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Surging or Stalling? Uncovering Strategic Factors Behind Healthcare Company Growth in Indonesia

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Abstract

This study aims to analyze the influence of R&D expenditure, company size, operating cash flow, leverage, and sales growth on the future performance of healthcare sector companies listed on the Indonesia Stock Exchange (IDX) during the 2018–2023 period. A total of 11 companies were selected as samples using a purposive sampling method, resulting in 66 observations over the six-year period. Panel data regression analysis was employed, and the findings indicate that R&D expenditure, company size, and operating cash flow have no significant effect on future performance. In contrast, leverage has a significant negative effect, while sales growth has a significant positive effect on the future performance of healthcare companies.

Keywords: *R & D Expenditure; Company Size; Operating Cash Flow; Leverage; Sales Growth; Future Performance*

Introduction

Future performance is a strategic issue in assessing business resilience and competitiveness, particularly within the healthcare sector, which is continuously shaped by regulatory demands and evolving societal needs for medical and pharmaceutical products and services (Lee & Choi, 2015). Consequently, sustained innovation through research and development (R&D) activities is essential, serving as a critical component in maintaining and enhancing long-term corporate performance (Susanto et al., 2024).

Studies by McKinsey & Company (2020) dan PricewaterhouseCooper (2019), affirm that globally, companies that invest intensively and consistently in R&D tend to exhibit stronger future performance and enduring competitiveness. However, R&D activities require considerable funding and are typically associated with extended timeframes before yielding measurable results.

Year	Annual GDP Growth Rate				
	Chemical, Pharmaceutical, and Traditional Medicine Industry	**Food and Beverage Industry**	**Tobacco Processing Industry**	**Textile and Apparel Industry**	**Leather, Leather Goods, and Footwear Industry**
2023	0.11	4.47	4.8	-1.98	-0.34
2022	0.69	4.9	-2.34	9.34	9.36
2021	9.61	2.54	-1.32	-4.08	7.75
2020	9.39	1.58	-5.78	-8.88	-8.76
2019	8.48	7.78	3.36	15.35	-0.99
Average	**5.656**	**4.254**	**4.08**	**12.345**	**8.555**

In Indonesia, the healthcare sector contributed significantly to Gross Domestic Product (GDP) growth during the Covid-19 pandemic. However, this trend did not persist in the post-pandemic period, as reflected in the table above, which shows a marked decline in the contribution of the pharmaceutical and traditional medicine sub-sector to national GDP (Badan Pusat Statistik, 2024). This fluctuation underscores the industry's reliance on external factors, such as the surge in demand for pharmaceuticals during the pandemic, and highlights the internal challenges faced by firms in sustaining innovation and adapting to evolving market conditions.

Year	Company	R&D Expenditure		Earning	
2018	Darya-Varia Laboratoria	Rp	6,131,265,000	Rp	1,699,657,296,000
	Indofarma	Rp	1,868,810,722	Rp	1,592,979,941,258
	Kalbe Farma	Rp	243,606,080,000	Rp	21,074,306,186,027
2019	Darya-Varia Laboratoria	Rp	4,440,970,000	Rp	1,813,020,278,000
	Indofarma	Rp	2,612,804,414	Rp	1,359,175,249,655
	Kalbe Farma	Rp	286,654,521,539	Rp	22,633,476,361,038
2020	Darya-Varia Laboratoria	Rp	2,170,316,000	Rp	1,829,699,557,000
	Indofarma	Rp	2,063,873,384	Rp	848,092,078,551
	Kalbe Farma	Rp	285,054,653,892	Rp	23,112,654,991,224
2021	Darya-Varia Laboratoria	Rp	3,074,699,000	Rp	1,900,893,602,000
	Indofarma	Rp	2,326,590,271	Rp	1,859,491,957,799
	Kalbe Farma	Rp	290,790,910,499	Rp	26,261,194,512,313
2022	Darya-Varia Laboratoria	Rp	2,957,462,000	Rp	1,917,041,442,000
	Indofarma	Rp	5,486,669,233	Rp	227,261,307,186
	Kalbe Farma	Rp	292,066,668,412	Rp	28,933,502,646,719
2023	Darya-Varia Laboratoria	Rp	4,370,353,000	Rp	1,890,887,506,000
	Indofarma	Rp	5,526,326,144	Rp	246,310,559,042
	Kalbe Farma	Rp	329,621,039,815	Rp	30,449,134,077,618

Companies such as Kalbe Farma have demonstrated consistent allocation towards R&D expenditure, which is presumed to contribute to the stability of their revenues amid the overall decline in sectoral performance, as illustrated in the table above. In contrast, several other domestic firms within the same industry have experienced reductions in both revenue and profitability. This contrast raises an essential question regarding how effectively R&D investment, alongside other financial variables, contributes to the future performance of healthcare companies in Indonesia.

As mentioned earlier, spending on R&D is considered a key factor that may affect a company's future performance. This is because R&D activities drive technical innovations, which help improve a company's development and eventually lead to better profitability in the future (Guo et al., 2018). The second factor believed to influence a company's future performance is company size. Company size refers to the scale of a firm as measured by its total assets. Generally, larger firms are better positioned to access funding sources, whether internal or external, due to their stronger financial capacity and broader operational reach (Partiwi & Herawati, 2022).

Another factor that is considered to potentially influence a company's future performance is operating cash flow. Operating cash flow represents the amount of cash generated from the company's core business activities, such as the sale of goods or services. It serves as a key source of liquidity, enabling firms to fund operations, invest in growth opportunities, and fulfill financial obligations without relying heavily on external financing (Rahman & Sharma, 2020). The next factor is leverage, which refers to capital obtained through debt that a company uses to finance its operational and investment activities. The underlying expectation is that leveraging external funds can increase the potential return on investment. However, higher leverage may also introduce financial risk, especially if the company faces challenges in meeting its debt obligations or experiences fluctuations in revenue (Alam et al., 2020). The last factor is sales growth, which is the increase in a company's sales from one period to the next. It reflects how well the company performs in selling its products or services. A steady rise in sales shows that the company is running effectively and responding well to market demands, which can help improve its future performance. (Yuliani, 2021).

Theory of Innovation

The innovation theory developed by Schumpeter highlights that a company's ability to generate and apply new knowledge through R&D activities forms the foundation for achieving competitive advantage and long-term performance (Schumpeter, 1911). In the context of the healthcare sector, corporate expenditure on research and development (R&D) is considered a strategic indicator of a firm's growth potential and adaptability amid the evolving landscape of scientific advancement, technological innovation, and regulatory change (Lee & Choi, 2015).

Theory of the Growth of the Firm

Edith Penrose's Theory of the Growth of the Firm states that company size is closely related to a firm's ability to manage its resources efficiently. The theory emphasizes that as a firm grows, its success depends largely on how effectively it utilizes and coordinates its existing internal capabilities (Penrose, 1959). Large-scale companies tend to possess strong capabilities and visibility, which enable them to more easily access and utilize both internal and external resources. As a result, they are often able to generate higher profits and sustain long-term growth (Ningsih & Wuryani, 2021).

Pecking Order Theory

The Pecking Order Theory introduced by Myers in 1984 explains that companies tend to prioritize internal financing over external sources. Only when internal funds are insufficient do firms consider external financing options such as debt or issuing new equity (Myers, 1984). This financing structure can impact a company's future performance because the choice of funding reflects managerial efficiency in managing risk and maintaining financial stability. A firm's ability to select appropriate financing methods signals its strategic approach to balancing growth opportunities and financial resilience.

Trade-Off Theory

Trade-Off Theory explains that firms seek to balance the benefits and risks associated with using debt in order to achieve an optimal capital structure (Kraus & Litzenberger, 1973). By using leverage, companies benefit from a tax shield, as interest payments on debt can be deducted from taxable income. However, on the other hand, the use of leverage also increases the risk of bankruptcy and interest burdens, which may negatively affect the company's long-term performance (Wandono & Asandimitra, 2024).

Dynamic Capabilities Theory

Dynamic Capabilities Theory emphasizes that a firm's success in a fast-changing and uncertain business environment depends on its ability to integrate, build, and reconfigure internal resources in order to respond effectively to environmental shifts (Teece et al., 1997). Sales growth can be seen as a signal that a company is able to adjust to changing market conditions and take advantage of new business opportunities. When sales continue to rise, it shows the company is operating effectively, which can lead to stronger future performance.

Future Performance

Future performance refers to a company's results in the coming period, shaped by its strategic management of innovation and continuous development. This concept is essential because it helps management make informed decisions that keep operations running efficiently and support long-term profitability (Brown et al., 2019). Future performance not only reflects the outcomes of past innovation efforts but also serves as a basis for allocating resources more effectively. It helps companies determine strategic priorities, such as expanding into new markets or developing new products, to sustain long-term growth (Susanto et al., 2024).

R&D Expenditure

R&D expenditure represents a strategic allocation of financial and human resources by a company to support innovative projects aimed at continuously improving its products, processes, or technologies. These activities range from basic to applied research and include development experiments designed to enhance competitiveness and foster corporate growth (Alam et al., 2020). R&D reflects a systematic process through which firms respond to market dynamics and sustainability challenges by generating innovative solutions. These innovations not only enhance operational efficiency but also strengthen business relevance, enabling companies to produce adaptive and breakthrough responses that align with evolving market needs (Yoo et al., 2019).

Company Size

Company size serves as an indicator of a business entity's economic scale and operational capacity, commonly measured by total assets, annual revenue, or equity value. As a strategic variable, it affects several core dimensions of corporate management, including access to external financing, investment decision-making, operational efficiency, and the firm's ability to manage business risks (Brigham & Houston, 2007). Company size also helps shape public and investor perceptions of a firm's reputation and credibility. This makes it a key component in formulating long-term business strategies, as larger firms often benefit from greater trust and visibility, which can enhance market positioning and stakeholder confidence (Riyanto, 2010).

Operating Cash Flow

Operating Cash Flow (OCF) refers to the cash generated from a company's core operating activities over a specific period. It reflects actual financial performance without being affected by investment or external financing activities. As a fundamental indicator, OCF reveals the firm's capacity to

produce cash from its operations to meet obligations such as debt payments, reinvestment, and dividend distribution to shareholders (Brigham & Houston, 2007).

Leverage

Leverage is a financing strategy that involves using debt to fund a company's operational and investment activities. When managed efficiently, leverage can enhance profitability by optimizing capital structure and taking advantage of tax shields from interest expense deductions (Chen et al., 2019). However, excessive use of debt can increase financial instability, particularly when a company's cash flow is insufficient to cover interest payments. This condition may undermine operational continuity and reduce long-term profitability if not managed prudently (Senan et al., 2021).

Sales Growth

Sales growth is a performance indicator that reflects the increase in a company's product or service sales from one period to the next, measured by the volume of units sold or the revenue generated (Machek & Machek, 2014). This sales growth reflects the company's success in implementing effective marketing strategies, improving workforce productivity, and increasing both purchase frequency and customer visit intensity (Kotler et al., 2018).

The Effect of R&D Expenditure on Future Performance

R&D expenditure can serve as a strategic driver of a company's future performance by fostering innovation, enhancing process efficiency, and supporting technological renewal (Grabińska & Grabiński, 2017; Susanto et al., 2024). In the dynamic healthcare sector, the intensity of funding allocation for R&D activities is believed to enhance competitiveness and long-term performance, as supported by the study conducted by studi Yoo et al. (2019), Xu et al. (2020), dan Guo et al. (2018). However, R&D activities also entail financial risks due to the substantial research costs involved. These expenses may constrain profitability, particularly when the outcomes are suboptimal or fail to meet expectations (Alam et al., 2020; Fedyk & Khimich, 2018).

H1: R&D expenditure influences the future performance of healthcare companies in Indonesia during the 2018-2023 period

The Effect of Company Size on Future Performance

Company size, typically measured by total assets, is closely associated with public trust, sales stability, and operational capacity, all of which contribute significantly to long-term performance (Partiwi & Herawati, 2022; Ningsih & Wuryani, 2021). However, large firms also face increased complexity and greater economic challenges, which may negatively affect profitability. As organizations grow, they often encounter higher coordination costs, slower decision-making processes, and greater exposure to market volatility, factors that can hinder operational efficiency and financial outcomes (Risna et al., 2021).

H2: Company size influences the future performance of healthcare companies in Indonesia during the 2018-2023 period

The Effect of Operating Cash Flow on Future Performance

Operating cash flow represents a company's ability to generate cash from its core business operations (Rahman & Sharma, 2020). As an indicator of liquidity and financial efficiency, OCF is considered influential to future performance, as it reflects a company's capacity to meet financial obligations and support long-term investments. Research by Susanto et al. (2024), Abughniem et al. (2020), dan Liandu et al. (2023) indicates that OCF has a significant impact on future performance, as

companies with strong operational cash flows tend to maintain more stable profitability and exhibit a greater adaptive capacity in responding to market fluctuations and economic challenges.

H3: Operating cash flow influences the future performance of healthcare companies in Indonesia during the 2018-2023 period

The Effect of Leverage on Future Performance

Leverage is an external financing factor employed by firms to support operational and investment activities. When strategically managed, it has the potential to improve profitability through the optimization of capital structure (Senan et al., 2021). The findings of Arhinful & Radmehr (2023) indicate that leverage has a significantly negative impact on future performance, as high interest burdens and associated financial risks can suppress profitability if not offset by efficient cash management. This condition worsens when a company's cash flow is insufficient to meet debt obligations, leading to financial instability that adversely affects long-term performance.

H4: Leverage influences the future performance of healthcare companies in Indonesia during the 2018-2023 period

The Effect of Sales Growth on Future Performance

Sales growth reflects the increase in sales from one period to the next and serves as an indicator of the effectiveness of marketing strategies and the market appeal of a company's products (Machek & Machek, 2014; Kotler et al., 2018). In the context of the healthcare sector, sales growth is considered to reflect operational efficiency, customer satisfaction, and market expansion potential. Therefore, it may have a significantly positive impact on future performance, as supported by findings from Arhinful & Radmehr (2023). The findings suggest that companies with upward sales trends tend to exhibit better profitability in the future.

H5: Sales growth influences the future performance of healthcare companies in Indonesia during the 2018-2023 period

Method

This research falls under the category of explanatory research with a quantitative approach, aiming to examine the causal relationships between the investigated variables and the extent to which they influence one another through hypothesis testing. The data utilized in this study are secondary data in the form of company financial reports, obtained from each firm's official website or from the official website of the Indonesia Stock Exchange.

The sample selection in this study employed a purposive sampling method, with specific criteria including healthcare sector companies that conducted their IPO prior to the research period, were not delisted, and reported R&D expenses in their financial statements. Based on these criteria, 11 companies were selected, resulting in a total of 66 observations (11 companies over a 6-year research period). Subsequently, the data were analyzed using panel data regression techniques with STATA version 17.

The study involves one dependent variable and five independent variables, each of which is defined operationally in the table below.

Variables	Measurement	Source
Dependent		
Future Performance ($Perf_{it+1}$)	$ROA_{it+1} = \frac{EBIT it+1}{Total\ Assets\ it+1}$	(Susanto et al., 2024)
Independent		
R&D Expenditure ($R\&D_{it}$)	$\frac{R\&D\ Expenditure\ it}{Total\ Assets\ it}$	(Grabińska & Grabiński, 2017)
Company Size ($SIZE_{it}$)	$Ln\ of\ Total\ Assets_{it}$	(Partiwi & Herawati, 2022)
Operating Cash Flow (OCF_{it})	$\frac{Operating\ Cash\ Flow\ it}{Total\ Assets\ it}$	(Susanto et al., 2024)
Leverage (LEV_{it})	$DAR_{it} = \frac{Total\ Debt\ it}{Total\ Assets\ it}$	(Gusmiarni & Purwanti, 2023)
Sales Growth ($SALE$)	$\frac{Sales\ Current\ Period - Sales\ Previous\ Period}{Sales\ Previous\ Period} x\ 100\%$	(Arhinful & Radmehr, 2023)

Results

The Statistical Description of Research Variables

The characteristics of the sample in this study are presented through descriptive statistics, which include the number of observations, mean values, standard deviation, minimum, and maximum for each variable analyzed. A summary of these descriptive statistics for all variables is provided in the table below:

Descriptive Statistic

Variables	Number of Observation	Mean	Std. Deviation	Minimum	Maximum
R&D Expenditure	66	0,003371	0,0048902	0	0,0295882
Company Size	66	28,8916	1,141061	25,95468	30,95813
Operating Cash Flow	66	0,1269645	0,2153417	-0,233995	1,640257
Leverage	66	0,3580175	0,2098452	0,1009502	0,9752391
Sales Growth	66	0,1183763	0,3167081	-0,877783	1,772804
Future Performance	66	0,0649155	0,1778203	-0,9489	0,34

Estimation Model Selection

In panel data regression, several estimation approaches are available to determine the most appropriate model specification. In this process, three types of tests were conducted: the Chow Test, the Hausman Test, and the Lagrange Multiplier (LM) Test. The results of each test are presented as follows:

Chow Test

Y	*Coefficient*	*Std. Err.*	t	P>[t]	[95% *conf. interval*]	
R&D Expenditure	2.983	5.054	0.59	0.558	-7.168	13.134
Company Size	0.023	0.064	0.36	0.717	-0.106	0.152
Operating Cash Flow	-0.058	0.089	-0.65	0.519	-0.237	0.121
Leverage	-0.359	0.243	-1.48	0.145	-0.847	0.129
Sales Growth	0.193	0.072	2.66	0.010	0.048	0.339
_cons	-0.510	1.807	-0.28	0.779	-4.139	3.120
sigma_u	0.097					
sigma_e	0.122					
rho	0.388					

F test that all u_i=0: F(10, 50) = 2.43
Prob > F = 0.0190

The Chow Test is employed to determine whether the most appropriate estimation model is the Common Effect Model (CEM) or the Fixed Effect Model (FEM). Based on the test results presented in the table above, a probability value of 0.0190 (prob > F) was obtained, which is lower than the significance level of 0.05. This indicates that the FEM is more suitable for the analysis, and thus the next step involves conducting the Hausman Test to select the subsequent model.

Hausman Test

	-Coefficients-			
	(b) fe	(B) re	(b-B) Difference	Sqrt(diag (V_b-V_B)) Std. err.
R&D Expenditure	2.983	1.887	1.096	3.144
Company Size	0.023	-0.006	0.029	0.061
Operating Cash Flow	-0.058	-0.103	0.045	0.033
Leverage	-0.359	-0.481	0.122	0.216
Sales Growth	0.193	0.231	-0.038	0.041

chi2 (5) = (b-B)' [)V_b-V_B)^(-1)](b-B)
= 5.73
Prob > chi2 = 0.3329

The Hausman Test is conducted to assess the accuracy between the Fixed Effect Model (FEM) and the Random Effect Model (REM). In this study, the test yielded a probability value of prob > chi^2 = 0.3329, as shown in the table above. Since the chi-square probability value of 0.3329 exceeds the significance threshold of 0.05, the results indicate that the REM is the more appropriate model for further analysis.

Therefore, further testing using the Lagrange Multiplier (LM) Test is not required, as the LM Test is intended to assess the suitability between the Common Effect Model (CEM) and the Random Effect Model (REM), whereas the Chow Test has already determined the Fixed Effect Model (FEM) as appropriate.

Based on the results of the estimation model selection tests, the most appropriate model is the Random Effect Model (REM). Since this model is estimated using the Generalized Least Squares (GLS) method, classical assumption testing is deemed unnecessary, as GLS is capable of addressing issues related to heteroskedasticity and multicollinearity in panel data.

Hypothesis Test

Random-effects GLS regression	Number of obs = 66
Group variable: id	Number of groups = 11
R-squared:	Obs per group:
Within = 0.1303	Min = 6
Between = 0.7299	Average = 6.0
Overall = 0.4542	Max = 6
corr (u_i, x) = 0 (assumed)	
	wald chi2(5) = 25.66
	Prob > chi2 = 0.0001

Y	***Coefficient***	***Std. Err.***	**Z**	**P>[z]**	**[95% *conf. interval*]**	
R&D Expenditure	1,88723	3,957099	0,48	0,633	-5,868542	9,643002
Company Size	-0,0055543	0,213738	-0,26	0,795	-0,047446	0,0363375
Operating Cash Flow	-0,1026713	0,082921	-1,24	0,216	-0,265194	0,059851
Leverage	-0,4808878	0,1118221	-4,30	0,000	-0,700055	-0,261721
Sales Growth	0,230592	0,0597687	3,86	0,000	0,1134507	0,3477397
_cons	0,3769317	0,6261792	0,60	0,547	-0,850357	1,60422
sigma_u	0,06842446					
sigma_e	0,12193613					
rho	0,23947972					

The test results indicate that the variables leverage and sales growth have significance levels below 0.05. Accordingly, the hypothesis testing based on the table above yields the following regression equation:

$$\mathbf{Y = -0.481\ X4_{it} + 0.231\ X5_{it}}$$

F Test

The F-test is used to evaluate whether all independent variables in the regression model simultaneously exert a significant influence on the dependent variable. Based on the table above, the significance value for the joint effect of all independent variables on the dependent variable is 0.0001,

which is below the 0.05 threshold. Therefore, the H0 is rejected and the Ha is accepted. This finding indicates that all independent variables, namely R&D expenditure, company size, operating cash flow, leverage, and sales growth collectively have a significant impact on future performance.

t Test

The t-test is applied to analyze the partial effect of each independent variable on the dependent variable. A variable is considered to have a significant effect if its significance value is below 0.05; conversely, if the value exceeds 0.05, it is deemed to have no significant influence. The results of the t-test in this study indicate that the variables R&D expenditure, company size, and operating cash flow do not significantly affect the future performance of healthcare sector companies in Indonesia, as their significance values are greater than 0.05.

However, the variables leverage and sales growth have a significant impact on the future performance of healthcare sector companies in Indonesia, as their significance values are below the 0.05 threshold. Specifically, leverage has a negative effect, indicated by its negative coefficient value, whereas sales growth has a positive effect, as reflected by its positive coefficient.

Coefficient of Determination

The calculation results show an adjusted R-squared value of 0.4542, or 45.42%. This indicates that 45.42% of the variability in future performance can be explained by the independent variables used in the model such as R&D expenditure, company size, operating cash flow, leverage, and sales growth. The remaining 54.58% represents the variation in the dependent variable influenced by other factors not included in the model, such as profit management (Liandu et al., 2023), government subsidies (Xu et al., 2020) and intellectual capital (Kurniawati et al., 2020).

Discussion

The Influence of R&D Expenditure on the Future Performance of Healthcare Companies in Indonesia During the 2018-2023 Period

The hypothesis testing results show that the significance value for the R&D expenditure variable is 0.633, with a coefficient of 1.887. Since the significance level exceeds the 0.05 threshold, the H0 is accepted while the alternative Ha is rejected, indicating that R&D expenditure does not have a statistically significant effect on the future performance of healthcare companies in Indonesia during the 2018–2023 period. One plausible explanation is that the impact of R&D investment tends to require a longer time horizon before its benefits are reflected in firm performance. In the healthcare industry, particularly in the development of pharmaceuticals and medical technologies, the research and development process requires a considerable amount of time due to clinical trials, certifications, and regulatory approvals before products can be commercialized and distributed to the public. Consequently, there is a possibility that the benefits of R&D investments may not yet be reflected in the company's performance during the research period (Huang, 2020). Another possible explanation is the lack of effective managerial strategies and suboptimal funding allocation for R&D activities. This is supported by the descriptive statistics, which reveal that, on average, companies allocate only 0.34% of their total assets toward R&D initiatives.

The Influence of Company Size on Future Performance of Healthcare Companies in Indonesia During the 2018-2023 Period

The test results indicate that the significance value of the *company size* variable is 0.795, with a coefficient of –0.006. This means that company size does not significantly affect the future performance of healthcare firms, leading to the acceptance of the H0 and the rejection of the alternative Ha. This

suggests that firm size, as measured by total assets, may not have a direct relationship with a company's ability to consistently enhance its performance over time. Theoretically, firms operating in the healthcare sector, where scientific development and service quality are central, are likely to be more influenced by factors such as medical technology innovation, treatment methodologies, and service excellence (Xu et al., 2020).

The Influence of Operating Cash Flow on Future Performance of Healthcare Companies in Indonesia During the 2018-2023 Period

Based on the test results, the significance value for the *operating cash flow* variable is 0.216, with a coefficient of –0.103. Accordingly, the H0 is accepted while the Ha is rejected, indicating that operating cash flow does not significantly affect the future performance of healthcare companies in Indonesia. This may occur because operating cash flow is not a primary indicator of a company's long-term performance sustainability (Cardilla et al., 2019). This phenomenon is likely due to the extended operational cycle typical of the healthcare sector, particularly for firms involved in developing pharmaceutical products and medical technologies. Even when companies maintain stable operating cash flows, these funds are frequently allocated to long-term expenditures such as research and development initiatives or investments in innovative medical technologies, whose benefits may not be immediately observable in short or medium-term performance outcomes.

The Influence of Leverage on Future Performance of Healthcare Companies in Indonesia During the 2018-2023 Period

Based on the analysis results, the significance value for the *leverage* variable is 0.000, with a coefficient of –0.481. This indicates that the H0 is rejected while the Ha is accepted, confirming a statistically significant negative relationship between leverage and the future performance of healthcare companies in Indonesia during the 2018–2023 period. This finding reflects that an increase in the proportion of debt to total assets tends to be followed by a decline in company performance in subsequent periods, particularly with regard to profitability. A high level of leverage also implies a substantial financial burden. This condition arises because greater leverage leads to increased interest expenses and financial obligations, which can reduce corporate earnings and impair long-term performance sustainability (Ahmed et al., 2023).

The Influence of Sales Growth on Future Performance of Healthcare Companies in Indonesia During the 2018-2023 Period

The calculation results reveal that the significance value for the *sales growth* variable is 0.000, with a coefficient of 0.231. This indicates that the H0 is rejected and the Ha is accepted, demonstrating that *sales growth* has a significant positive impact on the future performance of healthcare companies in Indonesia during the 2018–2023 period. This finding suggests that increased sales during a given period may serve as a strong signal of a firm's enhanced ability to generate profitability from its assets in subsequent periods. Sales growth reflects rising market demand for the products or services developed by the firm and serves as evidence of successful marketing strategies, effective product and healthcare technology development, and the expansion of innovative medical services aligned with market needs. Moreover, higher sales may lead to increased cash flow, which can be allocated toward expansion initiatives and strategic investments without relying on external capital sources (Yuliani, 2021).

Conclusion

Based on the panel regression analysis of 11 healthcare sector companies listed on the Indonesia Stock Exchange during the 2018–2023 period, this study concludes that *R&D expenditure*, *company size*, and *operating cash flow* do not have a significant impact on the firms' future performance. In contrast,

leverage exhibits a statistically significant negative effect, while *sales growth* shows a significant positive influence on future performance. These findings suggest that, within the context of the healthcare industry, business performance improvements are more strongly driven by a optimal capital structure and sales growth, rather than by asset size or operating cash reserves. The results also reinforce the perspective that innovation and operational efficiency play a more dominant role in shaping firm outcomes compared to conventional financial indicators.

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