

Author Contributions

EP contributed to the conceptualization of the research idea, study design, data collection from the London Stock Exchange database, data processing, statistical analysis using EViews, and preparation of the original manuscript draft. FA contributed to the development of the theoretical framework, literature review, research methodology, data interpretation, and critical revision of the manuscript. APP contributed to literature review, validation of the research methodology, interpretation of research

findings, manuscript improvement, and final editing. All authors contributed to the discussion of the results and approved the final version of the manuscript.

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