Analysis of financial soundness of manufacturing companies in Indonesia Stock Exchange

Widi Hidayat[1]

[1] Airlangga University, Airlangga Street No. 4, Surabaya, 60285, East Java, Indonesia

A R T I C L E I N F O

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A B S T R A C T

This study aims to provide information to the issuer and Bapepam and Indonesian Institute of Accountants with additional important information content of ratings and financial soundness of the indicators that do not harm investors. This is an explanatory and descriptive nature of causality using quantitative methods, using all companies listed on the Indonesia Stock Exchange (ISE) taken as the sample. The data were analyzed using discriminant statistical analysis tools are processed with SPSS. The results showed that the level of financial soundness of the manufacturing industries listed on the ISE such as 23 (62%) Companies Current Asset Growth (CAG) is low as well as Fixed Asset growth (FAG) 28 (76%) companies is still low, Equity Growth (EqG) by 27 (73%) the company, Revenue growth (RG) 27 (65%) companies and Net Income Growth (NIG) 35 (95%) firms. Two manufacturing companies have a very high NIG, thus, NIG average is very high. The seven models of financial soundness were tested based on the growth of corporate finance such as CAG, FAG, LG, EqG, RG, ExG and NIG. Only one model is not significant, the model RG, while the other model is a significant, with a significant difference between the growths rates of the sound and unsound corporate finances industry groups.

A B S T R A K

Penelitian ini bertujuan untuk memberikan informasi pada emiten dan Bapepam serta Ikatan Akuntan Indonesia pentingnya tambahan informasi tentang penilaian tingkat kesehatan keuangan dan indikator-indikatornya sehingga tidak merugikan investor. Penelitian ini menggunakan desain deskriptif explanotory dan bersifat kausalitas menggunakan metode kuantitatif. Populasinya adalah semua perusahaan manufaktur yang terdaftar pada Bursa Efek Indonesia (BEI) selama periode penelitian dan seluruhnya diambil sebagai sampel. Data diolah menggunakan alat analisis statistik diskriminan yang diolah dengan SPSS. Hasilnya menunjukkan bahwa tingkat kesehatan keuangan industri manufaktur yang terdaftar pada BEI dari 23 perusahaan atau memiliki 62% Current Asset Growth (CAG) rendah. Demikian pula Fixed Asset Growth (FAG) sebanyak 28 perusahaan atau 76% masih rendah, Equity Growth (EqG) sebanyak 27 perusahaan atau 73 %, Revenue Growth (RG) sebanyak 27 perusahaan atau 65%, dan Net Income Growth (NIG) sebanyak 35 perusahaan atau 95%, karena terdapat 2 perusahaan manufaktur yang memiliki NIG sangat tinggi, maka NIG rata-rata menjadi sangat tinggi. Pengujian hipotesis dengan statistik diskriminan untuk ketujuh model kesehatan keuangan yang diukur dengan pertumbuhan keuangan perusahaan yaitu model CAG, FAG, LG, EqG, RG, ExG dan NIG, ternyata hanya 1 model yang tidak signifikan yaitu model RG, sedangkan model yang lain adalah signifikan artinya terdapat perbedaan yang signifikan antara tingkat pertumbuhan keuangan perusahaan dari kelompok industri yang sehat dan kelompok industri yang sakit.

1. INTRODUCTION

The exposure draft (ED) the statement of Financial Accounting Standard (PSAK) No. 60, year 2010 regulated the provisions on the disclosure of fi-

* Corresponding author, email address: [1] h.widi.h@gmail.com.

nancial instruments by category 1) about information of the significance of financial instruments by category 1) information regarding the significance of financial instruments for financial position and performance and 2) information regarding the nature and extent of risks arising from financial instruments. PSAK is based on the Capital Market Law No. 8 of 1995 on capital markets and the Chairman of the Capital Market Supervisory Board KEP No.: 134/BL/2006 on annual financial reporting obligations for listed companies or public companies.

As referred to the Capital Market Law No. 8 of 1995, it is stated that public companies are required to disseminate financial information to Bapepam-LK and the general public regarding the information described in the financial statements or other information that are likely influenced the decision to invest. This is intended to provide the investors and the public with adequate information.

Yet, the Chairman of Bapepam KEP- No.: 134/BL/2006 requires the issuer to do disclosures on its financial statements at least the analysis of financial performance that includes a comparison between the financial performance of the present and previous year's financial performance. This is intended to analyze the development of the performance of its financial soundness. The phenomenon suggests that the financial soundness performance can be the indicators for growth in the manufacturing industries listed in the Indonesia Stock Exchange after the Asian economic crisis of 1997 decreased.

Based on published financial data, it shows that the growth performance of corporate assets decreasing the soundness level is a Textile Mill Products industry group, equal to - 10.74%, the cement industry groups - 0.57% group Metal and Allied Products - 3.79%, group cable industry - 12.08%, industry groups, Electronic Equipment - 7.96%, industry group Automotive and Allied Products - 6.08% and the Photographic Equipment industry group - 10.93%.

The phenomenon is also related to the Capital Market Law No. 8 of 1995 and the Decree of the Chairman of Bapepam No.: KEP-134/BL/2006 on annual financial reporting obligations for companies. It was especially on the analysis of the financial performance and the presence of ED IAS 60 in 2010. For this, the issuer is required to determine and report the level of financial soundness, especially because of the financial crisis that occurred in 2008.

2. THEORETICAL FRAMEWORK AND HYPOTHESES

Theoretical Framework

Jantadej, Piyaratt (2006) suggests that a company very likely experience financial difficulties (financial distress) in the short term if they make inadequate money from operations to meet ongoing cash requirements, particularly operating and financing needs. The previous study on bankruptcy was done by Altman (1971). Both of the above studies used accounting data from the balance sheet and income statements of manufacturing companies in the form of financial ratios as discriminator variables and predictor of bankruptcy.

Basically, the condition of the enterprise vulnerable to macroeconomic shocks, such as the financial crisis, can be identified early by detecting a company's financial performance. The rating the company's financial soundness or performance is important to be done by management, government, shareholders, because it involves the distribution of wealth between them. Generally, investors only have limited information about listed companies. They got it from published financial reports, the company's soundness performance measurement which is from financial statements (Nur, Muhammad 2001). This can be done through analysis of financial statements. According to the standpoint of the investor, financial statement analysis is used to predict the future, while from the standpoint of management, financial statement analysis is used to help anticipate future conditions, and it is beginning to plan actions that can affect future events.

Accounting information is valuable in assessing the financial performance accountability. Performance is the determination of the financial soundness of certain sizes that can support the company's success in generating profits. Measurement of financial performance should be linked between the companies with responsibility. The magnitude of the responsibility of managers in the company's organization can be realized in the form of financial performance (Sucipto 2003). The true discipline performance is illustrated by the disclosure of the details. There are markets uncertainties, thus the value of relevant and reliable information are reflected in the disclosure of the company. This is considered an important factor (Hidayah 2008). The measurement of financial performance based on financial statements is mostly done by using financial ratios (Iramani and Hidalgo 2005). Financial ratios are used to aid the evaluation of the financial statements, to identify

some of the weaknesses and strengths of corporate finance. The use of financial ratios is to analyze financial information so that the ratio of two different companies can be compared or even a company in the boundaries of different times. A financial ratio (Brigham, Eugene 2005) consists of: Liquidity, Asset Management, Debt Management, Profitability and Market Value. It is like the division of financial ratios by Arthur J. et al. (2008) consists of the company's liquidity, profitability, funding decisions, the rate of return on equity.

The liquidity ratio is the ratio that indicates the company's ability to repay its obligations maturing in the short term. The ratio measures how the effectiveness of the asset management company to manage its assets. This ratio is used to determine the number of each type of assets reported in the balance sheet when compared with the level of projected sales. The ratio of debt management is used to determine the use of corporate financing through debt. It has three important implications.

1. Obtain funds through debt made shareholders that can retain control over the company with a limited investment.
2. Creditors look at equities, or deposited funds owners, to provide a safety margin, so if shareholders only provide a small part of the total financing, the company's ratio are found mostly in the lender.
3. If the company acquires a greater return on investment that is financed with borrowed funds compared to the payment of interest, then the owner's return on capital will be greater, or "leveraged". Profitability ratios show the combined effects of liquidity, asset management, and debt to operating results. In that case, the ratio of market value is related with the company's stock price to earnings and book value per share. This ratio provides guidance to management regarding what investors think of the performance of companies in the past as well as future prospects.

Some research on this was also done. Research by Sam'ani (2008), shows that the influence of corporate governance is proxied by the independent variables that consist of commissioners activity, the size of the board of directors, the audit committee has a positive and significant relationship to performance as the independent variable. Tests conducted research variables using multiple regression analysis. The test result also showed that institutional ownership and leverage ratio has a negative and significant relationship to performance. The independent variables significantly that is independent commissioner cannot affect the performance. In general, the results in this study indicate that the banking company in Indonesia has begun to implement good corporate governance in order to improve the performance of the company as well as to protect the interests of the principal.

Selection of the study variables affect the results of research and is part of the limitations of the study in addition to the number of observations used relatively little in a short period. The results show that the influence of the independent variables affect the dependent variable, which is equal to 45.9 percent and the remaining 54.1 percent is affected by other factors that are not included in the regression model, such as macroeconomic factors and the factors of the country as the political conditions of the country.

This statement is supported by the Research Murwaningsari (2009) generating hypotheses (Hia) submitted proved that there is a positive influence between managerial ownership on the performance of the company. The hypothesis proved to show the influence of institutional ownership on corporate performance is positive. Conclusions approach path analysis (path analysis) showed good corporate governance. A managerial and institutional ownership has an effect on the company's performance.

This study tried to predict the occurrence of financial distress in companies with financial ratios measuring the financial statements. This used predictors. This is done as an early warning to the company in a state experiencing financial pressure. In this study, the researcher used the sample of 60 manufacturing companies, where 16 companies and 44 companies did not distress. The analysis technique is a logistic regression with chi-square approximation method. The results of this study showed that the profit margin ratio, liquidity ratios, efficiency ratios, profitability ratios, financial leverage ratio, the ratio of cash positions, and sales growth ratios contained in the financial statements of the company is able to predict the onset of financial distress. This is reflected in the value contained in Logistic Regression of 91.2% accurate, which shows that bankruptcy can be predicted by the model Logistic Regression (Nuswantoro 2013).

Other studies also provide theoretical and empirical analysis of the relationship between financial markets and the real link. This is important because the financial results encourage investment in medical research and development (R

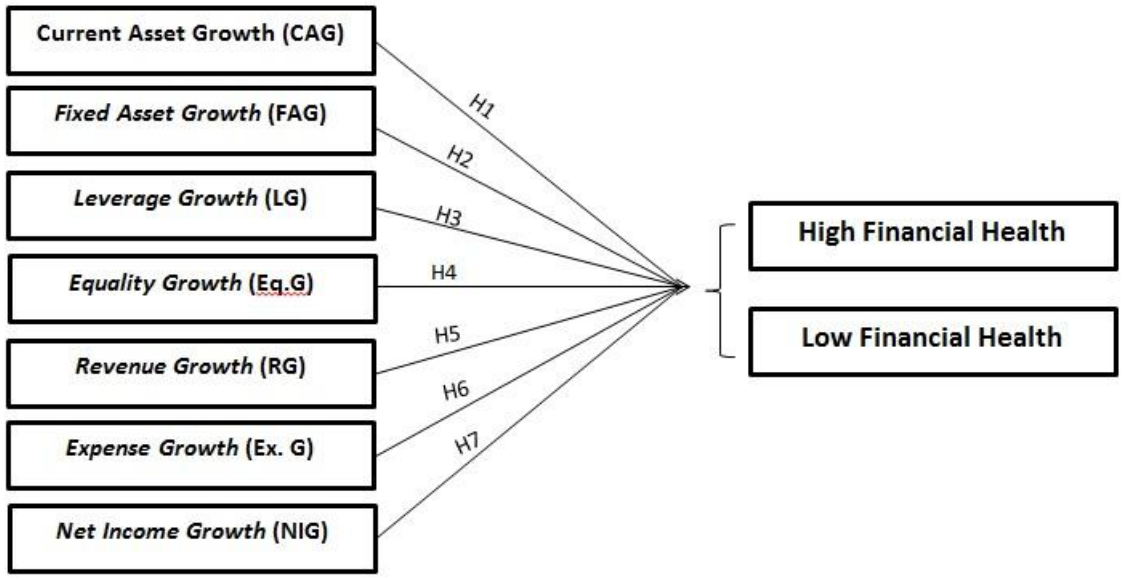

Figure 1
Research Framework

& D), which, in turn, affect the growth of real spending. This study documented "medical innovation premium" of 4-6% per year return on equity for companies in the health care sector. The result interprets this premium to compensate investors for the risk of profit induced the government, and provide evidence to support the hypothesis through the company's filings and patterns of abnormal return as the threat of intervention of governments in the vicinity.

Next, the researcher calculates the implications of the premium for the growth of real soundness care spending by calibrating the model to match historical trends, to predict the share of gross domestic product (GDP) devoted to soundness care to 32% in the long term. Policies that have been removed, namely the risk of government will lead to raise more than doubled from medical and R & D will increase the current share of soundness care spending by more than 3% of GDP (Koijen et al. 2016).

Subsequent research on economic evaluation is most often in the form of cost-effectiveness analysis, a tool for overall soundness financing policy. However, soundness policy makers choose to use or ignore the accumulation of economic evidence for a variety of reasons. Review this policy take a step back and look objectively at the proper role as the use of cost-effectiveness analysis in a broader context as the financing of soundness systems. The explicit purpose of economic evaluation is to address the purpose of financing of the soundness aspects of efficiency. In this case, the researcher concluded that the application can be useful for the purposes of the soundness system, including financial protection (specification package of public soundness core for universal insurance) and equity financing (Assessment costs of interventions and effects by stakeholder or socio-economic groups). In order to contribute to this broader goal, the sectoral approach or a population-based analysis of cost effectiveness is required (Chisholm et al. 2007).

However, further research on financial distress precedes bankruptcy. Most financial distress bankruptcy models actually rely on the data, which is easier to obtain. The purpose of this research is to examine the financial ratios that affect financial distress condition of a firm. This research used distress which consists of 24 firms and 37 non-distress firms. They were chosen by purposive sampling. The statistical method used to test which is on the research hypothesis is logistic regression. The result shows that the profit margin ratio (net income/net sales), financial leverage ratio (current liabilities/total assets), liquidity ratio (current assets/current liabilities) and growth (net income/total assets growth) are significant variables to determine financial distress of firms (Almilia & Kristijadi 2003).

Based on theory and the previous studies, there are seven hypotheses in this study as shown in Figure 1, namely, Current Asset Growth (CAG) to financial soundness, Fixed Asset Growth (FAG) to financial soundness, Leverage Growth (LG) to financial soundness, Equality Growth (Eq.G) to financial soundness, Revenue Growth (RG) to financial soundness, Expense Growth (Ex. G) to

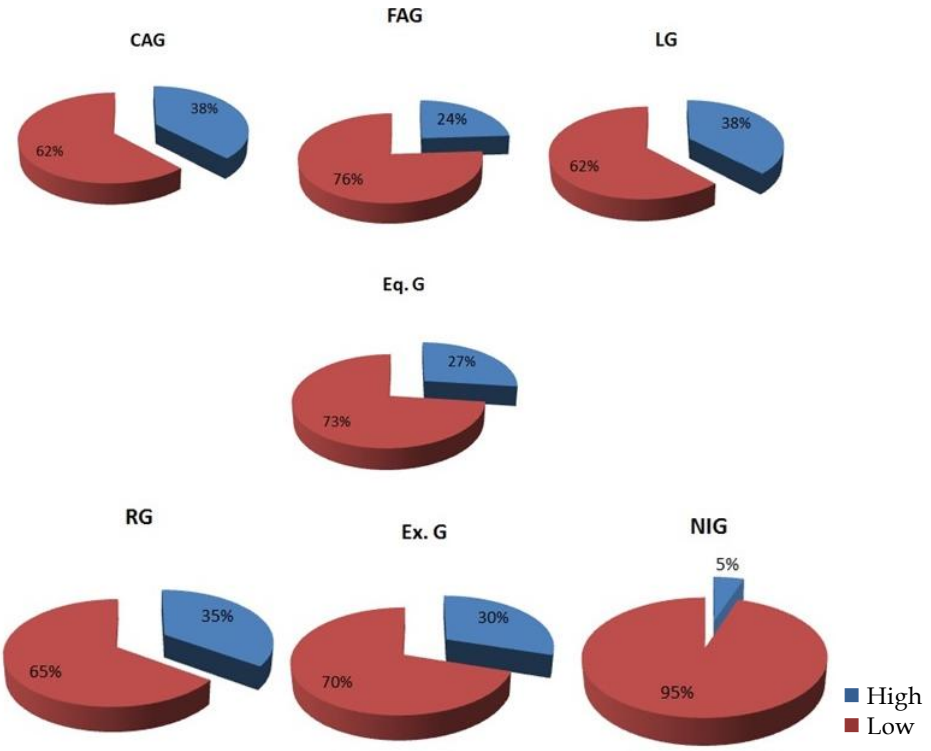

Figure 2
The 37 Companies Listed in ISE

financial soundness, Net Income Growth (NIG) to financial soundness.

3. RESEARCH METHOD

This study is an explanatory and descriptive nature, a causality using quantitative methods. The unit of analysis is the object of research of manufacturing companies listed on the Indonesia Stock Exchange. Data collected from financial statements which had been audited and published for 3 months starting in 2009, 2010, and 2011 (three years after the global financial crisis). The population is all companies listed on the Indonesia Stock Exchange during the period of research and entirely taken as the sample with the criteria being listed in the Indonesia Stock Exchange and financial performance existed for 3 years of the study. The statistical analysis used SPSS for discriminator analysis of the following model:

$$Z = b1x1 + b2x2 + b3x3 + \ldots + e. \quad (1)$$

Where z is the value of z score, b is the coefficient discriminator and $x1, x2, x3,$ etc. are the variables that distinguish the financial soundness variable.

4. DATA ANALYSIS AND DISCUSSION

The measurement of the performance of the company's financial growth is high and low based on the average value of the 37 companies for 3 years from 2009 to 2011. It is considered High growth performance when the companies are included in group such as Current Asset Growth (CAG), Fixed Asset Growth (FAG), Equity Growth (Eq. G), Revenue Growth (RG) and Net Income Growth (NIG). As for Leverage Growth (LG) and Expense Growth (Ex. G), which includes a group of sound industries are the low corporate finance.

The results show that, of the 37 companies listed on the Indonesian stock exchange (ISE), financial growth performance can be seen in Figure 2.

Totally, there are 14 sound companies of CAG, 9 sound companies of FAG, 23 sound companies LG, 10 companies of Eq. G, RG 13 companies, 26 companies and 2 Ex.G sound companies of NIG. The results of discriminator statistics indicate that there are outliers so that the number of samples that can be processed further to 24 companies. The results of CAG model testing also show that the significant value on the table Wilks Lambda is 0.02 <0.05. This means that there are significant differences between the growth rate of sound and unsound industry groups of CAG. The model can explain 71.9% listed in the table Eigen values. The results of Stepwise test show that the independent variables can distinguish the dominant sound and unsound industry group from their financial ratios of Debt to Total Assets

Table 1
Canonical Discriminant Function Coefficients

Variables	Function
DTA	8.788
OPM	0.201
PER	0.168
Constant	-7.985
DPR	0.066
Constant	-2.278
PER	0.066
Constant	-2.278
DTA	12.524
ROI	0.659
ROE	-0.480
Constant	-2.060
CP	0.000
Constant	-1.093
CR	0.008
BV	0.000
DY	0.471
Constant	-2.617

Table 1
Eigenvalues of Variables

Variables	Eigenvalues	% of Variances	Cumulative %	Canonical Correlation
DTA, OPM, PER	0.248	100.00	100.00	0.446
DPR	1.072	100.00	100.00	0.719
PER	1.141	100.00	100.00	0.730
DTA, ROI, ROE	0.198	100.00	100.00	0.406
CP	1.016	100.00	100.00	0.710
CR, BV, DY	0.305	100.00	100.00	0.484

(DTA), Profit of operating margin (DPM) and Price Earnings Ratio (PER) (see Table 1 and 2). The discriminate equation is:

Z = -7.985 + 8.788 DAT + 0.201 + 0.168 PER OPM.(2)

The test of FAG model shows that the significant value on the table of Wilks lambda that is 0.029 <0.05. This means that there are significant differences between the growth rate of sound and unsound industry groups of FAG. The model can explain 44.6% listed in the table with the values. Stepwise test showed that the dominant free variable could distinguish between sound and unsound industry groups with the problem of financial ratios that is Dividend Payout Ratio (DPR) (see Table 1 and 2). The discriminate equation is:

Z = -2.278 + 0.066 DPR

LG models test results show that the significant value on the table Wilks lambda is 0.049 <0.05. This means there is a difference between the growth rate of LG of the significant group of sound industries and diseased ones. Besides that, the models can also describe the figure by 40.60% listed in the table of Eigen values. The Stepwise test showed that the dominant independent variable can extinguish between the sound and unsound industry groups based on the financial ratios of Price Earnings Ratio (PER) (see Table 1 and 2). The discriminate equation is:

Z = -2948 +0264 PER.

The test of Eq.G model shows that the significant value on the table of Wilks lambda 0.0001 <0.05. This means there is a significant difference between the growth rate of the sound and unsound industry groups of Eq.G and the model can be explained by 73.00 % listed in the table of Eigen values. The results showed that the independent variable of the stepwise can dominantly distinguish between sound and unsound industry groups with the financial ratios of Debt Total Assets (DTA), Return on Investment (ROT) (see Table 1 and 2). The discriminant equation is:

Z = -2.060 + 0.659 ROI +12.524 DTA - 0.480 ROE.

The results of RG models show that the model cannot be applied, meaning that there are no independent variables that can be put into the model. This is due to the fact that the revenue growth

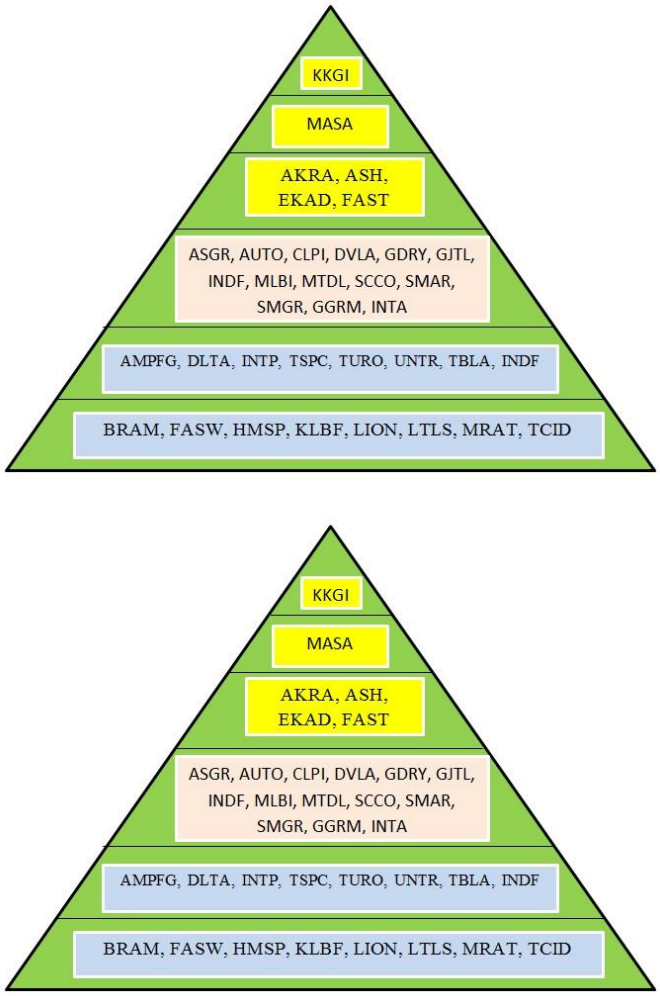

Figure 3
The Rank of Industry Groups Based on Their Financial Soundness Levels

of the company is not caused by the 17 independent variables, but by the external factors.

The test of Ex.G model shows that the significant value on the table of the Wilks lambda is 0.017 <0.05. This means there is a significant difference between the growth rate of the sound and unsound industry groups of Ex.G and the model can be explained by 48.40%, in which the Eigen values are listed in the table. The results indicate that the independent variable of stepwise dominantly can distinguish between sound and unsound industry groups with Closing Price (CP) (see Table 1 and 2). The discriminant equation is:
Z = -1.093 + 0.000 CP

The test of NIG model shows that the significant value on the table of the Wilks lambda is 0.002 <0.05. This also means that there is significant difference between the growth rate of sound and unsound industry of NIG groups and the model can be explained by 71.00% listed in the table of Eigen values. Thus, this result indicates that the independent variable of the stepwise dominantly can distinguish between sound and unsound industry groups with financial ratios of current rate (CR), Book Value (BV) and Dividend Yield (DY) (see Table 1 and 2). The discriminant equation is:
Z = -2.617 + 0.008 CR + 0.000 BV + 0.471 DY.

Among 37 manufacturing companies with T (high) performance are at most only 2 companies KKGI with 6T and MASA with 5T, and performing R (lower) at 7R. There are 8 companies such as BRAM, FASW, HMSP, KLBF, LION, LTLS, MRAT, TCID, which can be seen Figure 3.

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

The financial soundness of the manufacturing industries listed on the stock exchange Indonesia leads to the fact that 23 companies 62% Current

Asset Growth (CAG) are. Similarly, the Fixed Asset growth (FAG) of 28 companies or 76% is still low, Equity Growth (EqG) of the 27 companies, or 73 %, Revenue growth (RG) 27 companies' or 65%, and Net Income Growth (NIG) of 35 firms, or 95%. However, two manufacturing companies have a very high NIG. Thus, NIG average is to be very high.

The test of hypothesis with statistical discriminate to test the seven models of financial soundness. This was measured by the growth of corporate finance with the model CAG, FAG, LG, LQG, RG, ExG and NIG. Yet, there was only one model that was not significant between the financial growth of the sound and unsound industry groups of RG model, while the other model is a significant. This means there are significant differences between the growth rate of the corporate finance group of the sound and unsound industry groups.

It implies that public companies listed on the Indonesia Stock Exchange should increase their transparency in the field of financial accounting financial growth, mainly to describe the level of their financial soundness. Financial analysis carried out by the public company financial performance still shows when analyzed individually. Therefore, the effect of a decrease in one's financial performance does not have attention.

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