

The Impact of Inventory Turn Over and Sales Volume on Choosing of Corporate Inventory Accounting Methods

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Abstract

The aim of this study for knowing the impact of inventory turnover on choosing of corporate inventory accounting method. Results of the study shows: (1) inventory turnover or ITO and sales volume in a manner together influential significantly to the choosing of corporate inventory accounting method. this result supported by Nagel R Square of 0.565 or could means that the model can give effect to changes in the variation of choosing of corporate inventory accounting method 56.50%. (2) ITO which is inventory turnover influential significantly to the choosing of corporate inventory accounting methods. It means the more big turnover of inventory so the more great tendency the company for choosing a given of corporate inventory accounting methods. (3) Companies whose sales volume the more increase influential significantly to the choosing of corporate inventory accounting methods, this is supported by test values wald is $58.15 > 2$ or $p\text{-value } 0.00 < \alpha 0.05$. It means the more large sales volume company, then the more great tendency of the company for choosing a given corporate accounting methods.

Keywords: Inventory TurnOver (ITO), and accounting methods.

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I. INTRODUCTION

1.1. Research background

A research on accounting is always related to how companies report their financial activities. Trend study the will help owners and creditors to understand the company's financial condition. The accounting academic community influences the development of accounting through research. Research in accounting today has various variations and directions. According to Wolk, Francis, and Tearney (1993) directions study accountancy on basically can be grouped into 5 approaches, namely: (1) decision model approach, (2) research capital market, (3) research Behavior, (4) Theory agency, and (5) Economic information.

Most of the positive accounting research currently being developed is based on agency theory. Agency relationship occurs through a contract between one or more owners (principal) and a manager (agent) to carry out profession company with delegate part authority taking decision to agents (Jensen and Meckling, 1976). Management as the party that makes decisions within the company and as the person in charge of compiling financial data, certainly influences how accounting practices are applied. Decision makers usually select certain alternative courses of action based on their desires and preferences.

According to the theory there are several accounting methods that can increase the company's reported profit, and some are not. Thus, companies have different motives in choosing the accounting method they do.

Current asset is the one that can influence managers in determining the selection of the use of an accounting method. Company with rotation increased inventory also have trend for choose method accounting according to their needs and so also with company that owns increase in sales volume.

From the explanation above, it can be seen that the complexity of choosing an accounting method depends on the motivation and needs of the company.

If it is related to the object of the company to be studied, it will be more interesting to research which companies are in accordance with the type of business, and also for the case in Indonesia, it will be even more interesting if the companies that have gone public are being studied. This is because most of the companies that have gone public are the best big companies in Indonesia. In addition, the financial statements of companies that have gone public will be read and used by most interested parties.

Generally accepted accounting principles or Indonesian SAK provide alternative accounting methods that companies can choose to use in financial reporting or reported earnings. For manufacturing companies, there is a number of method accounting offered, specifically for method supply there are 3 alternatives choice method accounting offered.

The Indonesia Stock Exchange (IDX) has grown rapidly in the last ten years, as seen from the many companies that have gone public, or companies listed on the IDX to sell their shares. In 1987, there were only 24 issuers selling shares, and on end in 2021, the company that has registered as 633 issuers and some of them are manufacturing companies.

From the research background above, it appears that the main study in this study is financial accounting

using a positive accounting research approach which is also based on agency theory.

1.2. Research Problems

Based on the research background above, the research problem can be formulated as follows:

- 1) How inventory turnover and sales volume (by together) impact of choosing of corporate inventory accounting methods?
- 2) How inventory turnover and sales volume (by partial) impact of choosing of corporate inventory accounting methods?

1.3. Research purposes

The aim of this study is for :

1. For analyze inventory turnover and sales volume (by together) impact of choosing of corporate inventory accounting methods.
2. For analyze inventory turnover and sales volume (by partial) impact of choosing of corporate inventory accounting methods.

1.4. Research and Significant Contributions

The results of this study are expected to provide 2 main contributions, namely:

1. operational. It is hoped that this information will be useful for users of the company's financial statements .
2. Science Development. It is expected to contribute to the development of accounting knowledge in Indonesia.

II. LITERATURE REVIEW

2.1. Agency Theory

Schroeder, Clark, and McCullers (1991) define agency as a relationship through an agreement between two parties, on the one hand the manager acts as an agent , and on the other hand the owner Act as principals , for example connection Among holder share and owner . their corporate managers who are agency relations,

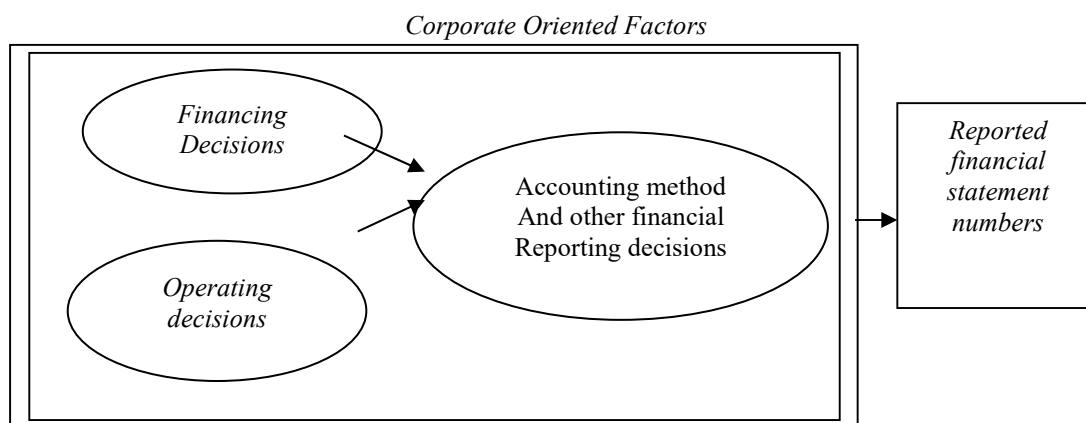
In theory agency , principal and agent assumed as rational economic people seeking to maximize their own utility. The owner (we call him principal) wants investment with good returns , meanwhile _ the manager (agent) wants to increase his wealth by getting a bonus.

2.2. Accounting Method

The accounting methods commonly used by accounting-based companies, including manufacturing companies, are the inventory accounting method, the depreciation accounting method, and the capitalization accounting method. Other accounting methods not mentioned above are classified as special accounting methods according to the type of business.

In line with the understanding of the accounting method is the procedure for implementing accounting principles. The choice to use the accounting method is a common thing to do, meaning that this action is common as long as the selection is made in accordance with applicable financial accounting standards.

Reporting figure is shown below;



Number. 01. *Perspective of choosing Accounting Methods*

The figure above shows that the numbers in a company's financial statements can be influenced by: financing decisions and operational decision-making for choosing the accounting method used. The accounting methods is one of the factors that also determines the numbers in the company's financial statements.

2.2.1. Inventory Accounting Method

The term Inventory is goods held for sale in the normal circumstances of a company. In the case of a manufacturing company, inventory also includes goods that are in the process of being produced or that will be included in the production process.

From the definition of inventory above, it can be concluded that inventory is goods intended to be sold under the normal circumstances of the company's operations, and included in inventory are raw materials that will be used for production, raw materials that are still in the production process, production process, and finished raw materials ready produced for sold.

2.2. Decision-making

Making a choice between two or more alternatives is a decision. before a decision is taken by an individual or by a manager in a company, of course there is a process, and that process is the decision-making process.

2.3. Inventory TurnOver (ITO).

The inventory turnover used in study this is ITO which is comparing sale volume and inventory at the end of the period.

$$ITO = \text{sales volume} : \text{inventory}$$

2.4. Sales Volume

Constantly increasing sales volume is the sign that the company the more improved, and growing company is getting better always also want repair quality the accounting.

2.5. Choosing of Accounting Methods

The selection of the accounting method to be used by the company is one of the tasks that is the responsibility of the company's management.

From a theoretical point of view, the choice of accounting method that is considered good is which method is most capable of matching revenues and expenses (matching costs and revenues). In practice, election method accountancy suppliers tend no based on the concept of matching costs and revenues but driven more by different managers' motives. The different motives of managers in choosing alternative accounting methods will cause the accounting methods chosen to be different, for example: there are managers who have a desire to increase profits and under certain conditions there are managers who want to reduce profits.

2.6. Research Framework and Hypotheses

Research framework paradigm generally prepared like Figure 02 below:

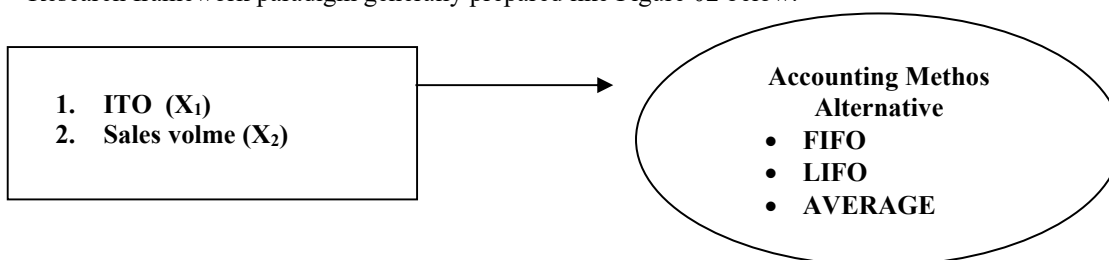


Fig.02. The Research Framework Paradigm

From the above research paradigm, the mathematical equation model can be formulated as follows:

$$Y = f(X_1, X_2, \varepsilon)$$

2.7. Hypothesis

Based on the problems and the research framework, the following hypotheses can be drawn:

- 1) ITO and sales volume (by together) effect significantly of choosing of corporate inventory accounting methods.
- 2) ITO and sales volume (by partial) effect significantly of choosing of corporate inventory accounting methods to election method accountancy supply company .

III. RESEARCH METHODS

3.1. Research Object

The object of this study are manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the 2021 period . The number of manufacturing companies that are registered or have gone public on the IDX is 164 manufacturing companies.

3.2. Research methods

In this study the research method used was a survey method, namely collecting data (information) from several companies included in the research object. Partial data collection done with use questionnaire . Whereas some of the data used is primary data and secondary that is direct data taken from companies that are the object of research as well as data from other relevant agencies.

3.3. Population and Sample

The population of this study are industrial companies listed on the Public List of the Indonesian Stock Exchange (IDX) . with end in 2021 which amounted to 164 companies manufacturing . Meanwhile, the sample for this study used a **purposive sampling method** (meaning that the sample was selected according to the established criteria and was needed for the purpose of this study). Of the 164 manufacturing companies selected as a sample of 127 manufacturing companies.

3.4. Variable Operationalization

independent variables are discussed in study restricted on two variables main that is variable variable ITO (X_1) and variable sales volume (X_2) . Variable dependent in study this only one variable that is variable method of inventory accounting (Y).

(1) ITO variable (X_1)

ITO variables in study this is ratio between sales volumes with total inventory as of December 31, 2021.

(2) Sales Volume Variable (X_2)

Sales volume determined through contract between owner and manager and calculated based on the revenue (profit) earned by the company.

In this study the bonus in question is an agreement to get a bonus at the end of the year to the Top Manager/President Director/Principal Director which is a reward for success in achieving certain targets.

(3) Variable of Inventory Accounting Method (Y)

Method accountancy supply is choice method or procedure used _ for apply accounting principles for preparing financial statements. Methods _ _ accountancy supply the are : FIFO method, LIFO method , and Average method .

3.5. Data analysis method

In this study used quantitative analysis methods. Both descriptively and inferentially. Descriptive analysis was carried out by making direct tabulations of the variable data to be analyzed, then comparing the percentage and average values. Furthermore, inferential analysis to see the effect of independent variables on the accounting method uses Multiple Logistic Regression Analysis because of its suitability with the scale of measurement of the independent variables and the scale of measurement of the accounting method. Election regression models logistics double or log rated suitable because variable dependent study this nominal or _ dichotomous . In addition, multiple logistic regression is quite widely used by researchers in choosing the previous accounting method.

1. For knowing influence ITO (X_1) and sales volume (X_2) to the choosing of corporate inventory accounting methods is as following :

a. Logistics transformation:

$$\text{Logit } P(Y) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon_i$$

b. Logistic regression models:

$$P(Y) = 1 / \{1 + \exp[-(\beta_0 + \beta_1 X_1 + \beta_2 X_2)]\}$$

2. For knowing influence asset current year , ITO, and sales volume (by partial / individual) against method accountant inventory , model is as following :

$$P(Y) = 1 / \{1 + \exp[-(\beta_0 + \beta_1 X_1 + \varepsilon_i)]\}$$

$$P(Y) = 1 / \{1 + \exp[-(\beta_0 + \beta_2 X_2 + \varepsilon_i)]\}$$

Information:

β_0 = constant

β_1 = slope coefficient

X_1 = inventory turnover

X_2 = sales volume
 Y = corporate inventory accounting methods
 ε_1 = period of disturbance or population error

IV. RESULTS AND DISCUSSION

4.1. Description of the Research Object

In 1987, the Jakarta Stock Exchange (now the Indonesia Stock Exchange) was founded. In 1987, only 24 issuers sold their shares on the Jakarta Stock Exchange. The Indonesia Stock Exchange in the last 30 years has experienced quite rapid development, this can be seen from the number of companies listed on the IDX that sell the stock and on end 2021 recorded as many as 633 companies. Of the 633 companies listed on the IDX, there were 164 companies classified as manufacturing companies and 127 companies were selected as samples.

4.2. Analysis Influence ITO and Sales Volume to Inventory Accounting Methods.

Testing influence variables free to corporate inventory accounting methods in 127 companies used Multiple Logistic Regression Analysis.

On Step beginning will done test autocorrelation with Durbin Watson test , test collinearity with coefficient determination of R2, and test heteroscedasticity with matrix covariance .

Based on the test results on the data of 127 companies, it can be stated that there is no significant autocorrelation, because the Durbin Watson test value is close to 2 (see Appendix-20), namely; DW = 2.017. Is known also that no there is collinearity connection Among variable free with dependent variable , because the adjusted R2 value is 0.641 which means it is quite high indicating that many independent variables individually affect the dependent variable. . Taking into account the test results above, the data analysis can be continued.

The first hypothesis testing to find out influence variable independent to corporate inventory accounting methods (Y). From the calculation results, the estimated Multiple Logistic Regression equation (see Appendix-4) is obtained as follows:

$$\text{Inventory Accounting Method (Y)} = 0.180 + 0.000 X_1 + 0.685 X_2$$

The results of calculating the logistic effect of independent variables individually on the selection of the P (Y) Accounting Method can be seen in the following;

Table.4- 1 . The Magnitude of Influence of the Logistic Independent Variable on the Choice of Accounting Method (Y) in the Summary Model.

step	-2 possible logs	Cox & Snell R Square	Nagel kerke R Square
1	653.163a-	,403	,565

a . Constants are included in the model.

b. The discounted value is .500

Table.4-2 . The Significance of the Logistical Effect of the Independent Variable on the Choice of Accounting Method (Y) on the Variables in the Equation.

	B	SE	Wald	df	Sig.	finished (B)
X ₁	,000	,000	,559	1	,384	1,000
X ₂	,685	,079	2,203	1	.032	,422
Constant	0.180	,609	31,006	1	,000	43,059

Based on table 4-2 above it can be concluded that influence variable independent in a manner together to election method accountancy inventory (Y) is as follows:

- ITO (X₁) and sales volume (X₂) have an effect significantly of choosing corporate inventory accounting methods (Y) is increasing reporting profit company . This is supported by Nagel R Square 0.565 or it can be interpreted that the model can influence variations in changes in the choice of accounting methods by 56,50% and the remaining 43,50% variations in changes election method own accounting trend for upgrade profit determined by other variables that are not included in this model.
- Based on table 4-2 above, it can be concluded that the effect of the independent variables is significantly Partial to election method accountancy inventory (Y) is as following :
- Inventory turnover or ITO ((X₁) has a significant effect on the choice of inventory accounting methods (Y). This is supported by a significance level of 0.032 <0.05 or reinforced by a Wald test value of 2.203 > 2. This

means that the greater ITO of the company so the more big tendency for choose inventory accounting methods that enhances corporate profit reporting.

Companies that have sales volume height (X_2) has significantly influence of choosing the corporate inventory accounting methods (Y), because Wald test value of 27,116 > 2 or P-value 0.00 < alpha 0.05. It means the more large sales volume company so the more likely it is to choose an inventory accounting methods that enhances the company's profit reporting.

V. CONCLUSIONS AND RECOMMENDATION

5.1. Conclusion

- (1) inventory turnover or ITO and sales volume in a manner together influential significantly to the choosing of corporate inventory accounting method. this result supported by Nagel R Square of 0.565 or could means that the model can give effect to changes in the variation of choosing of corporate inventory accounting method 56.50%.
- (2) ITO which is inventory turnover influential significantly to the choosing of corporate inventory accounting methods. It means the more big turnover of inventory so the more great tendency the company for choosing a given of corporate inventory accounting methods.
- (3) Companies whose sales volume the more increase influential significantly to the choosing of corporate inventory accounting methods, this is supported by test values wald is 58.15 > 2 or p-value 0.00 < alpha 0.05. It means the more large sales volume company, then the more great tendency of the company for choosing a given corporate accounting methods.

5.2. Recommendation

Influencing factors of the selection of inventory accounting method is inventory turnover or ITO, and sales volume. Meaning; need watch out on company that has trend enhancement inventory turnover, and increase in sales volume will have trend choose of inventory accounting method that enhance corporate profit reporting.

Reference

- Atkinson, Anthony A., Rajiv D. Banker., Robert S. Kaplan., and S. Mark Young., "Management Accounting", Second Edition, New Jersey; Prentice-Hall International, Inc. 2021.
- Gujarati, Damodar N., "Basic Econometrics", Second Edition. New York: McGraw-hill International Edition. 1988.
- IAI., "Financial Accounting Standards". Edition of the Indonesian Institute of Accountants, 2021.
- Jensen, Michael. C and William. H. Meckling, "Corporate Theory: Managerial Behavior, Agency Costs and Ownership Structure", Journal of Financial Economics. Volume 3 (October 1976).
- Kieso, Weygandt, and Warfield." Intermediate Accounting: IFRS Edition, 4th Edition. Copyright @ 2020 John Wiley & Sons, Inc.
- Kleinbaum, David. G., "Logistic Regression: Self-Study Text"., New York; Springer-Verlag New York Inc., 1994.
- Noble, Mattison, and Matsumura." Horngren's Accounting". Tenth Edition, Pearson Education Limited. 2019
- Robbins, Stephen P., "Organizational Behavior: Concepts, Controversy, and Applications., Seventh Edition. San Diego; Prentice-Hall International, Inc. 2016.
- Stickney.at.all., "Financial Accounting: An Introduction to Concepts, Methods, and Uses" South Western. Cengage Learning. 2020.
- Schroeder, Richard.G., Myrtle Clark, and Levis D. McCullers., "Accounting Theory: Texts and Readings". Fourth Edition, New York: John Wiley and Sons. 1991.
- Temesgen A Birhan "Determinants of Tax Collection Effectiveness Turnover: The Case of West Gojjam"., Journal of Financial and Accounting Research. 2021.
- Wolk, Harry. I., Jere. R. Francis, and Michael G. Tearney., "Accounting Theory: A Conceptual and Institutional Approach", 5th Edition, Boston: PWS-KENT Publishing Company.
- William Smart Inyang, John Ogenyi Oboh, and Rex Tobechukwu Nwabuikem., "Ethical Thinking in Accounting and Its Influence on Accounting Practices". RJFA, Vol.10.No.06., 2019.

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