Print ISSN: 1738-3110 / Online ISSN 2093-7717
JDS website: http://accesson.kr/jds
http://doi.org/10.15722/jds.22.06.2024.06.1

A Dynamic Approach to Understanding Business Performance

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Received: November 15, 2023. Revised: December 14, 2023. Accepted: June 05, 2024.

Abstract

Purpose: This study's objective is to examine the impact of firm-specific and macroeconomic factors on the business performance of non-cyclical and cyclical sectors in Indonesian listed firms. The evaluation of business performance holds paramount importance for the achievement and long-term viability of a company. **Research Design Data and Methodology**: The data for 61 non-cyclicals sector companies and 57 cyclicals sector companies was gathered over a 4-year period from 2018–2021. The model integrates firm size, leverage, and sales growth as firm-specific factors, with real GDP growth and inflation rate as macroeconomic variables. ROA and ROE are indicators of a firm's business performance. The regression models are estimated using the distribution of a dynamic approach with Arellano-Bond Panel Generalized Method of Moments (GMM) estimation. **Results**: The results of the pooled sample indicate that the historical ROA and ROE have a positive relationship with the business performance of all sectors, including both non-cyclical and cyclical industries. The ROE of non-cyclical enterprises is primarily influenced by firm-specific characteristics and macroeconomic influences. **Conclusion**: To ensure the successful implementation of the distribution of a dynamic approach towards enhancing corporate business performance, organizations need to take into account a combination of firm-specific factors and macroeconomic factors.

Keywords: Dynamic Approach, Firm-Specific Factors, Macroeconomics factors, Profitability

JEL Classification Code: C23, E32, L25, M21

1. Introduction

The distribution of a dynamic strategy must be adopted by business players to maintain a competitive advantage and increase business performance that takes into account ever-changing market conditions and consumer demands. This approach involves continuously evaluating and modifying strategies to remain ahead of the competition, capitalize on emerging opportunities, and reduce potential threats. In addition, the distribution of a dynamic approach to business performance necessitates that businesses be able to employ innovative and effective competitive strategies. These strategies should prioritize not only short-term gains but also long-term sustainability. The distribution of a dynamic approach is necessary for businesses to leverage their competitive advantages and position themselves in the marketplace. According to (Sebki, 2021), the distribution of a dynamic panel data model provides a possible solution for addressing dynamic interactions and unobservable individual-specific variability in panel data. Estimation is possible through the straightforward computation of the distribution of an Arellano-Bond Panel generalized method of moments (GMM) from the underlying modelling assumptions.

Businesses can make well-informed decisions regarding resource allocation, pricing strategies, product development, and market positioning if they comprehend the business performance factors and how they interact in a dynamic

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environment. This adaptable mindset and proactive approach to business performance can have a substantial impact on an organization's success. By continually evaluating and modifying their strategies, businesses can maximize their competitive advantage, enhance their market position, and ultimately increase their business performance. Without knowledge of long-term business performance relationships, businesses cannot completely capitalize on their competitive advantages or formulate strategies based on these relationships (Cheong & Hoang, 2021).

This analysis utilizes ROA and ROE as benchmarks for measuring business performance and concentrates on analyzing the factors that cause fluctuations in these two ratios. These ratios reveal the company's ability to generate earnings from its assets and shareholders' equity (Abaidoo & Agyapong, 2021). To provide a more comprehensive analysis of business performance assessment, it is necessary to comprehend the various factors that contribute to the financial health and success of a company. Profitability is determined not only by a company's ability to generate profit, but also by a variety of firm-specific and macroeconomic factors. These factors include firm size, leverage, and sales growth as firm-specific factors. Additionally, macroeconomic factors such as real GDP growth and inflation rate can also significantly impact a company's profitability. Therefore, it is crucial for businesses to carefully analyse and adapt to these various factors in order to maintain and improve their profitability over time.

Numerous studies have demonstrated the significance of firm-specific factors in supporting firm business performance (Cheong & Hoang, 2021; Bhutta & Hasan, 2013; Dahmash et al., 2021). These factors provide insight into the company's resource utilization and financial management By evaluating these financial metrics, stakeholders can determine whether a company is profitable during a specified time period (Halim, 2021). This study determines business performance based on firm size, leverage, and sales growth, which come from specific factors directly related to the company. According to Cheong and Hoang (2021), a rise in firm size and sales growth substantially increases business performance, whereas an increase in debt burden reduces the company's ability to create profits due to higher interest payments.

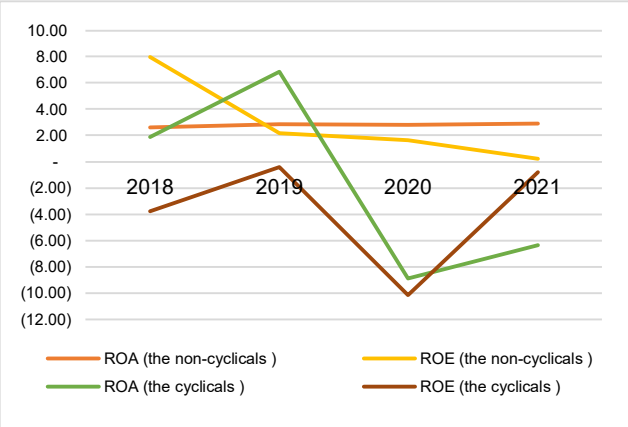
It is essential to observe, however, that business performance cannot be determined solely by financial metrics. Macroeconomic factors such as the GDP growth and the inflation rate play a significant role in determining business performance (Durguti, 2020). Researchers continue to be concerned with macroeconomic factors due primarily to the inability of managers to predict the influence of macroeconomic conditions on firm business performance with precision. Additionally, globalization has increased a company's exposure to external factors, compounding the difficulties confronted by managers (Cheong & Hoang, 2021). The empirical literature demonstrates that volatility in macroeconomic variables such as GDP growth and the inflation rate has a substantial impact on the business performance of businesses (Killins, 2020; Bayar & Ceylan, 2017; Cyril & Singla, 2020; Egbunike & Okerekeoti, 2018). The GDP growth rate reflects a country's overall economic performance and directly affects consumers' purchasing power. The inflation rate, on the other hand, influences the cost of production and the business performance of a business by affecting the prices of inputs and outputs.

The Non-cyclicals sector and the cyclicals sector are two distinct sectors of a country's economy. The Non-cyclicals sector is essential to the economy.by providing essential raw materials and resources for other sectors to use. These sectors often rely on each other in a symbiotic relationship, with the Non-cyclicals sector supplying raw materials to the cyclicals sector for processing or manufacturing. The cyclicals sector, on the other hand, focuses on transforming these raw materials into finished goods and providing various services to meet consumer needs. This relationship between the Non-cyclicals sector and the cyclicals sector is essential for economic growth and development. The high demand from consumers for manufactured goods can be a driving force for increased business performance. This has made the Non-cyclicals consumer subsector an attractive investment area for investors, particularly those with a long-term focus on stocks. Commodities are considered fundamental because they are not affected by economic fluctuations, thus having no impact on the demand for goods and services in this sector. The large consumer demand for manufactured goods can be a factor that contributes to increased business performance.

The cyclicals Consumer Sector is the sector that produces secondary goods or services. The cyclicals Consumer Sector is cyclical in nature, so demand in this sector has a high correlation with economic growth. The more consumerist the society, the more the economic growth increases. The condition also has an effect of increasing the company's business performance. However, if an economic disruption occurs, such as the emergence of the covid pandemic in the first quarter of 2020, it can cause economic growth to be disrupted. This situation also has an impact on the decreased business performance of cyclicals consumer sector companies.

Figure 1 shows changes in ROA and ROE of both sectors from 2018 to 2021. ROA in the Non-cyclicals sector levelled off for four consecutive years, while the acquisition of ROE declined over the period. ROA and ROE from the

cyclicals sector experienced almost the same pattern of fluctuation. These two ratios increased gradually from 2018 to 2019. The biggest decline was seen in ROA throughout the 2020s, which then rose slightly from 2020 to 2021. Meanwhile, in the period from 2019 to 2020, the ROE decreased significantly to below -10 percent, after which it rose significantly to reach a high of -0.3 percent.



Source: Chart From Excel, 2023.

Figure 1: Comparison of ROA and ROE between the non-cyclicals and cyclicals sectors

Firm-specific factors are primarily within the control of management. This study employs company-specific variables, including past business performance, firm size, leverage, and sales growth. Numerous academic researchers have studied the impact of firm-specific factors on the business performance of a business. The study by Dahmash et al. (2021) over the period from 2011 to 2018 on corporate firms in Jordan reveals a considerable positive correlation between a firm size, sales growth, and business performance, while leverage negatively affects business performance. The empirical findings reported by (Işık, 2017) based on the study conducted in Turkey offer support for the notion that firm size is positively correlated with a higher ROA, conversely, a higher leverage ratio is found to be significantly connected with a lower ROA ratio.

The empirical findings of Fareed et al. (2016) of power and energy sector in Pakistan indicate that firm size and sales growth have a positive effect on business performance. This is consistent with the findings of Nguyen and Nguyen (2018), Moussa and Boubaker (2023) and Cheong and Hoang (2021). In opposition to this result, the findings of Bhutta and Hasan (2013) of food sector in Pakistan documents a insignificant negative relationship between firm size and business performance, while the relationship between sales growth and business performance is determined to be positive insignificant. A study conducted on manufacturing enterprises in Nigeria revealed that many company factors, including firm size and leverage, exhibit a significant positive influence on business performance (Egbunike & Okerekeoti, 2018; Tekin, 2022). In a comprehensive study on Chinese listed companies show firm size has positive and significant relationships with return on assets (Alarussi & Gao, 2021). Lim and Rokhim (2020) conducted analysis of pharmaceutical company in Indonesia and reported that there is a significant positive relationship between firm size and business performance, but sales growth has no effect on business performance.

In the subject of macroeconomics, external factors have been extensively studied as explanations for firm business performance. The study of Egbunike and Okerekeoti (2018) found a positive effect for inflation rate and GDP growth rate on business performance on manufacturing firms in Nigeria. The findings of this investigation are consistent with Youssef et al. (2022) who also researched non-financial firms listed small and medium-sized enterprises (SMEs) in the United Kingdom from 2012 till 2020. Meanwhile from emerging market economies, Ndlovu and Alagidede (2018) revealed that GDP has a positive impact on ROE, while inflation has a negative effect. Dewi et al. (2019) identified that in Indonesian manufacturing firms, only GDP has a significant positive influence on firm business performance, while inflation factors have no significant influence. Jolly Cyril and Singla (2020) report a significant negative effect inflation rate and GDP on 67 firms in real estate, industrial construction and infrastructure from 2003 to 2017.

The application of firm-specific and macroeconomic factors to business performance has a considerable and broad literature; however, there is a lack of previous research on firm-specific and macroeconomic factors that affect ROA and ROE in the non-cyclicals and cyclicals sectors. The objective of this study is to compare the influence of firm-specific characteristics and macroeconomic variables on business performance in the non-cyclicals and cyclicals sectors in Indonesia. This study fills an important gap in the literature by comparing the business performance of these sectors and highlighting the differences and similarities between them. This study uses data from 61 non-cyclicals consumer sector companies and 57 cyclicals consumer sector companies from 2018 to 2021. Two dependent variables are used as indicators of company business performance, namely ROA and ROE. The distribution of a dynamic Arellano-Bond Panel GMM Method is used in research to improve the reliability of the developed model. The research is divided into five sections. Following the introduction, the second section offers a literature review of research comparing the business performance of the non-cyclicals and cyclicals industries. The third section introduces the research methodology. The fourth section includes the analysis's findings. The overall evaluation of this study is presented in the final section.

2. Literature Review

2.1. The Resource-based Theory

The resource-based theory is a fundamental concept in strategic management that highlights the importance of firm-specific resources for achieving competitive advantage. This theory takes a firm-specific position regarding the success or failure of businesses on the market. By effectively managing and employing these resources, businesses can create value for consumers and differentiate themselves from competitors.

The resource-based perspective aids managers in comprehending why competences are a company's most significant asset and how these assets may be employed to improve business success. When a company's business performance exceeds the average business performance of all firms in its industry, it is regarded as having a competitive edge over its (Adom et al., 2016). In economic and management studies, ROA and ROE are used to determine a company's business performance or competitive advantage (Adnan et al., 2018). According to the resource-based approach, an organization's competitiveness and, by extension, its business performance are determined by its internal elements and resources.

2.2. Business Cycle Theory

The study of business cycles describes the periodic changes in macroeconomic activity. The business cycle offers a tool for forecasting short-term economic behaviour, evaluating the effects of certain policy choices in various markets, or evaluating the effectiveness of policy implementation according to cycle (Praščević, 2020). Traditionally, the theory of the business cycle attributes aggregate changes to macroeconomic shocks such as commodity price fluctuations, technological developments, and macroeconomic policies (Issah & Antwi, 2017).

The business cycle is divided into four phases: expansion, peak, contraction, and trough. Business cycle theory explains that during distinct economic phases, businesses operate differently in order to acclimatise to changing economic conditions (Adnan et al., 2018). For instance, it is predicted that non-cyclicals sectors as non-cyclical businesses are unaffected by economic conditions, resulting in less volatile market fluctuations. When the economy is in a contraction phase, this sector will outperform others. According to the Classification of IDX-listed companies, the non-cyclicals sectors consist of food, pharmaceuticals, agricultural products, cigarettes, household goods, and cosmetics. In contrast to the cyclicals sectors as cyclical sector, businesses will shine and outperform other industries during the expansion phase. According to the industry classification of IDX listed firms, The cyclicals sector consists of producers of passenger cars and their components, durable household goods, clothing, shoes, and textiles, sports equipment, and hobbies, as well as tourism, recreation, education, consumer support businesses, media companies, advertising, and secondary goods retailers.

2.3. Business Performance

The measurement of a business's performance and efficacy in generating profits in this study uses profitability. The vast majority of these studies divided business performance determinants into two categories: firm specific factors and macroeconomics factors. Many authors employ many indicators including ROA and ROE to evaluate the business performance of companies. These metrics provide insights into the company's ability to generate income relative to its assets and equity. The research by Arintoko et al. (2021), Dahmash et al. (2021), Yousaf and Dey (2022), Fareed et al. (2016), and Egbunike and Okerekeoti (2018) utilized ROA, meanwhile Nguyen and Nguyen (2018), Moussa and Boubaker (2023), and Ndlovu and Alagidede (2018) utilized ROE. Some researchers have employed both proxies for business performance (Tekin, 2022; Kolias & Arnis, 2019; Shahid et al., 2020; Lim & Rokhim, 2020).

2.4. Firm Size

Business enterprises endeavour to optimise their financial gains with the aim of attaining stability and expansion. Multiple studies suggest that larger firms tend to have higher levels of business performance due to their increased access to resources, improved capabilities, and ability to achieve economies of scale. Large organisations often have the ability to attract significant attention and investment, so providing greater financial support and opportunities. The studies by Nguyen and Nguyen (2018), Dahmash et al. (2021), Cheong and Hoang (2021), and Moussa and Boubaker (2023) reveal a considerable positive correlation between a firm size on business performance.

2.5. Leverage

Leverage is a financial strategy that involves utilising borrowed capital to fund investments or operational activities, with the objective of maximising prospective profits. The pecking order theory posits that there exists a negative relationship between leverage and business performance. This implies that there may be a negative relationship between a firm's amount of leverage and its business performance. The empirical findings of Işık (2017)

and Dahmash et al. (2021) indicate that leverage have a negative effect on business performance. This finding supports the notion that using excessive leverage can hinder a company's business performance.

2.6. Sales Growth

Sales growth is the increase in total sales that a company experiences over a specific period of time. It has strategic implications for the company because it is marked by a surge in market share. A relationship between sales growth and business performance has been found in several studies, implying that companies with higher sales growth are more likely to be profitable. This assertion is supported by the research conducted by Bhutta and Hasan (2013), Fareed et al. (2016), Nguyen and Nguyen (2018).

2.7. GDP Growth Rate

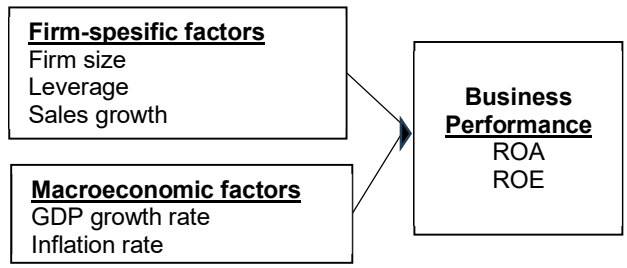
The relationship between business business performance and GDP growth rate has been widely examined in the field of macroeconomics. GDP growth pertains to the expansion in the monetary worth of goods and services generated by an economy during a designated timeframe. Numerous scholarly investigations have examined the influence of GDP growth on business performance and have continuously revealed a positive correlation between these two variables (Egbunike & Okerekeoti, 2018; Ndlovu & Alagidede, 2018; Dewi et al., 2019; Youssef et al., 2022). The outcomes of this study indicate that during periods of economic expansion, businesses demonstrate greater business performance.

2.8. Inflation Rate

Inflation is a phenomena characterised by a progressive increase in the cost of goods and services over a specific duration. There are various avenues through which higher inflation rates can potentially enhance business performance for businesses. First and foremost, inflation can lead to an increase in the prices of goods and services, allowing companies to earn higher profits (Fitim et al., 2019). Moreover, it is important to acknowledge that inflation might potentially erode the real value of debt, so favourably impacting firms by lowering borrowing expenses and improving their financial situation. Furthermore, inflation can act as a stimulant for individuals to accelerate their purchase decisions, so promoting enhanced business performance and sales for firms. Empirical evidence has demonstrated a positive association between the inflation rate and business business performance (Egbunike & Okerekeoti, 2018; Oga et al., 2020; Youssef et al., 2022).

2.9. The Conceptual Framework

The conceptual framework is of great importance to enterprises, as it functions as a vital tool in understanding and assessing the aspects that impact business performance. This framework presents a structured approach for examining the various components that impact a firm's business performance. These components include firm size, leverage, and sales growth as firm-specific factors, and GDP growth and inflation rate as macroeconomic factors. By employing the distribution of a dynamic methodology, organizations can augment their understanding of the complex interaction among several factors and formulate strategies to maximize their financial benefits.



Source: Self-conceptualization of the author (2023)

Figure 2: The conceptual framework

Table 1: Variable Measurements

Variables	Measurements	Acronyms	Expected Result
Dependent Variables			
Return On Assets	Net income/total assets	ROA	
Return Om Equities	Net income/total equity	ROE	
Independent Variables: Firm-spesific factors			
Firm Size	Logarithm of total assets	Size	+
Leverage	Total liability/total equity	DER	-
Sales Growth	$(Sales_t-Sales_{t-1})/Sales_{t-1}$	Growth	+
Independent Variables: Macroeconomics factors			
GDP Growth Rate	Gross Domestic Product real	GDP	+
Inflation Rate	Annual inflation rate	Inflation	+

Source: Author Compilation

3. Methodology

3.1. Design

This study uses a cross-sectional and quantitative method. Purposive sampling was utilized for sample selection. By using purposive sampling, researchers can ensure that their sample represents the population of interest. The statistical method is used in data analysis. These statistical tools aid in the extraction of relevant insights and patterns from large datasets.

3.2. Definition of Variables

This study employs two dependent variables, return on assets (ROA) and return on equity (ROE). ROA and ROE are ratios that demonstrate management's ability to use assets and equity to enhance the performance of a company. The independent variables used are firm-specific factors and macroeconomic factors. These variables are presented in Table 1.

3.3. Subject

For this study, a dataset containing financial data of 118 companies consisting of 61 non-cyclicals sector and 57 cyclicals sector companies operating between 2018 and 2021 has been collected.

3.4. Research Construction

This investigation utilized firm-spesific factors information obtained from the Indonesian Stock Exchange. Data on macroeconomic factors were acquired from publications of the Central Bank of the Republic of Indonesia.

Within the scope of this research, the collected included the four-year Gross Domestic Product as measured by real GDP and the annual inflation rate. The distribution of a dynamic GMM model used in panel data analysis is presented below:

$$y_{it} = \beta 1 + \rho y_{i,t-1} + X_{it}\beta 2 + u_i + \epsilon_{it}$$

Based on the distribution of a dynamic GMM approach, the formula used to apply the factors described is:

$$ROA_{it} = \alpha + \beta 1 ROA_{it-1} + \beta 2 Size + \beta 3 DER + \beta 4 Growth + \beta 5 GDP + \beta 6 Inflation + \epsilon_{it} \quad \text{(Model 1)}$$

$$ROE_{it} = \alpha + \beta 1 ROA_{it-1} + \beta 2 Size + \beta 3 DER + \beta 4 Growth + \beta 5 GDP + \beta 6 Inflation + \epsilon_{it} \quad \text{(Model 2)}$$

4. Result

4.1. Statistic Descriptive Analysis

Table 2, Panel A, displays the descriptive statistics pertaining to the variable data, which is utilized in the model for the combined sample. Panel B provides variable data for the Non-cyclicals sector, and Panel C provides variable data for the cyclicals sector.

The findings of statistical descriptions given by empirical data show that the average ROA for all sectors analyzed is 0.01, while the average ROE is -0.006. In addition, the ROA and ROE for companies in the non-cyclicals sector are computed to be 0.04 percent and 0.49 percent, respectively. The ROA and ROE of cyclicals sector enterprises were found to be -0.028 and -0.066, respectively. Companies in the non-cyclicals sector are perceived to have greater business performance than companies in other sectors.

Table 2: Descriptive Statistics

	ROA	ROE	Firm Size	Leverage	Growth
Panel A: All Sectors					
Mean	0.010	-0.006	28.688	1.745	0.043
Min	-4.376	-7.128	22.837	-30.153	-0.985
Max	6.113	3.408	32.820	114.290	8.575
Std. Dev	0.434	0.599	1.607	6.457	0.626
Observation	472	472	472	472	472
Panel B: Non-cyclicals Sectors					
Mean	0.046	0.049	29.154	1.673	0.060
Min	-0.575	-1.873	25.231	-10.314	-0.855
Max	0.864	2.622	32.820	23.416	1.531
Std. Dev	0.138	0.440	1.465	2.860	0.264
Observation	244	244	244	244	244
Panel C: Cyclicals Sectors					
Mean	-0.028	-0.066	28.189	1.821	0.026
Min	-4.376	-7.128	22.837	-30.153	-0.985
Max	6.113	3.408	31.563	114.290	8.575
Std. Dev	0.606	0.728	1.606	8.817	0.861
Observation	228	228	228	228	228

Source: Processed Data (2023)

The non-cyclicals sector companies have the greatest average value for the firm size variable ratio, at 29.15, compared to all other company sectors and cyclicals sector companies. The average value of the DER variable ratio in the cyclicals sector is 1.82, which is greater than the average value of the DER variable in the non-cyclicals sector and across all company sectors. The average sales growth rate for companies in the non-cyclicals sector was 0.060, which was the highest of any sector.

4.2. Correlation Analysis

The correlation coefficient presented in Table 3 illustrates the relationship between variables. In general, ROA and ROE are positively correlated with firm size, Leverage, and sales growth. All coefficients are significant at the 5% level, and there are no issues with multicollinearity.

Table 3: Correlation Analysis

	ROA	ROE	Firm Size	Leverage	Growth	GDP	Inflation
ROA	1.0000						
ROE	0.0013	1.0000					
Firm Size	0.0007	0.0007	1.0000				
Leverage	0.7799	0.0009	0,9136	1.0000			
Growth	0,5218	0.1088	0.3865	0.3117	1.0000		
GDP	0.0369	0.1510	0.9793	0.0095	0.0076	1.0000	
Inflation	0.0235	0.2028	0.7994	0.0057	0.0811	0.0000	1.0000

Source: Processed Data (2023)

4.3. FEM Results Analysis

Table 4 displays the regression results indicating the relationship between firm-related factors, macroeconomics, and ROA. In all models, ROA is observed to have a positive relationship with firm-related factors and macroeconomic elements. The results support the findings of previous studies (Egbunike & Okerekeoti, 2018; Youssef et al., 2022). In model 1, the only variable with a significant effect is firm size. This result is in line with Fareed et al. (2016) and Dahmash et al. (2021). The second model demonstrates that ROA is significantly affected by Leverage. The results are consistent with existing research Egbunike and Okerekeoti (2018) and Tekin (2022), but contradict the results of Nguyen and Nguyen (2018), Moussa and Boubaker (2023), and Cheong and Hoang (2021). Model 3 investigates the fact that apart from firm size, other predictor variables do not have a significant impact on ROA. This result is consistent with Bhutta and Hasan (2013) research.

Table 4: FEM Results with variables ROA

Variables	All sectors	Non-cyclicals sector	Cyclicals sector
	Model 1	**Model 2**	**Model 3**
Intercept	3.0226 (0.0026)***	0.4810 (0.6309)	0.3024 (0.6951)
Firm Size	2.7558 (0.0061)***	0.8131 (0.4170)	0.9419 (0.0729)*
Leverage	0.01463 (0.9883)	2.7673 (0.0061)***	0.8208 (0.4127)
Sales Growth	0.2125 (0.8313)	1.2657 (0.2069)	0.3205 (0.7489)
GDP Growth	0.3772 (0.7062)	0.4165 (0.6774)	0.5903 (0.5556)
Inflation	1.0793 (0.2810)	0.0756* (0.9398)	1.5257 (0.1285)
Sample	472	244	228
Period	2018-2021	2018-2021	2018-2021
Adjusted R^2	0.030934	0.123139	0.278068
Hausman Test	0.0000	0.0000	0.0000

***, **, and * represents statistical significance at 1%, 5%, and 10% levels, respectively.
Source: Processed Data (2023)

Table 5: FEM Results with variables ROE

Variables	All sectors Model 4	Non-cyclicals sector Model 5	Cyclicals sector Model 6
Intercept	2.2926 (0.0223)**	2.7155 (0.0071)***	2.3627 (0.0099)***
Firm Size	2.2456 (0.0252)**	2.7811 (0.0059)***	3.1569 (0.0021)***
Leverage	3.1156 (0.0020)***	7.9982 (0.0000)***	18.6352 (0.0000)***
Sales Growth	1.1163 (0.2649)	2.3798 (0.0181)**	0.5729 (0.5679)
GDP Growth	0.1454 (0.8845)	1.2156 (0.2254)	0.8557 (0.3941)
Inflation	0.3262 (0.7444)	1.3799 (0.1689)	0.7038 (0.4831)
Sample	472	244	228
Period	2018-2021	2018-2021	2018-2021
Adjusted R^2	0.6689	0.5659	0.7874
Hausman Test	0.0000	0.0000	0.0000

***, **, and * represents statistical significance at 1%, 5%, and 10% levels, respectively.
Source: Processed Data (2023)

The regression results for the relationship between firm-related factors, macroeconomics, and ROE are presented in Table 5. ROE is found to have a positive relationship with firm-related factors and macroeconomic elements when all models are applied. This results is similar with the results of Cheong and Hoang (2021) and Kolias and Arnis (2019). Models 4 and 6 exhibit the same pattern in which leverage has a significant impact on ROE, which is consistent with previous investigations by Egbunike and Okerekeoti (2018) and Tekin (2022). In model 5, the test results indicate that all firm-related factors have a significant impact on ROE. These results are consistent with recent tests by (Cheong & Hoang, 2021).

Table 6: Results of Arellano-Bond Dyanamic Panel Data

Variables	All sectors		Non-cyclicals sectors		Cyclicals sectors	
	ROA	ROE	ROA	ROE	ROA	ROE
Intercept	7404.449 (0.0000)***	1604.091 (0.0000)***	1175.174 (0.0000)***	1201.022 (0.0000)***	2160.275 (0.0000)***	1312.042 (0.0000)***
ROA_{t-1}	10571.01 (0.0000)***		2373.326 (0.0000)***		1582.671 (0.0000)***	
ROE_{t-1}		2729.956 (0.0000)***		17.74177 (0.0000)***		8.149341 (0.0000)***
Firm Size	0.4365 (0.6629)	0.6218 (0.5347)	2.3698 (0.0195)**	4.0645 (0.0001)***	0.9225 (0.3584)	1.1275 (0.2650)
Leverage	0.0814 (0.9352)	0.6996 (0.4849)	0.1596 (0.8735)	7.9938 (0.0000)***	0.9656 (0.3365)	7.7287 (0.0000)***
Sales Growth	0.1069 (0.9150)	0.5455 (0.5860)	0.6693 (0.5047)	1.8726 (0.0628)*	0.7444 (0.4583)	0.4908 (0.6257)
GDP Growth	0.3614 (0.7181)	0.3821 (0.7028)	0.1026 (0.9185)	2.0353 (0.0433)**	0.8097 (0.4199)	0.0191 (0.9849)
Inflation	1.3025 (0.1941	0.17789 (0.8590)	0.9607 (0.3387)	4.1919 (0.0000)***	0.7268 (0.4690)	0.9288 (0.3575)
Wald Chi^2	740.84 (0.0000)	738.39 (0.0000)	74.8 (0.0000)	162.06 (0.0000)	60.56 (0.0000)	67.25 (0.0000)
Sargan (p-value)	0.5072	0.5229	0.6066	0.5001	0.5740	0.4127
AR (1)	1.0145 0.3103	1.0024 0.3161	4.0880 0.4022	1.0904 0.2755	1.0035 0.3103	1.1114 0.2515
AR (2)	1.3280 0.2350	1.1141 0.3029	3.0890 0.4420	1.2198 0.2225	1.0023 0.2301	1.2361 0.3010

4.4. Regression Analysis

Table 6 displays the relationship between business performance and firm-specific and macroeconomic parameters, as determined by the distribution of an Arellano-Bond GMM dynamic modelling. Empirical evidence suggests that the business performance of all sectors, including non-cyclical and cyclical sectors, is positively influenced by the lagged one-year ROA and ROE. These findings indicate that the ROA and ROE from the prior era strongly influence the current firm performance in all sectors. These findings emphasize the significance of maintaining robust financial performance to propel future success in both non-cyclical and cyclical sectors.

Firm size has a positive impact only in the non-cyclical industry. Larger firms often benefit from economies of scale in non-cyclical sectors, allowing them to cut production costs and increase market share. Firm size may not provide the same benefits in cyclical industries because demand fluctuates with the economic cycle. This is because larger firms may find it difficult to adjust to changing market conditions and may incur higher fixed expenses during periods of low demand.

In contrast to other sectors, firm-specific characteristics and macroeconomic factors primarily determine the ROE of non-cyclical firms. These firm-specific characteristics include factors such as firm size, leverage, and sales growth. Additionally, macroeconomic influences such as GDP Growth and inflation conditions also play a significant role in determining the ROE of non-cyclical firms. This supports Issah and Antwi (2017) and Egbunike and Okerekeoti (2018) assertion that macroeconomic factors must be considered when predicting firm business performance. These models correspond to the panel data, according to statistics compiled by Wald and Sargan. The AR (1) and AR (2) values suggest that the instrument variables are identical and that no autocorrelation exists in this model.

5. Discussion

5.1. Finding Research

The main aim of this research is to examine the influence of firm-specific and macroeconomic variables on business performance within both the non-cyclicals and cyclicals sectors. ROA and ROE were used as proxies for business performance. In this investigation, the distribution of an Arellano-Bond Panel Generalized Method of Moments model incorporates an analysis of the business performance of a previous year, taking into account indicators related to both firm-specific characteristics and macroeconomic issues. This estimation method helps provide a more precise evaluation of a company's business performance. During a four-year period (2018–2021), samples were collected from 61 enterprises in the non-cyclicals sector and 57 enterprises in the cyclicals sector.

The findings of this research offer a number of essential insights.

According to the observations, the historical ROA and ROE contribute positively to the business performance of all sectors, both non-cyclicals and cyclicals. Profitability in the non-cyclicals sector is significantly more influenced by firm-related and macroeconomic factors than in other sectors. In contrast, firm-related variables have a limited impact on the business performance of all sectors and cyclicals sectors, while macroeconomic factors have little impact. According to the previous study, macroeconomic factors must be considered when forecasting the business performance of a business.

Even though 2020 and 2021 experienced pandemics, the profitability of the non-cyclical sector was almost the same as in normal conditions. This resilience can be attributed to the fact that non-cyclical sectors, such as healthcare and consumer staples, provide essential goods and services that are in constant demand regardless of economic fluctuations. Additionally, these sectors often have stable revenue streams and strong cash flows, allowing them to weather the storm during challenging times. While cyclical sectors have the ability to adapt and find new opportunities amidst challenging situations. Additionally, government stimulus packages and increased consumer spending in several regions helped maintain the profitability of cyclical sectors during these unprecedented times.

5.2. Conclusion and Implications

Profitability measurement has become increasingly essential for businesses. This is due to the fact that a company's business performance is a crucial indicator of its financial health and success. Moreover, business performance measurement provides valuable insights into the company's overall performance and facilitates the making of informed investment and strategic planning decisions.

The study has various implications for corporate policymaking. The results of this research provides evidence concerning the factors that influence the business performance of businesses. Next, describe the internal and external changes that occurred throughout the duration of the research. Then, this study aims to analyze the impact of firm-specific and macroeconomic variables on the business performance of two economic sectors in Indonesia. Lastly, using Arellano bond forecasting, which is the distribution of a dynamic panel data model capable of delivering accurate results regarding fluctuations in financial performance over time. These implications assist policymakers in anticipating the business performance of a company by implementing the appropriate measures.

This investigation has several limitations. The results cannot be generalized to other industries because the sample is restricted to both non-cyclicals and secondary markets. ROA and ROE are the only approaches to measuring business performance, despite the fact that there are various ways to measure business performance. There are additional factors that can impact the level of business performance in the non-cyclicals and cyclicals sectors of Indonesian publicly traded companies. Future research attempts should consider incorporating additional company-level and macroeconomic variables. This is because there are different metrics of business business performance that could enhance our understanding of the factors that influence firm business performance.

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