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*Research Article*

# Factors Affecting Income Smoothing in Food and Beverage Companies

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**Abstract:** This study aims to obtain empirical evidence on the effect of firm size, dividend payout ratio, cash holding, and board size on income smoothing practices in food and beverage companies listed on the Indonesia Stock Exchange during the 2018–2023 period. Income smoothing, as a common earnings management practice, is often carried out by managers to reduce fluctuations in reported earnings and present a more stable financial performance to stakeholders. The sample in this study was determined using a purposive sampling method based on specific criteria, resulting in 70 firm-year observations. The research utilized secondary data obtained from annual financial statements published on the official IDX website. Data were analyzed using logistic regression with the assistance of SPSS 25.0 to test both simultaneous and partial effects of the independent variables on income smoothing behavior. The results reveal that simultaneously, firm size, dividend payout ratio, cash holding, and board size significantly influence income smoothing practices. Partially, the dividend payout ratio shows a significant positive effect, indicating that companies with higher dividend distributions are more likely to engage in income smoothing to maintain investor trust and dividend stability. Conversely, board size has a significant negative effect, suggesting that larger boards may strengthen oversight and reduce managerial discretion in earnings management. On the other hand, firm size and cash holding do not exhibit significant effects on income smoothing, implying that these factors are not the primary determinants of such practices in the food and beverage sector. Overall, these findings highlight the importance of dividend policy and corporate governance structures in shaping financial reporting behavior. The study contributes to the literature on earnings management by providing new evidence from an emerging market context and offers practical implications for investors, regulators, and corporate boards in assessing the credibility of reported earnings.

**Keywords:** Board Size; Cash Holding; Dividend Payout Ratio; Firm Size; Income Smoothing

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## 1. Introduction

Several cases in Indonesia demonstrate that income smoothing practices are still prevalent, including in the food and beverage (F&B) industry listed on the Indonesia Stock Exchange (IDX). This phenomenon demonstrates that although financial reports serve as important information for investors, creditors, the government, and other stakeholders,

earnings management practices that lead to income smoothing are still carried out for various reasons, primarily to maintain the company's public image. One prominent case occurred with PT Akasha Wira International Tbk, a producer of ADES brand drinking water. In 2018, the company recorded a 38.48% increase in net profit compared to the previous year, rising from IDR 38.24 billion to IDR 52.96 billion. This increase was also accompanied by an increase in net margin from 4.7% to 6.58%. However, despite this increase, sales actually declined by 1.25%, from IDR 814.49 billion to IDR 804.3 billion. Cosmetics sales even fell 6.47% year-on-year to Rp308.74 billion, and drinking water sales only slightly increased by 2.31% to Rp495.54 billion. Cost of revenue also increased significantly from 46.11% to 51.62%. This situation raises suspicions of cost efficiency measures and certain revenue recognition measures to maintain profit growth despite declining sales.

Another case occurred at PT Tiga Pilar Sejahtera Food Tbk (AISA), where an audit report by KAP Ernst & Young revealed overstatements of Rp4 billion in accounts receivable, inventory, and fixed assets, as well as Rp662 billion in sales and Rp329 billion in EBITDA for the food entity. These findings indicate reporting manipulation to present stable profits, even though the company was facing declining performance due to the loss of its rice business, which previously contributed 50% of revenue, or approximately Rp2 trillion per year. Both phenomena reflect the practice of income smoothing by management to reduce year-to-year profit fluctuations. In general, income smoothing can be done by shifting a portion of revenue from high-profit periods to low-profit periods, so that financial performance appears stable and attractive to investors. This practice is sometimes considered normal if it complies with the provisions of Financial Accounting Standards (SAK) and does not mislead stakeholders. However, if done excessively or with data manipulation, income smoothing can harm investors, obscure actual information, and disrupt capital market transparency.

From an agency theory perspective, this practice can arise due to differing interests between the principal (shareholder) and the agent (management). Management, as the party controlling information, has the opportunity to act opportunistically, one of which is by engaging in income smoothing to maintain its reputation, attract new investors, or meet certain targets. In the food and beverage sector, several factors are believed to influence a company's tendency to engage in income smoothing. First, firm size. Larger companies have higher exposure to the public and investors, so the pressure to maintain profit performance tends to be greater than for smaller companies. Second, the dividend payout ratio. A high dividend payout ratio can encourage management to maintain profit stability to maintain dividend payment capacity and maintain investor perceptions. Third, cash holdings, or the amount of cash held by the company. Sufficient cash provides management with flexibility in timing revenue and expense recognition, thus facilitating income smoothing efforts. Fourth, board size, or the size of the board of directors and commissioners. A larger board is expected to improve oversight, but in some circumstances, a large number of members can potentially slow decision-making and open up opportunities for income smoothing practices.

The growth of the food and beverage industry in Indonesia is also crucial to this phenomenon. Data from the Central Statistics Agency (BPS) shows that this sector contributed 38.05% of the non-oil and gas processing industry and 6.61% to national GDP in 2021, with a GDP value of IDR 1.12 quadrillion. Between 2015 and 2019, this industry recorded an average growth of 8.16%, although in 2020 it experienced a slowdown due to the pandemic, but still grew positively by 1.58%. This growth rate has triggered intense competition among industry players, encouraging management to maintain profit performance to remain attractive to investors and other stakeholders. Against this backdrop, this study was conducted to examine the influence of firm size, dividend payout ratio, cash holdings, and board size on income smoothing practices in food and beverage companies listed on the Indonesia Stock Exchange (IDX) for the period 2018–2023. The results are expected to provide a more comprehensive understanding of the factors that encourage or restrain companies from engaging in income smoothing, as well as its implications for transparency and the quality of financial reporting.

## 2. Preliminaries or Related Work or Literature Review

### Research Objectives and Benefits

This research aims to examine the effect of firm size, dividend payout ratio, cash holdings, and board size on income smoothing practices in food and beverage companies listed on the Indonesia Stock Exchange (IDX). The research is expected to provide theoretical contributions to the development of financial accounting science, as well as practical benefits for management, investors, and regulators.

### Firm Size

Several studies have found that firm size has a positive effect on income smoothing. Kusno et al. (2022) and Azhara et al. (2018) show that large companies tend to smooth earnings because they face greater pressure to maintain a stable image in the eyes of investors. Budhi et al. (2018) also emphasize that large assets provide management with flexibility in managing earnings reporting. However, Sophian & Atalia (2022) found a different finding, finding that firm size had no significant effect on income smoothing, as investors consider not only the size of a company's assets but also other performance indicators in their decision-making.

### Dividend Payout Ratio

Research findings by Utari et al. (2024) and Gabriela & Widati (2023) indicate that the dividend payout ratio has a significant positive effect on income smoothing. High dividends are believed to attract investors, thus encouraging management to maintain earnings stability (Safira et al., 2022). However, Jayanti et al. (2018) showed the opposite result, namely a negative effect, because high dividends can reduce retained earnings, thus reducing the company's ability to smooth earnings in subsequent periods.

### Cash Holding

Research by Ningrum et al. (2021) and Suwandi (2022) found that cash holdings have a positive effect on income smoothing, as a large cash availability allows management to offset profit declines in certain periods. Conversely, Inayah & Izzaty (2021) demonstrated a significant negative effect, as cash is focused more on supporting operational activities and is therefore not used for income smoothing efforts.

### Board Size

Sulistiawati & Rasyid (2021) found that board size has a positive effect on income smoothing, as a large board membership is considered to facilitate strategic decision-making to maintain stable financial performance. However, Narita & Nugroho (2020) and Kustono (2021) showed different results, namely a significant negative effect. According to them, a large board size actually increases the effectiveness of supervision, thereby limiting management's latitude for income smoothing practices.

The conceptual framework used in this study can be seen in the following figure:

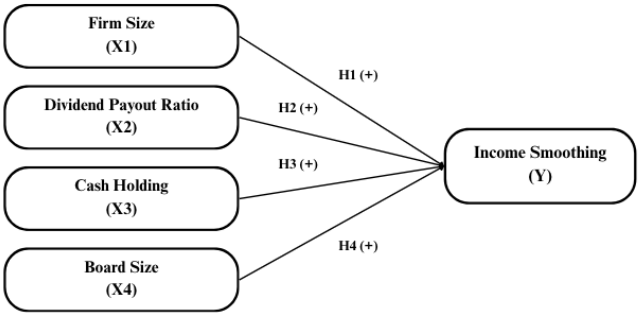


**Figure 1. framework**

The hypotheses from the model developed above are as follows:
H1: Firm size has a significant positive effect on income smoothing practices.
H2: Dividend payout ratio has a significant positive effect on income smoothing practices.
H3: Cash holdings have a significant positive effect on income smoothing practices.
H4: Board size has a significant negative effect on income smoothing practices.

## 3. Proposed Method

The population in this study is all companies in the Consumer Non-Cyclical sector, Food & Beverage subsector, listed on the Indonesia Stock Exchange (IDX) in the 2018–2023 period, with a total population of 99 companies. The sample selection method used is non-probability sampling with a purposive sampling approach. Non-probability sampling is a sampling technique that does not provide equal opportunities for each member of the population to be sampled. While purposive sampling is a sampling technique based on certain considerations or criteria determined by the researcher. The sample criteria in this study are as follows: 1) Companies in the Consumer Non-Cyclical sector, Food & Beverage subsector, listed on the IDX in the 2018–2023 period, 2) Presenting financial statements in rupiah (IDR), 3) Presenting financial statements as of December 31, 4) Not experiencing losses in the 2018–2023 period, and 5) Having complete data for all research variables.

Based on these criteria, data from several companies were obtained that met the requirements for the research sample. The operational variables in this study consisted of Firm Size, Dividend Payout Ratio, Cash Holding, and Board Size as independent variables, and Income Smoothing as the dependent variable. Income smoothing was measured using the Eckel index with the formula:

$$\boldsymbol{Income\ Smoothing} = \frac{\boldsymbol{CV\ \Delta I}}{\boldsymbol{CV\ \Delta S}}$$

Description:
AI = change in net profit between year n and year (n-1)
AS = change in net sales between year n and year (n-1)
CV = coefficient of variation of change in profit or sales
n = number of observation years

The Firm Size variable is a measure of the size of a company. This variable is calculated using the natural logarithm of total assets, which can be seen in the following formula:

$$\boldsymbol{Firm\ Size} = \text{Ln (Total Assets)}$$

The Dividend Payout Ratio variable is measured by comparing dividends per share (DPS) with earnings per share (EPS) which can be seen in the following formula:

$$(\boldsymbol{Dividend\ Payout\ Ratio}) = \frac{\boldsymbol{dividend\ per\ share}}{\boldsymbol{earning\ per\ share}}$$

The Cash Holding variable is measured by comparing the amount of cash and cash equivalents to total assets, which can be seen in the following formula:

$$Cash\ Holding = \frac{Cash + cash\ equivalent}{Total\ Assets}$$

The Board Size variable is measured based on the number of members of the board of directors and board of commissioners which can be seen in the following formula:

$$Board\ Size = \Sigma\ board\ of\ directors\ and\ board\ of\ commissioners$$

Data testing was conducted through descriptive statistical analysis to describe the characteristics of the data, then continued with the Classical Assumption Test which includes the Multicollinearity Test (tolerance and VIF), and the Autocorrelation Test (Durbin-Watson). Furthermore, hypothesis testing was carried out using logistic regression with the F Test (to test the influence of independent variables simultaneously on the dependent variable), then continued with the Overall Model Fit Test (Omnibus Test), the Gooness of Fit Test (Hosmer and Lemeshow Test), the Determination Coefficient Test (Nagelkerke R Square), and the Classification Matrix Test.

## 4. Results and Discussion

### Description Test Analysis

Descriptive statistical tests were conducted to determine the general description of the research variables consisting of income smoothing (Y), firm size (X1), dividend payout ratio (X2), cash holding (X3), and board size (X4). The values displayed include the mean, maximum value, minimum value, and standard deviation. The descriptive statistical results for the firm size variable have a mean value of 29.8702, a maximum value of 32.86, a minimum value of 27.37, and a standard deviation of 1.54908. The dividend payout ratio variable has a mean value of 0.4724, a maximum value of 2.52, a minimum value of 0.01, and a standard deviation of 0.41061. The cash holding variable has a mean value of 0.1587, a maximum value of 0.62, a minimum value of 0.01, and a standard deviation of 0.14760. The board size variable has a mean value of 10.3286, a maximum value of 19.00, a minimum value of 5.00, and a standard deviation of 3.64641.

**Table 1.** Results of Descriptive Statistical Tests

**Descriptive Statistic**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| **Firm Size** | 70 | 27.37 | 32.86 | 29.8702 | 1.54908 |
| **Dividend Payout Ratio** | 70 | .01 | 2.52 | .4724 | .41061 |
| **Cash Holding** | 70 | .01 | .62 | .1587 | .14760 |
| **Board Size** | 70 | 5.00 | 19.00 | 10.3286 | 3.64641 |
| **Valid N (listwise)** | 70 | | | | |

Statistical testing in this study uses logistic regression analysis because the dependent variable is dichotomous, namely performing income smoothing and not performing income smoothing, which is measured on a nominal scale (0 and 1). Logistic regression was chosen because it is able to predict the possibility of income smoothing based on the independent variables of firm size, dividend payout ratio, cash holding, and board size without requiring the assumption of a normal distribution on the error variance. The results of the Omnibus Test of Model Coefficients test show a Chi-Square value of 12.249 with a significance of 0.016 (<0.05), so the logistic regression model used is appropriate to explain the relationship between the independent variables and the dependent variable. The Nagelkerke R Square value of 0.216 indicates that 21.6% of the variation in the income smoothing variable can be explained by the four independent variables, while the remainder is explained by other factors outside the model.

Based on this equation, the firm size variable has a positive coefficient of 0.237 with a significance value of 0.361 (> 0.05), indicating that firm size does not significantly influence income smoothing. The dividend payout ratio variable has a positive coefficient of 2.049 with a significance value of 0.033 (< 0.05), thus it can be concluded that the dividend distribution ratio has a positive and significant effect on the possibility of a company engaging in income smoothing. The cash holding variable has a negative coefficient of -1.704 with a significance value of 0.449 (> 0.05), indicating that there is no significant influence on income smoothing practices. Meanwhile, the board size variable has a negative coefficient of -0.214 with a significance value of 0.030 (<0.05), which means that the greater the number of board members, the less likely the company is to engage in income smoothing. The model feasibility test using the Hosmer and Lemeshow Test produced a Chi-Square value of 14.170 with a significance value of 0.077 (>0.05), which indicates that the model is in accordance (goodness of fit) with the research data. The resulting model's prediction accuracy level (overall percentage correct) was 62.9%, with a classification accuracy level of 75% for the category that does not engage in income smoothing and 46.7% for the category that does engage in income smoothing. Based on these results, it can be concluded that of the four independent variables tested, only the dividend payout ratio and board size were proven to have a significant effect on income smoothing practices, while firm size and cash holdings did not have a significant effect.

**Multicollinearity Test**

The multicollinearity test is used to determine whether there is a strong correlation between independent variables. The criteria used are a tolerance value > 0.10 and a Variance Inflation Factor (VIF) value < 10.

**Table 2.** Multicollinearity Test Results

**Coefficients[a]**

| Model | | Collinearity Statistics | |
|---|---|---|---|
| | | Tolerance | VIF |
| 1 | **Firm Size** | .450 | 2.223 |
| | **Dividend Payout Ratio** | .726 | 1.377 |
| | **Cash Holding** | .650 | 1.539 |
| | **Board Size** | .503 | 1.988 |

Based on the table above, all independent variables have a tolerance value > 0.10 and VIF < 10, so it can be concluded that there is no multicollinearity in this research model.

**Autocorrelation Test**

The Durbin-Watson value of 0.444 indicates no autocorrelation in this research model.

**Table 3**. Autocorrelation Test Results

**Model Summary[b]**

| Model | Durbin-Watson |
|---|---|
| 1 | .514[a] |

a. Predictors: (Constant), Board Size, Dividend Payout Ratio, Cash Holding, Firm Size

b. Dependent Variable: Income Smoothing

**Logistic Regression Test**

Logistic regression analysis was used to examine the effect of firm size, dividend payout ratio, cash holdings, and board size on income smoothing.

**Table 4.** Logistic Regression Test Results

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| **Step 1[a]** | **Firm Size** | .237 | .259 | .834 | 1 | .361 | 1.267 |
| | **Dividend Payout Ratio** | 2.049 | .961 | 4.543 | 1 | .033 | 7.761 |
| | **Cash Holding** | -1.704 | 2.250 | .574 | 1 | .449 | .182 |
| | **Board Size** | -.241 | .111 | 4.689 | 1 | .030 | .786 |
| | **Constant** | -5.597 | 7.193 | .605 | 1 | .437 | .004 |

a. Variable(s) entered on step 1: Firm Size, Dividend Payout Ratio, Cash Holding, Board Size

Logistic regression equation:

$$ln(\frac{P}{1-P}) = -5{,}597 + 0{,}237\ FS + 2{,}049\ DPR - 1{,}704\ CH - 0{,}241\ BS$$

Information:
FS: Firm Size
DPR: Dividend Payout Ratio
CH: Cash Holding
BS: Board Size

Based on the results above, it is known that: (1) Firm Size → Positive, insignificant coefficient (Sig. 0.361), indicating that company size does not influence the tendency for income smoothing. (2) Dividend Payout Ratio → Significant positive coefficient (Sig. 0.033), the higher the DPR, the greater the tendency for income smoothing. (3) Cash Holding → Negative, insignificant coefficient (Sig. 0.449), indicating that company cash does not

influence income smoothing practices. (4) Board Size → Significant negative coefficient (Sig. 0.030), the larger the board size, the lower the likelihood of income smoothing practices.

**F Test (Simultaneous)**

The F test is used to see the influence of independent variables together on the dependent variable.

**Table 5.** F Test results

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| **1** | **Regression** | 2.726 | 4 | .682 | 3.073 | .022[b] |
| | **Residual** | 14.417 | 65 | .222 | | |
| | **Total** | 17.143 | 69 | | | |

a. Dependent Variable: Income Smoothing

b. Predictors: (Constant), Board Size, Dividend Payout Ratio, Cash Holding, Firm Size

The results show a significance value of 0.022 < 0.05, so that the independent variables simultaneously have a significant effect on income smoothing.

**Overall Model Fit Test**

The Overall Model Fit Test was conducted to determine the overall suitability of the logistic regression model.

**Table 6. Overall Model Fit Test Results**

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| **Step 1** | **Step** | 12.249 | 4 | .016 |
| | **Block** | 12.249 | 4 | .016 |
| | **Model** | 12.249 | 4 | .016 |

The Omnibus Test of Model Coefficients results showed a chi-square value of 12.249 with a significance level of 0.016 (<0.05). This indicates that the logistic regression model used is capable of explaining the relationship between the independent variables (firm size, dividend payout ratio, cash holdings, and board size) and the dependent variable (income smoothing). Thus, the model developed is suitable for use in the analysis.

**Goodness of Fit Test (Hosmer and Lemeshow Test)**

The model fit test using the Hosmer and Lemeshow Test showed a chi-square value of 14.170 with a significance level of 0.077 (>0.05). A significance value greater than 0.05 indicates that the logistic regression model used is appropriate (goodness of fit) and is able to predict the data accurately. This means there is no significant difference between the model's predicted values and the actual observed data.

**Table 7.** Goodness of Fit Test Results (Hosmer and Lemeshow Test)

**Hosmer and Lemeshow Test**

| Step | Chi-square | df | Sig. |
|---|---|---|---|
| **1** | 14.170 | 8 | .077 |

**Coefficient of Determination Test (Nagelkerke R Square)**

The Nagelkerke R Square value obtained was 0.216. This means that 21.6% of the variation in the income smoothing variable can be explained by the four independent variables used in the model (firm size, dividend payout ratio, cash holdings, and board size), while the remaining 78.4% is explained by other factors outside the research model.

**Table 8.** Results of the Determination Coefficient Test (Nagelkerke R Square)

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | **83.358** | **.161** | **.216** |

a. Estimation terminated at iteration number 5 becaus parameter estimates changed by less than .001

## Classification Matrix Test

The results of the classification matrix test showed a prediction accuracy rate (overall percentage correct) of 62.9%. The model correctly predicted the "not performing income smoothing" category 75% of the time and the "performing income smoothing" category 46.7% of the time. These values indicate that the model has fairly good classification ability in predicting income smoothing practices based on the independent variables used.

**Table 9.** Classification Matrix Test Results

**Classification Table[a]**

| | | | Predicted Income Smoothing | | Predicted |
|---|---|---|---|---|---|
| | Observed | | Tidak Melakukan Income Smoothing | Melakukan Income Smoothing | Percentage Correct |
| **Step 1** | **Income Smoothing** | **Tidak Melakukan Income Smoothing** | 30 | 10 | 75.0 |
| | | **Melakukan Income Smoothing** | 16 | 14 | 46.7 |
| | **Overall Percentage** | | | | 62.9 |

Based on all the research results, it shows that simultaneously, the variables of firm size, dividend payout ratio, cash holding, and board size have a significant effect on income smoothing practices in food & beverage subsector companies listed on the Indonesia Stock Exchange for the 2018–2023 period, as evidenced by the F-test significance value of 0.022 (<0.05). This finding supports the Agency Theory view, which explains that the difference in interests between shareholders (principals) and management (agents), coupled with information asymmetry, opens up opportunities for managers to take opportunistic actions such as income smoothing (Gondokusumo & Susanti, 2022; Manuela et al., 2022). Thus, the interaction of various financial and governance factors, including company size, dividend policy, cash levels, and board size, can collectively influence management's tendency to engage in income smoothing.

Partially, the firm size variable has a positive coefficient of 0.273 but is not significant (Sig. 0.361). This means that company size does not directly influence income smoothing practices in this sector. This result contradicts the Political Cost Hypothesis, which states that large companies tend to smooth earnings to reduce public scrutiny and political burden (Budhi et al., 2018). One possible cause is the characteristics of the food and beverage sector, which tends to have stable demand and a low risk of profit fluctuations, thus minimizing the incentive to smooth earnings due to size. This finding aligns with Sophian & Atalia (2022), who also found no effect of firm size on income smoothing in industries with high market stability. However, this result differs from Kusno et al. (2022), who reported a significant positive effect, thus indicating that the relationship between firm size and income smoothing is contextual.

The dividend payout ratio (DPR) has a positive coefficient of 2.049 and is significant (Sig. 0.033). This indicates that the higher the DPR, the greater the company's tendency to engage in income smoothing. These results align with Agency Theory, which states that management uses dividend policy as a positive signal to investors regarding the company's future prospects (Arum & Rahayu, 2022; Anggraeni et al., 2022). To maintain investor image and trust, earnings need to be maintained stable so that dividend payments remain consistent. Furthermore, these findings support Agency Theory, where managers, to meet principal expectations, can manipulate earnings reporting to appear stable (Gabriela & Widati, 2023). This research is consistent with Utari et al. (2024) who stated that a high DPR encourages

smoothing practices in an effort to maintain positive market perceptions. Conversely, Jayanti et al. (2018) found a negative effect of DPR on smoothing, arguing that high dividends reduce retained earnings and management flexibility, thus indicating variations in the relationship based on industry characteristics.

Cash holdings, on the other hand, have a negative coefficient (-0.706) and are insignificant (Sig. 0.449). This means that the amount of cash held by a company does not affect the tendency of income smoothing in this sector. Theoretically, high cash can give managers flexibility in determining the timing of revenue or expense recognition. However, in the food and beverage industry, cash is mostly used for working capital needs, raw material purchases, and distribution, so it does not significantly support smoothing practices (Adiwidjaja & Tundjung, 2019; Afninofia et al., 2023). These results align with Khurriyatin et al. (2024) who found no effect of cash holdings on smoothing in the FMCG sector. However, this finding contradicts Ningrum et al. (2021) and Suwandi (2022) who showed a positive effect. Therefore, it can be concluded that the relevance of cash holdings to smoothing is highly dependent on the operational structure and liquidity needs of the sector.

Board size has a negative coefficient (-0.241) and is significant (Sig. 0.030) in the logistic test and 0.032 in the linear test. These results indicate that the larger the number of board members, the lower the tendency of a company to engage in income smoothing. This finding aligns with the corporate governance view that a larger board size, with diverse expertise and backgrounds, improves oversight of management performance and the quality of financial reporting (Kustono, 2021; Lavina & Destriana, 2023). These results are consistent with those of Narita & Nugroho (2020), who stated that a large board size can suppress earnings management practices by strengthening the monitoring function. Conversely, Sulistiawati & Rasyid (2021) found a positive effect, which they explained because an excessively large board size can create coordination problems. This difference reaffirms that the effectiveness of board size is strongly influenced by the governance culture in each company.

Thus, this discussion confirms that in the food and beverage industry, dividend policy and board structure play a dominant role in influencing management's decision to engage in income smoothing. Company size and cash holdings are not significant factors, indicating that operational characteristics and sector stability are more influential in influencing management's need to stabilize earnings. Theoretically, this study strengthens the role of Agency Theory in explaining income smoothing practices, while providing empirical evidence that governance effectiveness, particularly board size, significantly reduces opportunistic management behavior.

**Discussion**

Based on the results of data testing in this study, income smoothing practices in food & beverage subsector companies listed on the Indonesia Stock Exchange for the 2018–2023 period are significantly influenced by the dividend payout ratio and board size, but not significantly influenced by firm size or cash holdings. Firm size does not have a significant effect on income smoothing, possibly because although large companies have high public exposure, the relatively stable characteristics of the food and beverage industry make the pressure to smooth income less dependent on company size. Meanwhile, the dividend payout ratio has a significant positive effect on income smoothing, which means that the higher the dividend payout ratio, the greater the tendency of management to maintain profit stability to meet investor expectations and maintain a positive company image. Cash holdings have no significant effect on income smoothing, indicating that a company's liquidity in the form of cash is allocated more to operational needs and working capital than to managing profit fluctuations. Conversely, board size has a significant negative effect on income smoothing, indicating that a larger board size increases the effectiveness of management oversight, thus minimizing the likelihood of income smoothing. These findings confirm that dividend policy and board structure are important factors influencing income smoothing practices in this sector, while company size and cash holdings are not the primary determinants.

**Table 10.** Summary of Hypothesis Testing Results

**Summary of Hypothesis Testing Results**

| | Hypothesis | Coefficient | Significance | Conclusion |
|---|---|---|---|---|
| **Ha1** | Firm Size has a significant positive effect on Income Smoothing practices. | .273 | .361 | Ha1 rejected |
| **Ha2** | Dividend Payout Ratio has a significant positive effect on Income Smoothing practices. | 2.049 | .033 | Ha2 accepted |
| **Ha3** | Cash Holding has a significant positive effect on Income Smoothing practices. | -1.704 | .449 | Ha3 rejected |
| **Ha4** | Board Size has a significant negative effect on Income Smoothing practices | -.241 | .030 | Ha4 accepted |

## 5. Conclusions

Based on the data analysis and discussion, it can be concluded that: (1) Simultaneously, the variables firm size, dividend payout ratio, cash holdings, and board size significantly influence income smoothing practices in food and beverage companies listed on the Indonesia Stock Exchange for the 2018–2023 period. This demonstrates that the combination of firm size, dividend policy, liquidity, and board structure can collectively explain management's tendency to smooth income. Partially, the dividend payout ratio has a significant positive effect on income smoothing. The higher the dividend payout ratio, the greater the tendency of management to maintain earnings stability to maintain investor confidence. This finding aligns with Agency Theory, which emphasizes the role of dividends as a signal and a means of meeting shareholder expectations. (2) Board size has a significant negative effect on income smoothing. A larger board size increases the effectiveness of the oversight function and reduces the likelihood of income smoothing. These results support corporate governance theory, which states that a large and diverse board can minimize opportunistic management behavior. (3) Firm size has a positive but insignificant coefficient, indicating that company size is not a primary determinant of income smoothing practices in this sector. The stability of demand and the operational characteristics of the food and beverage industry mean that the pressure to smooth is not solely influenced by company size. (4) Cash holdings has a negative and insignificant coefficient, indicating that the amount of cash held by a company is not directly related to income smoothing practices. Liquidity is used more for operational needs than to manage profit fluctuations.

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