ANALYSIS THE IMPACT OF ACCOUNTING INVENTORY METHOD ON PRICE EARNING RATIO

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Presented as a Partial Fulfillment of the Requirements

to Obtain the Bachelor Degree in Accounting Department

By

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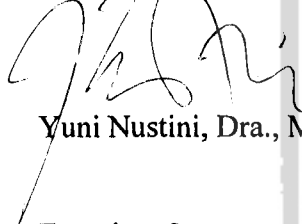## A <u>BACHELOR DEGREE</u> THESIS

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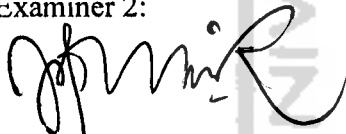Yuni Nustini, Dra., MAFIS.,Ak..   April 25, 2007,

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Herein, I declare the originality of this thesis; there is no other work which has ever presented before to obtain any university degree, and in my concern there is neither one else's opinion nor published written work, except acknowledged quotation relevant to the topic of this thesis which have been stated or listed on the thesis bibliography.

If in the future this statement is not proven as it supposed to be, I am willing to accept any sanction complying to the determinated regulation for its consequence.

Yogyakarta, April 10, 2007

ADIMAS ALDI WICAKSONO

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ABSTRACT

The objective of this study is identifying the factors which are influent the choice of inventory method and its effect to price earning ratio with the focus to Ricardian hypotheses. The study will examine regarding the choice of inventory method between average and FIFO method. This examination used six variables: inventory variability, inventory intensity, capital intensity, cost of good sold variability, firm size and accounting income variability.

The objects of this study are all manufacturing companies listed in BEJ during 2002 – 2004. The t-test, logistic regression, and analysis of covariance used to test of hypotheses. The result of the logistic regression shows that production investment opportunity is influent to the inventory method choice. The t-test and analysis of covariance shows that firms price earning ratio between FIFO and average method are not significant although using control variable.
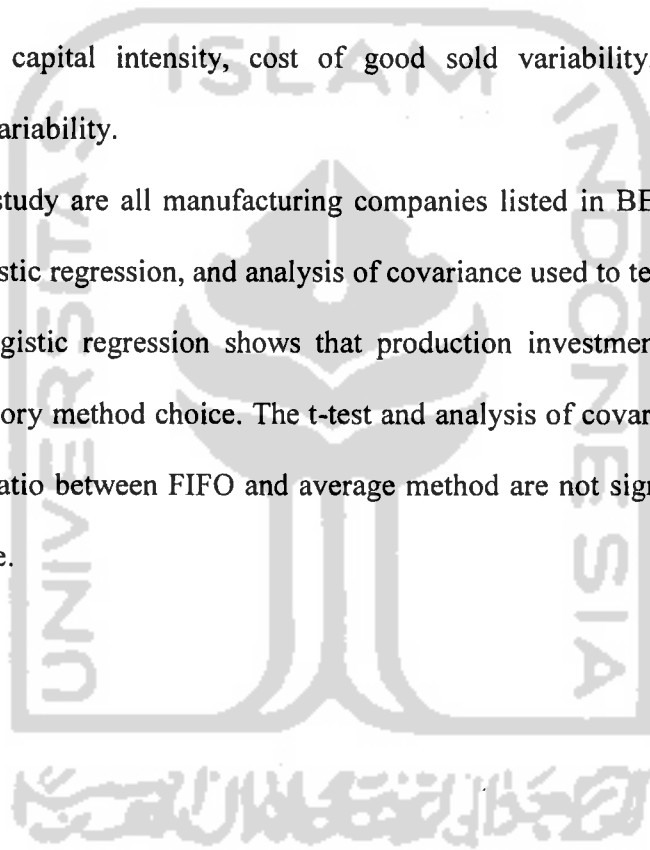
ABSTRAKSI

Tujuan dari pembelajaran ini adalah mengidentifikasi faktor-faktor yang mempengaruhi pemilihan metode persediaan dan efek-efeknya ke rasio pendapatan harga yang berfokus kepada hipotesa Ricardian. Pembelajaran ini akan meneliti tentang pemilihan metode persediaan antara metode rata-rata dan FIFO. Penelitian ini menggunakan enam variabel, yaitu: variabilitas persediaan, intensitas persediaan, intensitas modal, variabilitas harga penjualan pokok, ukuran perusahaan, dan variabilitas penghitungan pendapatan.

Tujuan pembelajaran ini adalah seluruh perusahaan-perusahaan manufaktur yang terdaftar di BEJ selama 2002-2004. T-test, regresi logistik, dan analisis kovarian digunakan untuk uji hipotesa.

Hasil dari regresi logistik menunjukkan bahwa peluang investasi produksi mempengaruhi pemilihan metode persediaan. T-test dan analisis kovarian menunjukkan bahwa rasio pendapatan harga dari perusahaan antara metode FIFO dan rata-rata tidak signifikan walaupun menggunakan kontrol variabel.

CHAPTER I
INTRODUCTION

1.1 Background of the Study

Indonesia is a developing country, which in this present time tries to improve its economic condition. Many efforts have done moreover after Indonesia passes the economic crisis era, not only from government but also from the private sector. Many private companies have risen in Indonesia since before the economic crisis happen until today.

The rise of many companies in Indonesia causes the tight competition between the companies. It is not only to gain the profit but also to keep the company's living or even to expand the power. It forces the company to win the competition by giving the best to the customer.

Basically a company grows with a very different way starting from a small scale until the highest rank, from private company until company selling their ownership (stock) to public from stock market by doing IPO (initial public offering) or selling their stock to public for the first time, and make the company becomes a company with stakeholders from inside and outside the company. Because of that, the company has to pay attention not only for internal interest but also external interest, especially in the condition that shows a different interest for each other. However, basically everybody has the same goal which is gaining profit for his/her investment from the company. This occurs when the company gives the best (feedback) for all parties that involve within the company, so they

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can result a perfect policy and management decision in financial especially in accounting that can give high profit for everyone.

One of the company or management policies is in the accounting sector. Management policy that is decided by the company is one of important factors that should be taken into consideration by the company. This problem is also affected by the characteristics of the company itself, where all the companies have different characteristics. Bilkaoui in Mukhlasin (2002) stated that the selections of the accounting method are one of important measurements that stuck in the selection problem to maximize stock price that depends on the investment and costing opportunities.

Accounting inventory method is one of the important things that should be decided by the company. The choices of accounting inventory method will influence the stock price of the company. Holthausen and Leftwhich (1983) stated that the positive theory of accounting provides hypotheses that relate financial accounting method choices to a number of firm and industry characteristics. The choice of company accounting method is to maximize stock price that depends on investment prospect and expense (Bilkaoui, 1993).

Inventory is an important asset, even in the amount and in the company activities role. The Cushing and LeClere (1992) found that 20% of total assets are inventory. One of the problems that occurs is how the company reports ending inventory value in the balance sheet and the impact to the company income statement. This inventory valuation will have direct consequences to decide income and provide cash flow.

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According to PSAK (Pernyataan Standar Akuntansi Keuangan) No. 14 in Indonesia, it is a freedom to choose and use one of the accounting inventory methods which is LIFO, FIFO, and Average. But, UU (Undang-Undang) No. 7 year 1983 jo. UU No. 10 year 1994 about taxation only allows the usage of FIFO and average methods. Each accounting inventory method has different characteristics and different economical impacts.

The inventory method choice provides a good example of how managers and shareholders can have conflicting interest with respect to financial accounting. Niehaus (1989) stated that inventory method choice differs from other accounting method choices because of the IRS LIFO conformity rule i.e. if a firm uses LIFO for tax purposes it must also do so for financial reporting purposes [Internal Revenue Code, Sec. 472-2(e)]. When LIFO is the tax minimizing method, the minimization of taxable income and the maximization of reported income cannot both be obtained. It made a potential conflict of interest between managers and shareholders that may also influence the LIFO/FIFO decision.

The tax effects of the inventory costing decision are estimated using reported inventory levels and product wholesale prices. One researcher investigating LIFO/FIFO decision is done by Dale Morse and Gordon Richardson (1983). Tax benefits in the years surrounding a change in the inventory costing methods are examined. The data indicates that tax benefits are significantly higher in the year of the change to LIFO than in surrounding years. No significant benefits were found for firms changing from LIFO to FIFO. The data indicates

that firms of similar size within an industry tend to choose the same accounting methods.

There is several valuation, some of it are methods of LIFO. FIFO, and Average, from that method accounting methods of FIFO and Average even though not contradictive still reflecting characteristic of increasing income and decreasing income. Decreasing income reflects by average method meanwhile increasing income reflect by FIFO method.

Accounting inventory method needed not only as basic inventory valuation but also needed to fulfill investor expectation in relation with return (profit level) that shows ratio between stocks per share with earning per share (EPS). By that, it has proven that PER had relation with company profit.

LIFO results in a higher stock price and greater value for the manager's shares while FIFO results in higher reported income and greater executive compensation. Dhalival et.al. (1995) stated in their research that there is significant difference of price earning ratio between companies that adopted LIFO and companies that adopted Non-LIFO. It showed that inventory method choice will affect company's price earning ratio.

Sisca Logianto and Murtanto (2004) developed the previous studies done by Sloan. The study empirically examined the choice of inventory method between average and FIFO methods using Indonesian manufacturing companies for the period of 2000 to 2002. There were six variables tested in the research. These variables were: inventory variability, accounting income variability, firm size, capital intensity, inventory intensity, and cost of goods sold variability. The

research revealed that the result of the logistic regression showed that production investment opportunity is influenced by the inventory method choice. While the Mann Whitney test and analysis of covariance showed that companies' price earning ratio between FIFO and average methods are not significant although it uses control variable.

This research is a replica from the research that has been conducted by Logianto and Murtanto (2004). The difference between Logianto and Murtanto's research and this research is the year of the research periods. Logianto and Murtanto used manufacturing companies from year 2000 until 2002, while this research period is from 2002 until 2004.

1.2 Problem Formulation

Based on the main idea and argumentation from the background above, the researcher wants to formulate the problems as follows:

1. Does production investment opportunity that involve the proxy of inventory variability, accounting income variability, firm size, capital intensity, inventory intensity, and cost of goods sold variability influence on accounting inventory method choices?

2. Is there any difference between Price Earning Ratio Company that apply FIFO accounting inventory method and Price Earning Ratio Company that uses average accounting inventory method?

1.5 Research Contributions

Contributions that can be given by this research are

1. For company management, this research can give information about the influence of inventory method choices on price earning ratio, so they can fulfill the return that is expected by the investors.

2. For investors, this research can give information about which inventory method can give return as they expect.

3. For academia, this research hopefully can provide additional contribution on the previous research and can be used as a reference for future research concerning with accounting inventory method.
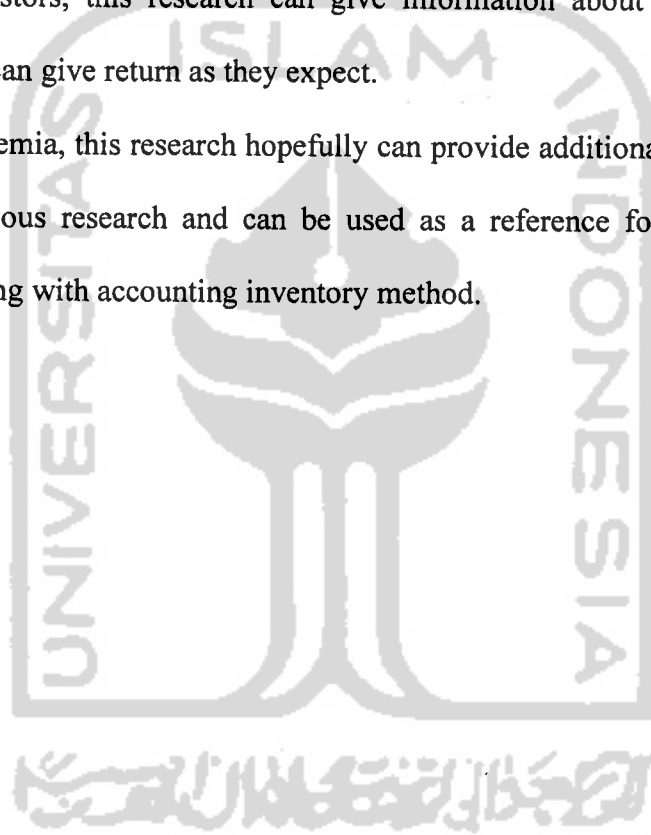
CHAPTER II
REVIEW OF RELATED LITERATURE

2.1 Accounting Inventory Method

Inventories are asset items held for sale in the ordinary course of business or goods that will be used or consumed in the production of goods to be sold (Kieso and Weygandt, 2004).

Accounting inventory method choice is based on many approaches and theories such as:

1. Agency theory

    Jensen and Meckling (in Belkaoui, 1993) state that company is "a legal fiction that acts as a contract group (nexus) for relationship among individual contract. The relationship refers to a relationship as one contract or more (principal) asking other people (agent) to do several activities (service) based on principal interest.

2. Ricardian Hypothesis (Tax Hypothesis)

    Classical Ricardian states that a manager has a single goal to maximize the company value by minimizing tax cost and still respect to tax law difficulties and investment production opportunity (Lee and Hsieh, 1985).

3. Political Cost

    Scott (1997) states that everybody is the same, the bigger politic cost faced by manager, the more prefer the manager to choose accounting

procedures (method) that report different earning from nowadays period with future period.

According to Kieso and Weygandt (2004) in Intermediate Accounting, there are four accounting inventory methods:

1. Specified Identification

   Specified identification is used for identifying each item in inventory. This method may be used only in instances where it is practical to separate physically the different purchases made. It can be successfully applied in situations where a relatively small number of costly, easily distinguishable items are handled.

2. First In First Out (FIFO)

   The FIFO method assumes that goods are used in the order in which they are purchased. In the manufacturing companies; it means that the first goods purchased are the first used. One objective of FIFO is to estimate the physical flow of goods. It does not permit manipulation of income because the enterprise is not free to pick a certain cost item to be charged to expense. Another advantage is that the ending inventory is close to current cost. While the disadvantage is that the current costs are not matched against current revenues on the income statement.

3. Last In First Out (LIFO)

   The LIFO method first matches against revenue the cost of the last goods purchased. The major advantages of LIFO are: 1. recent costs are matched against current revenues to provide a better measure of current

earnings; 2. as long as the price level increases and inventory quantities do not decrease, a deferral of income tax occurs in LIFO; 3. because of the deferral of income tax, there is improvement of cash flow; 4. a company's future reported earnings will not be affected substantially by future price declines. While the disadvantages are: 1. reduced earnings; 2. understated inventory; 3. no approximated physical flow of the items except in peculiar situations.

4. Weighted Average

The average cost method prices items in the inventory on the basis of the average cost of all similar goods available during the period. It is usually used to justify on the basis of practical rather than conceptual reasons. These methods are simple to apply, objective, and not as subject to income manipulation as some of the other inventory pricing methods. The proponents of the average methods argue that it is often impossible to measure a specific physical flow of inventory and therefore it is better to cost items on an average price basis. This argument is particularly persuasive when the inventory involved is relatively homogeneous in nature.

2.2 Accounting Inventory Method and Production Investment Opportunity

Classical Ricardian states that manager has a goal to maximize the company value by minimizing tax cost with still respect to tax law difficulties and investment production opportunity (Lee and Hsieh, 1985). Proxy of variables in the research that reflects production investment opportunity is inventory

variability, accounting income variability, firm size, capital intensity, inventory intensity, and cost of goods sold variability.

2.2.1 Inventory Variability

Staubus (1977) says that if two assets have the same respect except for basis differentiation, they differentiate in potential cash flow, because asset basis will give contribution to cash flow in the same amount when time basis for the company increases tax level in certain period or period when the asset can reduce the tax.

2.2.2 Accounting Income Variability

Average method will produce accounting income that is more stabile and smaller than FIFO method, because the average method combines all the price inflow (Anthony et.al., 1998). Meanwhile, the use of FIFO method when the price changing happens will produce high variability income.

2.2.3 Firm Size

Firm size is operational volatility proxy and inventory controllability that should be in economic scale, the big growth of the firm shows smooth operational accomplishment and inventory control (Lee and Hsieh, 1985). Watts and Zimmermen (1986) state that if firm is sensitive to variation of firm size, a bigger company is more like an accounting procedure (method) that can delay earning reporting.

2.2.4 Capital Intensity

Zmijewski and Hagerman (in Watts and Zimmerman, 1986) state that because cost of information, votes, politic, and bureaucrat are not adjusting the report of earning for opportunity cost of capital, they are relatively like smaller/thinner and like the report of earning that makes smaller (that being decrease).

Lee and Hsieh (1985) state that capital intensity shows a company condition that has higher proportion for fixed cost in variable cost in increasing the important meaning for financial and production planning, meaning that cost of capital is bigger. Company with LIFO method is more controllable and planned based on FIFO method.

2.2.5 Inventory Intensity

Anthony et.al. (2000) state that inventory turn over and inventory turn over day are influenced by inventory method because they depend on FIFO, LIFO method results smaller final inventory value and higher cost of goods sold, so smaller LIFO company has higher indications of inventory turn over and inventory turn over day is smaller depending on the company which uses FIFO method assumption if higher inventory turnover indicate efficiency inventory management (Lee and Hsieh, 1985).

2.2.6 Cost of Goods Sold Variability

Cost of goods sold is a concept being used widely in declining net income (Tuanakotta, 2000) in inflation condition (price changing), not only affecting final inventory value but also offering cost of goods sold (Kieso, 1997).

2.3. Price Earning Ratio

Price earning ratio (PER) is a market price of stock divided with EPS (ratio of stock price to earning) this ratio shows that how much investor valuing the stock price to earning valuation. There is some factor that influencing PER, the formula of PER ($PER = \dfrac{D_1/E_1}{k-g}$) is

1. profit ratio that being paid as dividend or payout ratio (D/E)
2. expected return by investor (k)
3. dividend growth (g)

price earning ratio generally used as indicator from relative point for regular stock. PER can give wrong perception about relative point that cause by different technique and accounting definition that used by company. Another additional, stockholder usually worried about company performance in the future, meanwhile PER itself is based on future performance. This makes reason why future estimation is use to calculate this ratio, PER only provide rough indication from this relative result investment and have to be careful in using it. However, this PER constantly provide indication about market hope if the profit correctly adjust in the time ratio calculation being done. Higher the expected growth and

lower the exchange profit rate, so more higher the value of PER that own by the company.

PER objectively used by investor as guidelines to measure the stock point. Higher PER shows that investor willing to pay with premium price for company price, maybe because company are asked to produce higher earning, contrary if investor believe the earning growth prospect in the future are limited per will be relatively lower.

2.3. Accounting Inventory Method and Price Earning Ratio

Fisher and Jordan (1995) state that during price changing period, LIFO will produce more conservative income statement, which earning being produced is already reduced by distortion and easier to be identified, meanwhile FIFO has a tendency to produce overstate earning. In inflation condition, there is an inventory decrease in a company using FIFO method that will report higher final inventory.

Complete research documentation about accounting inventory method has been done by Lee (1988) and Dhalival et.al. (1995). Lower earning price ratio for LIFO company is based on lower income statement and higher inventory value for tax solving. Lee (1988) (Dhalival et. al., 1995) find that there is no differentiation between earning price ratio of the company with LIFO accounting inventory method and the company with non LIFO accounting inventory method in producing earning price ratio.

Accounting selection that is based on company's internal characteristics will affect on information that the company produces. If the company chooses

LIFO, it means that the company will produce low profit comparing with if the company applies FIFO. This means if the company adopts LIFO, so the company will produce lower earning price ratio comparing with if the company adopts FIFO.

2.4. Previous Research

There are several researches related to the accounting inventory method that have been done before, as follows:

Barry E. Cushing and Marc J. LeClere (1991)

This study provides additional evidence on factors influencing inventory accounting policy choice. The study puts a tax saving variable in evaluating the LIFO/FIFO choice. Financial executives are also surveyed to corroborate the results of secondary data analyses and to seek new insights about inventory method choice. The findings include: 1. Anticipated tax savings is the primary reason of firms to use LIFO, 2. Other firms do not use LIFO because of numerous factors without a single dominant reason, 3. The multivariate model is accurate in predicting FIFO firms but predicts less than half of those using LIFO. 4. The correspondence between the responses to the FIFO survey and the cross-sectional data is not as strong as the expectation, suggesting that determinants of inventory choice continue to be indescribable.

Mukhlasin (2002)

This research identifies the factors which influence the choice of accounting inventory method and its effect to earning price ratio focusing on Ricardian hypotheses. The research period was from 1995 to 1999 and the study used accounting data of manufacturing company.

The result indicated that: 1. Univariate test shows that inventory intensity, cost of goods sold variability, and firm size between FIFO method and Average method are significantly different, while accounting income variability, capital intensity, and inventory variability is not significantly different, 2. Multivariate test shows that inventory intensity, cost of goods sold variability, capital intensity, and firm size significantly influence on the accounting inventory method choice, while accounting income variability and inventory variability do not influence the accounting inventory method choice, 3. The influence of the accounting inventory method choice on earning price ratio is significant with production investment opportunity as the control variable, 4. Mann Whitney test shows that companies' price earning ratio with FIFO method is not significantly different with the average method, but from descriptive statistics it shows that EPR average method is bigger than EPR FIFO method.

Sisca Logianto and Murtanto (2004)

The study empirically examines the choice of inventory method between average and FIFO method using Indonesian manufacturing companies for the period of 2000 to 2002. There were six variables tested in the research. These

variables were: inventory variability, accounting income variability, firm size, capital intensity, inventory intensity, and cost of goods sold variability. The research revealed that the result of the logistic regression shows that production investment opportunity influences on the inventory method choice. While the Mann Whitney test and analysis of covariance show that companies' price earning ratio between FIFO and average method are not significant although using control variable.

2.5. Hypothesis Formulation

Based on problem formulation already described and review of previous researches, then the alternative hypotheses of this research are:

Ha$_1$ = There is an effect of production investment opportunity that involve the proxy of inventory variability, accounting income variability, firm size, capital intensity, inventory intensity, and cost of goods sold variability on accounting inventory method choices.

Ha$_2$ = There is a significant difference between Company Price Earning Ratio that uses FIFO accounting inventory method and Company Price Earning Ratio that uses average accounting inventory method.

Ha$_3$ = There is a significant difference between Price Earning Ratio with FIFO method and Price Earning Ratio with average method by calculating production investment opportunity proxy as the control variable.

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CHAPTER III
RESEARCH METHOD

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3.1. Population and Sample Determination

This research uses manufacturing companies that are listed in JSX as the subject. The companies must be listed before December 31, 2002 and are consistent through December 31st, 2004. The subject of this research is focused on manufacturing companies because the data about manufacturing company provided in JSX is complete. Therefore, there are several criteria that should be fulfilled as the requirement of this research sample, as follows:

1. Manufacturing companies which are listed in JSX before year 2002.

2. The companies which do not change their inventory accounting policy for three years from 2002 until 2004.

3. The companies which only use one accounting inventory method that is First In First Out (FIFO) or Average method during year 2002-2004.

3.2. Source of Data

The data are extracted from Economics Faculty's "Pojok BEJ", Islamic University of Indonesia that can easily be accessed. Financial reports' summary of manufacturing companies can be accessed from Indonesian Capital Market Directory (ICMD) published by JSX.

3.3. Operational Definition and Proxy of Variables

The researcher defines the dependent and independent variables that will be used in the regression analysis. There are three variables, they are: control variable, independent variable, and dependent variable.

3.3.1. The Control Variable

The control variable used in the hypothesis three is production investment opportunity proxy. The proxy of production investment opportunity is inventory variability, accounting income variability, firm size, capital intensity, inventory intensity, and cost of goods sold variability.

3.3.2. The Independent Variable

3.3.2.1. The Independent Variable Used in Hypothesis 1

1. **Inventory Variability**

   Inventory variability is measured by using coefficient variance of ending inventory that is got by dividing standard deviation by average ending inventory during year 2002-2004.

2. **Accounting Income Variability**

   This variable is measured by using coefficient variance of accounting income before tax during year 2002-2004.

3. **Firm Size**

   Firm size is measured from average total asset during 2002-2004.

4. Capital Intensity

Capital intensity is measured by average net capital intensity for year 2002-2004. Net capital intensity is got from net fixed asset ratio in the net sales.

5. Inventory Intensity

Inventory intensity is measured by average ratio of inventory/net sales or ratio of inventory/total asset for year 2002-2004.

6. Cost of Goods Sold Variability

This variable is measured by coefficient variance of cost of goods sold during year 2002-2004.

3.3.2.2. The Independent Variable Used in Hypothesis 2 and 3

The independent variable that is used in hypothesis 2 and 3 is FIFO accounting inventory method and average accounting inventory method.

3.3.3. The Dependent Variable

3.3.3.1. The Dependent Variable Used in Hypothesis 1

The dependent variable that is used in hypothesis 1 is accounting inventory method choice. Accounting inventory method choice is having qualitative character, so the researcher uses dummy variable by giving value 1 and 0 on the data which is:

Average method = 1

FIFO method   = 0

2. The Dependent Variable Used in Hypothesis 2 and 3

The dependent variable that is used in hypothesis 2 and 3 is Price Earning Ratio (PER). Price earnings ratio (PER) is the ratio of the stock price divided by earnings per share. PER is formulated through:

$$PER = \frac{market\ price\ per\ share}{earnings\ per\ share}$$

Earning Per Share (EPS) is ratio that shows how big return that will be received by investors or shareholders. The higher the value of EPS the bigger the value of earning for the shareholder will be. EPS is formulated through:

$$EPS = \frac{Net\ Income}{total\ share}$$

3.4. Steps of Analysis

To obtain a conclusion, this research follows some processes from the beginning of the research and when the analysis is done, which are:

1. Identifications of manufacturing companies that could be included in the sample. Record all companies listed before 31 December 2002, and exclude companies from the record if it was not consistently listed in JSX until 31 December 2002.

2. Extract and check data availability in ICMD. Extraction and checking for data availability were done in Pojok BEJ FE-UII.

3. Process the data to become research variables, as described in Research Variables (sub chapter 3.3).

4. Execute statistic tests needed, as described in hypothesis testing (sub chapter 3.5.2)

5. Analyze and interpret the statistic test result and the hypothesis.

6. Draw conclusions from hypothesis testing and make recommendation for next researchers.

3.5. Formulated Hypothesis and Hypothesis Testing

3.5.1. Formulated Hypothesis

Based on the problem statements and the review of the related literature, the alternative hypothesis and the Null hypothesis that are proposed in this research are:

1. Ho_1 = There is no influence between production investment opportunity that involve the proxy of inventory variability, accounting income variability, firm size, capital intensity, inventory intensity, and cost of goods sold variability on accounting inventory method choices.

   Ha_1 = There is an influence between production investment opportunity that involve the proxy of inventory variability, accounting income variability, firm size, capital intensity, inventory intensity, and cost of goods sold variability on accounting inventory method choices.

2. Ho_2 = There is no difference between Company Price Earning Ratio that uses FIFO accounting inventory method and Company Price Earning Ratio that uses average accounting inventory method.

Ha_2 = There is difference between Company Price Earning Ratio that uses FIFO accounting inventory method and Company Price Earning Ratio that uses average accounting inventory method.

3. Ho_3 = There is no difference between Price Earning Ratio FIFO method and Price Earning Ratio average method by calculating production investment opportunity proxy as the control variable.

Ha_3 = There is a difference between Price Earning Ratio FIFO method and Price Earning Ratio average method by calculating production investment opportunity proxy as the control variable.

3.5.2. Hypothesis Testing

Before the hypothesis is tested, the data will be analyzed by using normality test (one-sample Kolmogorov-smirnov test) with the significant level (α) = 5%. Criteria for decision making:

If the significant level > α so the data has normal distribution

If the significant level < α so the data does not have normal distribution.

After the normality of data is analyzed, then the hypothesis will be tested. The hypothesis testing will be done by using univariate and multivariate test in order to find the relationship between the dependent and independent variables that are used in this research.

The multivariate test will be done in hypothesis 1 by using analysis logistic regression. Analysis logistic regression is used because the data in hypothesis 1 is nominal and ratio data. The method that will be used in analysis

logistic regression is backward stepwise (wald) test. Hypothesis 1 will be tested using regression model:

$$Ln \frac{METINVENT}{1 - METINVENT} = \beta + \beta_1 VINVENT + \beta_2 VPROFIT + \beta_3 VCOGS + \beta_4 COMSIZE$$

$$+ \beta_5 CAPINTENT + \beta_6 INVENTINTENT + \varepsilon \ldots\ldots\ldots$$

..... [3.1]

Where:
METINVENT = Accounting inventory method choice
VINTENT = Inventory variability
VPROFIT = Accounting earning variability
VCOGS = Cost of goods sold variability
COMSIZE = Firm size
CAPINTENT = Capital intensity
INVENTINTENT = Inventory intensity

The determination of the accepted or rejected Ho$_1$ is based on the probability of significant level result. If its probability of significant level β from equation 3.1 is greater than the significant level (α = 0.05), Ho is accepted. In contrary, if its probability of significant level β is smaller than the significant level which is chosen (α = 0.05), the Null Hypothesis (Ho) is rejected.

The univariate test is used in hypothesis 2. This test is used to see the systematic difference between Company Price Earning Ratio using FIFO accounting inventory method and Company Price Earning Ratio using average accounting inventory method. This test will be done by using:

1. Nonparametric (Mann-Whitney test) if the data distribution is not normal.

2. Parametric (t-test) if the data distribution is normal.

This test is used to differentiate between the use of FIFO accounting inventory method and average accounting inventory method to price earning ratio.

The determination of the accepted or rejected Ho₂ is based on the probability of significant level result. If its probability of significant level is greater than the significant level which is chosen ($\alpha = 0.05$), Ho is accepted. In contrary, if its probability of significant level is smaller than the significant level which is chosen ($\alpha = 0.05$), the Null Hypothesis (Ho) is rejected.

Hypothesis 3 will test the influence of FIFO accounting inventory method choice and average accounting inventory method choice to price earning ratio on production investment opportunity proxy as the control variable. This test is using ancova (analysis coefficient variance). Hypothesis 3 will be tested by using analysis coefficient variance model:

$$VARPER= \beta + \beta_1 METINVENT+ \beta_2 VINVENT+ \beta_3 VCOGS+ \beta_4 COMSIZE+ \beta_5 CAPINTEN1$$
$$+ \beta_6 CAPINVENT + \beta_7 VPROFIT + \varepsilon \dots\dots\dots\dots\dots\dots\dots\dots [3.2]$$

Where:
VARPER = PER variability

The determination of the accepted or rejected Ho₃ is based on the probability of significant level result. If its probability of significant level β from equation 3.2 is greater than the significant level ($\alpha = 0.05$), Ho is accepted. In contrary, if its probability of significant level β is smaller than the significant level which is chosen ($\alpha = 0.05$), the Null Hypothesis (Ho) is rejected.

CHAPTER IV
DATA ANALYSIS AND DISCUSSION

4.1. Descriptive Analysis

Descriptive analysis test is conducted to identify the tested variables in every hypothesis, how profile and those variables distribution (not dummy variable). It is expected that the results of statistical test generally legitimate the research data to the variables that are used in every research hypothesis. Descriptive analysis test for research variables, except dummy variable, is to find out the amount of average value, standard deviation, minimum and maximum value. The result of descriptive analysis test can be seen in the table 4.1 below.

Table 4.1
Descriptive analysis test

Variable	N	Mean	Std. Deviation	Minimum	Maximum
VINVENTORY	30	0.31	0.34	0.06	1.52
VPROFIT	30	1.01	4.87	-5.39	17.35
VCOGS	30	0.19	0.18	0.03	0.68
COMSIZE	30	27.02	1.13	25.40	29.98
CAPINTENSITY	30	0.74	0.65	0.07	3.04
INVINTENSITY	30	0.18	0.11	0.01	0.44
PER	30	23.17	51.70	-9.99	224.07

Source: BEJ corner, estimated 2007

The result of descriptive analysis test from 30 company samples is that the average of variable stock value (VPERSED) = 0.31 with standard deviation = 0.34, the lowest value of 30 company samples = 0.06, and the highest value of stock variable = 1.52. It means that the average of last stock's variable value from 30 companies is low, so the variation which shows the company operation with

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stock value and account stock or the stock movement itself are low and not fluctuated. Otherwise, the standard deviation which is 0.35 shows that the stock variation dispersion is 0.35 from 30 cases.

The average value of profit variability (VPROFIT) is 1.01, standard deviation is 4.87 with its highest value = 17.35, and the lowest value = -5.39. It means the profit variation before tax is 1.01, where the average of profit variability gained by a company is lower than the standard deviation. The profit variability value is affected by a company's operational technique and account policy, and also affected by external factors like inflation, government policy, etc.

The variation's average value of main sale price is 0.19, the standard deviation is 0.18 with its highest value = 0.68, and the lowest value = 0.03. It means the average of main sale price is higher than dispersion of main sale price from the last 3-year research, so the account method resulted is that COGS fluctuation tends to be constant. This is caused by the price condition, which has been relatively stable during the last 3-year research. As a result, the account method used will meet COGS value, which is lower than the estimation of average value.

The average value of a company counted by using Natural Logarithm (LN) transformation is 27.02, its deviation standard = 1.13, with the highest value=29.98, and the lowest is 1.13. It means the company averagely has had high total active value. So, the company is categorized as big capacity company. This makes the account method in the stock value estimation would affect on reported profit.

The capital intensity value is 0.74, the standard deviation = 0.65 with its highest value = 3.04, and the lowest value = 0.07. It means the company averagely has had a big net active value that is 74% from total sale. This condition makes the company tends to have higher proportion for fixed cost than variable cost in increasing finance important value and production planning, means that capital cost is higher.

The inventory intensity value is 0.18, standard deviation is 0.11 with its highest value = 0.44, and the lowest value = 0.11. It means the company averagely has had less stock 18% from all sales. It indicates that the stock circulation was high, so the company has been efficient in its stock management.

The PER average value is 23.17, standard deviation is 51.70, with its highest value = 224.07, and the lowest value = -9.99. It means the company averagely has had stock price, which is 23.17 times from each stock's profit.

The value above shows that the stock price is included in expensive price criterion, so this will affect the transaction value. It is because by the PER value shows market appreciation to the company ability in making profit. The bigger PER value, the lower EPS value will be. That shows that the company credibility is low enough in producing net company profit.

4.2. Statistical Test

Statistical tests used in this research are logistic regression test, independent T test, and covariance analysis. The result of the test can be seen in the explanation below.

4.2.1. Logistic Regression Multivariate Test

This test is to find out the effect of production investment opportunity with proxy in supply variability, account variability profit, fixed price sale variability, modal intensity, supply intensity and company size measured by choosing the account method (FIFO / average) i.e. regression logistic. The method was *Backward Stepwise (Wald) with* 5% significance level.

Table 4.2
Logistic Regression Multivariate Test

Step	Variable	Wald	Sig.
Step 1	VINVENTORY	1.094	0.296
	VPROFIT	0.958	0.328
	VCOGS	3.242	0.072
	COMSIZE	**5.080**	**0.024**
	CAPINTENSITY	0.045	0.832
	INVINTENSITY	1.246	0.264
	Constant	5.001	0.025
Step 2	VINVENTORY	1.127	0.288
	VPROFIT	0.964	0.326
	VCOGS	3.369	0.066
	COMSIZE	**5.100**	**0.024**
	INVINTENSITY	1.593	0.207
	Constant	5.023	0.025
Step 3	VINVENTORY	1.097	0.295
	VCOGS	2.875	0.090
	COMSIZE	**5.128**	**0.024**
	INVINTENSITY	1.577	0.209
	Constant	5.066	0.024
Step 4	VCOGS	2.357	0.125
	COMSIZE	**5.679**	**0.017**
	INVINTENSITY	1.116	0.291
	Constant	5.691	0.017
Step 5	VCOGS	1.860	0.173
	COMSIZE	**5.265**	**0.022**
	Constant	5.276	0.022
Step 6	**COMSIZE**	**4.906**	**0.027**
	Constant	4.818	0.028

In this research, to strengthen the belief about the tested hypothesis, the test is done by deleting one by one variable which has the highest significant (insignificant).

Based on Multivariate test that is done both collectively and separately, it shows significant result, where only in company size variable that proves significantly at the level 0.05 affecting the choosing of accounting inventory method. The result shows that in first step regression, the p-value in CAPINTENSITY variable has the highest value, which is 0.832, so the CAPINTENSITY variable should be taken out, to gain step 2-test result. From that result, the highest p-test value is VPROFIT variable that is 0.326, so this variable will be taken out from the model, and the next step is similarly done until the final result in step 6 is found. Based on the test result, it could be explained that the company's size from step 1 to step 6 has proven to significantly affect the choosing of accounting inventory method. Then, the writer concludes that the first hypothesis of this research is accepted.

4.2.2. Univariate Test

The univariate test is conducted to test statistically whether the independent variables are significantly different between the company using accounting inventory method FIFO and AVERAGE. This test has been done by using two independent sample T test. The result of the test is:

Table 4.3
Result of Univariate test with Independent Sample t Test

Variable	T test	p-value	Explanation
VINVENTORY	-0.721	0.477	not significant
VPROFIT	0.407	0.687	not significant
VCOGS	0.864	0.395	not significant
COMSIZE	**2.718**	**0.011**	**Significant**
CAPINTENSITY	0.839	0.409	not significant
INVINTENSITY	0.597	0.555	not significant
PER	-0.968	0.342	not significant

Ha2 hypothesis is to find out the significant differences between *Price Earning Ratio* with FIFO method and *Price Earning Ratio* with average method using parametric test (independent t test sample). The result shows that computed t value is -0,968 and p-value 0,342 > 0,05 for *Price Earning Ratio* (Ha2 rejected). This result was consistent with Sisca and Murtanto's research (2004).

The result of company size test finds that the t test value is 2,718 and p-value is 0,011. This means that the company using FIFO method is significantly different from the company using average method.

Besides, the other test has shown that cost of goods sold variability of t test = 0,864, p-value = 0,395 ; capital intensity of t test = 0,839, p-value = 0,409; Intensity inventory of t test = 0,597, p-value = 0,555, variable inventory of t test = - 0,721, p-value = 0,477 and variable of variability Profit t test equals to 0,407 and p-value equals to 0,687. The results of p-value are entirely above 0,05. It means that there is no significant difference between company using FIFO method and the company using average method for the variability of supply, accounting profit variability, capital intensity, supply intensity, and cost of goods sold variability.

4.2.3. Variance Coefficient Analysis Test

The test about the difference of the choosing of accounting inventory method to Price Earning Ratio with investment opportunity of production as control variable is shown in table 4.4 as follows:

Table 4.4
Variance Coefficient Analysis Test

		Analysis Step					
		1	2	3	4	5	6
Main Effect	Accounting method	2.578	2.887	3.040	3.172	3.356	3.022
	Sig	0.123	0.103	0.094	0.087	0.078	0.094
Covariate	COMSIZE	1.103	1.501	1.461	2.514	3.726	3.393
	Sig	0.305	0.233	0.238	0.125	0.065	0.076
	VPROFIT	0.688	0.712	0.680	0.758	0.847	
	Sig	0.416	0.408	0.418	0.392	0.366	
	VINVENTORY	0.477	0.563	0.514	0.344		
	Sig	0.497	0.461	0.481	0.563		
	CAPINTENSITY	0.126	0.210	0.325			
	Sig	0.726	0.651	0.574			
	VCOGS	0.071	0.094				
	Sig	0.793	0.761				
	INVINTENSITY	0.070					
	Sig	0.794					

At the first analysis, the entire proxy variable investment opportunity of production is made as control variables. The second analysis step is to eliminate the inventory intensity. The third step is eliminating the cost of goods sold variability and so on, up to the sixth step. The variable having the biggest significance value is taken out from the next step test.

The result of analysis by using Ancova shows that the significance values for the variable of the choosing of accounting inventory method for analysis step1

to 6 step are bigger than 5%, meaning that the hypothesis of Ha3 is rejected. It means there are not differences of choosing accounting inventory method to Price Earning Ratio with investment opportunity production as control variable.

The hypothesis of the choosing of accounting inventory method has influenced on Price Earning Ratio with the control variable of investment production opportunity showing insignificant result. The result of this research is consistent with the result of research conducted by Sisca and Murtanto (2004).

4.3. Discussion of Data Analysis

Based on the result of analysis with Logistics Regression, it indicates that from step 1 until step 6, only the variable of consistent company size had an effect on the choosing of accounting inventory method. This matter has been proved with the value of probability (p-value $< 0,05$). The result of this research has supported the result of the research conducted by Sisca and Murtanto (2004) expressing that company size has a significant effect on to the choosing of accounting inventory method, while accounting profit variability, inventory variability, capital intensity, inventory intensity and variability cost of good sold do not have any effect on the choosing of accounting inventory method.

This matter happens because the company size represents operational volatilities proxy and inventory controllability, which is according to economic scale, the level of a company shows the attainment of fluent operation and inventory control (Lee and of Hsieh, 1985). Watt and Zimmerman (1986) state that if the company is sensitive to company size variation, the larger company

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would prefer account procedure which can delay the reporting of earning. Larger companies are relatively sensitive compared to small companies.

At the period of price change, the method of FIFO will yield larger profit that has to be paid by the company. The smaller profit (by using average method) shows that the transfer of properties out of company (tax expense) becomes smaller than the larger profit (by using FIFO method). This causes company size affects on management policy to choose average method that is shown by positive logistics regression coefficient.

Based on the test result of univariate with Independent Sample T test, it indicates that there is no significant difference between Price Earning Ratio of a company applying FIFO accounting inventory method, with Price Earning Ratio of a company applying average accounting inventory method. The significantly difference only happens on company size, meaning that the company using FIFO method is significant different from the company using average method if it is seen from the company size. The result of this research is similar with the result of the research conducted by Sisca and of Murtanto (2004) stating that there is no significant difference between Price Earning Ratio applying with FIFO and Average accounting inventory method.

This is possibly caused by Price Earning Ratio which is describing market appreciation toward the ability of company in making profit. Whereas, supply represents the inventory methods which is used by a company to know the increase or decrease of company profit. So the choosing of accounting method only affects on the reported profit. While PER value, it is not only influenced by

the number of profit per stock, but also the level of stock price in secondary market so that external factors significantly influence on the stock price. This makes the accounting inventory methods unable to produce PER value which is significantly different, since it is still determined by the market condition causing the up and down of the stock price.

The result of ANCOVA variation coefficient analysis indicates that from step 1 until step 6 the result is consistent in which there is no significant difference between Price Earning Ratio with FIFO and one with Average by estimating the proxy of opportunity of investment production as the control variable. The result of this research also supports the research conducted by Sisca and of Murtanto (2004) stating that there is no significant difference between Price Earning Ratio with FIFO and average methods, which is estimated from its variabilities. The third hypothesis in this research is rejected.

This is caused by the second hypothesis indicating that there is no difference between PER of FIFO and average accounting inventory method. The hypothesis 2 and 3 are supported to each other, because PER represents the size of profit obtained by a company. On the other hand, it is also influenced by the condition of stock price transaction. Based on the resulted PER average in the descriptive analysis above, the value of PER is high which is around 23, so the condition of share price is considered high. This influences the stock price transaction, and tends to cause significant effect on the value of PER compared to the accounting inventory method, or only have a small effect (insignificant).

CHAPTER V
CONCLUSION AND SUGGESTION

5.1. Conclusion

Based on the data analysis, the writer concludes that:

1. The result of logistics regression test finds that the company size has significant effect on the choosing of accounting inventory method, while accounting profit variability, inventory variability, capital intensity, inventory intensity, and the variability cost of good sold have no effect on the choosing of accounting inventory method. This happens because a big company tends to be more sensitive than a small company; therefore, it affects on the choosing of accounting inventory method.

2. By doing independent t test, it is found that there is no significant difference between Price Earning Ratio with FIFO and average accounting inventory method.

3. The Variation coefficient analysis test shows that there is no significant difference between Price Earning Ratio with FIFO and average methods by estimating the proxy of investment production opportunity as the control variable.

5.2. Research Limitation

This research still has some weaknesses, they are:

1. The research period is three years. If the period is lengthen, the more real variability of the data would be explained.

2. The proxy variable, which is used in this research is only related to company operation which is distinguished by internal characteristics of company, which is in the form of inventory variability, accountancy profit variability, cost of goods sold variability, intensity of modal, inventory intensity and company size.

3. The companies which are taken as the sample in this research are only limited to 30 companies which have been selected with the random model. So, the result of this research has not been fully to prove the entire existing hypothesis.

5.3. Suggestions

Based on the above conclusion, the writer makes suggestions from the research result, as follows:

1. It is better to lengthen the period of the research which is only 3 year, for example 5 year or more, so the variability measured will be more real. Besides, the sum of sample could be added larger than this research, it would make the entire research hypothesis can be significantly proved.

2. The research about the choosing of accounting inventory method will be more valuable if it is conducted only at a period of price change. This is conducted to obtain the different data or obvious influence of difference of supply method.

3. The influence of the choosing of accounting inventory method in this research is only controlled by the variables expressed by the internal

characteristics of a company. This would be better if the other monetary

variables are also included in this research, for example growth and risk.

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APPENDICES

Logistic Regression

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	30	100.0
	Missing Cases	0	.0
	Total	30	100.0
Unselected Cases		0	.0
Total		30	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
.00	0
1.00	1

Block 0: Beginning Block

Classification Table[a,b]

			Predicted		
			Accounting Method		Percentage
	Observed		.00	1.00	Correct
Step 0	Accounting	.00	0	11	.0
	Method	1.00	0	19	100.0
	Overall Percentage				63.3

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	.547	.379	2.081	1	.149	1.727

Variables not in the Equation

			Score	df	Sig.
Step 0	Variables	VINV	.547	1	.460
		VPROFIT	.177	1	.674
		VCOGS	.779	1	.377
		COMSIZE	6.263	1	.012
		CAPINTEN	.735	1	.391
		INVINTEN	.377	1	.539
	Overall Statistics		10.470	6	.106

Block 1: Method = Backward Stepwise (Wald)

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	13.731	6	.033
	Block	13.731	6	.033
	Model	13.731	6	.033
Step 2[a]	Step	-.044	1	.834
	Block	13.687	5	.018
	Model	13.687	5	.018
Step 3[a]	Step	-1.199	1	.274
	Block	12.488	4	.014
	Model	12.488	4	.014
Step 4[a]	Step	-1.175	1	.278
	Block	11.313	3	.010
	Model	11.313	3	.010
Step 5[a]	Step	-1.147	1	.284
	Block	10.166	2	.006
	Model	10.166	2	.006
Step 6[a]	Step	-2.123	1	.145
	Block	8.044	1	.005
	Model	8.044	1	.005

[a]. A negative Chi-squares value indicates that the Chi-squares value has decreased from the previous step.

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	25.698	.367	.502
2	25.742	.366	.501
3	26.941	.341	.466
4	28.116	.314	.430
5	29.263	.287	.393
6	31.386	.235	.322

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	3.796	8	.875
2	8.952	8	.346
3	5.188	8	.737
4	3.846	8	.871
5	2.925	8	.939
6	8.715	7	.274

Contingency Table for Hosmer and Lemeshow Test

		Accounting Method = .00		Accounting Method = 1.00		
		Observed	Expected	Observed	Expected	Total
Step 1	1	3	2.778	0	.222	3
	2	2	2.427	1	.573	3
	3	2	1.813	1	1.187	3
	4	1	1.223	2	1.777	3
	5	0	.970	3	2.030	3
	6	1	.690	2	2.310	3
	7	1	.540	2	2.460	3
	8	1	.441	2	2.559	3
	9	0	.102	3	2.898	3
	10	0	.017	3	2.983	3
Step 2	1	3	2.779	0	.221	3
	2	2	2.416	1	.584	3
	3	2	1.819	1	1.181	3
	4	1	1.244	2	1.756	3
	5	1	.961	2	2.039	3
	6	0	.659	3	2.341	3
	7	0	.560	3	2.440	3
	8	2	.437	1	2.563	3
	9	0	.110	3	2.890	3
	10	0	.016	3	2.984	3
Step 3	1	3	2.763	0	.237	3
	2	2	2.248	1	.752	3
	3	1	1.837	2	1.163	3
	4	2	1.333	1	1.667	3
	5	0	.941	3	2.059	3
	6	1	.682	2	2.318	3
	7	1	.556	2	2.444	3
	8	1	.408	2	2.592	3
	9	0	.197	3	2.803	3
	10	0	.035	3	2.965	3
Step 4	1	3	2.653	0	.347	3
	2	2	2.312	1	.688	3
	3	2	1.717	1	1.283	3
	4	1	1.204	2	1.796	3
	5	0	.967	3	2.033	3
	6	1	.782	2	2.218	3
	7	1	.726	2	2.274	3
	8	1	.377	2	2.623	3
	9	0	.227	3	2.773	3
	10	0	.034	3	2.966	3
Step 5	1	3	2.590	0	.410	3
	2	2	2.199	1	.801	3
	3	1	1.582	2	1.418	3
	4	1	1.394	2	1.606	3
	5	1	1.049	2	1.951	3
	6	1	.842	2	2.158	3
	7	1	.612	2	2.388	3
	8	1	.405	2	2.595	3
	9	0	.271	3	2.729	3
	10	0	.057	3	2.943	3
Step 6	1	3	2.302	0	.698	3
	2	3	1.944	0	1.056	3
	3	0	1.601	3	1.399	3
	4	1	1.868	3	2.132	4
	5	1	1.158	2	1.842	3
	6	1	.893	2	2.107	3
	7	1	.800	3	3.200	4
	8	1	.307	2	2.693	3
	9	0	.126	4	3.874	4

Classification Table[a]

	Observed		Predicted		
			Accounting Method		Percentage Correct
			.00	1.00	
Step 1	Accounting	.00	8	3	72.7
	Method	1.00	2	17	89.5
	Overall Percentage				83.3
Step 2	Accounting	.00	8	3	72.7
	Method	1.00	2	17	89.5
	Overall Percentage				83.3
Step 3	Accounting	.00	7	4	63.6
	Method	1.00	3	16	84.2
	Overall Percentage				76.7
Step 4	Accounting	.00	6	5	54.5
	Method	1.00	2	17	89.5
	Overall Percentage				76.7
Step 5	Accounting	.00	6	5	54.5
	Method	1.00	4	15	78.9
	Overall Percentage				70.0
Step 6	Accounting	.00	6	5	54.5
	Method	1.00	3	16	84.2
	Overall Percentage				73.3

a. The cut value is .500
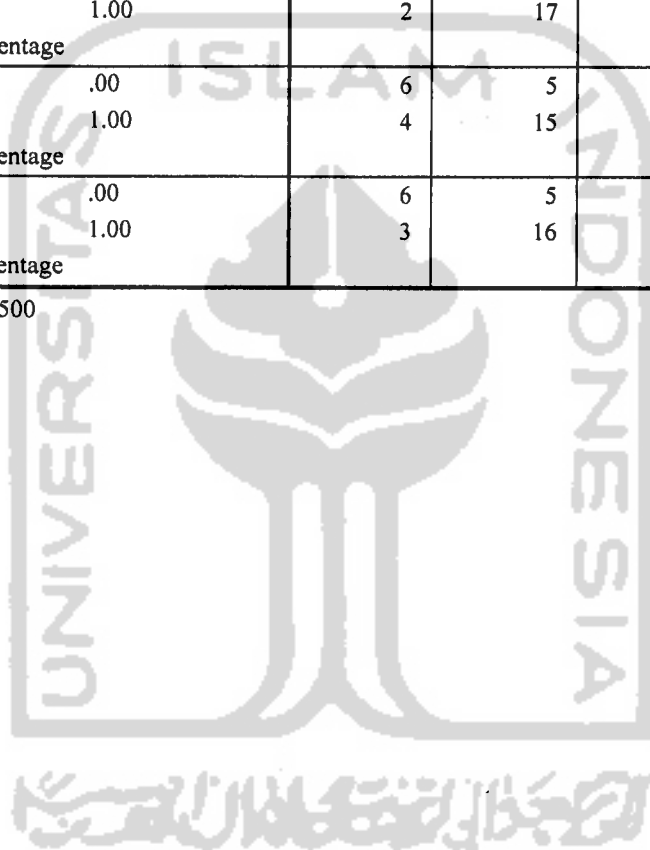
Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	VINV	-2.031	1.942	1.094	1	.296	.131
	VPROFIT	.130	.133	.958	1	.328	1.139
	VCOGS	7.968	4.425	3.242	1	.072	2886.525
	COMSIZE	2.068	.917	5.080	1	.024	7.906
	CAPINTEN	-.189	.891	.045	1	.832	.828
	INVINTEN	-6.516	5.837	1.246	1	.264	.001
	Constant	-54.582	24.408	5.001	1	.025	.000
Step 2[a]	VINV	-2.058	1.939	1.127	1	.288	.128
	VPROFIT	.130	.132	.964	1	.326	1.139
	VCOGS	7.729	4.210	3.369	1	.066	2272.581
	COMSIZE	2.041	.904	5.100	1	.024	7.696
	INVINTEN	-6.934	5.494	1.593	1	.207	.001
	Constant	-53.862	24.032	5.023	1	.025	.000
Step 3[a]	VINV	-2.043	1.950	1.097	1	.295	.130
	VCOGS	6.972	4.112	2.875	1	.090	1066.042
	COMSIZE	1.806	.797	5.128	1	.024	6.085
	INVINTEN	-6.951	5.535	1.577	1	.209	.001
	Constant	-47.348	21.036	5.066	1	.024	.000
Step 4[a]	VCOGS	4.021	2.619	2.357	1	.125	55.749
	COMSIZE	1.868	.784	5.679	1	.017	6.478
	INVINTEN	-5.322	5.038	1.116	1	.291	.005
	Constant	-49.404	20.710	5.691	1	.017	.000
Step 5[a]	VCOGS	3.428	2.514	1.860	1	.173	30.814
	COMSIZE	1.516	.661	5.265	1	.022	4.554
	Constant	-40.764	17.747	5.276	1	.022	.000
Step 6[a]	COMSIZE	1.375	.621	4.906	1	.027	3.954
	Constant	-36.281	16.529	4.818	1	.028	.000

a. Variable(s) entered on step 1: VINV, VPROFIT, VCOGS, COMSIZE, CAPINTEN, INVINTEN.

Variables not in the Equation

			Score	df	Sig.
Step 2[a]	Variables	CAPINTEN	.045	1	.832
	Overall Statistics		.045	1	.832
Step 3[b]	Variables	VPROFIT	1.087	1	.297
		CAPINTEN	.044	1	.834
	Overall Statistics		1.141	2	.565
Step 4[c]	Variables	VINV	1.192	1	.275
		VPROFIT	1.092	1	.296
		CAPINTEN	.062	1	.803
	Overall Statistics		2.319	3	.509
Step 5[d]	Variables	VINV	.656	1	.418
		VPROFIT	1.064	1	.302
		CAPINTEN	.377	1	.539
		INVINTEN	1.178	1	.278
	Overall Statistics		3.296	4	.509
Step 6[e]	Variables	VINV	.139	1	.710
		VPROFIT	.487	1	.485
		VCOGS	2.062	1	.151
		CAPINTEN	.004	1	.947
		INVINTEN	.539	1	.463
	Overall Statistics		4.898	5	.428

a. Variable(s) removed on step 2: CAPINTEN.

b. Variable(s) removed on step 3: VPROFIT.

c. Variable(s) removed on step 4: VINV.

d. Variable(s) removed on step 5: INVINTEN.

e. Variable(s) removed on step 6: VCOGS.

APPENDIX TABLE 4.3

T-Test

Group Statistics

	Accounting Method	N	Mean	Std. Deviation	Std. Error Mean
Vinventory	1.00	19	.2726	.33806	.07756
	.00	11	.3666	.35522	.10710
VProfit	1.00	19	1.2921	5.78924	1.32814
	.00	11	.5305	2.81493	.84873
VCOGS	1.00	19	.2099	.18691	.04288
	.00	11	.1492	.18277	.05511
Comsize	1.00	19	27.4103	1.12873	.25895
	.00	11	26.3558	.80173	.24173
Capital Intensity	1.00	19	.8164	.72881	.16720
	.00	11	.6084	.49401	.14895
Inventory Intensity	1.00	19	.1861	.09681	.02221
	.00	11	.1620	.12227	.03687
PER	1.00	19	16.2105	31.12216	7.13991
	.00	11	35.1855	75.87635	22.87758

Independent Samples Test

		t-test for Equality of Means				
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Vinventory	Equal variances assumed	-.721	28	.477	-.0941	.13044
	Equal variances not assumed	-.711	20.158	.485	-.0941	.13223
VProfit	Equal variances assumed	.407	28	.687	.7617	1.87053
	Equal variances not assumed	.483	27.460	.633	.7617	1.57617
VCOGS	Equal variances assumed	.864	28	.395	.0607	.07026
	Equal variances not assumed	.870	21.414	.394	.0607	.06982
Comsize	Equal variances assumed	2.718	28	.011	1.0544	.38796
	Equal variances not assumed	2.977	26.634	.006	1.0544	.35424
Capital Intensity	Equal variances assumed	.839	28	.409	.2081	.24804
	Equal variances not assumed	.929	27.140	.361	.2081	.22392
Inventory Intensity	Equal variances assumed	.597	28	.555	.0241	.04039
	Equal variances not assumed	.560	17.310	.583	.0241	.04304
PER	Equal variances assumed	-.968	28	.342	-18.9749	19.60915
	Equal variances not assumed	-.792	11.980	.444	-18.9749	23.96585

Univariate Analysis of Variance

Between-Subjects Factors

		N
Accounting Method	.00	11
	1.00	19

Tests of Between-Subjects Effects

Dependent Variable: PER

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	15165.911[a]	7	2166.559	.764	.622
Intercept	2852.524	1	2852.524	1.007	.327
VINV	1350.525	1	1350.525	.477	.497
VPROFIT	1950.614	1	1950.614	.688	.416
VCOGS	199.854	1	199.854	.071	.793
COMSIZE	3125.068	1	3125.068	1.103	.305
CAPINTEN	358.216	1	358.216	.126	.726
INVINTEN	198.154	1	198.154	.070	.794
ACC_MET	7306.714	1	7306.714	2.578	.123
Error	62349.229	22	2834.056		
Total	93617.826	30			
Corrected Total	77515.140	29			

a. R Squared = .196 (Adjusted R Squared = -.060)

Univariate Analysis of Variance

Between-Subjects Factors

		N
Accounting Method	.00	11
	1.00	19

Tests of Between-Subjects Effects

Dependent Variable: PER

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	14967.757[a]	6	2494.626	.917	.500
Intercept	3565.166	1	3565.166	1.311	.264
VINV	1532.042	1	1532.042	.563	.461
VPROFIT	1935.326	1	1935.326	.712	.408
VCOGS	256.713	1	256.713	.094	.761
COMSIZE	4080.559	1	4080.559	1.501	.233
CAPINTEN	571.630	1	571.630	.210	.651
ACC_MET	7851.747	1	7851.747	2.887	.103
Error	62547.383	23	2719.451		
Total	93617.826	30			
Corrected Total	77515.140	29			

a. R Squared = .193 (Adjusted R Squared = -.017)

Univariate Analysis of Variance

Between-Subjects Factors

		N
Accounting Method	.00	11
	1.00	19

Tests of Between-Subjects Effects

Dependent Variable: PER

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	14711.044ᵃ	5	2942.209	1.124	.374
Intercept	3308.453	1	3308.453	1.264	.272
VINV	1343.955	1	1343.955	.514	.481
VPROFIT	1779.437	1	1779.437	.680	.418
COMSIZE	3824.149	1	3824.149	1.461	.238
CAPINTEN	849.295	1	849.295	.325	.574
ACC_MET	7954.970	1	7954.970	3.040	.094
Error	62804.096	24	2616.837		
Total	93617.826	30			
Corrected Total	77515.140	29			

a. R Squared = .190 (Adjusted R Squared = .021)

Univariate Analysis of Variance

Between-Subjects Factors

		N
Accounting Method	.00	11
	1.00	19

Tests of Between-Subjects Effects

Dependent Variable: PER

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	13861.748ᵃ	4	3465.437	1.361	.276
Intercept	5384.720	1	5384.720	2.115	.158
VINV	876.437	1	876.437	.344	.563
VPROFIT	1929.582	1	1929.582	.758	.392
COMSIZE	6399.921	1	6399.921	2.514	.125
ACC_MET	8076.245	1	8076.245	3.172	.087
Error	63653.391	25	2546.136		
Total	93617.826	30			
Corrected Total	77515.140	29			

a. R Squared = .179 (Adjusted R Squared = .047)

Univariate Analysis of Variance

Between-Subjects Factors

		N
Accounting Method	.00	11
	1.00	19

Tests of Between-Subjects Effects

Dependent Variable: PER

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	12985.311[a]	3	4328.437	1.744	.183
Intercept	8316.679	1	8316.679	3.351	.079
VPROFIT	2102.968	1	2102.968	.847	.366
COMSIZE	9246.776	1	9246.776	3.726	.065
ACC_MET	8329.076	1	8329.076	3.356	.078
Error	64529.828	26	2481.916		
Total	93617.826	30			
Corrected Total	77515.140	29			

a. R Squared = .168 (Adjusted R Squared = .071)

Univariate Analysis of Variance

Between-Subjects Factors

		N
Accounting Method	.00	11
	1.00	19

Tests of Between-Subjects Effects

Dependent Variable: PER

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	10882.343[a]	2	5441.172	2.205	.130
Intercept	7442.014	1	7442.014	3.016	.094
COMSIZE	8374.010	1	8374.010	3.393	.076
ACC_MET	7458.087	1	7458.087	3.022	.094
Error	66632.796	27	2467.881		
Total	93617.826	30			
Corrected Total	77515.140	29			

a. R Squared = .140 (Adjusted R Squared = .077)