THE COMPARISON OF FINANCIAL PERFORMANCE USING DUPONT SYSTEM ANALYSIS IN PT KALBE FARMA TBK AND PT KIMIA FARMA TBK PERIOD 2011-2016

PERBANDINGAN KINERJA KEUANGAN DENGAN MENGGUNAKAN SISTEM ANALISIS DUPONT DI PT KALBE FARMA TBK DAN PT KIMIA FARMA TBK PERIODE 2011-2016

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Abstract: Indonesia is a part of Association of South East Asia Nations (ASEAN) which means it has become open market that resulted the competition became fiercer and a company must be able to efficiently and effectively managing their asset. In Indonesia, there are some instability that happens on periods 2011 – 2016 like president election, politics, and cabinet changes that could affect Indonesian Stock Exchange. This research aim to analyze the financial performance PT Kalbe Farma Tbk and PT Kimia Farma Tbk period 2011 – 2016 using DuPont System and compare those financial performance of both company. This research is classified as quantitative and used purposive sampling. The data were gathered from annual reports from both companies. Based on the result of the study, from the ROE perspective, PT Kalbe Farma Tbk is better from PT Kimia Farma Tbk. The researcher recommends that PT Kalbe Farma Tbk and PT Kimia Farma Tbk need to utilize their asset more, since from TAT both are decline each year and do a cost reduction for the raw materials.

Keywords: *financial performance, return on equity, return on asset, dupont system analysis, ratio analysis.*

Abstrak: *Indonesia adalah bagian dari Asosiasi Negara-negara Asia Tenggara (ASEAN) yang berarti telah menjadi pasar terbuka yang mengakibatkan persaingan menjadi semakin ketat dan perusahaan harus dapat mengelola aset mereka secara efisien dan efektif. Di Indonesia, ada beberapa ketidakstabilan yang terjadi pada periode 2011-2061 seperti pemilihan presiden, politik, dan kabinet yang dapat mempengaruhi Bursa Efek Indonesia. Penelitian ini bertujuan untuk menganalisis kinerja keuangan PT Kalbe Farma Tbk dan PT Kimia Farma Tbk periode 2011-2016 dengan menggunakan sistem DuPont dan membandingkan kinerja keuangan kedua perusahaan. Penelitian ini diklasifikasikan sebagai kuantitatif dan menggunakan purposive sampling. Data dikumpulkan dari laporan tahunan kedua perusahaan. Berdasarkan hasil penelitian, dari sisi ROE, PT Kalbe Farma Tbk lebih baik dari PT Kimia Farma Tbk. Peneliti merekomendasikan agar PT Kalbe Farma Tbk dan PT Kimia Farma Tbk perlu memanfaatkan aset mereka lebih banyak, karena dari TAT keduanya mengalami penurunan setiap tahun dan melakukan pengurangan biaya untuk bahan baku.*

Kata Kunci: *kinerja keuangan, return on equity, return on asset, analisis sistem dupont, analisis rasio.*

INTRODUCTION

Research Background

During 2011 – 2016 there are many uncertainty events in global economics like Greece bankruptcy, United Kingdom leaving EU (Brexit Referendum), Organization of Petroleum Exporting Countries (OPEC) cut its productione resulted the prices of oil getting higher and president election on United States of America, all of these events really affected prices on Indonesian Stock Exchange. Currently healthcare industry is growing because the increasing awareness about healthcare, economic growth, and the vast majority of people. Healthcare ratio expenditure to GDP in 2013 is 3,1% within ASEAN countries meaning there is a lot potential to improve, also the Compound Annual Growth Rate (CAGR) grew at an average 12% in 2010 – 2014 period for the pharmacy industry. Why this is important? Because it is about a human health no matter what eventually people will get sick that is the reason why healthcare is important.

Good or bad company, sometimes it can be decided from the financial performance perspectives. The financial performance itself can be seen through firm annual reports. Now it is necessary for a company to know its own financial performance since that is one of foundation in order to making decision making, because one of the company overall performance is shown based on financial performance factor. With a clear information about financial performance that happened in the company a manager can make a rational decision that effective and efficiently suitable according to the problem that company has.

To know the financial performance of company itself there are many methods that available but commonly they are using financial ratio analysis used in order to do financial statement analysis. Financial ratio analysis is divided into 4 categories Liquidity ratios, Asset Management Ratios, Debt Management Ratios, and Profitability Ratios. This research will see the financial performance of PT Kalbe Farma Tbk and PT Kimia Farma Tbk during 2011 – 2016 when Indonesia already in ASEAN and when the company survive through weak economic growth that happens during 2011 – 2016. The companies that will be researched is PT Kalbe Farma Tbk and PT Kimia Farma Tbk financial performance analyzing using DuPont System analysis. To compare each which is one the best for investor investing their money between these two companies and the result of these analyzed can be used to evaluate the company performance overall.

Research Problem

1. How is the financial performance of PT Kalbe Farma Tbk for the period 2011 – 2016?
2. How is the financial performance of PT Kimia Farma Tbk for the period 2011 – 2016?
3. Between PT Kalbe Farma Tbk and PT Kimia Farma Tbk which company has better financial performance?

Research Objectives

The objectives of this research is to analyze financial performance:

1. PT Kalbe Farma Tbk and PT Kimia Farma Tbk period 2011 - 2016
2. To compare the financial performance of PT Kalbe Farma Tbk and PT Kimia Farma Tbk period 2011 – 2016.

THEORETICAL FRAMEWORK

Finance

Finance can be defined as the science and art of managing money. At the personal level, finance is concerned with individuals' decisions about how much of their earnings they spend, how much they save, and how they invest their savings. In a business context, finance involves the same types of decisions: how firms raise money from investors, how firms invest money in an attempt to earn a profit, and how they decide whether to reinvest profits in the business or distribute them back to investors. The keys to good financial decisions are much the same for businesses and individuals, which is why most students will benefit from an understanding of finance regardless of the career path they plan to follow. Learning the techniques of good financial analysis will not only help you make better financial decisions as a consumer, but it will also help you understand the financial consequences of the important business decisions you will face no matter what career path you follow. Careers in finance typically fall into one of two broad categories: financial services and managerial finance.

1. Financial services is the area of finance concerned with the design and delivery of advice and financial products to individuals, businesses, and governments. It involves a variety of interesting career

opportunities within the areas of banking, personal financial planning, investments, real estate, and insurance.
2. Managerial finance is concerned with the duties of the financial manager working in a business. Financial managers administer the financial affairs of all types of businesses—private and public, large and small, profit seeking and not for profit. They perform such varied tasks as developing a financial plan or budget, extending credit to customers, evaluating proposed large expenditures, and raising money to fund the firm's operations (Gitman and Zutler, 2012:4)

Financial Management

Financial management is concerned with the acquisition, financing, and management of assets with some overall goal in mind. Thus the decision function of financial management can be broken down into three major areas: the investment, financing, and asset management decisions (Van Horne and Wachowicz, Jr, 2008: 2):

1. The investment decision is the most important of the firm's three major decisions when it comes to value creation. It begins with a determination of the total amount of assets needed to be held by the firm. Picture the firm's balance sheet in your mind for a moment. Imagine liabilities and owners' equity being listed on the right side of the balance sheet and its assets on the left. The financial manager needs to determine the dollar amount that appears above the double lines on the left-hand side of the balance sheet – that is, the size of the firm. Even when this number is known, the composition of the assets must still be decided. For example, how much of the firm's total assets should be devoted to cash or to inventory? Also, the flip side of investment – disinvestment – must not be ignored. Assets that can no longer be economically justified may need to be reduced, eliminated, or replaced (Van Horne and Wachowicz Jr, 2008:2).
2. The second major decision of the firm is the financing decision. Here the financial manager is concerned with the makeup of the right-hand side of the balance sheet. If you look at the mix of financing for firms across industries, you will see marked differences. Some firms have relatively large amounts of debt, whereas others are almost debt free. Does the type of financing employed make a difference? If so, why? And, in some sense, can a certain mix of financing be thought of as best? In addition, dividend policy must be viewed as an integral part of the firm's financing decision. The dividend-payout ratio determines the amount of earnings that can be retained in the firm. Retaining a greater amount of current earnings in the firm means that fewer dollars will be available for current dividend payments. The value of the dividends paid to stockholders must therefore be balanced against the opportunity cost of retained earnings lost as a means of equity financing. Once the mix of financing has been decided, the financial manager must still determine how best to physically acquire the needed funds. The mechanics of getting a short-term loan, entering into a long-term lease arrangement, or negotiating a sale of bonds or stock must be understood (Van Horne and Wachowicz Jr, 2008:3).
3. The third important decision of the firm is the asset management decision. Once assets have been acquired and appropriate financing provided, these assets must still be managed efficiently. The financial manager is charged with varying degrees of operating responsibility over existing assets. These responsibilities require that the financial manager be more concerned with the management of current assets than with that of fixed assets. A large share of the responsibility for the management of fixed assets would reside with the operating managers who employ these assets (Van Horne and Wachowicz Jr, 2008:3).

Financial Performance

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation (https://www.investopedia.com/terms/f/financialperformance.asp)
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Financial Statement

Financial statements are the primary means of communicating important accounting information about a business to those who have an interest in the business. These statements are models of the business enterprise in that they show the business in financial terms. As is true of all models, however, financial statements are not perfect pictures of the real thing. Rather, they are the accountant's best effort to represent what is real. Four major financial statements are used to communicate accounting information about a business: the income statement, the statement of owner's equity, the balance sheet, and the statement of cash flows (Needles and Power, 2011: 19).

The income statement is a summary of the profitability of the firm over a period of time, such as a year. It presents revenues generated during the operating period, the expenses incurred during that same period, and the company's net earnings or profits, which are simply the difference between revenues and expenses (Bodie et al, 2014: 635). The income statement summarizes the revenues earned and expenses incurred by a business over an accounting period. Many people consider it the most important financial report because it shows whether a business achieved its profitability goal—that is, whether it earned an acceptable income (Needles and Power, 2011: 19).

While the income statement provides a measure of profitability over a period of time, the balance sheet provides a "snapshot" of the financial condition of the firm at a particular moment. The balance sheet is a list of the firm's assets and liabilities at that moment. The difference in assets and liabilities is the net worth of the firm, also called shareholders' or stockholders' equity (Bodie et al, 2014: 637). The purpose of a balance sheet is to show the financial position of a business on a certain date, usually the end of the month or year. For this reason, it is often called the statement of financial position and is dated as of a specific date. The balance sheet presents a view of the business as the holder of resources, or assets, that are equal to the claims against those assets (Needles and Power, 2011:20).

The statement of owner's equity shows the changes in owner's equity over an accounting period (Needles and Power 2011). A retained earnings statement summarizes the changes in retained earnings for a specific period of time (Weygandt et al, 2013: 22).

The statement of cash flows tracks the cash implications of transactions. The statement of cash flows provides important evidence on the well-being of a firm. If a company cannot pay its dividends and maintain the productivity of its capital stock out of cash flow from operations (Bodie et al, 2014: 637). Whereas the income statement focuses on a company's profitability, the statement of cash flows focuses on its liquidity. Cash flows are the inflows and outflows of cash into and out of a business. Net cash flows are the difference between the inflows and outflows. The statement of cash flows is related directly to the other three financial statements (Needles and Power, 2011:21).

The DuPont System Analysis
Definition

DuPont analysis is a method of performance measurement that was started by the DuPont Corporation in the 1920s. With this method, assets are measured at their gross book value rather than at net book value to produce a higher return on equity (ROE). It is also known as DuPont identity. According to DuPont analysis, ROE is affected by three things: operating efficiency, which is measured by profit margin; asset use efficiency, which is measured by total asset turnover; and financial leverage, which is measured by the equity multiplier.
Therefore, DuPont analysis is represented in mathematical form by the following calculation:
ROE = Profit Margin x Asset Turnover Ratio x Equity Multiplier.
DuPont analysis breaks ROE into its constituent components to determine which of these components is most responsible for changes in ROE.

1. Net Profit margin: Expressed as a percentage, net margin is the revenue that remains after subtracting all operating expenses, taxes, interest and preferred stock dividends from a company's total revenue.
2. Asset turnover ratio: This ratio is an efficiency measurement used to determine how effectively a company uses its assets to generate revenue. The formula for calculating asset turnover ratio is total revenue divided by total assets. As a general rule, the higher the resulting number, the better the company is performing.
3. Equity multiplier: This ratio measures financial leverage. By comparing total assets to total stockholders' equity, the equity multiplier indicates whether a company finances the purchase of assets primarily through debt or equity. The higher the equity multiplier, the more leveraged the company, or the more debt it has in relation to its total assets.

DuPont analysis involves examining changes in these figures over time and matching them to corresponding changes in ROE. By doing so, analysts can determine whether operating efficiency, asset use efficiency or leverage is most responsible for ROE variations. It is believed that measuring assets at gross book value removes the incentive to avoid investing in new assets. Using gross book value as opposed to net book value for assets results in a higher ROE, which can factor into a company's decision to purchase new assets. By contrast, new asset avoidance can occur as financial accounting depreciation methods artificially produce lower

ROEs in the initial years that an asset is placed into service. If ROE is unsatisfactory, DuPont analysis helps locate the part of the business that is underperforming (http://www.investopedia.com/terms/d/dupontanalysis.asp).

Previous Research

Almazari (2012) presents the bank return on equity is decomposed into net profit margin, total asset turnover and the equity multiplier. This model is applied to Arab Bank of Jordan which is one of the largest banks in Jordan. The DuPont system of financial analysis shows the performance of The Arab Bank over the years from 2000-2009 and the impact of the world financial crisis that hit the region in the recent years.

Nanavati (2013) studied about return on equity as one of the financial metric that can be used to judge a company's effectiveness to translate investor equity into profits. Here the Company was having negative ROE in year 2010-2011 which of course lead to reduction in equity but in the subsequent year ROE is positive and seems good enough looking to the type and nature of business as peer average is quite below the ROE of Satyam hence one cannot rely upon only ROE as some other factors can also be influencing the profitability which may be the manipulation/ forensic in the cited case.

Conceptual Framework

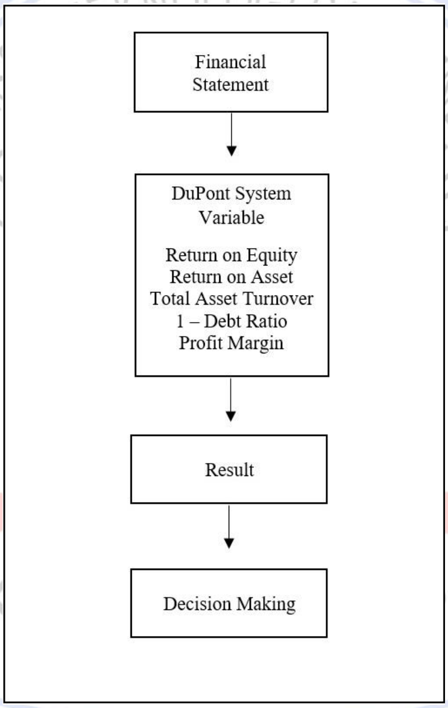

Figure 1. Conceptual Framework

This research analyzed financial performance of PT Kalbe Farma Tbk and PT Kimia Farma Tbk through financial statement. After that it finding the dupont variable that consist of Retrun on Asset, Total Asset Turnover, 1 – Debt Ratio, Net Profit Margin. The result of DuPont can be use in decision making of the company and see both company overall performance.

RESEARCH METHODOLOGY

Type of Research

The type of this research is a comparison type of study because the purpose of this study is to analyze and comparing the financial performance of PT Kalbe Farma Tbk and PT Kimia Farma Tbk. The data that will be used in this research is secondary data.

Population and Sample

The population used in this research is pharmaceutical company in Indonesia and the sample of this research is PT Kalbe Farma Tbk and PT Kimia Farma Tbk and the sampling technique that used in this research is purposive sampling.

Data Collection Method

Data Analysis Method

The data analysis method that will be used in this research is DuPont System Analysis. The DuPont System Analysis equation formula is:

Return on Equity = Net Profit Margin x Asset Turnover x Equity Multiplier

Operational Definition

The variables that used in this research is a value of financial performance measured by DuPont Analysis which is Return of Equity of PT Kalbe Farma Tbk and PT Kimia Farma Tbk in managing the effectiveness of company asset, profit and leverage.

RESULT AND DISCUSSION

Result

For net income, revenues and total asset PT Kalbe Farma Tbk is still more better than PT Kimia Farma Tbk. Also from DuPont System Analysis it is also PT Kalbe Farma Tbk still better than PT Kimia Farma Tbk by far. The financial performance of PT Kalbe Farma Tbk and PT Kimia Farma Tbk can be seen on the table below:

Table 1. Financial Performance of PT. Kimia Farma, Tbk

			PT Kalbe Farma Tbk			
Description	2011	2012	2013	2014	2015	2016
Total Asset	8,274,554	9,417,957	11,319,399	12,439,267	13,696,417	15,226,009
Total Liability	1,758,619	2,046,314	2,840,008	2,675,166	2,758,131	2,762,162
Total Equity	6,515,935	7,371,643	8,479,392	9,764,101	10,938,286	12,463,847
Total Revenue	10,911,860	13,636,405	16,002,131	17,368,533	17,887,464	19,374,231
Total Expense	9,388,903	11,861,306	14,031,679	15,245,855	15,829,770	17,023,346

Net Income	1,522,957	1,775,099	1,970,452	2,122,678	2,057,694	2,350,885
NPM	13.956%	13.017%	12.313%	12.221%	11.503%	12.134%
TAT	1.318	1.447	1.413	1.396	1.305	1.272
ROA	18.394%	18.835%	17.398%	17.060%	15.011%	15.434%
DR	21.254%	21.728%	25.090%	21.506%	20.138%	23.186%
1 – DR	78.746%	78.272%	74.910%	78.494%	79.862%	76.814%
EM	1.269	1,277	1.413	1.273	1.252	1.221
ROE (ROA*EM)	23.358%	24.063%	23.225%	21.734%	18.796%	20.092%
ROE (ROA/1-DR)	23.358%	24.063%	23.225%	21.734%	18.796%	20.092%

Table 2. Financial Performance of PT. Kimia Farma, Tbk and PT Kimia Farma Tbk

PT Kimia Farma Tbk

Description	2011	2012	2013	2014	2015	2016
Total Asset	1,794,400	2,076,348	2,471,940	3,012,779	3,434,879	4,612,563

Total Liability	541,737	636,814	847,585	1,291,700	1,378,320	2,341,155
Total Equity	1,252,663	1,441,534	1,624,355	1,721,079	2,056,560	2,271,407
Total Revenue	3,481,166	3,734,241	4,348,074	4,521,024	4,860,371	5,811,503
Total Expense	3,309,403	3,528,477	4,132,432	4,263,188	4,593,821	5,539,905
Net Income	171,763	205,764	215,642	257,836	265,55	271,598
NPM	4.934%	5.510%	4.959%	5.703%	5.463%	4.673%
TAT	1.940	1.798	1.758	1.500	1.415	1.259
ROA	9.571%	9.906%	8.717%	8.554%	7.730%	5.883%
DR	31.191%	30.574%	34.289%	42.875%	40.128%	50.757%
1 – DR	69.809%	69.426%	65.711%	57.125%	59.872%	49.243%
EM	1.432	1.440	1.521	1.750	1.670	2.030
ROE (ROA*EM)	13.710%	14.268%	13.265%	14.974%	12.911%	11.946%
ROE (ROA/1-DR)	13.710%	14.268%	13.265%	14.974%	12.911%	11.946%

Source: Data Processed, 2017

Discussion

Based on the result, the highest Return on Equity of PT Kalbe Farma Tbk in range of 6 years was 24.063% in year 2012 and 24.063% and for PT Kimia Farma Tbk is 14.974%. In year 2012, for both of company having a positive performance was triggered by growth of GDB 6,23%. It is what make the PT Kalbe Farma Tbk highest ROE and as The lowest ROE on PT Kalbe Farma Tbk was in year 2015 which is 18.796% and for PT Kimia Farma Tbk was in year 2016 is 11.946%. In year 2015 PT Kalbe Farma Tbk ROA was 15.011%, it was decreased from last 5 years it was caused by growth on Cost of Goods Sold which resulted decreasing on net income thus making the NPM and ROA decline.

As the reason for the PT Kimia Farma Tbk ROE decline, it was caused by grew in liabilities, the debt mainly in third parties, banks, medium term notes, and long terms bank payables. All of that caused PT Kimia Farma Tbk equity multiplier increasing thereby affected the ROE of PT Kimia Farma Tbk declined. The reason of PT Kimia Farma Tbk have the liabilities is that it wants to build their own for production of medicine raw material, hospital business development and also to revitalization company asset.

CONCLUSIONS AND RECOMMENDATION

Conclusions

Based on result and discussion section that have been explained in chapter 5, the conclusions are:

1. PT Kalbe Farma Tbk financial performance can be stated as good performance in range of six years the company show the ability generated a profit with net income cover the expenses cost. The company also showed the positive trend of ROE, the highest ROE that occurred in range six years from 2001 to 2016 is 2012. In year 2015 is decreased and increased again in year 2016.
2. PT Kimia Farma Tbk financial performance can be stated as good. Cause it net income and revenues always increases in range of six years. The company also showed the ability to generated profit despite having many debts mainly to bank and other third parties. The ROE is showed the positive growth with only on year 2015 and 2016 there is significant decline.
3. According to Keown et al (2005) using the DuPont equation allows management to see more clearly what drives the return on equity and the interrelationships among the net profit margin, the asset turnover and the debt ratio. Management is provided with a road map to follow in determining its effectiveness in managing the firm's resources to maximize the return earned on owners' investment. From that we can see between PT Kalbe Farma Tbk and PT Kimia Farma Tbk the one that is still better is PT Kalbe Farma Tbk by measured their ROE.

Recommendations

Based on discussion the ROE of PT Kimia Farma Tbk is still low compared to PT Kalbe Farma Tbk the main difference is in net income which lead to low net profit margin (NPM), PT Kimia Farma Tbk NPM is too low they need cut to cost so that the NPM are good, maintain the company financial management, both companies need to increase the work efficiency and using their asset especially for PT Kimia Farma Tbk. With this strategy both companies financing structure will be better than the previous year which will make the ROE value increase.

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