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THE EFFECT OF SALES VOLATILITY, CASH FLOW VOLATILITY, AND OPERATING CYCLE ON PROFIT PERSISTENCE IN MANUFACTURING COMPANIES LISTED ON THE IDX IN 2022–2024

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Abstract

Profit persistence is a concern for investors and stakeholders in making investment decisions. To attract investors and creditors, companies tend to maintain stable profits each period. However, profit inconsistencies often occur, especially in manufacturing companies due to economic fluctuations, the impact of the pandemic, global inflation and geopolitical tensions. Therefore, investors need to be alert because profits that appear stable could be the result of income smoothing practices. The study was conducted with the aim of seeing the influence of sales volatility, cash flow volatility, and operating cycles on earnings persistence. The approach applied was quantitative by taking samples using non-probability sampling and applying the purposive sampling method, resulting in 14 manufacturing companies in the food and beverage sector listed on the IDX in 2022-2024. The analysis was carried out using multiple linear regression analysis with Eviews 12 software. The study findings prove that sales volatility has no influence on earnings persistence, while cash flow volatility shows a positive and significant effect on earnings persistence. This is different from the operating cycle which shows a negative and significant impact on earnings persistence for manufacturing companies listed on the IDX in 2022-2024. The importance of cash flow management and operating cycle efficiency in maintaining the stability of manufacturing companies' profits, so that they focus more on cash flow management and shortening the operating cycle to support earnings stability.

Keywords: ***Sales Volatility, Cash Flow Volatility, Operating Cycle, Profit Persistence.***

INTRODUCTION

International economic development which more dynamic cause business competition getting tighter, include in Indonesia. manufacture industry as one of the crucial sectors in national economic confront some challenges in maintaining financial perform (Fiqri et al., 2021). Financial statement is a document containing financial data and form of entity accountability in certain accountancy period depict company performance (Dharma et al., 2021). Profit information become part of the main component in a financial statement which become the basis in making consideration related o the company in estimating the earning (Sutisna & Ekawati, 2017). Data regarding the profit have crucial position caused profit level can become crucial aspect in a consideration determination. According to Brown (1981) accountancy profit become the main indicator in measuring company performance, so can be applied to estimate cash flow and the profit in the future. The fundamental indicator of accountancy performance is the profit persistence, which reflect the capability of a corporation in keeping the profit from time to time (Hanifa & Malik, 2022).

Profit persistence become the main attention to the investor and constituents as the initial step in determining the investment consideration by observing company financial statement (Lubis & Sari, 2024). Profit persistence prefer to the unfluctuating income and reflect the sustainability profit in the future in long term (Do et al., 2020). Company with unstable and experiencing sharp fluctuations profit even obtain the short term deficit prove that the entity cannot draw the profit continuously (Riskiya & Africa, 2022). Profit persistence has the relationship toward corporation performance seen from gained profit continuously with long term period. The performance of Stock price in the capital market also show the correlation with profit persistence as the return so that it contributes to the earnings generated by the industry towards the returns received by investors in the form of shares, where that condition indicate the high profit continuity (Arisandi & Astika, 2019).

Inconsistent earnings will cause inaccurate in decision making according to the future condition, company require use the financial information so it can measure and know the profit persistence in every financial report (Zhou, 2016). Inconsistent problem of company profit much happen in some corporation listed in Indonesia stock exchange, especially to the manufacture corporation in food and beverages sector, in which this corporation has complex operational characteristic and vulnerable to the economic fluctuation, inconsistent profit revenue after pandemic, which show economic recovery despite new challenges such as global inflation and geopolitical tensions. The high role of manufacture industry in Indonesia. However in the reality, in 2022 until 2024, manufacture corporation experiencing fluctuating profit, so it can be stated that the profit obtained is not continue which proved from Picture 1.

Figure 1.

Manufacturing Company Net Profit

The graphic above mirror dynamic of profit manufacturing company continuity, where for the period of 2013 and 2014, company net profit still high and stable enough, each of it is 948.013 and 869.800. But, in 2015 there is a decline to 318.567, which then followed gradual recovery until in 551.406, reflect company performance which is getting better. However, in 2020, net profit show drastic decrease of 2.245. this decline may caused by pandemic impact of COVID-19 which is crippling some industrial sector, include manufacture. Interestingly, since 2021, company show adaptation capability and extraordinary recovery. Net profit jump to 611.348 in 2021, then continuously increase to 1.326.575 in 2022, and record the highest record of 1.724.548 in 2023.

The increase very firm profit persistence in pasca-pandemic recovery, show that company can maintain the performance and profitability on an ongoing basis, even though has experienced the fluctuation and pressure in 2015 and 2020, the company is successful to show resilience and positive prospect in long period. The implementation of profit persistence carried out by observing the determinant influencing net continuity and implementing income smoothing (Christiana, 2012). Income smoothing implementation considered as management technique so can reduce the income of earnings resulted by the industry in certain time, so can increase the profit (Kurniasih & Sri, 2012). Engineering activities carried out company manager party to become the profit obtained can be in low fluctuating and remain in all the period so stated as profit persistence (Nuraeni et al., 2018). Besides that, to get the intention from the investor and creditor, to keep invest their asset to the company, but it can losses the investor and creditor, caused does not receive profit information actually.

That phenomenon becoming the investor and creditor have alertness to the company profit persistence, cause not forever the profit persistence always real, but sometime also there is income smoothing practical. To solve that problem, investor and creditor, must notice the determinant influencing profit persistence to avoid income smoothing practical. By checking volatility of cash flow, book tax difference, sale volatility, managerial ownership, company size, debt level, audit cost, accrual size, as well as the concentration of. But the researcher only use cash flow volatility, sale volatility, and operation cycle to check the determinant which can determine the sustainability of a profit, due to that case caused there are some previous researches and its result is consistent. Cash flow volatility is the operations environment fluctuation which is seen from the total number of cash flow in an entity (Sari & Afriyenti, 2021). Based on agency theory, the separation of agency from the principle carried out to make the owner get the high profit with efficient cost (Nuansari & Ratri, 2022).

Agency theory explains the inverse the relationships among the company's cash flow volatility and its profit persistence. Agents are tasked with managing the company's performance in order to be able to gain continuous profits in each period. Persistent profits are realized when agents can provide stable operating cash flow information, because company owners tend to prefer low cash flow volatility (Hendrianto, Dara, & Pratikto, 2022). Research by Khasanah & Jasman (2019) proves a positive impact of cash flow volatility on profits persistence, where tall cash

flow fluctuations correlate with increased earnings persistence. The findings of Amaliyah & Suwarti (2017) also show a positive impact. Conversely, Susilo & Anggraeni (2017) prove the opposite impact of cash flow volatility on earnings persistence. Yoana (2024) also shows a negative impact. In contrast to sales volatility which reflects the level of change or transformation of an entity's sales figures (Nahak et al., 2021). Based on Hansen dan Mowen (2003), sale volatility is the sale unstable form which is uncertain in every time, which reflecting uncertainty in company income. The agency theory explain that agent has crucial position in arranging corporation sale. Principle, is the investor, has the preference toward the sale stability with the low volatility, reminding its positive impact to the company earnings persistence (Zaimah & Hermanto, 2018). The agent tries to create sale rate stability by minimizing sale volatility. The agency theory also states that sale volatility level decline will contribute in earnings persistence an entity. Finding of Khasanah & Jasman (2019) whow the positive impact from sale volatility to earnings persistence. Meanwhile, Dyah (2024) cannot prove the impact of sale volatility in earnings persistence. Also with Zaimah & Hermanto (2018) show the negative impact. Meanwhile, operations cycle is a series of activity which show the entity capability in getting cash income from consumer (Lee et al., 2018).

Operating cycle is the time which needed by the industry to purchase the supply, sale the product, and receive cash from the sale (Kieso et al., 2011). Theory agency, expected can create the information of company performance which is relevant, can influence principle in identifying the phenomenon every term (Zaimah & Hermanto, 2018). Long duration from the operating cycle will reduce the capability of financial statement in estimating the future. Relevant information, means the agent is responsible to the task trusted to them from principle. Relevancy of information can used principle party to predict the future. Findings from Dyah (2024) prove the operating cash flow positive impact in persistence earnings, the high level of operating cash flow income can show earnings persistence. Findings form Meliyansyah (2024) show the operating cash flow in earnings persistence. Meanwhile, findings of Khasanah & Jasman (2019) prove the operating cycle does not impact to earning persistence.

This research aims to identify the sale volatility, cash flow volatility, s well as operating cycle to the profits persistence in manufacturing industry which listed in BEI 2022-2024 period of time. There are some studies show inconsistency of their findings, so there is an adequate significant research gap, regarding the determinant which can determine earnings persistence of manufacturing company. Findings of Khasanah & Jasman (2019) show positive impact from cash flow volatility and the sale in earnings persistence, while Susilo & Anggraeni (2017) show different result. Zaimah & Hermanto (2018) show the negative impact from sale volatility, contrast with Khasanah & Jasman (2019). Study of Dyah (2024) show the positive imoact, Meliyansyah (2024) states negative impact , and Khasanah & Jasman (2019) did not find the significant influence. Some of the researches carried out before pandemic, so there has not reflected economic condition signed by global uncertainty, inflation pressure, and pasca-pandemic

This research novelty located in some aspects, using the update data in 2022-2024, the condition of pasca-pandemic economic, so provide new knowledge regarding the attitude of earning persistence in economic recovery context. This sector focus on manufacture in Indonesia which have the unique characteristic related to supply chain, production of technology, and cost structure which is different from other sector. Agency theory integration in analyzing the relationship among three independent variables that are cash flow volatility, sale volatility, as well as operating cycle with more comprehensive earning persistence. Cash flow volatility will show the meaningful impact in earning persistence based on the concept of agency theory in which cash flow stability give the certain for the principle and increase financial information quality. Sale volatility will show the impact to earning persistence caused the high sale fluctuation mirror unstable operations and can decrease the capability of the company maintain the profit in the future. Operating cycle assumed will show the meaningful impact in earnings persistence because the long operating cycle increase the complexity and estimation of loss potential in recognition of income and expenses.

METHOD

The research conducted examined manufacturing companies for the food and beverage category listed on IDX in 2022-2024. Statistics was obtained in www.idx.co.id as well as corporate pages included in the sample in this study. Cash flow volatility, sales volatility, and operating cycles were set as independent variables. Meanwhile, profits persistence was used as the dependent variable. Measurement of earnings persistence was carried out through the use of simple linear regression analysis with the following formula: (Thingthing & Marsudi, 2020).

$$\text{Persistensi} = \frac{Profit\ before\ tax\ t - Profit\ before\ tax\ t-1}{Total\ Asset}$$ Mahendra & Suardikha (2020)

$$\text{Sales Volatility} = \frac{Sales}{Asset\ Total}$$ (Khasanah, 2019)

$$\text{Cash Flow Volatilitas} = \frac{Operating\ cash\ flow}{Asset\ total} \text{ (Khasanah, 2019)}$$

$$\text{Operating Cycle} = \frac{Average\ of\ Debt}{Sales} + \frac{average\ of\ supply}{cost\ of\ goods} \text{ (Sarah, Jibrail, \& Martadinata, 2019)}$$

The research conducted involved a population of 14 food and beverage manufacturing companies recorded on IDX in 2022-2024. The collection of the data was carried out in the last three years to obtain the latest information relevant to the research objectives. Sample determination was carried out using the purposive sampling method, which is part of the non-probability sampling technique, which is adjusted to certain criteria. Thus, the calculation period covers the years 2022-2024, and the total sample analyzed was 42 observations (14 companies multiplied by 3 years). This collection of the data was carried out arround the application of multiple linear regression analysis assisted by the Eviews 12 programmes.

RESULTS AND DISCUSSION

Descriptive Statistic analysis

This analysis carried out with the purpoae of showing the data characteristic reflectuon to all research variablea which is used as the sample. The reflection of characteristic gives the information regaeding the characteristic of data from each variable served in mean, meidian, maximum, minimum, deviation standard, scewness, and curtosis everu variable.

Table 1. Statistic Descriptive Result

	Y	X1	X2	X3
Mean	0.032214	1.228429	0.132607	0.346821
Median	0.027500	0.940000	0.101500	0.309500
Maximum	0.176000	3.576000	0.442000	1.018000
Minimum	-0.050000	0.562000	0.007000	0.096000
Std. Dev.	0.042484	0.824946	0.109407	0.221562
Skewness	1.150945	1.630205	1.089260	1.926618
Kurtosis	6.521536	4.763073	3.559015	6.661014
Jarque-Bera	20.64990	16.02849	5.901525	32.95885
Probability	0.000033	0.000331	0.052300	0.000000
Sum	0.902000	34.39600	3.713000	9.711000
Sum Sq. Dev.	0.048733	18.37447	0.323187	1.325426
Observations	28	28	28	28

Source : Output Eviews 10, 2025.

Reffering table 1 aboce, earnings persistence (Y), which is proxied with profit ratio, show the lowest number -0,050, the highest number is 0,176, mean score 0,034, as well as deviation standard 0,035. The ratio between the standard deviation score and mean score which almost balance indicate that data have dispretiin or medium diversity. Means, it found the variation in the capability of each companies in creating the profit consistently toward its total asset. Company witg the lowest earnings persistence score namely PT Indofood Sukses Makmur Tbk. In 2022, meanwhole the hugest score reached by PT Ultra Jaya Milk Industry as well as Trading Company Tbk. in 2023.

Sales volatiloty variable (X_1) reflect company sales along research period. The minimum score from this variable recorded in 0,562, the highest score 3,576, mean total 1,151, also the standard deviation in 0,720. The standard deviation acquisition reach the mean scord show that heterogent data, means there os significant difference between companies in sales stability case. The highest sales vocality found in PT Wilmar Cahaya Indonesia Tbk in 2023, which showing the high sales fluctiation in that company, meanwhile the smallest score is in PT Indofood CBP Sukses Makmur Tbk. in 2022. Cash flow volatility (X_2) show how big the fluctuation in company cash flow. Minimum score from this variable is 0,007, maximum score is 0,442, mean total is 0,123, also deviation score in 0,103 numbsd. Because the acquisition of standard deviation is not more than averages acquisition, can be concluded

that the data is adequate homogent, so the variation of cash flow between is not really extreme. The company with the most cash flow volatility namely PT Multi Bintang Indonesia Tbk in 2023 The lowest recorded acquisition is in 0,096 number the highest score is 1,018 number, mean total is 0,354, also the deviation standard is in 0,221. The acquisition of standarf deviation which in mog more than mean total means thatnthe data is homogent, so the operating Cycle between company is not differwnt. The shortest operating cycle reached PT Wilmar Cahaya Indonesia Tbk. in 2023, meanwhile the longest operating cycle is reached PT Delta Djakarta Tbk in 2022 s well as 2023, which each of it come near to score 1.

Inferential Statistic Test

This analysis carried out to identify hypotesis formed in thinking framework (Frans, 2015). This Inferential statistic analysis in this study carried out with 3 steps, namely make panel data determination regression model first, if the best model has been selected then carry out a classical assumption test to see the BLUE standardization owned by the data. There were 3 panel data regression models, namely the Common Effect Model (CEM), the Fix Effect Model (FEM), and the Random Effect Model (REM), with the provision that the entire panel data regression model uses a significance value (α = 5%).

1. Common Effect Model (CEM)

   CEM is an easy model of regression in data panel with the Ordinary Least Square (OLS) approach. These are the findings of regression Common Effect Model (CEM):

Table 2. Common Effect Model (CEM) Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.022293	0.025181	-0.885335	0.3848
X1	0.008274	0.009852	0.839841	0.4093
X2	0.219855	0.065548	3.354121	0.0026
X3	0.043795	0.036553	1.198126	0.2426

R-squared	0.331852	Mean dependent var	0.032214
Adjusted R-squared	0.248333	S.D. dependent var	0.042484
S.E. of regression	0.036833	Akaike info criterion	-3.633263
Sum squared resid	0.032561	Schwarz criterion	-3.442948
Log likelihood	54.86568	Hannan-Quinn criter.	-3.575082
F-statistic	3.973388	Durbin-Watson stat	0.979457
Prob(F-statistic)	0.019710		

Source: Eviews Output 10, 2025

Referring to the table above, the analysis with CEM shows the results of one significant variable at the α = 5% level (based on the t-test). In addition, the model produces R^2 at 0.331852 and the F probability at 0.019710 which proves a significant correlation. Meanwhile, the Durbin-Watson acquisition is 0.979457 which means it is approaching the ideal value of 1.

2. Fix Effect Model (FEM)

   FEM is a regression panel data technique that is able to control individual diversity through modeling intercepts that vary between units. Consistent with CEM, it also relies on the OLS method in its estimation process.

Table 3. Results of Fixed Effect Model (FEM)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.220577	0.101089	2.182011	0.0517
X1	-0.020539	0.019599	-1.047951	0.3171
X2	0.224661	0.077715	2.890840	0.0147
X3	-0.556263	0.234875	-2.368330	0.0373

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.909061	Mean dependent var	0.032214
Adjusted R-squared	0.776785	S.D. dependent var	0.042484
S.E. of regression	0.020072	Akaike info criterion	-4.699009
Sum squared resid	0.004432	Schwarz criterion	-3.890171
Log likelihood	82.78613	Hannan-Quinn criter.	-4.451739
F-statistic	6.872485	Durbin-Watson stat	3.733333
Prob(F-statistic)	0.001267		

Source: Eviews Output 10, 2025

Referring to table 3, the analysis with FEM shows the results of two significant variables at the $\alpha = 5\%$ level (based on the t-test). In addition, the model produces R^2 at 0.909061 and the F probability at 0.001267 which proves a significant correlation. Meanwhile, the Durbin-Watson gain is 3.733333 which means it is approaching the number 3.

3. *Random Effect Model (REM)*

REM is the last model estimate in testing model regression of panel data. There is a difference in the two previous models, REM applies the Generalized Least Squared (GLS) approach. The following are the results of the regression with REM:

Table 4. Results of the Random Effect Model (REM)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.019637	0.028051	-0.700054	0.4906
X1	0.014379	0.009243	1.555696	0.1329
X2	0.181876	0.058127	3.128914	0.0046
X3	0.029037	0.046204	0.628465	0.5356

Effects Specification

	S.D.	Rho
Cross-section random	0.030956	0.7040
Idiosyncratic random	0.020072	0.2960

Weighted Statistics

R-squared	0.256407	Mean dependent var	0.013426
Adjusted R-squared	0.163458	S.D. dependent var	0.024358
S.E. of regression	0.022278	Sum squared resid	0.011912
F-statistic	2.758573	Durbin-Watson stat	2.245473
Prob(F-statistic)	0.064278		

Unweighted Statistics

R-squared	0.292185	Mean dependent var	0.032214
Sum squared resid	0.034494	Durbin-Watson stat	0.775424

Source: Eviews Output 10, 2025

Referring to the table above, the analysis with REM shows the results of one significant variable at the α = 5% level (based on the t-test). In addition, the model produces R^2 at 0.2564 and the F probability at 0.064278 which proves a significant correlation. Meanwhile, the Durbin-Watson gain is 2.245473, means it is approaching the number 2.

Panel Data Regression Model

A series of test tools can be applied to determine the most proper regression model in panel data analysis, including the Chow Test (CEM and FEM) as well as the Hausman Test (FEM and REM). The following is the determination of the research model.

1. Uji Chow (*Likelihood Test Ratio*)

   The Chow test is applied as a tool in comparing the feasibility between the application of the fixed effect model and the common effect, where the fixed effect involves the use of dummy variables. Here are the result of Chow test carried out:

Table 5. *(Likelihood Test Ratio)*

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	5.370698	(13,11)	0.0043
Cross-section Chi-square	55.840894	13	0.0000

Souce : Output Eviews 10, 2025

Referring to table 5, that the Cross-section probable of Chi-square is at 0.0043 or does not reach 0.05, so applied model estimation is FEM.

2. Hausman Test

   This test is carried out with the aim of knowing and determining the most optimal model between FEM and REM. The following are the results of the Hausman test that were produced n:

Table 6. Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	8.565984	3	0.0357

Source : Output Eviews 10, 2025

Referring to the random findings of Cross-section probability obtained through the Hausman test, which shows the results of 0.0357 < 0.05 (with Chi-Square distribution), it means that FEM is a more appropriate estimation model than REM. Consistent with the results of the Chow Test as well as Hausman Test, FEM is identified as the most optimal design compared to CEM and REM. Thus, FEM can be applied to the next series of tests.

Classical Assumption Test

Fixed Effect Model as an estimation model, then panel data regression uses the Generalized Least Squared (GLS) method and must meet the requirements of normality and multicollinearity. Therefore, the classic assumption test that needs to be applied in this research is a normality testing. Here are the result of normality test:

1. Normality Test

This test aims to identify whether the data distribution in a data set or variable meets the assumption of normality. Normal data distribution is assumed to reduce the risk of bias. However, deviations from normal distribution can reduce the quality of statistical inference. The normality test involves examining the probability figures, where the data mentioned have a normal distribution if the probability figure exceeds the significance limit of 0.05.

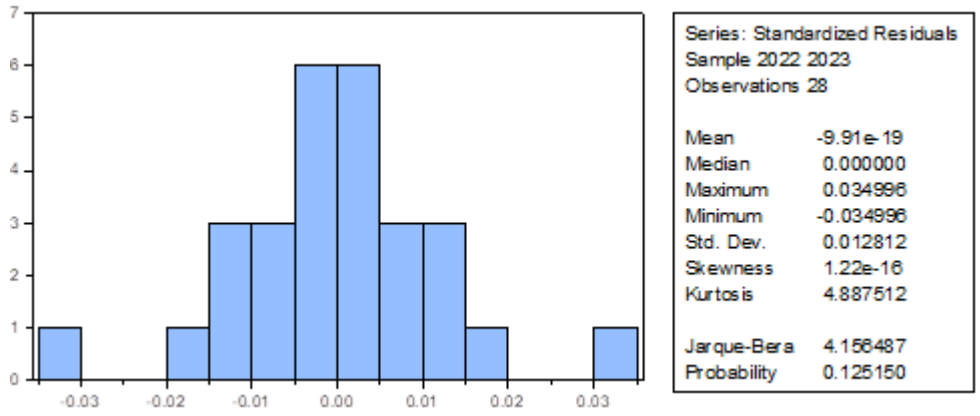

Figure 2. Histogram Normality Graphic

Source : Output Eviews 10, 2025

Based on Figure 2, it presents a bar chart that shows the distribution of data that tends to be even. Furthermore, when observed through the probability obtained, which is 0.125150, it indicates that the results exceed the significance level of 0.05. In that case, concluded that the statistics is normally distributed.

2. Multicollinearity Test

This testing is carried out with the intention of identifying the exisence linear existence and significant relations among each predictors. The absence of multicollinearity in a regression model is evaluated by observing the Tolerance as well as Variance Inflating Factor (VIF) numbers. If resulting Tolerance exceeds 0.10 and the VIF is below 10, it implies that no multicollinearity problems were found in the study (Ulupui, 2020). Here are the result of multicollinearity test:

Table 7. Result of Multicollinearity Test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.000634	13.08594	NA
X1	9.71E-05	4.337446	1.314556
X2	0.004297	2.582784	1.023499
X3	0.001336	4.622170	1.305308

Source : Output Eviews 10, 2025

Table 7 presents information on the multicollinearity test results found in the Centered VIF column. The VIF number for variable X_1 is 1.314556, X_2 is 1.023499, and for X_3 is 1.305308. Considering that all VIF results do not reach 10, it concluded no multicollinearity was found in the model of regression of this analysis, which means that no relationship was found in each independent variable.

3. Heteroscedasticity Test

This test is done with the intention of evaluating the residual variance equality for all observations in regression type. The ideal condition assumed in the regression model is homoscedasticity, which is a uniform residual variance. The discrepancy in residual variances between observations is known as heteroscedasticity. Testing for the existence of heteroscedasticity in the model is carried out through the use of the Glejser Test, with a probability exceeding 0.05 which means the absence of heteroscedasticity.

Table 8. Heteroscedasticity Test Results

Heteroskedasticity Test: Glejser

F-statistic	0.493277	Prob. F(3,24)	0.6903
Obs*R-squared	1.626200	Prob. Chi-Square(3)	0.6535
Scaled explained SS	2.441472	Prob. Chi-Square(3)	0.4860

Source : Output Eviews 10, 2025

Referring to table data above, seen that the chi-square probability obtained from Obs*RSquared is at 0.6535 > 0.05. Thus, it is concluded that this model does not have heteroscedasticity problems or that the heteroscedasticity test assumption has been achieved.

4. Autocorrelation Test

This test is done with the intention of measuring the relationship formed in the residual for period t against the residual period t-1 in the linear regression model (Ghozali, 2011). The existence of autocorrelation in this study is known through observation of Durbin-Watson (DW test) result test. Here are autocorrelation test produced:

Table 9. Autocorrelation Test Results

Durbin-Watson stat	3.3733333

Source : Output Eviews 10, 2025

In accordance with autocorrelation test results produced through the Durbin-Watson test, the DW value is 3.37333. Referring to all independent variables, namely 3 and a total of 28 observations, and significance level of 5%, according to the DW table, the results (dl) are 1.1104 and (du) 1.7473. To identify the presence of negative autocorrelation, the values (4 - du) = 2.2527 and (4 - dl) = 2.8896 are used. Because the DW result is 3.37333> (4 - dl) = 2.8896, concluded that the model does not show negative autocorrelation (no autocorrelation).

Hypothesis Testing

1. Simultaneous Significance Test (F Test)

This test is conducted with the intention of evaluating the significance of the linear relationship collectively for all predictor variables (X) and response variables (Y), or at least the existence of a linear correlation between one of the X variables and Y variable (Deny, 2008). An explanation of the F test calculating can be found in the Analysis Of Variance (ANOVA) table. The test criteria are based on the significance level (α), which is 0.05.

Table 10. Simultaneous Test (F)

R-squared	0.909061	Mean dependent var	0.032214
Adjusted R-squared	0.776785	S.D. dependent var	0.042484
S.E. of regression	0.020072	Akaike info criterion	-4.699009
Sum squared resid	0.004432	Schwarz criterion	-3.890171
Log likelihood	82.78613	Hannan-Quinn criter.	-4.451739
F-statistic	6.872485	Durbin-Watson stat	3.733333
Prob(F-statistic)	0.001267		

Source : Output Eviews 10, 2025

The F-statistic probability figure listed in the table is 0.001267. With this achievement, it indicates that the figure obtained is below 0.005, so that simultaneously the three independent variables are able to significantly influence profit persistence.

2. Partial Test (t-Test)

This test is applied to show the impact magnitude that can be given individually to each independent variable (X) to clarify the dependent variable diversity. The decision taken is adjusted to t-test (partial) against the probability figure <0.05.

Table 11. Partial Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.220577	0.101089	2.182011	0.0517
X1	-0.020539	0.019599	-1.047951	0.3171
X2	0.224661	0.077715	2.890840	0.0147
X3	-0.556263	0.234875	-2.368330	0.0373

Source : Output Eviews 10, 2025

Referring to the table above, the results of partial testing with the panel data regression equation are as follows:

a. The first hypothesis (H_1), assumes a real effect of sales volatility on earnings persistence. The probability of significance is obtained at 0.3171 > 0.05 with a t-statistic of -1.047951. Based on these results, it can be concluded that sales volatility does not have a real impact and tends to be negative on earnings persistence, so H_1 is rejected.
b. The first hypothesis (H_2), assumes a real effect of cash flow volatility on earnings persistence. The probability of significance is obtained at 0.0147 < 0.05 with a t-statistic of -2.890840. Referring to these findings, it can be concluded that cash flow volatility has a real impact and tends to be positive on earnings persistence, so H_2 is accepted.
c. The first hypothesis (H_3), assumes a real effect of the operating cycle on earnings persistence. The probability of significance is obtained at 0.0373 < 0.05 with a t-statistic of -2.3688330. Based on these results, it can be concluded that the operating cycle has a real impact and tends to be negative towards profit persistence, so that H_3 is accepted.

3. Coefficient of Determination (R^2 Test)

The coefficient of determination (R^2) is applied to see the capability of the level of accuracy or suitability of the regression line in representing observation data and the capacity of the model in explaining the balance of variance of the dependent variable (Y) together with all independent variables (X). The following is the result of R^2.

Table 12. Test of determination coefficient (R2)

R-squared	0.909061	Mean dependent var	0.032214
Adjusted R-squared	0.776785	S.D. dependent var	0.042484
S.E. of regression	0.020072	Akaike info criterion	-4.699009
Sum squared resid	0.004432	Schwarz criterion	-3.890171
Log likelihood	82.78613	Hannan-Quinn criter.	-4.451739
F-statistic	6.872485	Durbin-Watson stat	3.733333
Prob(F-statistic)	0.001267		

Source : Output Eviews 10, 2025

The table shows the adjusted R^2 gain at 0.909061, which indicates that around 90% of the variation in earnings persistence can be explained by sales volatility, cash flow volatility, and operating cycles, while the other 10% is explained by other determinants outside the model. The standard error of the regression model, which is 0.020072 (S.E. of regression), is smaller than the standard deviation of the dependent variable, which is 0.042484 (S.D. dependent var). This condition means that the regression model has good validity as a predictive tool for earnings persistence.

DISCUSSION

Sales Volatility has no significant effect on Profit Persistence

Sales volatility does not show a significant effect on profit persistence in manufacturing companies listed on the IDX in 2022–2024, as evidenced by the resulting probability of 0.3171> 0.05 and the t-statistic obtained at -1.047951. This condition reflects that sales fluctuations that occur at any time do not directly affect the sustainability or stability of manufacturing companies' profits. This condition can occur because manufacturing companies generally have a strong product diversification strategy, effective cost control, and operational efficiency that is able to maintain profitability even though there is a decrease or increase in sales. Companies engaged in the packaged food sector are still able to maintain stable profits even though they experience sales fluctuations due to changes in raw material prices or market conditions. This shows that profit sustainability is greatly influenced by the corporation's capability in managing operations and overall financial strategy compared to only looking at the aspect of sales volatility alone.

Sales volatility is the level of change or instability in sales that causes an increase and decrease in sales of an entity (Nahak et al., 2021). According to Hansen and Mowen (2003), sales volatility is a form of uncertain sales instability for each time, which reflects uncertainty in the company's income. Agency theory explains that agents have a crucial position in managing corporate sales. Principals, namely shareholders, have a preference for sales stability with low volatility, given its positive impact on the company's income persistence (Zalimah & Hermanto, 2018). Agents try to provide stabilization in sales value with a low level of sales volatility. Agency theory states that low levels of sales volatility increase the continuity of an entity's profits. The findings of Khasanah & Jasman (2019) show a positive impact of sales volatility on profit persistence. Melastiani (2021) also proved the same results, namely a positive influence. In contrast to the findings of Dyah (2024) who could not prove the influence of sales volatility on profit persistence. Likewise, Zaimah & Hermanto (2018) showed a negative impact.

Cash Flow Volatility Has a Significant Influence on Profit Persistence

Cash flow volatility shows a significant and positive effect on profit persistence in manufacturing companies listed on the IDX in 2022–2024, as evidenced by the resulting probability of 0.0147> 0.05 and the t-statistic obtained at 2.890840. This condition reflects that fluctuations in the company's operational cash flow can have a direct impact on the company's ability to maintain profits sustainably. Manufacturing companies that have high cash flow fluctuations, especially during certain periods such as the end of the year or peak production periods, tend to be more vulnerable to changes in profits. However, the stability of the company's cash flow and the ability to manage fluctuations well can maintain profits more consistently. This condition proves that good cash flow management and the corporation's ability to anticipate cash flow fluctuations are very important in maintaining long-term profit stability, because smooth cash flow provides room for companies to reinvest, pay debts, and optimize operations.

Cash flow volatility is a fluctuation in the operating environment that is seen through fluctuations in the total cash flow in an entity (Sari & Afriyenti, 2021). Based on agency theory, the separation of the agent from the principal is carried out in order to make the owner get the highest profit with efficient costs (Nuansari & Ratri, 2022). Agency

theory explains the inverse correlation between the volatility of the company's cash flow and its profit persistence. The agent is tasked with managing the company's performance so that it can continuously gain profits in each period. Persistent profit is realized when the agent can provide stable operating cash flow information, because company owners tend to prefer low cash flow volatility (Hedrianto et al., 2022). There are similarities in the study of Khasanah & Jasman (2019) proving a positive impact of cash flow volatility on persistent profits, where high cash flow fluctuations correlate with an increase in persistent profits. The findings of Amaliyah & Suwarti (2017) also show a positive impact. Conversely, Susilo & Anggraeni (2017) show the opposite impact of cash flow volatility on persistent profits. Similarly, research conducted by Yoana (2024) and Melastiani (2021) showed negative results.

Operating Cycle has a significant effect on Profit Persistence

The operating cycle shows a significant and negative effect on profit persistence in manufacturing companies listed on the IDX in 2022–2024, as evidenced by the resulting probability of 0.0373 <0.05 and the t-statistic at -2.3688330. This condition means that the length of an entity's operating cycle makes it difficult for the company to maintain profits in the long term. Manufacturing companies, which have long operating cycles, mean that the duration required to replace inventory into cash through sales is longer, which can affect cash flow stability and ultimately profit stability. Companies engaged in electronics manufacturing may experience long operating cycles because they have to store large quantities of component stock, which slows down capital turnover. When this operating cycle lasts longer, the company will face greater pressure in terms of cost and cash flow management, which can have a negative impact on the corporation's capability to maintain profit stability. This shows that companies need to optimize supply chain management and operating cycles to maintain their profit stability.

The operating cycle is a series of activities that indicate an entity's ability to generate cash income from consumers (Lee et al., 2018). The operating cycle is the time required by an industry to purchase inventory, sale products, and receive cash from sales (Kieso et al., 2011). Agency theory is hoped can produce relevant industry perform information, which can effect principal in examining phenomena at each time (previous, present, and future) (Zaimah & Hermanto, 2018). The long duration of the operating cycle will decline the ability of financial reports to predict the future. Relevant information indicates that the agent is accountable for the duties assigned to him by the principle, and the principal can utilize it to forecast future events. There are similarities in the findings of Meliyansyah (2024) which show the inability of operating cash flow to influence profit persistence. Melastiani (2021) and Khasanah & Jasman (2019) also got similar results, namely negative. However, a study by Dyah (2024) showed different findings, namely that operating cash flow can positively influence profit persistence, so that an increase in an entity's operating cash flow proves persistent profits.

CONCLUSION

Referring to the analysis obtained, concluded that there is no volatility significant impact on profits persistence. However, cash flow volatility can prove a positive and significant effect, and the operating cycle also does not show a positive as well as significant impact on earnings persistence in manufacturing industries recorded on IDX in 2022-2024. The findings of research ensures that it is necessary to focus on effective cash flow management and optimization of the operating cycle in maintaining the stability of the profits of a manufacturing entity recorded on IDX.

Manufacturing companies should be able to focus on cash flow management and shorten the operating cycle to support earnings stability. Although sales volatility does not show a significant impact, it still needs to be considered. The contribution of this study is by examining the correlation produced by each determinant on profits persistence in manufacturing indutries on the IDX 2022-2024. The limitations of the study include variables that are not covered, such as fiscal policy, and a limited sample, with an adjusted R Square score of 90% of profits persistence can be described by variables tested, while the other 10%.

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