



Cash flow prediction by gross profit, operating profit and net profit in Indonesian food and beverage companies

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Abstract

The goal of this study is to forecast cash flow during the Covid-19 pandemic in food and beverage companies registered on the Indonesian stock exchange using gross profit, operational profit, and net profit. This study employs a sample of 18 businesses to make it quantifiable. SPSS version 26 was utilized for the analysis in this study. According to the study's findings, gross profit has a positive and significant impact on cash flow, operating profit and net profit do not, but gross profit, operating profit, and net profit all have an impact on cash flow simultaneously. It is clear that gross profit has the greatest impact on cash flow. This shows that the company's cash flow will increase along with its gross profit. This study provides input to enrich the theory about the relationship between cash flow and company profits.

Keywords: Cash flow, Financial, Indonesia stock exchange, Profit, Stocks.

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1. Introduction

To continue operating, meet its responsibilities, and bring wealth to the capital owners, the corporation must expand its operations. Companies require greater capital to function properly in the face of escalating competition and shifting external conditions. Companies looking for additional funding can use a technique or, if they already have a means for raising stock, they can make a public offer on the capital market. The capital market is a market for the buying and sale of long-term securities utilized by businesses with go public status.

The capital market has two functions, including serving as a source of industrial financing and as a media outlet so that the budget can be raised from investors or investors. As a result, it plays a significant role in the economic development of a nation. A company's capital obtained through the capital market will eventually be utilized to develop its commercial operations, accumulate costs for expansion, and so forth. The public can utilize the capital market as a tool to carry out investments in financial products such mutual funds, loans, stocks, and others, which is its second function.

The Indonesia Stock Exchange is a company in the capital market sector that can be a significant source of investment activity for the community and be used as a substitute for traditional forms of investment. Through the Indonesia Stock Exchange, businesses can raise additional capital by selling shares to investors in a public stock offering, which gives businesses go-public status. The corporation can benefit from this capital market in its development and operating activities. Investors, on the other hand, are people with access to larger sums of money who might use them to invest in a firm with the intention of earning returns on their investments in line with the activities they carry out as investors. The preparation of cash flow reports and financial reports is crucial so that information can be provided relating to funding, investment, and activities of the company's business scope. Investors can use these financial reports to assess the company's ability to earn profits, obtain cash, and use cash flows needed for the organization.

The presence of cash within a corporation is a crucial component since parties with an interest frequently utilize cash as their main point of attention when investing their capital or paying creditors. When analyzing a firm's financial situation, cash flow statements are analyzed to determine whether the company has the ability to raise the necessary funds to pay its debts, finance capital projects, and fund its operational activities. However, in general, investors focus on the organization's cash flow because this information can be used to evaluate the company's benchmarks, including its capacity to maintain business operations, meet obligations, and generate cash flow and dividend payments without relying on external sources or third parties. Cash flows from the past can be used to anticipate future cash flows when calculating them.

Analysis that can be applied to forecasting future cash flows, determining a company's internal state, and producing decisions for the company's future that are tied to the risks and opportunities involved be confronted in the future. Future cash flow projections may be affected by an organization's revenues and earnings (Maharani, 2020).

Investors are typically more motivated to engage in investment activities if the company can generate a sizeable profit because of the high profit, investors will also benefit from the big profit. High-profit organizations are typically controlled by businesses that are in sound financial standing. The presentation of the company's financial statements can also be used to evaluate this.

From 2016 to 2020, companies in the food and beverage sector are listed on the Indonesia Stock Exchange as the center of this attention. Because the beverage and food industry are one of those affected by the Covid-19 epidemic, researchers use this industry as a source for study topics. The beverage and food sector were considered a support for the economy because

dealing with the pandemic was a basic need, even though in 2020 most of them showed signs of recovering. Losses were experienced by various sectors as a result of the existence of this pandemic, including the beverage and food sector.

This paper consists of several parts; the first explains the background, the second reviews the supporting literature for this study, the third explains the methodology of this study, the fourth describes the results and discussion and as the final part is the conclusion of this study.

2. Literature Review

The definition of the profitability ratio is the use of the ratio to assess an organization's capacity to generate profits linked to the ownership of resources that are readily available inside the business and that result from the use of capital, usage of assets, and sales activities (Diana, 2018). Sukamulja & Deviyanti (2019) describes the profitability ratio as a measurement with the objective of determining the company's capacity in connection to its profit and investment measurement, as well as its rate of return when investment activities are undertaken. This ratio can also be used as a measurement of management effectiveness as the management of organizational activities, in addition to this measurement to be able to know the condition of the company in a given period of time to obtain profits. If a corporation has management that is effective at managing the resources available to it, the company can do well.

Darminto & Juliaty (2019) defines gross profit as the difference between sales and cost of goods sold. Making comparisons based on accounting data from previous periods or specifically chosen periods, or in the form of standard prices or budgets for products sold and production expenses, is important for analyzing gross profit. The fact that the numerator (gross profit) is a more accurate indicator of economic success could be one reason for the measure's predictive power (Ball et al., 2015). Sujarweni (2017) the gap between overall running costs and gross profit is known as operating profit. Operating profit is calculated as the difference between operating expenses and gross profit, which is a gauge of a business' operational capabilities. The company's operational activities are controlled and carried out efficiently and successfully, regardless of the tax and financing decisions that are managed, according to the definition of operating profit. By assessing the difference between a secondary activity or an activity that only seldom occurs and the main activity, operational profit is disclosed in the income statement. Sujarweni (2017) defines net profit as the ultimate tally that is determined from profit and loss in getting other income plus operating profit, which is then subtracted from the whole existing expenses. The surplus of revenue or income value from operational activities in a certain period, say Pardanawati & Suprihati (2020) is then calculated by subtracting the current tax burden.

While One of the asset-forming structures that is inextricably linked to a company's internal operations is cash. It is clear that all businesses keep cash on hand as a means of ensuring their survival. Cash is a crucial component of a company's assets; thus, it naturally attracts the attention of people with an interest in the business, such creditors and investors. People who are interested can find out how much money the company receives, how much money it pays out, and how much money it still has on hand. A cash report, which is a unique financial report that might include information on corporate cash, is issued by the firm's management in an effort to fulfill commitments and responsibilities to serve the interests of these parties (Sukamulja & Deviyanti, 2019).

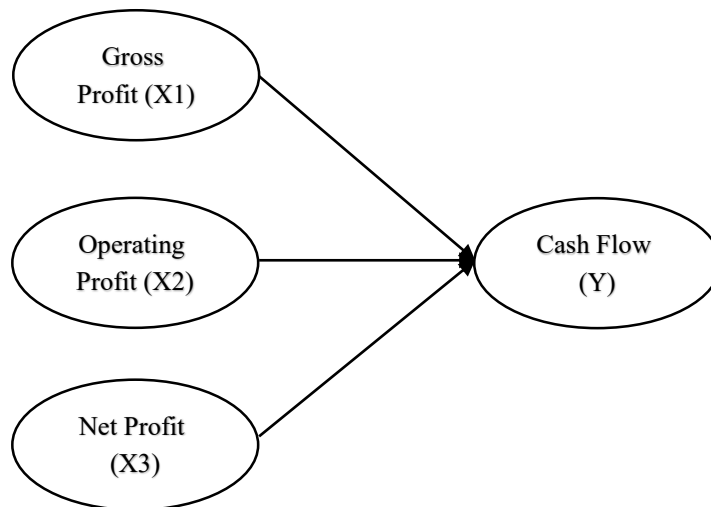


Figure 1. Conceptual Framework

3. Methodology

This study is quantitative in nature. The population included in this study consisted of all 32 beverage and food companies that were listed on Indonesia Stock Exchange (IDX) between 2016 and 2020. A food and beverage company from the IDX is used as the sample, and after the necessary conditions are completed, the suggested sample is obtained. In this study, the sample was chosen intentionally or in compliance with Sugiyono (2015) criteria. It is a technique that is taken as a sample in accordance with the standards specified for the writer, and the standards established in taking the sample are: 1). Food and beverage companies have been registered on the IDX, 2). The company has published a complete and consecutive annual report from 2016-2020, 3). The company presents financial reports using the IDR currency. From these criteria, a sample of 18 companies was obtained. The analysis used in this research is by using the SPSS version 26 application.

4. Results

4.1. The profit margin and cash flow ratio

Table 1. Result of profit margin

No	Company Code	Gross Profit Margin					Operating Profit Margin				
		2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
1	ADES	0.518	0.539	0.484	0.454	0.509	0.088	0.091	0.113	0.158	0.241
2	AISA	0.257	0.286	0.290	0.296	0.248	0.196	-2.614	-0.006	0.984	1.661
3	ALTO	0.297	0.157	0.099	0.122	0.116	0.095	-0.130	-0.079	-0.016	0.001
4	BTEK	0.147	0.128	0.091	0.032	-0.347	0.098	0.074	0.044	-0.004	-0.374
5	BUDI	0.111	0.139	0.132	0.127	0.130	0.067	0.073	0.073	0.077	0.072
6	CEKA	0.106	0.067	0.076	0.117	0.092	0.077	0.038	0.038	0.088	0.057
7	DLTA	0.698	0.739	0.729	0.721	0.672	0.422	0.475	0.494	0.499	0.301
8	ICBP	0.315	0.311	0.319	0.341	0.369	0.141	0.147	0.168	0.175	0.197
9	IIKP	-0.137	-0.218	-0.446	-0.295	-0.506	-0.340	-0.555	-0.921	-0.654	-1.311
10	INDF	0.291	0.282	0.275	0.297	0.327	0.124	0.124	0.125	0.128	0.158
11	MLBI	0.658	0.670	0.675	0.616	0.474	0.405	0.525	0.458	0.443	0.218
12	MYOR	0.267	0.239	0.266	0.316	0.298	0.126	0.118	0.109	0.127	0.116

No	Company Code	Gross Profit Margin					Operating Profit Margin				
		2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
13	PSDN	0.127	0.139	0.110	0.133	0.142	0.004	0.050	-0.002	0.027	-0.008
14	ROTI	0.516	0.525	0.539	0.554	0.561	0.176	0.103	0.070	0.107	0.079
15	SKBM	0.124	0.101	0.115	0.127	0.100	0.039	0.028	0.024	0.021	0.015
16	SKLT	0.257	0.259	0.256	0.253	0.266	0.040	0.045	0.052	0.063	0.060
17	STTP	0.209	0.217	0.219	0.271	0.278	0.083	0.102	0.115	0.173	0.201
18	ULTJ	0.349	0.376	0.357	0.376	0.373	0.190	0.198	0.163	0.203	0.229

Continued

No	Company Code	Net Profit Margin				
		2016	2017	2018	2019	2020
1	ADES	0.063	0.047	0.066	0.110	0.202
2	AISA	0.110	-2.683	-0.078	0.751	0.939
3	ALTO	-0.089	-0.240	-0.114	-0.021	-0.033
4	BTEK	0.003	-0.048	0.085	-0.120	-0.503
5	BUDI	0.016	0.018	0.019	0.021	0.025
6	CEKA	0.061	0.025	0.026	0.069	0.050
7	DLTA	0.328	0.360	0.379	0.384	0.226
8	ICBP	0.105	0.100	0.121	0.127	0.159
9	IIKP	-0.327	-0.608	-0.847	4.261	-2.651
10	INDF	0.079	0.073	0.068	0.077	0.107
11	MLBI	3.010	0.390	0.336	0.325	0.144
12	MYOR	0.076	0.078	0.073	0.082	0.086
13	PSDN	-0.039	0.023	-0.035	-0.021	-0.058
14	ROTI	0.111	0.054	0.046	0.071	0.052
15	SKBM	0.015	0.014	0.008	0.000	0.002
16	SKLT	0.025	0.025	0.031	0.035	0.034
17	STTP	0.066	0.076	0.090	0.137	0.163
18	ULTJ	0.151	0.147	0.128	0.166	0.186

Table 2. Result of cash flow ratio

No	Company Code	Operating Cash Flow Ratio				
		2016	2017	2018	2019	2020
1	ADES	0,61	0,356	0,559	1,053	1,257
2	AISA	0,185	0,177	0,054	0,012	-0,068
3	ALTO	0,062	0,031	0,031	0,168	0,132
4	BTEK	0,126	-0,146	2,251	0,181	-0,014
5	BUDI	0,264	0,068	0,018	0,239	0,178
6	CEKA	0,349	0,47	1,815	2,037	0,631
7	DLTA	1,885	2,45	1,781	1,709	1,677
8	ICBP	0,709	0,758	0,643	1,128	1,018
9	IIKP	-0,024	-0,169	0,038	0,027	0,496
10	INDF	0,373	0,301	0,19	0,541	0,495
11	MLBI	0,941	1,021	0,895	0,84	0,652
12	MYOR	0,17	0,285	0,096	0,889	1,069
13	PSDN	0,074	-0,074	0,049	0,152	-0,075
14	ROTI	1,294	0,361	0,563	0,433	1,203
15	SKBM	-0,072	-0,193	-0,091	-0,061	0,028
16	SKLT	0,01	0,01	0,05	0,189	0,405

No	Company Code	Operating Cash Flow Ratio				
		2016	2017	2018	2019	2020
17	STTP	0,298	0,839	0,362	1,224	1,479
18	ULTJ	1,313	1,307	0,907	1,311	0,523

4.2. Normality test

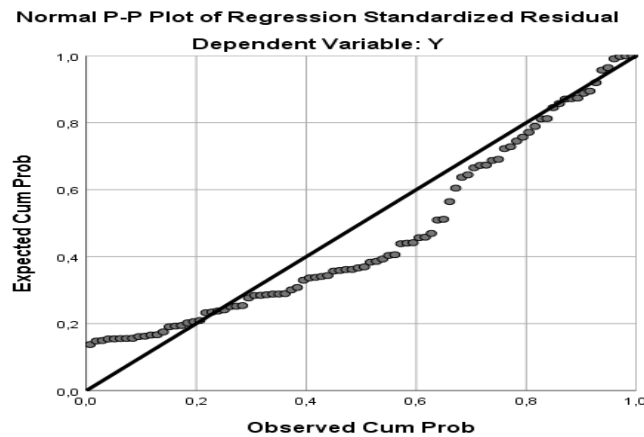


Figure 2. Result of Normality Test

This research's data is shown to have a normal distribution because, in accordance with the graph shown in the normal probability plot, a line is followed by the distribution points.

4.3. Multicollinearity Test

Table 3. Result of Multicollinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	X1	0.740	1.351
	X2	0.578	1.730
	X3	0.735	1.361

Dependent Variable: Y

It is clear that all three of the independent variables gross profit (X1), operating profit (X2), and net profit (X3) have tolerance results greater than 0.1 and VIF values lower than 10, indicating that the category under study in this study is not multicollinear.

4.4. Heteroscedasticity Test

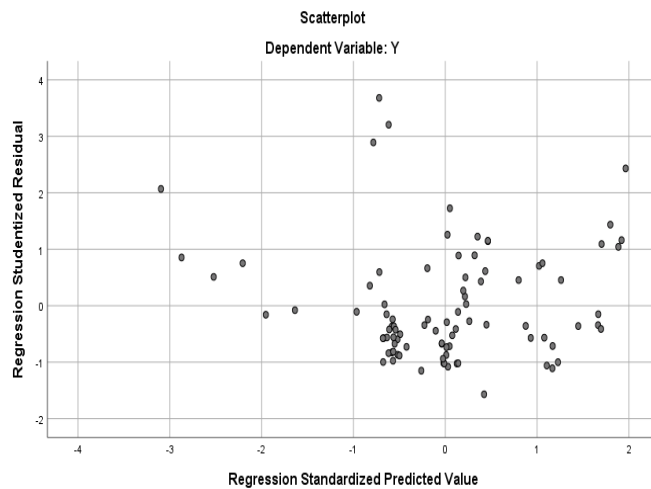


Figure 3. Result of Heteroscedasticity Test

The figure presented above shows the distribution in such a way that the identification of the data in this design is free from heteroscedasticity, the points to the left and above the 0 value on the horizontal axis, and above and below the 0 value on the vertical axis.

4.5. Coefficient of Multiple Determination (R²)

Table 5. Result of Coefficient of Multiple Determination

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.532	0.283	0.258	0.530314	1.053
a. Predictors: (Constant), X3, X1, X2					
b. Dependent Variable: Y					

The results of the test for the coefficient of determination yielded a number of 0.283, which is equal to 28.3%, as can be seen from the table that is being shown. The results of this test show that the amount of gross profit (X1), operating profit (X2), and net profit (X3) influences the contribution of 28.3% of cash flow (Y), and the remaining amount, or 71.7% (100% - 28.3%), can be contributed by variables that are not considered in this study.

4.6. T-test

Table 6. Result of t-test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.193	0.086		2.234	0.028
	X1	1.384	0.269	0.546	5.143	0.000
	X2	-0.044	0.172	-0.030	-0.253	0.801
	X3	0.004	0.092	0.005	0.044	0.965

Dependent Variable: Y

According to the table above, it can be concluded as follows:

- The significance level of the t-test results 0.000 (X1) is lower than 0.05. This means that there is a significant influence between gross profit (X1) and cash flow (Y).
- The significance level of the t-test results 0.801 (X2) is greater than 0.05. This means that there is an insignificant influence between operating profit (X2) and cash flow (Y).
- The significance level of the t-test results 0.965 (X3) is greater than 0.05. This means that there is an insignificant influence between net profit (X3) and cash flow (Y).

4.7. F-test

Table 7. Result of F-test

ANOVA						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.547	3	3.182	11.315	0.000
	Residual	24.186	86	0.281		
	Total	33.733	89			
a. Dependent Variable: Y						
b. Predictors: (Constant), X3, X1, X2						

In accordance with the results presented above, the significance value in the table looks lower than 5%, which is 0.0000. In accordance with the results obtained, it can be concluded that simultaneously gross profit (X1), operating profit (X2), and net profit (X3) have an influence on cash flow (Y).

5. Conclusions and Discussion

Effect of Gross Profit on Cash Flow

It has been proven that gross profit has had a significant impact on cash flow during the COVID-19 pandemic. The test results using multiple regression and t test, the positive regression coefficient for gross profit is 1.384, and the significance of the t test 0.000 is less than 0.05. This suggests that the company's cash flow will increase along with its gross profits. To demonstrate the potential gross profit from a sales product, the gross profit margin is presented as a ratio. This ratio suggests that the company is more capable. If this ratio is higher, the cumulative rate of return on sales profits will also be higher. This results from either greater selling prices or lower costs of items sold. The gross margin accumulation will, however, be reduced if the gross margin is low, as a result of high production costs and low selling prices (Diana, 2018; Maharani, 2020; Nursya'adah, 2020; Al Hayek, 2018).

Effect of Operating Profit on Cash Flow

Operating profit did not have a significant impact on cash flow during the COVID-19 pandemic because operating profit has a negative regression coefficient of -0.044 and the significance result on the t test is greater than 0.05, namely 0.801.

The insignificant effect of operating profit on cash flow is because operating profit still has operational costs that must be met by the company. Therefore, it indirectly impacts cash reserves that can be used for business. Therefore, whether or not the state of the company's operating profit does not have a significant impact on cash flow (Fairfield et al., 2003; Kusuma & Sumadi, 2021).

Effect of Net Income on Cash Flow

Net profit has no significant effect on cash flow during the COVID-19 pandemic because net profit has a significant result on the t test exceeding 0.05, which is 0.965.

The test result obtained is that net profit does not have a significant effect on cash flow because in each company there are different policies in determining the recognition of components of each company's activities, for example investment and operating funding activities, for example net income generated from the level of profits from selling company fixed assets. as well as other sources of income so that net income has no significant effect on cash flow (Pardanawati & Suprihati, 2020).

The Simultaneous Effect of Gross Profit, Operating Profit, and Net Profit on Cash Flow

Gross profit, operating profit, and net profit from the simultaneous test had a positive and significant effect on cash flow during the COVID-19 pandemic because the F test had a significance value of less than 0.05, namely 0.000.

The results in this research indicate that gross profit can be used as a benchmark for organizational capabilities and can provide sources of information that have a relationship with company management for the responsibility for utilizing resources as a responsibility for management. This information regarding the components in profit such as revenues, costs, profits and losses which can later be used as an assessment of the company's capacity to provide cash flow for its business operations.

According to the outcomes of the study that were conducted, it can be said that:

- Gross profit has a positive and significant effect on cash flow. This is shown by the regression assessment of 1.384 and the results of the significance of the partial test are lower 0.05 which is 0.000.
- Operating profit has no significant effect on cash flow. This is shown by the partial test assessment which is higher than 0.05, which is worth 0.801.
- Net income has no significant effect on cash flow. This is shown by the partial test assessment which is higher than 0.05, which is worth 0.965.
- Cash flow is significantly affected simultaneously by gross profit, operating profit and net profit. The F test rating shows a result of 0.000 is lower than 0.05.

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