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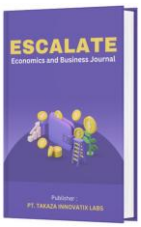

The Effect of Sales Growth and Cash Flow Operating Activities on Financial Distress at PT Garuda Indonesia Tbk for the Period 2015–2024

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Keywords: *Sales Growth; Operating Cash Flow; Financial Distress; Interest Coverage Ratio (ICR); PT Garuda Indonesia Tbk*

Abstract: *Abstract: This study aims to examine and analyze the effect of sales growth and cash flow operating activities on financial distress at PT Garuda Indonesia Tbk for the period 2015–2024. This study uses a descriptive quantitative approach with secondary data sourced from the company's annual financial statements. The financial distress variable is measured using the Interest Coverage Ratio (ICR). Data analysis techniques include descriptive statistics, classical assumption tests, multiple linear regression, t-test (partial), F-test (simultaneous), and the coefficient of determination (R^2) processed using the SPSS program. The results of the partial test (t-test) indicate that sales growth has a positive and significant effect on financial distress with a significance value of 0.028 (<0.05) and a regression coefficient of 9.126. Meanwhile, cash flow partially does not have a significant effect on financial distress with a significance value of 0.540 (>0.05) and a regression coefficient of 17.407. The results of the simultaneous test (F test) show a calculated F value of 4.715 with a significance of 0.050, which means that both variables together have a significant effect on Financial Distress. The coefficient of determination (R^2) value of 0.574 indicates that Sales Growth and Cash Flow are able to explain 57.4% of the variation in Financial Distress, while the remaining 42.6% is influenced by other variables outside this research model.*

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Introduction

Air transportation is a strategic sector that has a significant contribution to national economic growth, because it not only facilitates inter-island and cross-country mobility, but also reflects high economic productivity. Since the Coronavirus Disease 2019 (Covid-19) pandemic hit in late 2019, the global aviation sector, including Indonesia, has faced extraordinary pressure due to social restrictions, lockdowns, and reduced passenger capacity, which have put pressure on airline operations, including PT Garuda Indonesia (Persero) Tbk, resulting in a drastic decline in revenue and cash flow.

The weakening macroeconomic conditions caused by the pandemic have resulted in a sharp contraction in aviation industry revenue and increased the risk of financial distress, a condition where a

company experiences difficulty meeting its financial obligations, which can threaten business continuity and even lead to bankruptcy. In such situations, sales growth becomes a critical metric for assessing a company's health because it serves as a proxy for predicting future revenue growth (Angga, 2018). PT Garuda Indonesia's sales growth data shows a sharp decline of -67% in 2020 due to the pandemic, before gradually recovering to reach 57% growth in 2022.

Cash flow from operations (CFO) is also an important indicator of financial distress because it reflects the actual cash flow generated from a company's operational activities. Data shows that PT Garuda Indonesia's operating cash flow was negative in 2017 at USD 61,665,293, which resulted in a drastic decline in the Interest Coverage Ratio (ICR) to -241.4%. PT Garuda Indonesia's ICR fluctuated significantly between 2015 and 2024, from a low of -730.1% in 2021 to a high of 905.5% in 2022, indicating the company's vulnerability to financial distress.

Previous research has shown inconsistent results (a research gap) regarding the influence of sales growth and cash flow on financial distress. Setyowati (2019), Juhaeriah (2021), and Asrin (2018) found that sales growth significantly impacted financial distress, while Suryani (2021), Dillak (2020), and Koten (2022) found the opposite. Similarly, Rahma and Dillak (2021) and Ramadhani and Khairunnisa (2019) concluded that operating cash flow impacted financial distress, while Nailufar et al. (2018) found no significant effect. Furthermore, most previous research focused on manufacturing companies, thus limited analysis of the air transportation sector, particularly PT Garuda Indonesia, which has experienced prolonged financial distress.

Based on the description above, this study was formulated to answer the questions: (1) how does Sales Growth influence Financial Distress at PT Garuda Indonesia Tbk for the period 2015–2024; (2) how does Cash Flow influence Financial Distress at PT Garuda Indonesia Tbk for the period 2015–2024; and (3) how do Sales Growth and Cash Flow influence simultaneously on Financial Distress during that period. The purpose of this study is to analyze the partial and simultaneous influence of these two variables on Financial Distress, so that it can provide theoretical contributions to the development of behavioral finance and trade-off theory literature at the corporate level, as well as practical contributions for company management and investors in assessing the risk of financial distress in the air transportation sector.

Sales growth reflects a company's ability to maintain its competitive position in the industry; a decline in this ratio indicates the risk of declining revenues that could trigger financial distress (Kasmir, 2016). Cash flow from operating activities reflects the actual cash remaining after the company covers operating expenses, making it a crucial short-term liquidity indicator for creditors and management (Hanafi & Halim, 2016). Based on this theoretical review, this study proposes two hypotheses: H1 – Sales growth is suspected to influence financial distress; and H2 – Cash flow is suspected to influence financial distress.

Method

This study uses a descriptive quantitative approach, namely research that provides an overview and explains the condition of the company as depicted in the financial statements, with data expressed in numerical form and analyzed statistically. The data sources used are secondary data in the form of the annual financial statements of PT Garuda Indonesia (Persero) Tbk for the period 2015–2024 accessed through the company's official investor relations website, supplemented by literature studies from journals, scientific books, and other written sources.

The population of this study is all financial reports of PT Garuda Indonesia Tbk, with samples in the form of balance sheets and profit and loss statements for the period 2015 to 2024 (10 years of observation). The Sales Growth variable (X_1) is measured from the difference between current year sales and the previous year divided by the previous year's sales; the Cash Flow variable (X_2) is measured from the ratio of operating cash flow to total assets; and the Financial Distress variable (Y) is measured using the Interest Coverage Ratio (ICR), which is the ratio of operating profit to interest expense.

The data analysis techniques used include descriptive statistics on data transformed into natural logarithms (LN) to equalize the measurement scale, classical assumption tests (normality, multicollinearity, heteroscedasticity, and autocorrelation), multiple linear regression analysis, partial tests (t-test), simultaneous tests (F-test), and the coefficient of determination (R^2). All data processing

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was carried out using the SPSS program.

Results and Discussion

Descriptive Statistics and Classical Assumption Tests

After the raw data was transformed into natural logarithm (LN), the average value of LN (Sales Growth) was 1.8411 (standard deviation 2.11036), the average value of LN (Cash Flow) was 0.8286 (standard deviation 0.96122), and the average value of LN (Financial Distress) was 5.3861 (standard deviation 2.21610), with the final sample size (valid N listwise) of 7 observations after reducing negative data that did not meet the mathematical requirements of natural logarithms.

The results of the normality test with Kolmogorov-Smirnov showed an Asymp. Sig. (2-tailed) value of 0.200 (> 0.05), so that the residuals of the regression model were normally distributed. The multicollinearity test showed a Tolerance value of 0.942 (> 0.10) and a VIF value of 1.062 (< 10) for both independent variables, so that the model was free from multicollinearity symptoms. The heteroscedasticity test with the Glejser method produced a significance value of 0.768 for Sales Growth and 0.450 for Cash Flow (both > 0.05), which indicated the model was free from heteroscedasticity (homoscedastic). The autocorrelation test with the Durbin-Watson statistic produced a value of 3.399, which was above the critical upper limit (4-dL = 3.3028), indicating the presence of negative autocorrelation symptoms in the model — this is one of the limitations of this study considering the relatively limited number of observations.

Multiple Linear Regression and Hypothesis Testing

The results of the multiple linear regression analysis produce the equation $Y = -1.480 + 9.126\ X_1 + 17.407\ X_2$. The constant value of -1.480 indicates that if Sales Growth and Cash Flow are constant (zero), then Financial Distress is predicted to be -1.480. The Sales Growth regression coefficient of 9.126 indicates that every one unit increase in Sales Growth will increase the Financial Distress (ICR) value by 9.126, assuming other variables are constant; while the Cash Flow regression coefficient of 17.407 shows a similar effect on the increase in the Financial Distress value.

A summary of the results of the hypothesis testing is presented in Table 1 below.

Table 1. Summary of Hypothesis Testing Results

Hypothesis	Path of Influence	Coefficient	t / F count	Sig.	Conclusion
H1	Sales Growth → Financial Distress	9,126	2,759	0.028	Accepted
H2	Cash Flow → Financial Distress	17,407	0.644	0.540	Rejected
H3	Sales Growth & Cash Flow (simultaneous) → Financial Distress	–	4,715	0.050	Accepted

Source: Processed data, 2026

The R Square (R^2) value of 0.574 indicates that Sales Growth and Cash Flow together are able to explain 57.4% of the variation in Financial Distress, while the remaining 42.6% is explained by other variables outside the model, such as fluctuations in the Rupiah exchange rate against the USD or world aviation fuel prices.

The Influence of Sales Growth on Financial Distress

The t-test results show a calculated t-value of 2.759, greater than the t-table of 2.365, with a significance level of 0.028 (<0.05), thus H1 is accepted. Sales Growth is proven to have a positive and significant effect on Financial Distress (ICR). Theoretically, sales growth reflects market acceptance of airline services, where revenue from ticket sales and air cargo is the main source to cover operational costs and fleet lease installments. The sharp decline in sales of -67% in 2020 due to the Covid-19 pandemic significantly worsened the company's financial condition, while sales recovery in 2022–2023 improved the structure of operating profitability. This finding is consistent with Setyowati (2019),

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Juhaeriah (2021), and Asrin (2018), but contradicts Suryani (2021), Dillak (2020), and Koten (2022) who did not find a significant effect of Sales Growth on financial distress.

The Influence of Cash Flow on Financial Distress

The t-test results show a calculated t-value of 0.644, smaller than the t-table of 2.365, with a significance level of 0.540 (> 0.05), thus H2 is rejected. Cash flow from operating activities partially has no significant effect on financial distress in this sample of companies. Although aviation activities are capital-intensive and highly dependent on real cash availability, as reflected in the drop in ICR to -241.4% when operating cash flow was negative in 2017, its statistical effect is not strong enough within the period range and number of observations of this study. This finding is consistent with Nailufar et al. (2018), but differs from Rahma and Dillak (2021) and Ramadhani and Khairunnisa (2019) who found a significant effect of operating cash flow on financial distress.

The Effect of Simultaneous Sales Growth and Cash Flow on Financial Distress

The F test yielded a calculated F value of 4.715 with a significance value right at the critical limit of 0.050 ($\alpha = 0.05$), thus H3 was accepted. Simultaneously, Sales Growth and Cash Flow had a significant influence on the Financial Distress of PT Garuda Indonesia Tbk during the 2015–2024 period. These results confirm that the alignment between sales volume growth and operational cash flow strength is an important foundation for national airlines to avoid the risk of bankruptcy in the future, while expanding the application of trade-off theory at the corporate level.

Conclusion

Based on the results of the analysis and discussion, it can be concluded that: (1) Sales Growth has a positive and significant partial effect on Financial Distress at PT Garuda Indonesia Tbk for the period 2015–2024 (t count 2.759 > t table 2.365; sig. 0.028 < 0.05); (2) Cash Flow from operating activities partially does not have a significant effect on Financial Distress (t count 0.644 < t table 2.365; sig. 0.540 > 0.05); and (3) simultaneously, Sales Growth and Cash Flow have a significant effect on Financial Distress (F count 4.715; sig. 0.050), with a coefficient of determination (R^2) of 0.574, which means that 57.4% of the variation in Financial Distress is explained by these two variables, while the remaining 42.6% is influenced by other external factors outside the research model.

This study has several limitations, namely the observation period covering only 10 years (2015–2024), the focus on one research object (PT Garuda Indonesia Tbk), and the use of two independent variables that do not explain other factors that contribute to Financial Distress comprehensively. For future research, it is recommended to expand the scope of the research object to several airlines at once, add other independent variables such as leverage or liquidity, and extend the observation period to increase the generalizability of the research results. For company management, the results of this study emphasize the importance of maintaining sales growth and stable operational cash flow on an ongoing basis as a measure to mitigate the risk of financial distress.

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