

## The Effect of Cost of Goods Sold and Sales on Net Income in Food and Beverage Companies Listed on the Indonesia Sharia Stock Index (ISSI)

Silvi Mardhatillah, Sucipto, Ferri Saputra Tanjung

UIN Sulthan Thaha Saifuddin Jambi, Indonesia

cilvimrdtllh21@gmail.com

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### Abstract

Profitability in food and beverage companies depends substantially on their ability to increase sales while efficiently controlling the cost of goods sold. However, empirical evidence regarding these relationships among companies listed in the Indonesia Sharia Stock Index remains limited. This study examines the partial and simultaneous effects of the cost of goods sold and sales on net income. A quantitative causal design was employed using data from 33 food and beverage companies selected through purposive sampling, generating 165 firm-year observations for the 2020–2024 period. Secondary data were obtained from annual financial statements published on the official Indonesia Stock Exchange website and analyzed using fixed-effects panel data regression with EViews 12. The results indicate that the cost of goods sold has a negative and significant effect on net income, whereas sales have a positive and significant effect. Simultaneously, both variables significantly affect net income. The adjusted  $R^2$  value of 0.928343 demonstrates that the model explains 92.83% of the variation in net income. These findings confirm that sales growth must be accompanied by effective cost management to improve corporate profitability. This study

contributes empirical evidence on the determinants of net income among Sharia-compliant food and beverage companies in Indonesia and highlights the importance of strengthening production efficiency, inventory control, pricing strategies, and profitable market expansion.

**Keywords:** Cost of Goods Sold; Food and Beverage Companies; Indonesia Sharia Stock Index; Net Income; Sales

## INTRODUCTION

The food and beverage industry faces considerable challenges arising from fluctuations in raw material prices, energy costs, transportation expenses, exchange rates, and global supply-chain disruptions. These pressures became increasingly prominent during the 2020–2024 period, particularly following the COVID-19 pandemic and geopolitical conflicts that disrupted the international distribution of food and energy commodities. Bank (2024) reported that global commodity prices remained considerably higher than their pre-pandemic levels despite a gradual decline during the economic recovery period. For food and beverage companies, these conditions can increase the costs of raw materials, packaging, production, storage, and distribution. Consequently, an increase in sales does not automatically result in higher net income when the increase in the cost of goods sold and other operating expenses exceeds the growth in revenue.

At the national level, the food and beverage industry is one of the most important components of Indonesia's manufacturing sector. The Ministry of Industry of the Republic of Indonesia (2024) reported that the food and beverage industry contributed approximately 38.4% to the gross domestic product of the non-oil and gas manufacturing sector in the second quarter of 2024. The sector also generated exports of approximately USD3.78 billion in August 2024, representing 21.36% of Indonesia's total non-oil and gas manufacturing exports. These figures demonstrate the sector's strategic contribution to national production, employment, household consumption, and export performance. Some of these companies are also included in the Indonesia Sharia Stock Index, commonly abbreviated as ISSI. The Indonesia Stock Exchange (n.d.) defines ISSI as a composite index representing the performance of sharia-compliant shares listed on the Indonesian capital market. Therefore, the profitability of food and beverage companies included in ISSI is relevant not only to

corporate management but also to investors seeking financial instruments that comply with Islamic capital-market principles.

Net income is one of the principal indicators used to assess a company's financial performance, operational effectiveness, and capacity to maintain business continuity. The Foundation (2018) explains that financial statements provide information concerning income, expenses, assets, liabilities, and changes in economic resources that is useful for assessing management's stewardship and the prospects for future cash flows. Rahardjo (2009) states that sales are the primary source of operating revenue for most companies, while net income represents the remaining financial result after revenue is reduced by the expenses incurred during the accounting period. The cost of goods sold constitutes one of the most substantial expenses in manufacturing companies because it represents the costs attached to products that have been sold. Mulyadi (2008) explains that product costs generally comprise raw material costs, direct labor costs, and manufacturing overhead. Similarly, IAS 2 specifies that inventory costs include purchasing costs, conversion costs, and other costs incurred to bring inventories to their present location and condition, which are subsequently recognized as expenses when the related inventories are sold (Foundation, 2021). Thus, sales growth is theoretically expected to increase net income, whereas an excessive increase in the cost of goods sold may reduce the company's profit margin (Rangkuti, 2007).

Nevertheless, the preliminary financial data of food and beverage companies included in ISSI during 2020–2024 demonstrate conditions that are not always consistent with these theoretical expectations. Several companies, including AGAR, ANDI, DSFI, ENZO, FOOD, GZCO, HOKI, SIPD, and WAPO, recorded net losses in certain years. ANDI experienced consecutive losses from 2020 to 2023 before recording positive net income in 2024. Other companies experienced increasing sales but declining net income. For example, CAMP recorded higher sales in 2024 while its net income declined, whereas MYOR experienced an increase in sales in 2021 accompanied by a decrease in net income. Several companies also showed an increase in both the cost of goods sold and net income, including AALI and ENZO in 2021, LSIP in 2022, ULTJ in 2023, and KEJU in 2024. These phenomena indicate that changes in sales and the cost of goods sold do not always generate proportional changes in net income because profitability may also be affected by selling prices, operating expenses, financing costs, taxation, inventory efficiency, production capacity, and market conditions.

The relationship among sales, the cost of goods sold, and net income can be explained through signaling theory, earnings-quality theory, and cost-behavior theory. Spence et al. (2019) explains that signals can reduce information asymmetry between parties possessing information and parties requiring such information. In corporate reporting, increasing sales, efficient cost management, and sustainable net income may provide positive signals regarding managerial competence and future business prospects. Conversely, rising sales accompanied by declining net income may indicate weaknesses in production efficiency, pricing policies, or expense control. Dechow et al. (2010) emphasize that the usefulness of reported earnings depends on their ability to represent a company's underlying financial performance and support economic decision-making. Cost-behavior theory also suggests that costs do not always respond proportionally to changes in sales activity. Anderson et al. (2007) found that certain costs increase more rapidly when sales rise than they decrease when sales fall, a phenomenon referred to as cost stickiness. Anderson et al. (2007) further explain that understanding cost behavior is essential because an increase in a cost-to-sales ratio may reflect operational inefficiency, cost adjustment delays, or managerial expectations regarding future demand.

Previous empirical studies generally confirm that sales and production-related costs contribute to changes in corporate net income. Wahyuni & Christine (2023) found that sales and the cost of goods sold had significant partial and simultaneous effects on the net income of manufacturing companies in the basic and chemical industry sector. (Fikriyah & Warasto, 2024) similarly demonstrated that sales and the cost of goods sold significantly affected the profits of food and beverage companies listed on the Indonesia Stock Exchange during 2018–2022. Megawati et al. (2022) found that sales volume positively and significantly affected net income among coal-mining companies. Suzan & Siallagan (2022) also reported that sales volume positively affected net income, while operating costs negatively affected it. Furthermore, Suzan & Lumbantobing (2023) showed that production costs, operating costs, and sales volume collectively contributed to the net income of food and beverage companies. Padang et al. (2022) likewise identified production costs, promotional costs, and sales volume as relevant determinants of net income in manufacturing companies. These findings support the assumption that corporate profitability is determined by the interaction between revenue-generating capacity and expenditure efficiency.

However, other studies have produced different conclusions. Purwanto (2021), who examined food and beverage companies listed on the Indonesia Stock Exchange during

2014–2019, found that sales and the cost of goods sold did not significantly affect net income, whereas income tax had a significant effect. (Suzan & Nabilah, 2020) also reported that production costs significantly affected net income, but sales did not have a significant partial effect on net income among pharmaceutical companies. Their study indicated that an increase or decrease in sales does not necessarily change net income because corporate profitability may be influenced by production expenses, research and development expenses, operating expenses, selling prices, and corporate taxes. These inconsistent findings demonstrate that the effects of sales and the cost of goods sold may differ according to the industrial sector, observation period, sample composition, economic conditions, cost structure, and analytical method employed. The inconsistency also indicates that further empirical examination is required rather than assuming that higher sales inevitably produce higher net income.

The research gap in this study is derived from differences in research objects, observation periods, and empirical findings. Most previous studies examined companies listed on the Indonesia Stock Exchange without specifically distinguishing companies included in the sharia stock universe. Previous studies also predominantly used observation periods before 2020 or data covering only the early phase of the COVID-19 pandemic. Consequently, the relationship among sales, the cost of goods sold, and net income during the pandemic, recovery, and post-pandemic normalization periods has not been sufficiently explained, particularly among food and beverage companies included in ISSI. The novelty of this study lies in its simultaneous examination of the cost of goods sold and sales as determinants of net income among food and beverage companies included in ISSI during 2020–2024. This period captures substantial changes in consumer demand, commodity prices, production activities, supply-chain conditions, and business recovery. The study also integrates a revenue perspective represented by sales, a cost-efficiency perspective represented by the cost of goods sold, and a sharia capital-market perspective represented by ISSI.

Based on the international and national issues, theoretical explanations, financial phenomena, and inconsistencies in previous research findings, this study focuses on examining the financial performance of food and beverage companies included in the Indonesia Sharia Stock Index during the 2020–2024 period. Specifically, this study aims to analyze the effect of the cost of goods sold on net income, examine the effect of sales on net income, and determine the simultaneous effect of the cost of goods sold and sales on net

income. The results are expected to contribute to the development of accounting and financial-management literature by providing updated empirical evidence concerning the formation of net income in sharia-compliant food and beverage companies. The findings may also provide practical information for management in controlling product costs, for investors in assessing profitability and business prospects, and for creditors and other stakeholders in evaluating corporate financial performance.

## METHODS

This study used a quantitative approach with a causal research design to examine the effect of the cost of goods sold and sales on the net income of food and beverage companies included in the Indonesia Sharia Stock Index. A quantitative approach was considered appropriate because the study used numerical information obtained from company financial statements and analyzed the data statistically to test the relationships among the research variables. Sekaran and Bougie (2019) explain that quantitative research allows researchers to measure variables objectively and examine the relationships among variables through statistical procedures. The population consisted of 84 food and beverage companies included in the Indonesia Sharia Stock Index. The research sample was selected through purposive sampling based on several criteria, namely companies that were consistently included in the Indonesia Sharia Stock Index during the study period, prepared financial statements in Indonesian rupiah, and published complete annual financial statements containing information on the cost of goods sold, sales, and net income. Purposive sampling was used because this technique enables researchers to select samples according to specific characteristics that are relevant to the research objectives. Based on these criteria, 33 companies were selected as the research sample. The study covered the period from 2020 to 2024, resulting in 165 observations obtained from 33 companies over five years.

The study used secondary data collected through documentation of annual financial statements published on the official website of the Indonesia Stock Exchange. The data collection process was conducted by recording the value of net income, the cost of goods sold, and net sales from the statement of profit or loss and the related notes to the financial statements. Net income was defined as the profit remaining after operating expenses, financing expenses, and income tax had been deducted from total revenue. The cost of goods sold represented the cost attached to products sold during the accounting period, while net sales represented sales revenue after deducting sales returns and sales allowances. Data

accuracy was maintained by checking the consistency of company codes, financial reporting periods, currencies, and financial values reported in each annual statement. The data were analyzed using EViews through descriptive statistical analysis and panel data regression. Descriptive statistics were used to present the mean, maximum value, minimum value, and standard deviation of each variable. The most appropriate panel regression model was selected by comparing the common effect model, fixed effect model, and random effect model through the Chow test, Hausman test, and Lagrange Multiplier test (Widarjono, 2009). The regression equation used in this study was written as follows:

$$NI_{it} = \alpha + \beta_1 COGS_{it} + \beta_2 SALES_{it} + \epsilon_{it}$$

In this equation, NI represents net income, COGS represents the cost of goods sold, SALES represents net sales, *i* represents the company, *t* represents the observation year,  $\alpha$  represents the constant,  $\beta_1$  and  $\beta_2$  represent the regression coefficients, and  $\epsilon$  represents the error term. The selected model was further evaluated through relevant diagnostic tests, including normality, multicollinearity, heteroskedasticity, and autocorrelation tests. The research hypotheses were tested using the partial *t* test, simultaneous *F* test, and coefficient of determination at a significance level of 5 percent (Ghozali, 2021).

## RESULTS

### 1. Descriptive Statistical Results

The descriptive statistical analysis was conducted to provide an overview of the distribution and characteristics of net income, cost of goods sold, and sales. The analysis included the mean, median, maximum value, minimum value, standard deviation, and number of observations. The results were obtained from 165 observations consisting of 33 food and beverage companies observed over the five year period from 2020 to 2024. The results of the descriptive statistical analysis are presented in Table 1.

**Table 1. Descriptive Statistical Results**

| Variable           | Mean      | Median    | Maximum    | Minimum       | Standard Deviation | Observations |
|--------------------|-----------|-----------|------------|---------------|--------------------|--------------|
| Net Income         | 734,685.1 | 146,880.0 | 8,813,377  | minus 218,103 | 1,482,430          | 165          |
| Cost of Goods Sold | 7,245,343 | 1,775,607 | 57,057,835 | 9,484         | 12,432,279         | 165          |
| Sales              | 9,504,919 | 2,839,561 | 72,597,188 | 77,589        | 16,211,013         | 165          |

*Source: Processed data, 2025.*

As shown in Table 1, net income had an average value of IDR 734,685.1 million, with a maximum value of IDR 8,813,377 million and a minimum value of minus IDR 218,103



million. The negative minimum value indicates that some companies experienced net losses during the observation period. The standard deviation of net income was IDR 1,482,430 million, which was higher than its average value. This result shows that net income varied considerably among the sampled companies. The cost of goods sold had an average value of IDR 7,245,343 million, with values ranging from IDR 9,484 million to IDR 57,057,835 million. Its standard deviation of IDR 12,432,279 million also exceeded the average, indicating substantial differences in production scale and cost structure among the companies. Sales recorded an average value of IDR 9,504,919 million, with a maximum value of IDR 72,597,188 million and a minimum value of IDR 77,589 million. The sales standard deviation of IDR 16,211,013 million confirms the considerable variation in company size and sales performance across the sample.

## 2. Panel Data Model Selection

Panel data regression can be estimated using the common effect model, fixed effect model, or random effect model. The appropriate estimation model was determined through the Chow test and Hausman test. The Chow test was used to compare the common effect model with the fixed effect model, while the Hausman test was used to compare the fixed effect model with the random effect model. The results of the panel data model selection are presented in Table 2.

**Table 2. Panel Data Model Selection Results**

| Test                                | Statistical Value | Probability | Decision           |
|-------------------------------------|-------------------|-------------|--------------------|
| Chow Test, Cross Section F          | 4.308322          | 0.0000      | Fixed Effect Model |
| Chow Test, Cross Section Chi Square | 119.287327        | 0.0000      | Fixed Effect Model |
| Hausman Test                        | 12.292883         | 0.0021      | Fixed Effect Model |

*Source: Processed data, 2025.*

The Chow test produced a probability value of 0.0000, which was lower than the significance level of 0.05. Therefore, the common effect model was rejected, and the fixed effect model was considered more appropriate. The Hausman test also produced a probability value of 0.0021, which was lower than 0.05. This result indicates that the random effect model should be rejected in favor of the fixed effect model. Based on both tests, the fixed effect model was selected as the final panel data regression model. A Lagrange Multiplier test was not required because both the Chow and Hausman tests consistently supported the fixed effect model.



### 3. Diagnostic Test Results

Diagnostic tests were conducted to evaluate whether the regression model satisfied the statistical assumptions required for reliable estimation. The tests included residual normality, multicollinearity, heteroskedasticity, and autocorrelation. The results are summarized in Table 3.

**Table 3. Diagnostic Test Results**

| Diagnostic Test    | Indicator                         | Result   | Conclusion                          |
|--------------------|-----------------------------------|----------|-------------------------------------|
| Normality          | Jarque Bera probability           | 0.088210 | Residuals were normally distributed |
| Multicollinearity  | Correlation between X1 and X2     | 0.689232 | No serious multicollinearity        |
| Heteroskedasticity | Probability of cost of goods sold | 0.0880   | No heteroskedasticity               |
| Heteroskedasticity | Probability of sales              | 0.0607   | No heteroskedasticity               |
| Autocorrelation    | Durbin Watson statistic           | 1.804582 | No serious autocorrelation          |

*Source: Processed data, 2025.*

The residual normality test generated a Jarque Bera probability value of 0.088210. Since this value was greater than 0.05, the residuals were considered normally distributed. The correlation coefficient between the cost of goods sold and sales was 0.689232, which remained below the threshold of 0.90. Therefore, the model did not indicate a serious multicollinearity problem. The Glejser test generated probability values of 0.0880 for the cost of goods sold and 0.0607 for sales. Both values were greater than 0.05, indicating that the variance of the residuals was relatively constant and that the model did not suffer from heteroskedasticity. The Durbin Watson statistic was 1.804582, which was close to 2. This result indicates that there was no serious first order autocorrelation in the regression residuals.

### 4. Fixed Effect Panel Regression Results

The fixed effect model was used to estimate the effect of the cost of goods sold and sales on net income. The model controlled for unobserved characteristics that differed across companies but remained relatively constant throughout the research period. The estimation results are presented in Table 4.

**Table 4. Fixed Effect Panel Regression Results**

| Variable           | Coefficient          | Standard Error | t Statistic    | Probability |
|--------------------|----------------------|----------------|----------------|-------------|
| Constant           | minus 81,200,000,000 | 22,400,000,000 | minus 3.619708 | 0.0004      |
| Cost of Goods Sold | minus 0.387814       | 0.057935       | minus 6.693956 | 0.0000      |
| Sales              | 0.399380             | 0.050428       | 7.919742       | 0.0000      |

*Source: Processed data, 2025.*

Based on the estimated coefficients shown in Table 4, the panel regression equation was formulated as follows:

$$NI_{it} = \text{minus } 81,200,000,000 \text{ minus } 0.387814 \text{ COGS}_{it} \text{ plus } 0.399380 \text{ SALES}_{it} \text{ plus } e_{it} \quad (1)$$

In Equation 1, NI represents net income, COGS represents the cost of goods sold, SALES represents sales, i represents the observed company, t represents the observation year, and e represents the error component. The constant value of minus 81,200,000,000 indicates the estimated level of net income when the cost of goods sold and sales are assumed to be zero. However, the constant primarily serves as a statistical intercept because a company cannot realistically operate without sales and production costs.

The coefficient of the cost of goods sold was minus 0.387814. This negative coefficient indicates that an increase in the cost of goods sold was associated with a decrease in net income, assuming that sales and other factors remained constant. More specifically, an increase of IDR 1 million in the cost of goods sold was associated with a decrease of approximately IDR 0.387814 million in net income. This result demonstrates that higher costs related to products sold can reduce the amount of profit remaining after the company covers its operating and other financial obligations.

The sales coefficient was 0.399380 and had a positive direction. This result indicates that an increase in sales was associated with an increase in net income, assuming that the cost of goods sold and other factors remained constant. An increase of IDR 1 million in sales was associated with an increase of approximately IDR 0.399380 million in net income. Therefore, sales growth contributed positively to profitability when the company was able to maintain effective control over its production and operating costs.

## 5. Partial Hypothesis Testing Results

The partial t test was used to determine whether the cost of goods sold and sales individually affected net income. The decision was based on a significance level of 0.05. A variable was considered to have a significant effect when its probability value was lower than 0.05. The results of the partial hypothesis testing are presented in Table 5.

**Table 5. Partial Hypothesis Testing Results**

| Model Indikator    | Value    |
|--------------------|----------|
| R Squared          | 0.943199 |
| Adjusted R Squared | 0.928343 |

| Model Indikator            | Value    |
|----------------------------|----------|
| F Statistic                | 63.49075 |
| Probability of F Statistic | 0.000000 |
| Durbin Watson Statistic    | 1.804582 |
| Number of Observations     | 165      |

*Source: Processed data, 2025.*

The cost of goods sold had a t statistic of minus 6.693956 and a probability value of 0.0000. Since the probability value was lower than 0.05, the first hypothesis was accepted. Therefore, the cost of goods sold had a negative and statistically significant effect on net income. The negative relationship means that increases in the cost of goods sold tended to reduce the net income of food and beverage companies included in ISSI during the 2020 to 2024 period.

Sales had a t statistic of 7.919742 and a probability value of 0.0000. Since the probability value was lower than 0.05, the second hypothesis was accepted. Thus, sales had a positive and statistically significant effect on net income. This finding demonstrates that companies with higher sales generally generated higher net income, provided that their production and operating expenses were adequately controlled.

## 6. Simultaneous Hypothesis Testing Results

The simultaneous F test was conducted to determine whether the cost of goods sold and sales jointly affected net income. The results are presented in Table 6.

**Table 6. Simultaneous Hypothesis Testing Results**

| Indicator                  | Value       |
|----------------------------|-------------|
| F Statistic                | 63.49075    |
| Probability of F Statistic | 0.000000    |
| Significance Level         | 0.05        |
| Decision                   | Significant |

*Source: Processed data, 2025.*

Table 6 shows that the F statistic was 63.49075, with a probability value of 0.000000. The probability value was lower than 0.05, indicating that the cost of goods sold and sales simultaneously had a statistically significant effect on net income. Therefore, the third hypothesis was accepted. This result also confirms that the estimated fixed effect regression model was statistically suitable for explaining variations in the net income of the sampled companies.

## 7. Coefficient of Determination

The coefficient of determination was used to assess the explanatory strength of the regression model. The fixed effect model generated an R squared value of 0.943199 and an adjusted R squared value of 0.928343. The adjusted R squared value indicates that 92.83 percent of the variation in net income could be explained by the cost of goods sold, sales, and the specific characteristics of each company represented by the company fixed effects. The remaining 7.17 percent was associated with other factors that were not included in the model, such as operating expenses, selling expenses, administrative expenses, financing costs, income taxes, product prices, production efficiency, company size, and macroeconomic conditions.

Overall, the empirical results demonstrate that the cost of goods sold and sales were important determinants of net income among food and beverage companies included in the Indonesia Sharia Stock Index during the 2020 to 2024 period. The cost of goods sold had a significant negative effect, while sales had a significant positive effect. Both variables also had a significant simultaneous effect on net income. These results indicate that increasing sales alone is not sufficient to improve profitability unless it is accompanied by effective control over the costs incurred in producing and obtaining the goods sold.

## DISCUSSION

### 1. The Effect of Cost of Goods Sold on Net Income

The first hypothesis proposed that the cost of goods sold affects the net income of food and beverage companies included in the Indonesia Sharia Stock Index. The fixed effect model estimation produced a regression coefficient of minus 0.387814, a t statistic of minus 6.693956, and a probability value of 0.0000. These results demonstrate that the cost of goods sold has a negative and statistically significant effect on net income. Therefore, an increase in the cost of goods sold tends to reduce net income when sales and other factors are held constant. Conversely, effective control over the cost of goods sold can increase the opportunity for companies to generate higher net income.

This finding is consistent with the basic accounting relationship between revenue, cost, and profit. The cost of goods sold represents the costs attached to products sold during an accounting period, including raw materials, direct labor, purchasing costs, and manufacturing overhead. Mulyadi (2008) explains that these cost components form the

production cost of goods before they are recognized as expenses when the products are sold. Rangkuti (2007) also states that a reduction in the cost of goods sold, accompanied by stable or increasing sales, can improve corporate profit. Therefore, companies with a high cost of goods sold will face pressure on their gross profit margin, particularly when increases in production costs cannot be transferred to consumers through higher selling prices.

The negative relationship identified in this study also demonstrates the importance of cost efficiency in the food and beverage industry. Companies in this sector depend heavily on agricultural commodities, livestock products, packaging materials, energy, labor, transportation, and storage facilities. Increases in any of these cost components may reduce profitability. Management must therefore strengthen raw material planning, negotiate more competitive supplier contracts, reduce production waste, improve labor productivity, optimize inventory turnover, and maintain production quality. Cost efficiency does not necessarily mean reducing product quality. Instead, it requires the company to eliminate unnecessary expenditures and use production resources more effectively.

The result is consistent with Wahyuni & Christine (2023), who found that the cost of goods sold significantly affected the net income of manufacturing companies in the basic and chemical industry sector. Fikriyah & Warasto (2024) similarly reported that the cost of goods sold had a significant effect on the profit of food and beverage companies listed on the Indonesia Stock Exchange. Nurfaidah also found that the cost of goods sold affected the net income of food and beverage companies. These consistent findings indicate that production and acquisition costs are important determinants of profitability because they directly reduce the gross profit generated from sales.

However, this finding differs from Purwanto (2021), who concluded that the cost of goods sold did not significantly affect net income among food and beverage companies during the 2014 to 2019 period. Wilis & Nurwulandari (2020) also reported that the cost of goods sold did not have a significant partial effect on the profit or loss of telecommunications service companies. The differences may be caused by variations in industrial characteristics, research periods, sample structures, cost classifications, and economic conditions. Telecommunications companies, for example, have a different cost structure from food and beverage companies, which rely more heavily on physical production inputs and inventory. The 2020 to 2024 observation period also included the pandemic, supply chain disruptions,

rising commodity prices, and post pandemic recovery, all of which increased the relevance of production cost management.

Theoretically, this finding strengthens the view that profitability is influenced not only by the company's ability to generate revenue but also by its ability to manage the costs required to generate that revenue. From a practical perspective, the result suggests that managers should continuously evaluate the composition of the cost of goods sold. Investors may also use changes in the gross profit margin and the ratio of the cost of goods sold to sales as indicators when evaluating the operational efficiency of food and beverage companies included in ISSI.

## **2. The Effect of Sales on Net Income**

The second hypothesis proposed that sales affect corporate net income. The analysis produced a sales regression coefficient of 0.399380, a t statistic of 7.919742, and a probability value of 0.0000. These results indicate that sales have a positive and statistically significant effect on net income. An increase in sales is therefore associated with an increase in net income when the cost of goods sold and other conditions remain constant. The result confirms that sales constitute an essential source of revenue and a major factor supporting the profitability of food and beverage companies.

Sales reflect the company's ability to distribute products, attract consumers, maintain customer loyalty, and respond to market demand. Dechow et al. (2010) explains that higher sales can increase profit when the revenue generated exceeds the costs incurred by the company. This relationship is also visible in the income statement because sales revenue forms the starting point for calculating gross profit, operating profit, and net income. A company that successfully expands its sales volume has a greater opportunity to cover fixed costs and generate additional profit through economies of scale.

Nevertheless, sales growth does not automatically guarantee increased net income. The preliminary data demonstrated that several companies experienced increasing sales accompanied by declining net income. This phenomenon occurred because sales represent only one component of profitability. Higher revenue may be offset by increases in the cost of goods sold, promotional expenses, administrative expenses, financing costs, taxation, or other operating expenses. Therefore, management should not focus solely on expanding sales volume. Sales strategies must be accompanied by appropriate pricing policies, cost control, market selection, product differentiation, and customer relationship management.

The findings of this study are consistent with (Saripah & Harahap, 2021), who found that sales had a significant effect on the net income of manufacturing companies. Wahyuni & Christine (2023) also demonstrated that sales significantly affected net income, while Fikriyah & Warasto (2024) reported a similar result for food and beverage companies. Megawati et al. (2022) found that sales volume positively influenced net income among coal mining companies. These findings indicate that the capacity to generate revenue remains an important determinant of profitability across different business sectors.

The result is also supported by the argument that sales growth allows companies to distribute fixed production and operating costs across a larger number of products. When production capacity is used efficiently, an increase in sales can reduce the average cost per unit and improve profitability. This condition is especially relevant to food and beverage companies because many of them operate with substantial investment in factories, machinery, warehouses, distribution networks, and promotional activities. Increased sales can improve the utilization of these resources and contribute to higher net income.

However, the present finding differs from Casmadi & Manihin (2021), who concluded that sales did not have a significant partial effect on the net income of PT Ultrajaya Milk Industry and Trading Company Tbk. Purwanto (2021) similarly found that sales did not significantly affect the net income of food and beverage companies. Suzan & Nabilah (2020) also reported that sales did not have a significant partial effect on net income among pharmaceutical companies. These differences indicate that the effect of sales may depend on the company's cost structure, selling prices, product margins, operational efficiency, and other expenses. Sales growth that is generated through substantial discounts, high promotional costs, or low margin products may not provide a meaningful increase in net income.

Theoretically, the positive relationship strengthens the revenue perspective in explaining corporate profitability. Sales indicate the company's ability to convert market demand into financial returns. From a practical perspective, management should increase sales through product innovation, market expansion, stronger distribution, digital marketing, and customer retention. However, each sales strategy should be evaluated based on its contribution to profit rather than revenue alone. Investors should therefore assess both sales growth and the net profit margin to determine whether revenue expansion genuinely improves financial performance.



### 3. The Simultaneous Effect of Cost of Goods Sold and Sales on Net Income

The third hypothesis proposed that the cost of goods sold and sales simultaneously affect net income. The F test produced a value of 63.49075 with a probability of 0.000000. Since the probability value was lower than 0.05, the hypothesis was accepted. This result confirms that the cost of goods sold and sales jointly have a significant effect on the net income of food and beverage companies included in ISSI. The adjusted R squared value of 0.928343 further indicates that 92.83 percent of the variation in net income can be explained by the research model, including the cost of goods sold, sales, and the individual characteristics of companies captured by the fixed effects.

The simultaneous result shows that corporate profitability is determined by the interaction between revenue generation and cost management. High sales can increase net income, but the benefit may be reduced when the cost of goods sold also increases substantially. Conversely, a company may successfully control its production costs but still generate low net income when sales are insufficient. Therefore, sales and the cost of goods sold should not be evaluated separately when assessing financial performance. Management must balance efforts to expand the market with efforts to maintain an efficient cost structure.

The finding is consistent with Nurazhari & Dailibas (2021), who found that sales and the cost of goods sold simultaneously affected net income. Wahyuni & Christine (2023) also concluded that sales and the cost of goods sold jointly had a significant effect on the net income of manufacturing companies. Silver et al. (2022) reported that production costs, operating costs, and net sales collectively affected the net income of textile and garment companies. These findings support the view that net income is created through a combination of revenue expansion and effective control of expenditures.

The result also explains why several companies in the sample experienced financial outcomes that appeared inconsistent with simple theoretical expectations. An increase in sales may coincide with a decrease in net income when the cost of goods sold and other expenses increase at a faster rate. Similarly, an increase in the cost of goods sold may coincide with higher net income when sales growth is sufficiently strong to compensate for the additional costs. Thus, the effect of each variable should be interpreted within the company's overall operating structure rather than in isolation.

From a theoretical perspective, this finding strengthens the accounting concept that net income represents the residual result of revenue after the related costs and expenses have

been deducted. It also supports signaling theory because efficient sales growth and sustainable profit can communicate positive information about managerial performance and corporate prospects. A company that consistently increases sales while controlling the cost of goods sold may provide a stronger positive signal to investors than a company that reports sales growth without an improvement in profitability.

The practical implication is that management should use integrated profit planning. Sales targets should be developed together with budgets for raw materials, labor, factory overhead, distribution, and inventory. Companies should monitor gross profit margins regularly, evaluate the profitability of each product, and identify products that generate high sales but low profit. Investors in the Islamic capital market may also use the relationship among sales, cost of goods sold, gross profit, and net income to assess the quality and sustainability of company performance.

#### **4. Research Implications and Limitations**

The findings contribute to accounting and financial management literature by providing updated evidence regarding the determinants of net income among food and beverage companies included in the Indonesia Sharia Stock Index. The study demonstrates that sales have a positive effect on net income, while the cost of goods sold has a negative effect. It also confirms that both variables should be evaluated simultaneously because corporate profit depends on the balance between revenue growth and cost efficiency. The specific focus on ISSI companies provides additional evidence from the Islamic capital market context, which has received less attention than the broader Indonesia Stock Exchange population.

The study also provides practical implications for corporate managers. Management should not assess performance only from sales growth because high sales may not result in high profit when production costs are not controlled. Companies should strengthen procurement systems, improve inventory management, reduce material waste, evaluate supplier performance, increase production efficiency, and establish selling prices based on changes in input costs. Sales strategies should also focus on profitable products and market segments rather than merely pursuing higher transaction volumes.

Several limitations should be considered when interpreting the results. First, the study examined only food and beverage companies included in ISSI, so the findings may not be directly generalized to companies outside the sharia stock universe or to other industrial

sectors. Second, the observation period was limited to five years from 2020 to 2024. This period included unusual economic conditions resulting from the pandemic and economic recovery, which may influence the relationship among the variables. Third, the model included only the cost of goods sold and sales as explanatory variables. Net income may also be affected by operating expenses, financing costs, taxation, company size, capital structure, inventory turnover, exchange rates, inflation, and managerial efficiency. Fourth, the use of secondary financial statement data depends on the accuracy and consistency of corporate reporting.

Future studies should extend the observation period, compare sharia and nonsharia companies, and include additional variables such as operating expenses, company size, working capital, debt, tax expenses, inventory turnover, and gross profit margin. Further research could also employ moderating or mediating variables to explain the mechanisms through which sales and the cost of goods sold influence net income. Such developments would provide a more comprehensive understanding of profitability and strengthen the generalizability of the findings.

## CONCLUSION

This study concludes that the cost of goods sold and sales significantly influenced the net income of food and beverage companies included in the Indonesia Sharia Stock Index during the 2020 to 2024 period. The cost of goods sold had a negative and significant effect on net income, indicating that an increase in the cost of goods sold tended to reduce the company's net income when sales and other factors remained constant. In contrast, sales had a positive and significant effect on net income, which means that higher sales increased the company's potential to generate greater net income. The simultaneous test also confirmed that the cost of goods sold and sales jointly had a significant effect on net income. The adjusted R squared value of 0.928343 indicates that 92.83 percent of the variation in net income could be explained by the research model, while the remaining 7.17 percent was associated with other factors outside the model.

These findings demonstrate that sales growth must be accompanied by effective control of the cost of goods sold to produce sustainable improvements in profitability. Food and beverage companies should strengthen raw material planning, supplier selection, inventory control, production efficiency, pricing strategies, and market expansion to maintain

an appropriate balance between revenue and costs. The results also provide useful information for investors in evaluating the financial performance and profit prospects of companies included in ISSI. Future studies are recommended to extend the observation period, compare sharia and nonsharia companies, and include additional variables such as operating expenses, company size, working capital, debt, taxation, inventory turnover, and macroeconomic conditions to provide a more comprehensive explanation of changes in net income.

## REFERENCES

- Anderson, M. C., Banker, R. D., Huang, R., & Janakiraman, S. N. (2007). Cost behavior and fundamental analysis of SG&A costs. *Journal of Accounting, Auditing & Finance*, 22(1), 1–28. <https://doi.org/10.1177/0148558X0702200103>
- Casmadi, Y., & Manihin, Y. E. S. (2021). Pengaruh Penjualan dan Biaya Operasional terhadap Laba Bersih Perusahaan PT Ultrajaya Milk Industry & Trading Company Tbk. Tahun 2005–2019. *Jurnal Akuntansi*, 14(1), 53–65. <https://ejurnal.ulbi.ac.id/index.php/akuntansi/article/view/1400>
- Dechow, P. M., Ge, W., & Schrand, C. M. (2010). Understanding earnings quality: A review of the proxies, their determinants, and their consequences. *Journal of Accounting and Economics*, 50(2–3), 344–401. <https://doi.org/10.1016/j.jacceco.2010.09.001>
- Fikriyah, K., & Warasto, H. N. (2024). Pengaruh Penjualan dan Harga Pokok Penjualan terhadap Laba Perusahaan Makanan dan Minuman yang Terdaftar di BEI Periode Tahun 2018–2022. *Cakrawala: Jurnal Ekonomi, Manajemen dan Bisnis*, 1(3), 553–565. <https://jurnalamanah.com/index.php/cakrawala/article/view/129>
- IFRS Foundation. (2018). *Conceptual framework for financial reporting*. <https://www.ifrs.org/issued-standards/list-of-standards/conceptual-framework/>
- IFRS Foundation. (2021). *IAS 2 inventories*. <https://www.ifrs.org/content/dam/ifrs/publications/pdf-standards/english/2021/issued/part-a/ias-2-inventories.pdf>
- Kementerian Perindustrian Republik Indonesia. (2024, October 19). *Kemenperin bersama Arwana Ceramics fasilitasi IKM terapkan keamanan produksi pangan*. <https://ikm.kemenperin.go.id/kemenperin-bersama-arwana-ceramics-fasilitasi-ikm-terapkan-keamanan-produksi-pangan>
- Megawati, P. M., Suzan, L., & Saraswati, S. (2022). Pengaruh Modal Kerja, Volume Penjualan, dan Total Hutang terhadap Laba Bersih pada Perusahaan Sektor Pertambangan Subsektor Batubara yang Terdaftar di Bursa Efek Indonesia Tahun 2017–2021. *SEIKO: Journal of Management & Business*, 5(1), 480–488. <https://journal.sticamkop.ac.id/index.php/seiko/article/view/2208>
- Mulyadi. (2008). *Sistem akuntansi* (Edisi ke-3). Salemba Empat.
- Nurazhari, D., & Dailibas. (2021). Pengaruh Penjualan dan Harga Pokok Penjualan terhadap Laba Bersih. *Journal of Economic, Business and Accounting (COSTING)*, 4(2), 509–515. <https://doi.org/10.31539/costing.v4i2.1663>

- Padang, N., Irawan, S. I., Atika, R., Manalu, J. B., & Sitorus, J. S. (2022). Effect of production costs, promotional costs, and sales volume on net profit in manufacturing companies. *Jurnal Ipteks Terapan*, 16(3), 374–381.
- Purwanto, E. (2021). Pengaruh Penjualan, Beban Pokok Penjualan, dan Pajak Penghasilan terhadap Laba Bersih: Studi Kasus Perusahaan di BEI Sektor Industri Makanan dan Minuman Periode 2014–2019. In *Search—Informatic, Science, Entrepreneur, Applied Art, Research, Humanism*, 20(1), 27–34. <https://repository.unibi.ac.id/471/>
- Rahardjo, B. (2009). *Memahami laporan keuangan*. Graha Ilmu.
- Rangkuti, F. (2007). *Manajemen persediaan: Aplikasi di bidang bisnis* (Edisi ke-2). PT RajaGrafindo Persada.
- Saripah, E., & Harahap, M. N. (2021). Pengaruh Biaya Operasional dan Penjualan terhadap Laba Bersih Perusahaan Manufaktur Sektor Aneka Industri yang Tercatat di Bursa Efek Indonesia Tahun 2012–2018. *Jurnal Ilmu Keuangan dan Perbankan*, 10(2), 143–157. <https://doi.org/10.34010/jika.v10i2.3448>
- Silver, S. T. E., Suciati, R., Purnamasari, H., & Hanifah, S. Y. (2022). Penggunaan Media Pembelajaran Flash dengan Strategi K-W-L dalam Membaca Pemahaman Teks Eksposisi. *Jurnal Ilmiah FONEMA: Jurnal Edukasi Bahasa dan Sastra Indonesia*, 5(1), 53–68. <https://doi.org/10.25139/fn.v5i1.4836>
- Spence, C., Youssef, J., Michel, C., & Woods, A. (2019). Assessing the aesthetic oblique effect in painting and plating. *International Journal of Gastronomy and Food Science*, 17, Article 100168. <https://doi.org/10.1016/j.ijgfs.2019.100168>
- Suzan, L., & Lumbantobing, A. (2023). Production costs, operating costs, and sales volume affect net profit. *Journal of Humanities and Social Studies*, 7(3), 875–879. <https://journal.unpak.ac.id/index.php/jhss/article/view/8125>
- Suzan, L., & Nabilah, S. R. (2020). Effect of production costs and sales on the company's net profit. *Jurnal Akuntansi*, 24(2), 169–186. <https://doi.org/10.24912/ja.v24i2.689>
- Suzan, L., & Siallagan, N. M. (2022). Effect of operating costs, total debt, and sales volume on net profit: Study on coal subsector mining companies listed on the Indonesia Stock Exchange for the 2017–2019 period. *Owner: Riset dan Jurnal Akuntansi*, 6(1), 72–84. <https://doi.org/10.33395/owner.v6i1.521>
- Wahyuni, S. T., & Christine, D. (2023). Pengaruh Penjualan dan Beban Pokok Penjualan terhadap Laba Bersih: Studi Empiris pada Perusahaan Manufaktur Sektor Industri Dasar dan Kimia yang Terdaftar di Bursa Efek Indonesia Periode 2018–2021. *Owner: Riset dan Jurnal Akuntansi*, 7(2), 1553–1568. <https://doi.org/10.33395/owner.v7i2.1309>
- Wilis, R. A., & Nurwulandari, A. (2020). The effect of e-service quality, e-trust, price and brand image towards e-satisfaction and its impact on e-loyalty of Traveloka's customer. *Jurnal Ilmiah MEA (Manajemen, Ekonomi, & Akuntansi)*, 4(3), 1061–1099.
- World Bank. (2024). *Commodity markets outlook, April 2024*. <https://doi.org/10.1596/41280>