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Deficit-Surplus and Firm Size on Capital Structure in Start-Up Companies Listed on the Indonesia Stock Exchange

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Abstract

Introduction/Main Objectives: This study investigates the impact of financial deficit-surplus conditions and firm size on the capital structure of startup firms listed on the Indonesia Stock Exchange (IDX). The topic is relevant because startup funding fluctuations in 2023–2024 highlight the importance of balancing internal and external financing sources to sustain business operations.

Background Problems: The research addresses the question: How do financial deficit-surplus conditions and firm size influence the capital structure of Indonesian startups, given the unique funding dynamics compared to traditional manufacturing firms?

Research Methods: A quantitative approach was employed using multiple linear regression analysis. From an initial sample of 40 startups, 32 valid observations were analyzed after removing outliers. The data were drawn from IDX-listed startups, focusing on financial indicators and firm size.

Finding/Results: The empirical results indicate that financial deficit-surplus conditions do not significantly affect capital structure, whereas firm size has a significant positive effect. This suggests that larger asset bases enable startups to secure external financing more effectively.

Conclusion: The study concludes that capital structure in Indonesian startups is driven more by firm size and asset scale than by short-term financial conditions. The implication is that startups should prioritize strengthening assets and improving operational efficiency to maintain a stable and investor-attractive capital structure.

Keywords: Startup, capital structure, deficit-surplus, Indonesia Stock Exchange (IDX), financial performance, firm size.

Introduction

In the modern economy, startups play a crucial role in driving economic progress and innovation. Since a small number of quickly expanding young businesses produce a disproportionate part of the economy, startup success is essential to economic development and renewal (McCarthy et al., 2023). It has been demonstrated that a number of recently established businesses that are expanding quickly create new jobs and have a major impact on economic dynamics. Sandiaga Salahuddin Uno firmly believes that Indonesian digital startups can play an important role in Indonesia's economic growth (Karina et al., 2021).

In corporate finance literature, capital structure is often used as the basis for corporate financing policy. According to Mint Ha & Minh Tai (2017), capital structure is defined as the ratio of debt and equity to total company capital (Irawan & Kusuma, 2019). The leverage ratio or debt growth is often used as a proxy for capital structure decisions (Mensah et al., 2025). Capital structure depends on two main factors of a company, namely leverage and assets (Bastian et al., 2024). In a startup environment, debt decisions are highly sensitive to internal factors such as the availability of internal funds and the ability to generate cash. According to the pecking order theory, under normal conditions it is advisable to prioritize internal sources of funds before resorting to debt or equity financing (Shyam-Sunder & Myers, 1999; Chirinko & Singha, 2000; Frank & Goyal, 2003) (Puspitowati et al., 2018).

The decision a business makes about leverage, or the use of debt, is largely influenced by its financial situation, particularly whether it is in surplus or deficit. When a company's internal capital, such as cash flow from operations and retained earnings, is insufficient to fund necessary expenditures like working capital, dividends, and investments, a deficit arises; the company usually has to take on more debt to make up the difference. On the other hand, a surplus gives the business the chance to either pay off its current debt or avoid taking on new loans, protecting its financial flexibility. This trend is consistent with the Pecking Order Theory, which states that businesses should use debt to cover funding shortages first (or new equity as a last resort) and use excess capital to pay down outstanding debts. Determining this internal financial condition is essential to determining the company's sustainable debt capacity, which reduces the risks connected with high debt levels and ensures the company can make its payments on time.

According to (Iswajuni, Manasikna, dan Seotedjo, 2018), firm size can be determined by its total assets or total net sales (Levina Clarinda & Dewi, 2023). Firm size acts as a moderating variable in the relationship between financial surplus deficits and capital structure, especially in startup companies. Small-scale startups with low capital usually face limited access to credit markets or large external loans. Conversely, startups that have grown to a larger size (covering assets, income, and higher valuations) find it easier to attract new creditors or investors, allowing them to adjust their capital structure more flexibly. According to research (Sasmita et al., 2024), firm size can strengthen the influence of growth and asset structure on a company's capital structure.

During the 2023-2024 period, Indonesia experienced a significant change in startup funding, which indirectly affected their capital structure. Based on a report from Bisnis.com, funding for Indonesian startups in the first quarter of 2023 fell by 55% year-on-year to around US$432.64 million compared to the same period last year (Fitra, 2023). This sharp drop indicates that securing external equity has become much harder for startups, or that investors are now far more cautious and selective about where they place their money. Meanwhile, in the third quarter of 2023, there was an increase in capital injections into Indonesian startups, reaching

US$ 501.6 million through 38 transactions (Saputra, n.d.). In 2024, based on a report by data curator and startup research platform Tracxn, total local startup funding last year was only US$693 million from 78 funding rounds (Rahardyan, 2025). Even last year, it did not exceed the 2016 figure of US$966 million from 91 funding rounds (Rahardyan, 2025). This phenomenon shows that even though startups continue to seek external support, capital costs are increasing, forcing many startups to rely more on internal resources or reasonably available debt.

Based on this description, the capital structure of startups in Indonesia can be influenced by internal factors such as financial conditions (deficit or surplus), resulting in H1: deficit-surplus has an influence on the capital structure of companies and firm size (which determines access to external funding) as well as external factors that result in H2: firm size has an influence on the capital structure of startup companies. Based on hypothesis 1, there is research that is in line with the related hypothesis, namely research on (Puspitowati et al., 2018) which shows that financial deficits have a significant impact on funding activities and is also consistent with research (Wagisuwari & Sitorus, 2025) which found that financial deficits have a positive effect on capital structure. There is also research that does not agree with hypothesis 1, namely according to (Hasbiy et al., 2023) shows that financial deficits do not affect capital structure. Based on research of (Chandra & Setyawan, 2023) and (Feni; Burhanuddin; Guasmin, 2021) shows that firm size has a significant effect on capital structure, which is in line with hypothesis 2. Meanwhile, there is also research that does not agree with hypothesis 2, namely according to (Sasmita et al., 2024) which shows that firm size has no effect on capital structure.

In order to maintain capital structure stability in the face of shifting investment conditions, it is crucial to balance internal and external funding sources, as demonstrated by funding fluctuations in 2023 and 2024. This situation shows that capital structure management is becoming a more important factor, especially when a company's financing decisions may be impacted by its internal and external funding capabilities. In order to provide an empirical understanding of the best funding management in the dynamics of the Indonesian capital market, the aim of this study is to investigate the effects of firm size and financial deficit-surplus conditions on the capital structure of startups listed on the Indonesia Stock Exchange (IDX).

Research Methods

This study is a quantitative study with secondary data sources in the form of financial reports of companies in the startup sector. The population of this study is startup companies listed on the Indonesia Stock Exchange (IDX) in 2023-2024, totaling 30 companies. Data sampling was conducted using purposive sampling with the following criteria: (1) startup companies were listed on the IDX on December 31, 2023, and December 31, 2024, (2) had complete financial reports for 2023 and 2024, (3) had sufficient data for financial trend analysis. Thus, based on these criteria, 20 companies were obtained, multiplied by 2 years of data, resulting in a total of 40 data points. The data was collected through documentation techniques, namely downloading and managing the annual financial reports of companies that met the criteria.

- Capital Structure (Y)
  The capital structure variable is the ratio between external capital in the form of debt and internal capital of the company, which can be measured as follows (Sasmita et al., 2024)

$$\textbf{DER} = \frac{\textbf{Total Liabilities}}{\textbf{Total Equity}} \textbf{ x 100\%}$$

- Defisit-surplus (X1)
  Financial deficit is proxied by financial deficit conditions using balance sheet data and income statements for observation periods (t) and (t-1) (Puspitowati et al., 2018). The DEF variable symbol is measured by four indicators formulated in the Frank and Goyal 2003 & Gracia and Mira 2008 models below (Puspitowati et al., 2018).

  DEF = {(Dividend + ΔFixed Asset + ΔNet Working Capital) - Cash flow after interest & tax}
  Measurement of financial deficit indicators includes:
  Dividend = Dividend payment (t)
  ΔFixed Asset = {Fixed asset (t) – Fixed Asset (t-1)}
  ΔNet Working Capital = {Net working capital (t) – Net working capital (t-1)}
  Cash flow after interest & tax = Earning after interest & tax (t)

- Firm Size (X2)
  Firm size is the level of wealth of a company assessed based on total assets (Sasmita et al., 2024).

  Firm Size = Ln. Total Assets

The data analysis techniques used in this study include descriptive statistical analysis, classical assumption tests, and regression analysis. The classical assumption tests conducted include normality, multicollinearity, heteroscedasticity, and autocorrelation tests. The regression analysis used is multiple linear regression. The coefficient of determination test is used to see the magnitude of the independent variable's effect on the dependent variable, and the T-test is used to test the effect of each independent variable partially on the capital structure.

Result

From the determination of sample criteria, 40 data points were obtained. At the normality test stage, it was first found that the data obtained was not normally distributed. Therefore, it was necessary to remove outliers, resulting in 32 data points that were normally distributed. Data processing was carried out in order to provide hypothesis test results for this study.

Table 1. Descriptive Statistical Analysis Test

	N	Minimum	Maximum	Mean	Std. Deviation
DEF-SUR	32	.00	1.00	.5313	.50701
UK. PERUSAHAAN	32	23.46	28.70	26.4969	1.51690
STRUKTUR MODAL	32	-1.37	2.00	.4450	.69913
Valid N (listwise)	32				

Source: Author’s Work, 2025.

Based on the sample data in Table 1, there are 32 observations. A financial deficit indicates a condition where a company requires external funding due to an imbalance between cash flow and operating expenses. From the above results, the deficit-surplus variable shows an average value of 53%, indicating that most companies are in a surplus position or are able to cover their funding needs with internal sources. However, based on the fairly high standard deviation value of 0.50701, there are differences in the financial conditions between companies. This indicates that some startups are still experiencing deficits due to high operating expenses, while others are able to generate positive cash flow (surplus) from their business activities.

The size of the company, calculated based on total assets, shows an average value of 26.49, which indicates that most companies already have sufficient assets to support their operations. The standard deviation of 1.52 shows that there is variation in size between companies, where there are large startups with strong resources and small startups that are still limited in terms of assets and funding. The capital structure, which is the ratio between a company's equity and liabilities, shows an average value of 44.5%, indicating that the average amount of external funding used by startups is only 44.5% of their total capital. Thus, most startups still rely more on internal funding than external funding.

Table 2. Normality Test

		Unstandardize Residual
N		32
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.48589678
Most Extreme Differences	Absolute	.116
	Positive	.116
	Negative	-.086
Test Statistic		.116
Asymp. Sig. (2-tailed)		.200[c,d]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

Source: Author's Work, 2025.

Table 2 shows that in testing the unstandardized residual, asymptotic significance > 0.05 was obtained, indicating that the tested data is normally distributed.

Table 3. T-test for deficit-surplus variables

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**	**Tolerance**	**VIF**
1 (Constant)	.475	.183		2.589	.015		
DEF-SUR	-.056	.252	-.040	-.222	.826	1.000	1.000

a. Dependent Variable: STRUKTUR MODAL

Source: Processed data, 2025

Table 4. T-test for Firm Size Variable

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	Collinearity Statistics VIF
1	(Constant)	-8.334	1.552		-5.368	.000		
	UK. PERUSAHAAN	.331	.058	.719	5.664	.000	1.000	1.000
a. Dependent Variable: STRUKTUR MODAL								

Source: Processed data, 2025

Based on Table 3, the results of the T-test of the effect of the deficit-surplus variable on the capital structure variable show that the significance value is 0.826 > 0.05 and the calculated t-value is -0.222 < the table t-value of 2.045, which means that the deficit-surplus (X1) has no significant effect on the capital structure (Y), so hypothesis 1, which shows that the deficit-surplus has an effect on capital structure, is rejected. Meanwhile, based on Table 4, the T-test results for the effect of firm size on capital structure show a significance value of 0.000 < 0.05 and a t-value of 5.664 > the t-table value of 2.045, which means that firm size (X2) has a significant effect on capital structure (Y), so hypothesis 2, which shows that firm size has an effect on capital structure, is accepted.

Discussion

The Effect of Deficits and Surpluses on Capital Structure

Based on the test results, H1, which indicates that there is an effect of deficit-surplus on capital structure, is rejected. This indicates that the financial deficit or surplus of startup companies is not a factor in determining capital structure. The relatively large standard deviation results indicate that there are variations in conditions between companies, so that the effect on leverage is not consistent across samples. These findings are in line with the results of research on companies in Indonesia, which show that financial deficit conditions do not always have a direct effect on debt usage decisions in capital structure. As in study (Hasbiy et al., 2023), showed that financial deficits did not affect the capital structure in the sample, this is in line with the results of hypothesis 1 testing. Furthermore, these test results are also inconsistent with the findings of a study (Puspitowati et al., 2018) which showed that financial deficits have an impact on capital structure. Thus, in startup companies that are still in the development stage, funding decisions are more influenced by other factors such as investor support, business expansion opportunities, and industry conditions. Therefore, the financial deficit-surplus position is not yet a major factor in determining the use of debt or equity.

The Effect of Firm size on Capital Structure

From the test results, H2 shows that firm size has an effect on capital structure. Therefore, it can be concluded that the larger the firm size (measured by ln total assets), the greater the tendency to use external funding in the capital structure. The average firm size indicates that most startups have a fairly large scale of assets, but there is still variation between companies. These results are in line with research (Chandra & Setyawan, 2023) which shows that firm size has a positive and significant effect on capital structure. This is also supported by research (Feni; Burhanuddin; Guasmin, 2021) which shows that firm size and asset structure simultaneously have a positive and significant effect on capital structure. These results are also inconsistent with research (Sasmita et al., 2024) showing that firm size has no effect on capital structure. The analysis shows that larger startups tend to find it easier to obtain external

funding, both in the form of debt and credit. This is because companies with large assets generally have a better reputation, so their assets can be used as collateral. Conversely, smaller startups generally rely more on their own capital and tend to avoid large amounts of debt. Therefore, the results of this study reinforce that in the context of startup companies in Indonesia, firm size plays an important role in determining financing decisions or capital structure formation.

Conclusion

According to the tests carried out in this study, whether a startup has a financial surplus or deficit has no discernible effect on its capital structure, particularly for those listed on the Indonesia Stock Exchange (IDX). This shows that how these startups decide to finance their operations is not yet significantly influenced by their internal funding position. Importantly, these businesses always follow the Pecking Order Theory, which states that internal resources (such as operating cash flow and retained earnings) should be used up before looking for outside debt or equity. However, it was discovered that the capital structure was significantly impacted by the size of the company. This finding implies that a startup's chances of obtaining outside funding increase with its size. The Pecking Order Theory, which holds that larger businesses have greater credibility and reputation with creditors and investors and can therefore modify their capital structure as necessary, is supported by this observation. It is advised that future research broadens the scope of the data due to the study's limitations, which include a relatively small sample size and a limited observation period. Other external factors, like sales growth or profitability, should be included in future research to provide a more complete picture of the elements that actually affect Indonesian startup companies' financing choices.

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