International Journal of Management Analytics (IJMA)
Vol. 4, No. 3 July 2026: 917-928

The Effect of Gross Profit, Operating Profit, and Net Profit in Predicting Future Cash Flows in Manufacturing Companies Listed on the Idx 2021–2024 Period

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ARTICLEINFO
Keywords: Gross Profit, Operating Profit, Net Profit, Cash Flow

Received: 20, May
Revised: 15, June
Accepted: 25 July

ABSTRACT
In order to forecast future cash flows in main consumer goods manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the years 2021–2024, this study will examine the impact of gross profit, operating profit, and net profit. 35 of the 128 enterprises in the study population were chosen as samples using the purposive sampling technique. The companies' annual financial statements provided the data, which were then examined using multiple linear regression analysis with SPSS version 26, classical assumption tests, and descriptive statistics. The findings indicate that operational profit has a positive and large impact on future cash flow prediction, net profit has a positive and significant impact, and gross profit has a negative and minor influence. Gross profit, operating profit, and net profit all have a big impact on projecting future cash flows at the same time. According to the coefficient of determination analysis, gross profit, operating profit, and net profit account for 53.6% of the volatility in future cash flows, with an Adjusted R Square value of 0.536.

INTRODUCTION

One of the key pillars of the Indonesian economy, the manufacturing sector makes a substantial contribution to the country's GDP. In keeping with the post-COVID-19 economic rebound, this sector exhibits significant vitality. According to data from the Central Bureau of Statistics (BPS, 2024), manufacturing companies listed on the Indonesia Stock Exchange (IDX) have shown a progressive increase in profit growth, indicating the industry's resilience to both domestic and international economic uncertainties. Because of its steady and significant contribution, the primary consumer products subsector is the biggest driver of Indonesia's manufacturing sector growth.

BPS data (2024) indicates that the primary consumer goods subsector consistently provides more than 35% of the total GDP of non-oil and gas manufacturing during and after the COVID-19 pandemic, making it the main engine of manufacturing growth. During the 2020 pandemic, when many manufacturing subsectors experienced contraction, the primary consumer goods subsector continued to grow positively because public demand for basic necessities remained high.

Cumulative growth is used to observe the total development of the manufacturing sector over a specific time range, not only the year-on-year change. In the context of the manufacturing sector, cumulative growth is calculated by summing the sectoral GDP growth figures (year-on-year) over several years to show how much the sector has grown overall.

The cumulative growth chart of the manufacturing sector for 2021–2024 shows an increasing pattern, and this condition is strongly influenced by the performance of the primary consumer goods subsector, which is one of the largest contributors to Indonesia's manufacturing structure. In 2021, when manufacturing growth stood at 4.20%, the primary consumer goods subsector played a major role in maintaining production stability through relatively stable demand, as daily necessities were still needed even while the economy was still in its pandemic recovery phase. In 2022, the 4.89% growth was also partly due to increased household consumption. The food and beverage, pharmaceutical, and basic necessities subsectors experienced increased sales as purchasing power improved. In 2023, when manufacturing growth slightly declined to 4.63%, the primary consumer goods subsector still showed resilience. Although inflationary pressure made consumers more selective, sales of consumer goods remained strong enough that the decline was not too significant. In 2024, growth rose again to 4.75%, in line with increasing demand for consumer products, particularly food and beverage and household goods.

In the context of the manufacturing industry, which is highly sensitive to demand fluctuations, production cost changes, and supply chain dynamics, cash flow serves as a stabilizer of operational stability. Companies with strong cash flows tend to be more adaptive in responding to market changes and have greater flexibility in managing inventory and production capacity. This is consistent with the view of Kieso, Weygandt, & Warfield (2022), who emphasize that operating cash flow reflects the real ability of a company to generate cash from its core activities.

The company's basic operational efficiency and its capacity to make money from its primary production or sales operations are reflected in gross profit, which is calculated as the difference between revenue and cost of products sold. Since gross profit represents the profit margin from the company's primary operations, accrual accounting theory views gross profit as an early signal that can provide information about the company's capacity to create future cash flows.

Operating profit, also known as operating income, is the amount of money made from the company's primary operations after all operating costs have been subtracted. It shows how profitable the company's core operations may be. Huang and Zhang (2021) claim that because operating profit demonstrates how well a business generates income from core operations, it has a more consistent prediction ability for cash flows than net profit.

Net profit, according to Brigham & Ehrhardt (2022), is the remaining profit that is accessible to shareholders following the deduction of all operational expenses, interest expenses, and taxes from total revenue. The company's capacity to create economic value for capital owners is reflected in this profit. Net profit is regarded as a more pertinent indication for forecasting cash flows in the upcoming period because it incorporates accrual components that enable information about business performance to be reflected more quickly than actual cash flow, according to Accrual Accounting Theory (Scott, 2020).

LITERATURE REVIEW

Accrual-Based Accounting Theory

The matching of revenues and expenses during the transaction period, as opposed to when revenue is received or expenses are paid (Cash Basis), is known as the accrual basis. Cash basis and accrual basis are the two types of accounting recording. Only transactions involving cash are recorded in cash-based accounting. Accrual-based accounting keeps track of the organization's debts and receivables in addition to cash payments and revenues. Therefore, compared to cash-based accounting, accrual-based accounting offers a more realistic view of the organization's financial situation.

Financial Statements

Stakeholders use financial statements, which are organized data about an entity's cash flows, performance, and financial status, to make financial decisions (PSAK, 2021). Financial statements, which encompass assets, liabilities, equity, sales, expenses, and cash flows, present a thorough picture of the company's financial situation for a specific time period. Financial statements help management make strategic decisions, give information on the performance of the company, and evaluate how well resources are being used.

(Cash Flow Statement)

The financial statements produced during an accounting period include the cash flow statement, which shows how much money comes into and goes out of a business. As defined by Nursya'adah (2020), "The cash flow statement is a report about activities that provides information about cash receipts and disbursements of an entity during a certain period, along with explanations of

the sources of those receipts and disbursements." The Operating Cash Flow Ratio (OCFR), which gives a more accurate picture of liquidity and the company's capacity to pay short-term obligations with cash generated by operations, is the indicator employed in this study. OCFR is more accurate in evaluating the company's financial health than accrual-based accounting profit since it represents cash that is actually available.

OCFR = Operating Cash Flow Activities / Current Liabilities

(Income Statement)

The following elements make up the income statement: (1) Gains, which are increases in equity from incidental or peripheral transactions; (2) Expenses, which are outflows of assets in the delivery of goods or services in the company's main operations; (3) Gains, which are decreases in equity from incidental or peripheral transactions; and (4) Losses, which are decreases in equity from incidental or peripheral transactions.

(Definition of Profit)

According to PSAK No. 1 (IAI, 2021), profit in accounting standards is referred to as "profit or loss," which is the total revenue minus expenses, including gains or losses not derived from the company's main activities. Profit (income) is the net result of company operations after revenues are realized and all related expenses are recognized in the same period in accordance with accrual-based accounting principles (Koeswardhana, 2020).

(Gross Profit)

The profit from sales before taxes, salaries, manufacturing costs, and interest payments are subtracted is known as gross profit. The deduction component, which is the Cost of Goods Sold (COGS) from net sales, shows the value of gross profit. Gross profit can rise when a company's net sales rise and its COGS charge is comparatively low (Febriani & Sherlita, 2022). Net sales volume, selling price, discount and promotion policies, and COGS efficiency are some of the factors that impact gross profit. The formula for calculating gross profit is:

Gross Profit = Net Sales – Cost of Goods Sold

The Gross Profit Margin (GPM), which is computed as follows, is the indicator utilized in this study to gauge the Gross Profit variable (X1):

GPM = Gross Profit / Net Sales

(Operating Profit)

Different from income from non-operating profit, operating profit is the profit associated with the company's earnings from its operations. The components that make up operating profit are as follows: (1) gross profit, which serves as the foundation for the calculation of operating profit; (2) selling expenses, which include all costs associated with product marketing and distribution; and (3) general and administrative expenses, which are operating costs unrelated to production or sales. The Operating Profit Margin (OPM) is the metric employed in this study to calculate operating profit:

OPM = Operating Profit / Net Sales

(Net Profit)

Kasmir (2020) states that "Net profit is the profit that has been reduced by costs that are the burden of the company in a certain period, including taxes."The

difference between all of the company's operating and non-operating revenue is known as net profit.

(Previous Research)

Several previous studies have examined cash flows. This research differs from previous studies in terms of the research period (2021–2024, four years) and the independent variables studied.

(Conceptual Framework)

The link between operating cash flow (Y) as the dependent variable and gross profit (X1), operating profit (X2), and net profit (X3) as independent variables is depicted in the conceptual framework of this study. Every independent variable is tested against the dependent variable both concurrently (H4) and partially (H1, H2, H3).

(Research Hypotheses)

The following research hypotheses are based on the theoretical and conceptual frameworks:

H1: For the 2021–2024 timeframe, gross profit has a somewhat positive impact on forecasting future cash flows in primary consumer goods manufacturing companies listed on the IDX.

H2: For the 2021–2024 timeframe, operating profit has a somewhat beneficial impact on forecasting future cash flows in primary consumer goods manufacturing companies listed on the IDX.

H3: For the 2021–2024 period, net profit has a somewhat positive impact on forecasting future cash flows in primary consumer goods manufacturing companies listed on the IDX.

H4: For the 2021–2024 timeframe, gross profit, operating profit, and net profit all have an impact on forecasting future cash flows in main consumer goods manufacturing companies listed on the IDX.

RESEARCH METHODOLOGY

(Type of Research)

This kind of study is known as causal research, and its goal is to determine whether the research variables are causally related. Testing the suggested hypotheses—that is, whether the independent variables have an impact on the dependent variable—is the primary motivation for selecting causal research. Quantitative descriptive data analysis techniques were employed as the data analysis method in this study. According to Sugiyono (2020:13), "Quantitative research methods can be interpreted as research methods based on positivism philosophy, research data in the form of numbers that will be measured using statistics as a calculation test tool, related to the problem being studied to produce a conclusion."

Table 3.3. Sampling Criteria

Description		Total
Research population:		
Manufacturing companies in the primary consumer goods sub-sector listed on the Indonesia Stock Exchange for the period 2021–2024		128
Criteria:		
1	Manufacturing firms in the primary consumer goods subsector that did not have shares listed on the Indonesia Stock Exchange between 2021 and 2024	(28)
2	Manufacturing firms in the primary consumer products subsector that, between 2021 and 2024, failed to post financial statements on the Indonesia Stock Exchange	(3)
3	Manufacturing firms in the primary consumer products subsector that experienced negative net profit, operating profit, and gross profit between 2021 and 2024	(57)
Total sample obtained		40

RESEARCH RESULTS AND DISCUSSION

(Descriptive Statistical Analysis Results)

Analyzing data by characterizing or illustrating the gathered data is known as descriptive statistical analysis. Based on the average (mean), lowest, maximum, and standard deviation values, this analysis seeks to give a summary or description of the data in terms of variables.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
GPM	145	.02	.58	.2547	.13296
OPM	145	.00	.41	.1291	.09589
ROA	145	.00	.23	.0860	.05973
OCFR	145	-1.00	2.50	.5818	.65596
Valid N (listwise)	145				

Sumber: Hasil SPSS 2026

(Results of Normality Test)

The Kolmogorov-Smirnov value was 0.071 with a significance level of 0.073 following outlier correction. Since this number is higher than 0.05, the normality condition is satisfied and the data is normally distributed. Normality was confirmed by the Normal P-P Plot, which displayed data points spreading down the diagonal line, and the histogram, which displayed a very symmetric distribution near a bell curve.

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		145
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.44225662
Most Extreme Differences	Absolute	.071
	Positive	.071
	Negative	-.070
Test Statistic		.071
Asymp. Sig. (2-tailed)		.073[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
Sumber: Hasil SPSS 2026

(Results of Multicollinearity Test)

Prior to outlier treatment, there was no multicollinearity because all independent variables had tolerance values more than 0.10 and VIF values less than 10.

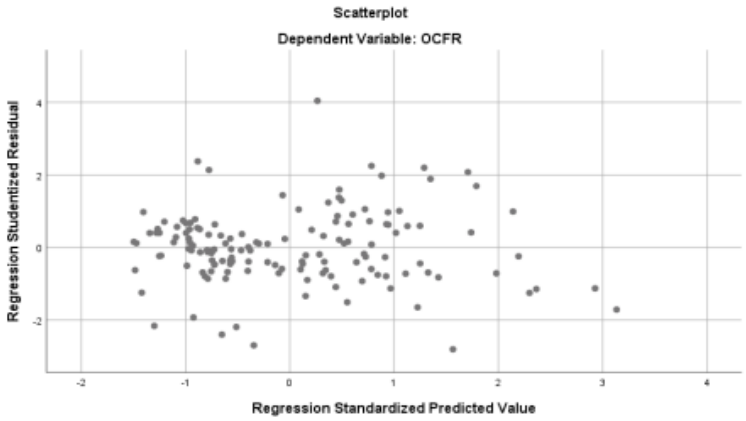
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	-.051	.084		-.608	.544		
	GPM	-.716	.436	-.145	-1.643	.103	.414	2.418
	OPM	4.236	.691	.619	6.130	.000	.316	3.165
	ROA	3.117	.871	.284	3.581	.000	.513	1.949

a. Dependent Variable: OCFR
Sumber: Hasil SPSS 2026

(Results of Heteroscedasticity Test)

Following outlier treatment, the scatterplot revealed that there was no discernible pattern and that data points were dispersed arbitrarily above and below zero on the Y-axis. This suggests that the regression model does not have a heteroscedasticity issue.



(Results of Autocorrelation Test)

Hasil Uji Autokorelasi Setelah Outlier

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.739[a]	.545	.536	.44694	1.459

a. Predictors: (Constant), ROA, GPM, OPM
b. Dependent Variable: OCFR

(Results of Multiple Linear Regression Analysis)

To ascertain the link between independent and dependent variables, multiple regression analysis approaches are employed. The purpose of this study is to ascertain whether the independent and dependent variables have a positive or negative relationship.

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	-.051	.084		-.608	.544
	GPM	-.716	.436	-.145	-1.643	.103
	OPM	4.236	.691	.619	6.130	.000
	ROA	3.117	.871	.284	3.581	.000

a. Dependent Variable: OCFR
Sumber: Hasil SPSS 2026

(Partial Test Results (t-test))

The individual impact of each independent variable on the dependent variable is examined using the t-test, also called the partial test. The purpose of this test is to ascertain the degree to which each independent variable affects the dependent variable.

The degrees of freedom (df) = (n – k – 1) and the significance level (α) = 5%, where:

n = number of samples → n = 145 k = number of variables used → k = 3

Degrees of freedom (df) = (n – k – 1) = 145 – 3 – 1 = 141 → t-table value = 1.977

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	-.051	.084		-.608	.544
	GPM	-.716	.436	-.145	-1.643	.103
	OPM	4.236	.691	.619	6.130	.000
	ROA	3.117	.871	.284	3.581	.000

a. Dependent Variable: OCFR
Sumber: Hasil SPSS, 2026

(Simultaneous Test Results (F-test))

At α=0.05, the F-table with df1=3 and df2=141 is 3.060. The significance value was 0.000 < 0.05, and the F-count value was 56.396 > F-table = 3.060. As a result, GPM, OPM, and ROA all significantly affect OCFR at the same time.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.795	3	11.265	56.396	.000[b]
	Residual	28.165	141	.200		
	Total	61.961	144			

a. Dependent Variable: OCFR

b. Predictors: (Constant), ROA, GPM, OPM

Sumber: Hasil SPSS 2026

(Coefficient of Determination Results (R^2))

The Adjusted R2 value for primary consumer goods manufacturing companies listed on the IDX for the 2021–2024 period is 0.536, which indicates that gross profit (GPM), operating profit (OPM), and net profit (ROA) account for 53.6% of the variation in future cash flows (OCFR). Other factors not examined in this study have an impact on the remaining 46.4%.

Uji Koefisien Determinasi (R^2)

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.739[a]	.545	.536	.44694

a. Predictors: (Constant), ROA, GPM, OPM

b. Dependent Variable: OCFR

Sumber: Hasil SPSS 2026

DISCUSSION

(Effect of Gross Profit on Cash Flows)

Cash flows as determined by OCFR are negatively and negligibly impacted by gross profit as determined by GPM. H0 is accepted and H1 is denied since the GPM significance value was 0.103 > 0.05 and the t-count (-1.643) < t-table (1.977). This demonstrates that the company's capacity to make money from its operations is not significantly impacted by changes in the gross profit margin %.

This can occur because gross profit is an accrual-based measure that does not directly reflect cash receipts. Gross profit only shows the difference between sales and cost of goods sold, without considering factors such as trade receivables, inventory, and current liabilities that affect operating cash flows. Thus, even though a company has a high gross profit margin, it does not necessarily have good operating cash flows if most of its sales are credit sales or if there are increases in working capital.

(Effect of Operating Profit on Cash Flows)

Cash flows as determined by OCFR are positively and significantly impacted by operating profit as determined by OPM. H0 is rejected and H2 is acceptable since the significant value of OPM was 0.000 < 0.05 and t-count (6.130) > t-table (1.977).

Because operational profit covers a company's running expenses for its primary operations, it has an impact on forecasting future cash flows. The amount of cash that the business actually receives from its operations increases with the amount of profit made from its primary operations after deducting operational costs. More revenue is turned into cash rather than just accounting profit when a business can reduce operating expenses and boost productivity.

(Effect of Net Profit on Cash Flows)

Cash flows as determined by OCFR are positively and significantly impacted by net profit as determined by ROA. H0 and H3 are acceptable since the significant value of ROA was 0.000 < 0.05 and t-count (3.581) > t-table (1.977). This implies that a company's capacity to produce cash from operational activities increases with how well it uses its assets to generate profit.

This result is in line with Accrual Accounting Theory, which holds that profit has the capacity to forecast future cash flows and contains information about the company's financial performance. The time lag between profit recognition and cash realization is typically shorter in the main consumer products sector, which has a relatively quick operating cycle. Research by Destiara (2024), Badrus & Mauludi (2023), and Sari et al. (2025) supports this, although Ningsih et al. (2023) and Pardanawati & Setyadi (2024) disagree.

(Simultaneous Effect of Gross Profit, Operating Profit, and Net Profit on Cash Flows)

OCFR is significantly impacted by GPM, OPM, and ROA all at once. This conclusion demonstrates that operating cash flows are the outcome of a combination of profit performance at several levels rather than being controlled by a single profitability measure. When taken as a whole, these three ratios show how well the business can generate economic value, control operating expenses, and make efficient use of its resources.

When combined with OPM and ROA, GPM's presence helps to increase the relationship between profitability performance and operating cash flows, even though it has little effect on OCFR. This demonstrates that operating cash flow is a result of the entire financial success of the business. This is in line with studies by Badrus & Mauludi (2023) and Pardanawati & Setyadi (2024), but not with Savitri et al. (2018).

CONCLUSIONS

The following conclusions can be made in light of the analysis done on the research sample:

1. For the 2021–2024 timeframe, the gross profit variable has a negligible and negative impact on forecasting future cash flows of major consumer goods manufacturing companies listed on the IDX.

2. For the 2021–2024 timeframe, the operating profit variable significantly and favorably influences the forecast of future cash flows for major consumer goods manufacturing companies listed on the IDX.
3. For the 2021–2024 timeframe, the net profit variable significantly and favorably affects the forecasting of future cash flows of major consumer goods manufacturing companies listed on the IDX.
4. For the 2021–2024 timeframe, the gross profit, operating profit, and net profit variables all have a substantial impact on projecting future cash flows of major consumer goods manufacturing companies listed on the IDX.
5. Future cash flows can be explained by the gross profit, operational profit, and net profit variables by 53.6% (Adjusted R^2 = 0.536), with other variables not included in the regression model of this study influencing the remaining 46.4%.

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