DEPARTMENT OF ECONOMICS, ENTREPRENEURSHIP
AND BUSINESS ADMINISTRATION

MASTER THESIS

Topic "The management of enterprise solvency based on economic indicators"

Specialty 073 "Management"

Study program 8.073.00.09 "Business Administration"

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Sumy 2019

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SUMMARY

Master's thesis contains 49 pages of main text, 3 sections, 2 figures, 4 tables, list of used literature from 27 sources.

The purpose of the master's thesis is to study and analyze the approaches financial analysis taken by both companies and creditors/investors, looking specifically at ratio analysis and taking Procter & Gamble as a case study.

The object of the study is a company called Procter & Gamble.

In the first section "ESSENCE OF THE FINANCIAL AND ECONOMIC ANALYSIS OF ENTERPRISEs" approaches that reveal the essence of the financial and economic analysis and the its importance long and short term financing of companies, and also the effect it has in the decision making of creditor or Investors.

In the second section "METHODOLOGY FOR A COMPREHENSIVE FINANCIAL ANALYSIS OF ENTERPRISES", here I took a close look and practical indicators, specifically ratios that give an insight to the performance and health of a company. These ratios looked at the liquidity of companies, their solvency, business activity, financial results and financial stability. These methods are a set of formulas though not perfect, are good and strong indications of how well a company is doing.

In the third section, "FINANCIAL CALCULATION AND RECOMMENDATION FOR PROCTER AND GAMBLE COMPAY", the analysis of company's results and ratios between the year 2018 and 2019.This calculation of the ratios were carried out with the aim of making recommendations that can help better the productivity of the company. It is a very big, diversified and well run organization.

INTRODUCTION

With the ever evolving way that businesses are being run today, may companies have made sure that the have not lost the basis of analysis of how well their companies are doing. These days there are things like business process reengineering which help to assess news ways to do businesses more efficiently. But in the project I will take a look at one of the traditional ways that the health of a company is assessed, which is through financial analysis; and in specific financial ratios.

I have chosen to work on this project because it is very rewarding to be equipped with knowledge of how to analyze and ascertain the health if a company and to be able to either use it for personal work or when my services are called upon in a cooperate organization.

Ratio analysis is one of the oldest ways that financial analysis has been done. It was introduced and developed by banks and other money lenders, to pick from companies ask for credit from them. One of the reasons why this analysis had to be developed is that, two sets of financial analysis can be difficult and a times impossible to compare, considering the effect of time and the fact that different companies are in different industries and their mode of operation and style might be completely different, it makes it difficult to come to a conclusion as to which company or firm is a better investment. The development of ratio analysis has help with this problem as companies in the same industries can be compared based on some parameters and formulas.

This analysis a shortcuts with which creditors can ascertain the real financial state of different companies. There are setting values that have been recommended, and so if it falls below this value or if it is above the set value, it as a meaning for the company, which can either be positive or negative.

In some cases the comparison are made with companies in the same industry while at other times the comparisons are made with the present record

and past record of the same company. For example comparing financial statements of two different years.

In general this process is known to help financial Investors shortlist companies that meet their criteria and fall within the numbers that they can work with. As opposed long process that did not exactly compare companies on a fair ground and the basis of their productivity.

Another thing to consider is that investors have limited data to work with and it is very important that the use the one that they have at their disposal as well and possible. And this analysis help to save time and increase efficiency.

So in a nutshell we can say that this ratios make financial analysis simpler and gives the investors and idea of what goes on behind the scenes.

On one hand while this has made it a little difficult for companies to get investors to invest in their companies, it has also made them sit up out their house in order so to say, knowing that if they don't do so then they might not get the finances to grow and reach the goals.

It is very important to note that there are some important sources of data that investors use to get some information that they use for analysis. Some if these sources are: financial statements, best practices report and market. Document that are mainly used for this analysis are *balance sheet and income statement*.

In this Thesis we will also be looking at problems that are associated with this method of analysis and modern situations that are encountered with them. In addition to that I will state the different formulas, what they mean and also how to interpret them. I will also use the company "Procter and Gamble" as a case study.

SECTION 1: ESSENCE OF THE FINANCIAL AND ECONOMIC ANALYSIS OF THE ENTERPRISE

1.1 Definition, goals and tasks of financial analysis

Financial analysis is the process whereby businesses, budgets, projects, and different financial entities are evaluated to decide how sustainable they are and the level of their performance. In general financial analysis are used to determine if an organization is liquid, solvent stable or profitable enough to investors to invest financial to the business entity. Usually when analysts are carrying out analysis they do using documents like; income statements, cash flow statements and balance sheet.

Financial analysis is useful in evaluating trends in economics, coming up with financial policies, creating long-term goals for activities involved in business, and to help pin point companies that are worthy of investment. This is carried out through harnessing data and financial numbers [1].

Calculating ratios from the data and comparing it against other companies or against the same companies previous performance is one of the most popular ways of doing financial analysis, and is the main focus of this thesis.

For instance, return on assets is one of the common ratios used to determine the efficiency of a company in using its assets and to determine the profitability of that company. This ratio can used to calculate the ratio of return on assets for several companies and be compared on a large scale analysis.

These analysis can be done in an investment finance setting and a cooperate finance. When it comes to cooperate finance, analysis is usually conducted internally, with ratios like internal rate return and net present value, to decide and identify projects worthy of execution. One important area of analysis includes reviewing an organizations previous performance, like the gross revenue or profit margin to estimate possible future performances of the company. This gives

businesses the opportunity to predict budgets and to take decisions based on the previous happenings they have observed.

In the case of the investment finance, an external financial analyst does the financial analysis for the purpose of investment. It can either be done in a top to bottom manner of a bottom to top investment.

In bottom to top approach, it consider a specific company, and carries out a ratio analysis that is similar to corporate financial analysis, analysis present and previous and future performance as a lead for investments

In the top to bottom approach, looks for high performing areas at the macroeconomic level and then it goes further to find the best companies in the area [2].

There are two major types of financial analysis, the fundamental and technical analysis. Technical analysis considers quantitative charts, for example a moving average, and Fundamental works with ratios, like a company's earnings per share [3].

For instance, a economic analysis conducted on the pound/US dollars exchange rate after the results of the Brexit vote on the 23rd of June 2016. Showed on the exchange rate chart, a significant drop in the rate, which then recovered within a 48-hour period (with 375 basis points {bps}).

A good example of fundamental analysis of Discover Financial Services showed a good sign, because they in the first-quarter of 2016. They had an Earning per share of $1.40, which was an increase from the earning per share of $1.33 seen in the same quarter in 2015 [4].

1.2 Problems encountered in financial and economic analysis

The following are a group of problems that are encountered during financial analysis:

Poor Underlying Theory:

One of the main problems with financial statement analysis is the fact that there is no specific theory points out exactly what numbers to look at and how properly to interpret them. Due to this fact, this analysis seems to be a subjective activity. One of the most interesting aspects of ratio analysis is the nonexistence of an out and out theoretical structure.

This has led to of ratio analysis being full of unproven assumptions about the right ratio to be used in different situations and at what level it should be used.

Conglomerates (Firms):

A lot of firms, especially the large ones, are involved in a number of industries. As a result of the diversity of products they have, it more difficult to ascertain the best parameters for evaluating financial performance and state. Therefore, it means that specific benchmarks may only be available firms that are involved in fewer industries or a specific industry.

The problem of Window Dressing:

Companies can decide to start window dressing projects to depict a good financial state. For instance, a company can develop its balance sheet at a period when it has very low inventory level. This can portray the company to be in a very good liquidity position and to have very good turnover levels. The way out of this is that when for instance an analyst suspects this they should look at the financial average of the financial statement over a period of time not just a specific point.

Differences in Accounting Policies:

Businesses organizations have some differences in the way they do their accounting, in areas like valuing stock, expenses on development, foreign exchange, depreciation, installment sales, initial and preoperative spending, revaluation of assets and reserves. Due to the differences in the way accounting is approached comparative financial analysis will most likely vary [5].

Interpretation of Results:

Although the average of industries are commonly used in financial ratios, it is difficult to decide if the result of a certain ratio is good and not good. A current ratio for instance what is high could mean two things, either the liquidity of the company is good or the inventories are too much. Also a high turnover from fixed asset may show good usage of machineries or continued utilization of worn out and inefficient machines.

One other problem encountered during interpretation is when a company experiences good ratios in some aspects and in others aspects the ratios are not good, which is a pretty common happening. In cases where this happens it might be difficult to come up with an overall assessment of the financial strength and position of the company. More analyzing tools will have to be developed to be able to come up with a more rounded up result in cases where some ratio results are positive and others are negative.

Correlation among ratios:

Leaving the previous problem stated above, ratios of a company usually show a high level of correlation. The reason is a lot ratios have similar element for instance, sales is used in different turn over ratios. Due to this correlation it is not often necessary to apply a wide range of financial ratios in financial analysis. Therefore it might be necessary to choose a small group of ratios and work with the values they give. Carrying out such a selection demands a good understanding of the limit and meanings of the different ratio formulas available and how the apply to business and long term investments [5].

SECTION 2: METHODOLOGY FOR A COMPREHENSIVE FINANCIAL AND ECONOMIC ANALYSIS OF ENTERPRISES

2.1 Definition, types of comparisons and list of types of ratios.

A Financial Ratio is an index that relates two accounting numbers and is obtained by dividing one number by the other, it can be done by comparing the financial situation of and the level of performance of a company with another.

This is done with numerical values taking from financial statements, like balance sheets and income statements. It helps to obtain meaningful information about an organization [1].

Types of Comparisons:

-Internal Comparisons

-External Comparisons

Internal Ratio

As the word internal implies, it means that this financial analysis is done within one organization, usually might be done by the management, owners or people that were employed. It is used to compare a present ratio with past and expected future ratios for the same company.

For instance comparing the Sony 2017 ratios with Sony 2018 and 2019 ratios demonstrates whether they have improved or not.

External Ratio

This involves comparing the ratios of one firm with those of *similar* firms or with industry averages.

To compare the ratios of one firm with those of similar firms or with industry averages at the same point in time is called External Comparisons.

Similarity is important as one should compare "apples to apples." And not "Apples with Oranges" [6].

Example: to compare the ratios of Sony and Panasonic.

During financial analyses of companies results are expressed in percentages, proportions and pure number /times (tab l. 2.1)

Table 2.1 – How ratios are expressed*

	Example
As Percentage such as 25% or 50%	For example if net profit is $.25, 000 /- and the sales is $.100, 000 /- then the net profit can be said to be 25% of the sales.
As Proportion	The above figures can be expressed in terms of the relationship between net profits to sales as 1: 4.
As Pure Number /Times	The same can also be expressed in other ways such as the sale is 4 times of the net profit or profit is 1/4th of the sales.

* It is formulated by the author on the basis of works [1], [2]

Ratios are useful because they help to standardize numbers, facilitate comparisons and are used to highlight weaknesses and strengths. A can also help make up the mind of investors, on whether to invest or not.
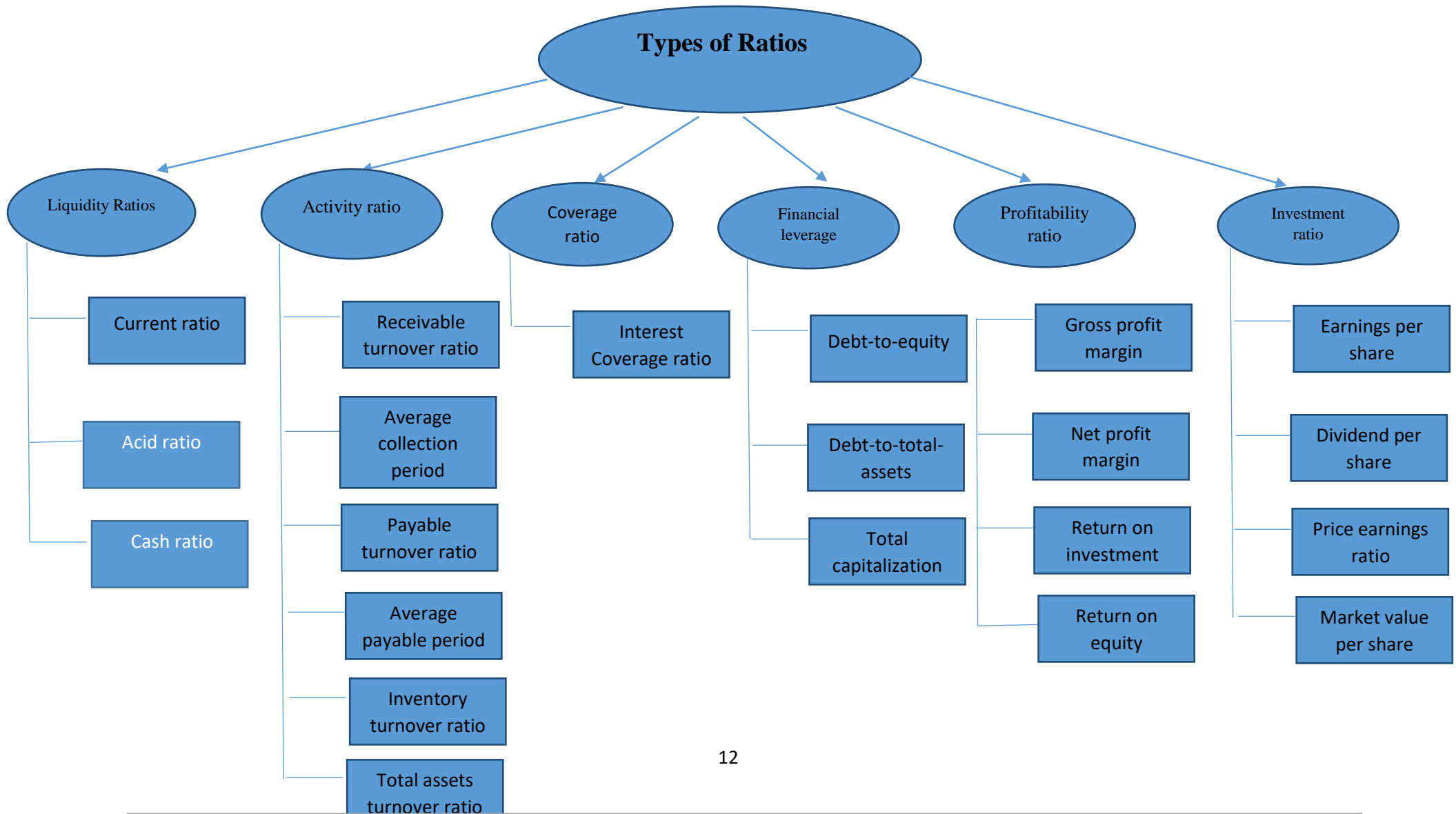
Figure 2.1 – Types of Ratios (It is formulated by the author on the basis of works [1], [6])

2.2 Analysis of the economic stability of the enterprise

For this analysis the indictor used is called ***Liquidity ratio.*** These Ratios measure a firm's ability to meet short term obligations; it shows if required payments can be made. That means using it current assets to meet its

Short term liabilities. The ability of the company to get cash from its assets, not the ones tied up in its inventory, to pay salaries, monies that are owed etc.

They compare short term obligations with short term (or current) resources available to meet these obligations.

From these ratios, much insight can be obtained into the present cash solvency of the firm.

This ratios are mostly used by potential creditors and lenders to decide on whether to extend credit or debt, respectively, to organizations [7]

According to figure 2.1, there are three types of liquidity ratios:

(i) Current Ratio

(ii) Acid test (quick) Ratio

(iii) Cash Ratio

CURRENT RATIO

Shows a firm's ability to cover its current liabilities (pay its bills) with its current assets in the near term; It is the relationship between the current assets and current liabilities of a firm.

The main flaw associated with current ratio is that it considers inventory as a current asset. Inventories are generally difficult to convert into cash, and so they may not be perfect indicators for liquidity.

Current ratio:

$$\frac{\text{Current Assets}}{\text{Current Liabilities}} \qquad (2.1)$$

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Interpretation of findings through current ratio

Compares the ratio between Current Assets and Current Liabilities. The ideal level should at about 1.5 or some journals say 2:1.

- Too high – This might mean that too much assets are tied up in activities that are not productive. For example, there is a lot of stock that has not been sold. Extremely high inventory might be more of a problem than good.

- Too low – this will mean that there is a lack of ability to pay debts (Current liabilities.)

Current ratio can yield results that are misleading in the following situations:

Inventory component. If current assets numbers involves a large portion of inventories, the reason is that this assets are difficult to liquidate and may not be immediately helpful for dealing with short term needs. This especially difficult if the management of a company is using an aggressive technique for a very large overhead cost to inventories, this increase the amount of inventory that is recorded.

Paying from debt. When an Organization is using the line of credit to pay its bills when they are due, which implies that the cash balance is close to zero. In this situation the current ratio could be low, and but the presence of a line of credit allows the company to pay their liabilities in a timely manner. In this case, the company should make inform its creditors of the unused portion of the line of credit, which can be used to service additional bills. Although, the longer-term question is if the company will be in a position to pay down the line of credit [7].

ACID TEST (QUICK) RATIO

This ratio is used to decide if a company sufficient liquid assets that can be easily converted into cash to pay its liabilities. The key elements of current assets, such as marketable securities, and accounts receivable are included in the ratio calculation as cash. Inventory is not considered as assets in this

calculation as it might be difficult to sell off, in a time that will help the needs and might also be sold at loss, just to get it off the shelf. Since this formula does not consider inventory, it might be a better indicator on the ability of the company to pay its short term liabilities; when compared the current ratio which does consider inventory.

In spite of the fact that inventory is not considered in quick ratio, it may still not yield a good result of the ability to be immediately liquid. For instance of the liabilities at present are payable, and receipts from receivables are not thought to be expected still for some weeks. This is usually when a company has handed long term deals to its customers.

This ratio is most useful to manufacturers, retailers, and distributors, where inventory can make up a large part of current assets. It is especially helpful for potential creditors or lenders who want to see if the company will be able to pay in time [7].

Interpretation of findings through current ratio

1(one) is seen as ideal.

It has been debated that Inventory takes a while to convert to cash so a more realistic ratio would ignore Inventory, as in the case of quick ratio.

The exclusion of Inventory gives an indication of the cash the firm has in relation to its liabilities (what it owes)

A ratio of 1 would imply that the firm has $1 of cash to cover every $1 in current liabilities.

Again if it is too high means that the business is very liquid – may be able to use the cash for other activities to increase performance.

If it is too low then the business may face problems in payment of current liabilities [1].

Some types of business need more cash than others so acid test would be expected to be higher

Acid-test (quick):

$$\frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}} \qquad (2.2)$$

(Marketable securities + Cash + + Accounts receivable) / Current liabilities = Quick ratio

CASH RATIO

This Ratio carries out a comparison of an organization's most liquid assets and its current liabilities. The ratio helps to determine if a business can meet its short term commitments. In effect, whether it is sufficiently liquid not to go out of business. Of all the liquidity measurements it is the most conservative, because it does not include inventory (which is considered when calculating current ratio) and accounts receivable (which is considered when calculating quick ratio). There is a school of thought that says this ratio might be too conservative, more so in cases where receivables can readily be converted into cash within a short period of time.

The formula (2.3) for cash ratio is the addition of cash and cash equivalents, divided by current liabilities. A slightly more accurate method might be to not include accrued expenses from the current liabilities in the denominator of the equation, owing to the fact that it might not be pertinent to pay for this in the near future.

Cash Ratio:

$$\frac{\text{Cash +Cash equivalent}}{\text{Current liabilities}} \qquad (2.3)$$

(Cash + Cash equivalents) ÷ Current liabilities = Cash ratio

If a business desires to show a high cash ratio to external bodies, it has to keep a large amount of cash on hand by the date of measurement, probably more than what will be seen as prudent. Another issue is that the ratio only

assesses cash balances at a specific time a period, which can very fast, because receivables will be gathered and people that supply will get paid. Collected and suppliers are paid. Therefore, a better measure of liquidity is the quick ratio, it does not exclude accounts. Strong current ratio and weak acid-test ratio indicates a potential problem in the inventories account [7].

2.3 Analysis of the solvency of the enterprise

To carry out analysis of the solvency of an enterprise, the indicator used is called *financial leverage*. Financial leverage defined as a situation where debt is used to acquire more assets. Leverage is helps to increase equity returns. Although with excess financial leverage it heightens the risk of failure, becomes it more tasking to pay off the debt.

The financial leverage formula is formed from a ratio between total debt and total assets. As ratio of debt to assets increases, financial leverage also increases. Financial leverage will yield a favorable return when the interest gained as a result of the investments made is more than the expenses associated with the debt. A lot of businesses use financial leverage as opposed to more equity capital, which could reduce the earnings for every share for existing shareholders.

Two advantages associated with financial leverage:

- *Enhanced earnings*. It can lead to a company earning a disproportionate amount on it assets.

- *Favorable tax treatment*. The rule that governs many tax systems, has the interest expense as being tax deductible. This reduces the cost (net) of the one that borrowed [8].

However, it can also give rise to situations where there are disproportionate losses, because the related amount of interest expense might be too much for the borrower, if does not produce enough returns to pay of the interest expense. This

is especially a problem when interest rates increase or the gains from assets are in decline.

Because of how unpredictable it is it cause a high level of volatility of the stock price of a company. This leads to problems with the stock options that a offered to employees, because stock that is volatile is considered to be more valuable as they have a higher compensation when compared to less volatile stocks.

It is also especially risky in businesses that have no restriction to entry, because it will lead to fluctuation in sales and profit, and overtime can lead to bankruptcy. On the contrary it might be a good option for companies that are in industries that a stable and have a higher difficulty to enter. Generally lenders are reluctant to lend more money to companies that have a large outstanding debt.

According to figure 2.1 types of Financial leverage ratios are:

(i). Debt-to-Equity

(ii). Debt-to-Total-Assets

(iii). Total Capitalization

DEBT-TO-EQUITY

The way to calculate debt-to-equity ratio is by dividing total liabilities by the shareholder equity of a company. The values that are used for calculation is taken from the balance sheet.

Specifically, it shows the ability of shareholder equity to take care of all unpaid debts in the event of financial troubles.

It is the relationship between borrower's fund (Debt) and Owner's Capital (Equity).

$$\textit{Debt-to-Equity}: \quad \frac{\text{Total Debt}}{\text{Shareholders' Equity}} \qquad (2.4)$$

Interpretation of findings through debt-to-equity

For example a ratio 0.90 indicates that creditors provide 90 cents financing for every $1 provided by shareholders. Creditors in general like this ratio low.

The lesser the ratio the higher the level of the firm's financing that is provided by shareholders, and the more the creditor cushion (margin of protection) in the event of losses [8].

DEBT-TO-TOTAL-ASSETS

Total-debt-to-total-assets defines the total amount of debt compared to assets. This allows for comparison of countries between different companies.

The more the ratio, the more the degree of leverage and financial risk. This ratio analyzes the balance sheet of a company by including both short term (borrowing that matures within one year) and long term borrowing (debts) and all assets as well—including those that are tangible and those that are intangible, for example goodwill.

Shows the percentage of the firm's assets that are supported by debt financing.

Or

It is the relationship between borrower's fund (Debt) and total Assets.

$$\textit{Debt-to-total-assets:} \quad \frac{\text{Total Debt}}{\text{Total Assets}} \quad (2.5)$$

Interpretation of findings through debt-to-total-assets

This ratio highlights the relative importance of debt financing to the firm by showing the percentage of the firm's assets that is supported by debt financing.

For example a ratio of 0.47 shows that 47 % of a firm's assets are financed by debt and remaining 53 % of the finance comes from shareholder's equity [8].

Once again this ratio points out that the greater the percentage of financing provided by shareholder's equity, the larger the cushion of protection offered the firm's creditors.

Finally the higher the Debt to total assets ratio, the greater the financial risk; the lower the ratio, the lower the financial risk.

LONG TERM DEBT TO TOTAL CAPITALIZATION (i.e., LT-Debt + Equity)

This ratio is a measurement of the full amount of unpaid company debt as a percentage of the company's total capitalization.

Companies with a lot of debt must handle it carefully, to make sure that there is enough cash on hand to manage interest and principal payments on debt. With a higher debt the company runs a higher risk of insolvency.

Every company uses their assets to make sales and profits, and capitalization talks about the amount of money gotten to purchase assets. A company can raise finances by issuing credit to people or by stock selling to shareholders.

Shows the relative importance of long-term debt to the long-term financing of the firm.

Total capitalization represents all long term debt and shareholder's equity.

Long term debt to total capitalization:

$$\frac{\text{Long Term Debt}}{\text{Total Capitalization}} \qquad (2.6)$$

Interpretation of findings through long term debt to total capitalization

This measure tells us the relative importance of long term debt to the long term financing of the firm [9].

For example a 0.32 ratio shows that 32 % of the firm total long term financing is provided by long term debt and remaining 68 % of the finance comes from shareholder's equity [9].

Debt ratios tell us the relative proportions of capital contribution by creditors and by owners [6].

2.4 Analysis of business activity

One of the indicators used to assess the activity of business is called the *Coverage ratio.* Coverage ratio determines if a firm can pay its debts in time. This ratio is usually used by creditors and lenders for new and existing customers that may be applying for credit. The ratio can also be used internally, to make sure that the business is maintaining a certain minimum ratio so as not to the loan terms [6].

This ratio can help to provide a focus on whether the company is able to pay up the interest on a loan (interest coverage ratio) or being able to pay the principal and the interest at the stipulated time (debt service coverage ratio).The debt service coverage ratio is preferable because it is more detailed and shows if a business can fulfill its long term obligations.

Generally, the more the ratio, the higher the probability that a business will be in a position to pay off its debts. If the result of the ratio falls below1:1, this is a strong indication of probable payment problems. One of the best ways to view the coverage ratio is to have a trend line plotted over a certain time period and if it shows a declining pattern, it may predict future challenges with paying back, even if the current ratio is good.

While analyzing coverage ratio, it's should be done alongside the volatility of cash flow the company. Because even if cash flow fluctuates a lot, a good coverage ratio might not be a good indicator for the ability to settle debts.

In short, these are ratios that relates the financial charges (interest) of a firm to its ability to service or cover them [9].

INTEREST COVERAGE RATIO

It shows a firm's ability to cover interest charges. It is also called times interest earned.

Interest Coverage:

$$\frac{\text{EBIT (Earnings before income and taxes)}}{\text{Interest Charges}} \qquad (2.7)$$

Interpretation of findings through Interest Coverage ratio

This ratio serves as one measure of the firm's ability to meet its interest payments and avoid bankruptcy.

In general the higher the ratio, the greater the likelihood that the company could cover its interest payments without difficulty.

It also illustrates the ability of the form to take in new debts.

Also, there are another group of financial indicators, which characterize business activity are *activity ratio*.

Activity ratios is a ratio that allows a firm to check its ability to convert different accounts in its balance sheet to sales or cash. It measure the efficiency of a firm, through its ability to use leverage, assets and similar items on the balance sheet and highlights if the management of the company is doing a good job in generating income from its resources. Activity ratios are also called efficiency ratios or turnover ratio [6].

In this case we will focus our attention primarily on how effectively the firm is managing two specific asset groups receivables and inventories and its total assets in general. According to figure 2.1 types of Activity ratios are:

(i)Receivable turnover Ratio

(ii)Average Collection Period (Receivable turnover in Days)

(iii)Payable turnover Ratio

(iv) Average Payable Period (Payable Turnover in Days)

(v) Inventory Turnover Ratio

(vi) Total Assets turnover ratio

RECEIVABLE TURNOVER RATIO

Indicates quality of receivables and how successful the firm is in its collections.

This is also called Debtors Velocity or Average Collection Period or Period of Credit given.

Receivable turnover ratio:

$$\frac{\text{Annual Net Credit Sales}}{\text{Receivables}} \quad (2.8)$$

Interpretation of findings through Receivable turnover ratio

This ratio tells us the number of times accounts receivables have been turned over (turned into cash) during year.

The higher the turnover, the shorter the time between the typical sales and cash collection, and vice versa [6].

AVERAGE COLLECTION PERIOD

Average number of days that receivables are outstanding or Receivable Turnover in days.

Average collection period:

$$\frac{\text{Days in the Year}}{\text{Receivable Turnover}} \quad (2.9)$$

Or

$$\frac{\text{Receivables} * \text{Days in the year}}{\text{Annual Credit sales}}$$

Interpretation of findings through Average collection period

It gives a measure of how long it takes the business to recover debts. For example, The 65 days means that Average collection period of the company is 65 days. Shorter period is better as get cash more quickly.

PAYABLE TURNOVER RATIO

Indicates the promptness of payment to suppliers by the firm.

Payable Turnover Ratio:

$$\frac{\text{Annual Credit Purchases}}{\text{Accounts Payable}} \quad (2.10)$$

Interpretation of findings through Payable turnover ratio

When a firm wants to study its own promptness of payment to suppliers or that of a potential credit customer.

In such cases it may desirable to analyze the payable turnover ratio.

For example ratio 16.5 tells us that 16.5 times accounts payable have been turned over (turned into cash means paid to the suppliers) [7].

PAYABLE TURNOVER IN DAYS

Average number of days that payables are outstanding.

This is also called Creditors Velocity Ratio, which determines the creditor payment period.

Payable Turnover in Days:

$$\frac{\text{Days in the Year}}{\text{Payable Turnover}} \quad (2.11)$$

Or

$$\frac{\text{Accounts payable} * \text{Days in the year}}{\text{Annual Credit Purchases}}$$

Interpretation of findings through Payable turnover in days

The average payable period is valuable information in evaluating the probability that a credit applicant will pay on time.

If the average days of payables is 48 days in an industry are "net 30" we know that a portion of the applicant's payables is not being paid on time.

For instance a ratio of 22.1 means that the business paid the Accounts Payables on an average of 22.1 days

INVENTORY TURNOVER RATIO

Indicates the effectiveness of the inventory management practices of the firm.

Or the rate at which a company's Inventory is turned over is called Inventory turnover ratio.

Inventory Turnover Ratio:

$$\frac{\text{Cost of Goods Sold}}{\text{Inventory}} \qquad (2.12)$$

Interpretation of findings through Inventory turnover ratio

A high Inventory turnover might mean increased efficiency?

But: dependent on the type of business – supermarkets might have high inventory turnover ratios whereas a shop selling high value musical instruments might have low inventory turnover ratio.

Low Inventory turnover could mean poor customer satisfaction if people are not buying the goods.

Ratio of 2.30 means that the company converts Inventory into A/R through sales 2.30 times in one year [7].

TOTAL ASSETS TURNOVER RATIO

Indicates the overall effectiveness of the firm in utilizing its assets to generate sales.

Or

The relationship of net sales to total assets is known as total assets turnover ratio.

Total Assets Turnover Ratio:

$$\frac{\text{Net Sales}}{\text{Total assets}} \qquad (2.13)$$

Interpretation of findings through Total asset turnover ratio

It looks at a business's sales compared to the assets used to generate the sales.

For example a ratio of 1.02 means that a firm generates $1.02 sales revenue on each $1 investment in assets.

Businesses with a high value of assets who have few sales will have a low asset turnover ratio

If a business has a high sales and a low value of assets it will have a high asset turnover ratio

Businesses can improve this by either increasing sales performance or getting rid of any additional assets

Excessive investment in receivables and inventories increase assets and hence decrease the ratio.

If a company would generate good sales revenue with fewer dollar invested in receivables and inventories, total asset turnover ratio would improve [9].

2.5 Analysis of the financial results of the enterprise

The indicator that is used to assess the results of a company is called **Profitability ratio** .Profitability ratios is a group of measurements used to examine whether a business is able to develop earnings of a business to create earnings. These ratios are seen as good, when they go past the trend lines and

when they show a supreme result when compared with the position of competitors. The ratio is derived from a comparison between revenues, and different groupings of expenses in the income statement.

Ratios that relate profits to sales and investment are called profitability ratios.

Or Profitability ratios measures that how much profit the firm generates.

According to figure 2.1 types of Profitability ratios are:

(i) Gross Profit Margin

(ii) Net Profit Margin

(iii) Return On Investment

(iv) Return on Equity [10]

GROSS PROFIT MARGIN

In gross profit ratio subtracts all the cost incurred in the production of goods and services, after they are sold in the income statement from sales and then divides it by the sales results. This is used to ascertain the portion of sales still present after services and good are sold to pay administrative cost, for sales and create a profit. This ratio involves having a fixed cost price to the cost of goods sold. So as to having the result yield a smaller percentage compared to the margin ratio.

Indicates the efficiency of operations and firm pricing policies.

Or

It shows the relationship between Gross profit and sales.

$$\textit{Gross Profit Margin:} \quad \frac{\text{Gross Profit}}{\text{Net Sales}} \quad (2.14)$$

Interpretation of findings through Gross profit margin

The higher the better. Enables the firm to assess the impact of its sales and how much it cost to generate (produce) those sales. A gross profit margin of .277 means that for every $1 of sales, the firm makes $27.7 cents in gross profit.

NET PROFIT MARGIN

Net profit ratio subtracts from the sales in the income statement, all the expenses, and divides it by the sales. It is used to get the net amount of money made within specific period that is net of income taxes. If the accounting is done about the accumulation, this could lead to figures that are different from the indication of cash flow, this is because of the accrual expenses that are yet to occur.

Indicates the firm's profitability after taking account of all expenses and income taxes.

Or

It shows the relationship between Net profit and sales.

$$\textit{Net Profit Margin:} \qquad \frac{\text{Net Profit after Taxes}}{\text{Net Sales}} \qquad (2.15)$$

Interpretation of findings through Net profit margin

Net profit margin looks at how much of the sales revenue is left as net profit.

For example, a net profit margin of .041 means that for every $1 of sales, the firm makes $4.1 cents in net profit.

Net profit is more important than gross profit for a business as all costs are included. A business would like to see that this ratio has improved over time [10].

There is a different class of profitability ratios that compare results seen on the income statement to those seen on the balance sheet. The purpose of this is to see how efficient the management can be, when it comes to producing profits,

compared to the amount of assets or assets they have at their disposal. If the result is high, it means that the use of resources have been minimized.

The main ratios that are part of this category are: Return on investment and Return on Equity.

RETURN ON INVESTMENT

This ratio derives its values by dividing its net profit by all the assets on the balance sheet. This method of ratio measurement can be made better by employing a tight credit rule. To reduce the amount of account receivables and a right on time (just-in-time) system of production, to lower inventory and by putting on sales fixed assets that are rarely or no more in use. The result differ from one industry to another, because some industries need more assets than others.

Indicates the profitability on the assets of the firm (after all expenses and taxes).

Or

It shows the relationship between Net profit and total assets.

Return on Investment:

$$\frac{\text{Net Profit after Taxes}}{\text{Total Assets}} \quad (2.16)$$

Interpretation of findings through Investment on return

The higher the better.

Shows how effective the firm is in using its assets to generate profit.

A return on investment of 0.042 means that it uses every \$1 of assets to generate 4.2 cents in profit [11].

RETURN ON EQUITY

This ratio works by dividing the net profit by the amount of equity in the balance sheet. This ratio can be improved by carrying out a large operation with loans, and also buying using debt to buy back shares, therefore reducing the use of equity. This can be particularly dangerous, if the cash flow is limited and the firm is not able to pay off debts.

Indicates the profitability to the shareholders of the firm (after all expenses and taxes).

Or

It shows the relationship between Net profit and Shareholder's Equity.

$$Return\ on\ Equity: \qquad \frac{\text{Net Profit after Taxes}}{\text{Shareholders' Equity}} \qquad (2.17)$$

Interpretation of findings through Return on Equity

The higher the better

Shows how effective the firm is in using its Shareholder's equity to generate profit. For example, a return on equity of 0.08 means that it uses every $1 of shareholder's equity to generate 8 cents in profit.

While using profitability ratios, it is important to compare a firm's results for the present period to the results for similar period in the year before. This is because a lot of organizations have sales that are seasonal, which causes the profitability ratio to vary through the year [10].

2.6 Analysis of the financial stability of the enterprise

For determining the stability of a company, the **Shareholder equity** is used. The shareholder equity ratio illustrates the percentage of the businesses' assets that funding comes from equity shares. If the results is low, it shows that the company might be in great debt. It also displays how much the shareholders will get in case the company folds up [10].

This ratio, is shown as a percentage, which is gotten by dividing the shareholders equity by the assets of the business. This figures are calculated from the balance sheet.

The ratios which measures return to investor's investment are called investment ratios.

Or

The ratios which shows the risk and potential earning of a business investment are called investment ratios.

The ratios that shareholders would be interested in are called Shareholders ratios.

These ratios are not calculated from the financial reports only, since they may involve market data such as share prices.

It is also known as a Valuation Ratios.

According to figure 2.1 types of Shareholder ratios are:

(i)   Earnings per share

(ii)   Dividend per share

(iii)   Price earnings ratio

(iv)   Market price per share/Book value per share

EARNINGS PER SHARE

It shows that how much net profit investors are earning on each share.

Or

"Profit after tax / total number of shares" is called earning per share.

$$\textit{Earnings per share:} \quad \frac{\text{Net Profit after Taxes}}{\text{Total number of shares}} \quad (2.18)$$

Interpretation of findings through Earnings per Share

The higher the better generally. For example, a ratio of 0.455 means that shareholder's earn 45.5 cents on each share [11].

DIVIDEND PER SHARE

Dividend per share: $\dfrac{\text{Dividend announced}}{\text{Total number of shares}}$ (2.19)

Interpretation of findings through Dividend per share

The higher the better generally.

Ratio of 0.19 means that shareholder's receive 19 cents dividend on each share.

PRICE EARNINGS RATIO

How much investors are willing to pay for $1 of earnings.

Or

This Ratio indicates the number of times the Earning per Share is covered by its market price.

Price earnings ratio: $\dfrac{\text{Market price per share}}{\text{Earnings per share}}$ (2.20)

Interpretation of findings through Price Earnings ratio

The higher the better generally. For example, ratio of 13.19 indicates that investors are willing to pay $13.19 for $1 of earnings.

MARKET PRICE PER SHARE/ BOOK VALUE PER SHARE

It deals with how much investors are willing to pay for $1 of book value equity.

Or

It shows the relationship between the market price per share and book value per share [11].

Market price per share/ book value per share:

$$\frac{\text{Market price per share}}{\text{Book value per share}} \quad (2.21)$$

Interpretation of findings through Price Earnings ratio

The higher the better generally. For example, Ratio of 1.29 means that investors are willing to pay $1.29 for each $1 of book value equity [11].

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SECTION 3: FINANCIAL CALCULATION AND RECOMMENDATION FOR PROCTER AND GAMBLE COMPAY

3.1 General *information about Procter and Gamble*

Procter and gamble was founded in 1837, by two men; William Procter from England and James Gamble from Ireland. For a business that started as a small family run business making soap and candle, it has grown into one of the most creative and innovative companies when it comes to marketing and partnerships. It has become one of the largest consumer goods companies in the world [12].

William and James both moved to Cincinnati, as candle and soap makers respectively, at a time where Cincinnati was an economic hub. They both met because they married sisters and their father in-law; Alexander Norris convinced them to become business partners.

The business Started during a period where there panic and depression throughout the nation. But this young but struggling firm was able to survive. Cincinnati was a good place for produce candles and soaps because it was the home of a meat packing center. This made it easy for them to access plenty of fat and oil. For candle and soap making. The firs president of P&G was the eldest son of Procter William A. Procter (1890). The first advertising and marketing manager was also his Son Harley T. He named Ivory Soap. •

The eldest son of Gamble, James N. Gamble, was the one who invented Ivory soap and was also the founder of the first laboratory in P&G [13].

Procter & Gamble Company focus on producing branded consumer products goods to the consumers in many countries around the world (tabl. 3.1) [14]. The Company generally is divided into five segments: Health Care; Beauty; Fabric & Home Care; Baby, Feminine & Family Care and Grooming.

Table 3.1 - List brands in P&G:

-Align®	-Charmin
-Aireze	-Cheer
-Always	-Clean Quick
-Aussie	-Comet
-BacStop Fabric Sanitizer	-Cream Suds
-Baseline	-Crest
-Bounce	-Dawn® Professional
-Bounty	-DCT
-Braun	-Downy
Cascade® Professional	-Downy Professional
-Joy	-Joy
-Luster Professional	-Luster Professional
-Metamucil	-Metamucil
-Microban Professional	-Microban Professional
-Mr Clean	-Mr Clean
-Mr Clean Professional	-Mr Clean Professional
-Olay	-Olay
-Old Spice	-Old Spice
-Oral-B	-Oral-B
-P&G Pro Line	-P&G Pro Line
-Swiffer	-Tide Professional
-Tampax	-Ultra Liquid Sour

Figure 3.1 - Brands of Procter & Gamble [14]

The Company operates and sells it's in products in roughly 180 countries and territories this is done primarily through membership club stores, stores for groceries, mass merchandisers, stores for drugs, distributors, department stores, stores for babies, e-commerce, specialty beauty stores, pharmacies and high-frequency stores. It offers products with brands, like Olay, Old Spice, Rejoice,

Head & Shoulders, Mach3, Pantene, Prestobarba, Cascade, Dawn, Febreze, Venus, Mr. Clean, Safeguard, Bounty and Charmin.

3.2 Ratio calculations for Procter and Gamble

Here are the tables (income statements and balance sheet) used for the calculations below. It will be from the period of June 2018 to June 2019.

Table 3.2 – *Procter & Gamble Co. consolidated balance sheet: assets US$ in millions, 2018 – 2019* [15]

	June 30 2019	June 30 2018
Cash and cash equivalents	4,239	2,569
Available for sale investment securities	6,048	9,281
Cash on hand	10,287	11,850
Notes and loans receivable	-	-
Accounts receivable	4,951	4,686
Inventories	5,017	4,738
Deferred income taxes	-	-
Prepaid expenses and other current assets	2,218	2,046
Current assets held for sale	-	-
Current assets	**22,473**	**23,320**
Property, plants, and equipment, net.	21,271	20,600
Goodwill	40,273	45, 175
Goodwill and intangible assets	64,488	69,077
Long term investment	-	-
Trademarks and other intangible assets, net	24,215	23,902
Other non-current assets	6,863	5,313
Non-current assets	**92,622**	**94,990**
Total assets	**115,095**	**118,310**
Account payable	11,260	10,344
Total current liability	**30,011**	**28,237**
Long term debt	20,395	20,863
Total debt	**30,092**	**31,286**
Other noncurrent liabilities	10,211	10,164
Total long term liabilities	**37,505**	**37,190**

Total liabilities	67,516	64,427
Common stock net	4,009	4,009
Retained earnings(accumulated deficit)	94,918	98,641
Comprehensive income	-14,936	-14,749
Other shareholders equity	-1,146	-1204
Shareholder equity	47,579	52,883
Total capital	77,286	83,579
Total liabilities and shareholder equity	115,095	118,310

Table 3.3 – *Procter & Gamble Co. income statement all in thousands, 2018 – 2019* [16], [17], [18]

BREAKDOWN	June 30 2019	June 30 2018
Total Revenue	67,684,000	66,832,000
Cost of Revenue	34,768,000	34,268,000
Net Sales	67,684,000	66,832,000
Cost of products sold	34,768,000	34,268,000
Gross profit	32,916,000	32,564,000
Operating Expenses		
Research Development		
Selling General and Administrative	19, 084, 000	18,853,000
Total Operating Expenses	19, 084, 000	18,853,000
Operating Income or Loss	13, 832, 000	13,711,000
Interest Expense	509, 000	506,000
Total Other income/ Expenses	-7,474, 000	-126,000
Income Before Tax	6, 069, 000	13,326,000
Income Tax Expense	2, 103,000	3,465,000
Income from Continuing Operation	3,966,000	9,861,000
Net Income	3,897,000	9,750,000
Net Income	3,634,000	9,485,000

available to common shareholders		
Reported EPS		
Basic	*1.45*	*3.75*
Diluted	*1.43*	*3.67*
Weighted average shares outstanding		
Basic	*2,503,600*	*2,529,300*
Diluted	*2,539,500*	*2,656,700*
EBITDA	*9,402,000*	*16,666,000*

List of ratios we will be calculating. Liquidity Ratio, Coverage Ratio, Financial leverage, Activity ratio

Liquidity ratio

Current ratio:

For P & G in 2018: $\dfrac{118,310}{65,427} = 1.8$

For P & G in 2019: $\dfrac{115,095}{67,516} = 1.7$

There has been a decrease in the current ratio between the year 2018 and 2019. This is most likely due to an increase in current liabilities [19].

Acid ration:

For P & G in 2018: $\dfrac{118,310 - 4,738}{65,427} = 1.7$

For P & G in 2019: $\dfrac{115,095 - 5,017}{67,516} = 1.6$

Between the year 2018 and 2019 the acid ratio has dropped, it has gotten weaker. This could be due to the fact that they have more inventories or the have increased current liability.

<u>Cash ratio:</u>

For P & G in 2018: $\dfrac{2{,}569 + 9281}{65{,}427} = 0.18\ (18\%)$

For P & G in 2019: $\dfrac{4{,}239 + 6{,}048}{67{,}516} = 0.15\ (15\%)$

This shows that there was more cash readily available in 2018 and in 2019, to pay for liabilities immediately. (18% and 15 % respectively). This could be due to the fact that there in an increase in liabilities and less available cash at hand.

Coverage Ratio

For P & G in 2018: $\dfrac{16{,}666{,}000}{506{,}000} = 32.9$

For P & G in 2019: $\dfrac{9{,}402{,}000}{509{,}000} = 18.5$

$18.5 - 32.9 = -14.4$

This illustrates that the company is in less of a position to pay interest on loans that they acquire when 2019 is compared with 2018. This is most likely due to higher interest in 2019 and less earnings before tax.

Financial leverage

<u>*Debt - to - equity:*</u>

For P & G in 2018: $\dfrac{31{,}286}{52{,}883} = 0.59\ (59\%)$

For P & G in 2019: $\dfrac{30{,}092}{47{,}579} = 0.63\ (63\%)$

This shows that the financing of the firm is increasingly provided by creditors, since there has been a rise in the ratio between 2018 and 2019.

Debt – to – total assets:

For P & G in 2018: $\dfrac{31{,}286}{118{,}310}$ *= 0.26 (26%)*

For P & G in 2019: $\dfrac{30{,}092}{115{,}095}$ *= 0.26 (26%)*

The Ratio between the year 2018 and 2019, have remained constant this as a result of a pretty even distribution of total assets, shareholders equity and total debt.

Long term debt to Total capitalization

For P & G in 2018: $\dfrac{20{,}863}{83{,}579}$ *= 0.25 (25%)*

For P & G in 2019: $\dfrac{20{,}395}{77{,}286}$ *= 0.26 (26%)*

This illustrates that the company has slightly more equity long term financing in 2018 than in 2019. (Creditor long-term financing are 25% and 26 % respectively).

Activity ratio

Receivable turnover ratio:

For P & G in 2018: $\dfrac{66{,}832}{4686}$ *= 14.26*

For P & G in 2019: $\dfrac{67{,}684}{4{,}951}$ *= 13.67*

This shows that sales were turned into cash within a shorter period in 2018, when compared with 2019. The results show that Procter and Gamble has

an average of 14.26 and 13.67 times in collection of its receivables, in 2018 and 2019 respectively.

Average collection period:

For P & G in 2018: $\dfrac{365}{14.26}$ *= 25.6 (26 days)*

For P & G in 2019: $\dfrac{365}{13.67}$ *= 26.7 (27 days)*

This explains the fact that in 2018 it took a shorter amount of days (26 days) to receive cash for products, than it did in 2019 (27days).

Payable Turnover Ratio:

For P & G in 2018: $\dfrac{34,268}{10,344}$ *= 3.31*

For P & G in 2019: $\dfrac{34,768}{11,260}$ *= 3.09*

Both results show that the company is pretty much stable, when it comes to promptness of paying suppliers.

Payable Turnover in Days:

For P & G in 2018: $\dfrac{365}{3.31}$ *= 110.3 (110days)*

For P & G in 2019: $\dfrac{365}{3.09}$ *= 118.1 (118days)*

The results show that it took a shorter amount of days to pay for account payables in 2018, when compared with 2019. (110 and 118 days respectively).

Inventory Turnover Ratio:

For P & G in 2018: $\dfrac{34{,}268}{4{,}738} = 7.2$

For P & G in 2019: $\dfrac{34{,}768}{5{,}017} = 6.9$

There was a quicker turnover ratio for inventory in 2018 compared to 2019. (7.2 And 6.9 respectively).

Total Assets Turnover Ratio:

For P & G in 2018: $\dfrac{66{,}832}{118{,}310} = 0.56$

For P & G in 2019: $\dfrac{67{,}684}{115{,}095} = 0.59$

These results show in increase in the amount of revenue generated on every \$1 of investments in assets between the year 2018 and 2019. (0.56 And 0.59 respectively).

3.3 Recommendations and problems noticed

Firstly here are suggested recommendation for results gotten from liquidity ratio.

Current ratio:

The current ratio for Procter and Gamble is healthy (range of 1.5% to 3%). This means that the will be able to meet their short term obligations, when it comes to pay off current liabilities. In 2018 the current ratio was 1.8 and in 2019 it was 1.7. The reason for the slight drop between 2018 and 2019 was down to an increase in the liabilities incurred and a drop in the current assets [19].

Acid quick test:

With acid ratio in regards to Procter and Gamble, are healthy (range of 1:1 or higher) .as they company is able to meet its obligation when it comes to current liabilities. There was a slight reduction in the ratio recorded between 2018 and 2019 (1.7 and 1.6 respectively). The way to maintain the previous record or better the ratio is to reduce the inventories and also when necessary the current liabilities.

Cash ratio:

While there is generally no ideal figure for this ratio, investors prefer a range of 0.5 to 1 as this shows the company's ability to pay off its debt easily. In 2018 and 2019 Procter and Gamble recorded a ratio score of 0.18 and 0.15% respectively. For this ratio to increase the company will have to reduce it current liabilities, by maybe cut down unnecessary expenses, and increase cash and it equivalents.

Secondly, here is a suggested recommendation for results gotten from Coverage ratio.

Interest coverage ratio:

Generally an interest coverage ratio of 2 and 3 is accepted, because it shows that a company has a solid revenue base. In the case of Procter and Gamble the interest coverage ratio in 2018 and 2018 is 32.9 and 18.5 respectively. Which shows that it is in a healthy place. But between 2018 and 2019 there was steep drop. This could be due to an increase in the interest charges and reduced earnings before tax. This means that the company will have to lower its interest charges, and up its earnings, to match up with its previous standards [20].

Next are, recommendations for results gotten from financial leverage ratio.

Debt-to-equity ratio:

This ratio talks about the ability of the company to pay its debt with the shareholders equity should there be a situation where the company is in trouble.

Generally a ration of between 1 and 1. 5 is acceptable. In some industries a ration of greater than to is possible, for example in the manufacturing industry. In Procter and Gamble in 2018 and 2019, the company recorded a ratio of 0.59 and 0.63 respectively, which means that the amount of money produced by shareholders equity has decreased. This shows that most of the company's financing comes from creditors, which in itself is not healthy and the company needs to try and get more of its financing from shareholders equity, which will give better security [21], [22].

Debt-to-total assets ratio:

In this ration a ratio of 0.4 or lower is consider generally as good, when it is more than 0.6, it is seen as poor, because it shows that there is a risk the company will not be able to generate enough to pay for its debt. In Procter and Gamble in 2018 and 2019 there was a result of 0.26 in both years. While it is a constant ratio between the two years, it is also a good result, as the debt to asset ratio is less than 40%. For the business to be in a better position than this, it will have to try and cut down on its debt and increase it assets, and shareholders' equity [22].

Long-term debt to total capitalization ratio:

This ratio show the relationship between long term debt and shareholders' equity in the financing of a firm. The generally accepted ratio for this is not more than one. Above that does not bode well for the business, because it shows that the company has more debts than capital and is in danger of going bankrupt. In the case of Procter and Gamble in 2018 and 2019, the ratios gotten were 0.25 and 0.26 respectively, as they are not really in danger of going bankrupt. Although to put the company in a stronger position it will have to reduce its borrowing and grow its shareholders equity [23].

Fourthly, here are recommendations for results gotten from Activity ratio.

Receivable turnover ratio:

For Procter and Gamble the results gotten from this ratio in the year 2018 and 2019 are 14.26 and 13.67 respectively. With these results showing that there was a reduction in the speed of the collection of receivables between both years, the company can come up with incentives that will make them receive payment faster. For example the company can offer discounts customers that pay early, or other special privileges.

Average collection period:

For Procter and Gamble the average amount of days it takes them to collect money owed to them by customers in 2018 and 2019 are 26 days and 27 days respectively. There has been a slight increase in the days it takes to collect payments for its services. While generally most companies work with and average collection period of 30 days, for Procter and Gamble to improves its results, it might have to apply a similar approach to the above ratio(receivable turnover), which is to use incentives, like giving discounts to customers that pay in time [23].

Payable Turnover ratio and payable turn over in days:

In 2018 and 2019, Procter and Gamble had a slight drop in the period it takes to pay of the things it took credit from its suppliers. The payable turnover ratio for both years were 3.31 and 3.09 respectively and the payable turnover ratio in days were 110 and 118 days respectively. Since a higher ratio is better than a lower ratio, there was a drop in the speed of payment to its suppliers, therefore to have a better result it is important that the company improves the cash coming in, through improving the average period of collection of it receivables, so as to improve its payable turnover, which helps to build a better relationship with its suppliers [24].

Inventory Turnover ratio:

The recommended turnover ratio for most businesses is a range of 4 to 6. For Procter and Gamble in 2018 and 2019 it was 7.2 and 6, 9 respectively. Which means that the company has a pretty healthy turnover of its inventory to cash.

Though there was a drop in the value between 2018 and 2019, this can be improved by the marketing department working on improving the sales of inventory so that there can be more cash available.

Total Assets turnover ratio:

Since there was a growth in the amount of revenue, generated from the assets owned by the company, it shows that the company is doing something right. This can even get better with the company the company has more assets that are working actively towards increasing the net sales of the company [23].

3.4 Impact of government regulation on economic and financial analysis for investments.

Knowing that all this analysis are usually carried out mainly by investors in order to make the best decision to invest one of the factors to consider in all of these is government regulations on investments.

The effect of regulation investment that is long term is a complicated issue. This is not just down to the fact that it involves different products, market factors, and authorities. Another reason is because the limiting effect of regulation might be hard to see and quantify. Generally in dealing with this issue we usually differentiate categories of impact on long term investments in conversations with regulators.

Regulations that encourage long term investment are grouped as positive and are differentiated from those that discourage long term investment looked as ask negative. Generally the both can either have a direct or an indirect impact. The ones that have a direct effect or impact are those that apply to long term investment products and strategies. While those regulations that deal with other levels like, investors, or other products can affect the willingness to participate in

long term investment. And this I call the indirect impact. So in to total we can say that the impact can be I direct positive or negative impact or it can be indirect positive or negative impact [25].

It is important to note that problem is not inky the regulations that exist but also the regulations that are not in place. In situations where a regulation could have a good impact on investment but is absent, there is a need for its creation. This applies to both indirect and direct types of a positive effect. For instance, make standard the regulations connected to covered and green bonds and cross-border investment through real-estate investment trusts would increase investment. More in an indirect fashion, a general regulatory focus on increased availability of long-term-investments and bringing together local insolvency plans would have a positive impact. I expatiate on these below. Failing to deal with regulatory deficiencies will reduce ling term investment.

Common examples of direct impacts that are negative include things like securitization and the ones that deal with asset-based capital charges. These regulations do not have the ideal effect of what is necessary, the have a negative effect on long term investment. Negative effect that is indirect is more covered and hence usually unseen. Nevertheless, it could be as important as direct effects that are negative. This is especially true if the regulations yield in investors having less funds available for investments that are long term. The margin requirements for derivatives trades and the spike in banking costs that are handed down are crucial examples of negative impacts that are indirect, resulting from regulation [26]

Recently regulations which have an indirect effects that is negative have taken a back seat in the discussion of long term investments. In September 2014 a report released by the Financial Stability Board (FSB) about relevant regulatory long-term-investment factors strengthens the above view. This report, shows general proof that reformation of regulations have had side effects on the provision of financing for long term investment is missing. In its quest for data,

the Financial Stability Board then created some key pointers that could be considered. These pointers focus on already existing capital flows and fund sources [27]. However this is just an aspect. Funds that are not invested need to be identified also. Otherwise, the indirect negative impact that results from regulation will become an assassin to the growth of long-term-investment.

CONCLUSION

In this thesis material I took a look at financial analysis, with specific focus on ratio analysis. This analysis are important to study both for firms and also for investors/creditors, who use the information they get from the calculation of such analysis for decision making. A very important role it plays is to help investors decide on whether a company in healthy enough to invest in, Investor like to know whatever finances the give out to companies can be paid back, hence the importance of financial ratios in specific. However internally companies can use this methods to compare their company performances, between different years, and can also compare its performance with that of other companies in the same industry.

In the different parts of this research work, the first section discusses the meaning of financial analysis and common problems that are encountered with financial analysis, and how they apply to real time situations. The second sections shows the methodology, specifically different groups of financial ratios, and types of financial ratios under the groups, their formulas, and the interpretation of these ratios. The third section is about the application of some of this formulas to the company "Procter & Gamble". In this section, information taken from the balance sheet and income statements of the company in the year 2018 and 2019 was used to calculate the ratios. Also, comparison was made between both years, and recommendations were made. Finally, in the third section, the effect of government regulation on the actions of investors and creditors was also assessed.

Although for Procter & Gamble (the company which was taken as a case study), the majority of the ratios had a good value, as always there are some improvements that can be made. In my opinion, the company is generally attractive to investors.

Finally, this was a thoroughly enjoyable work, and very educating, as these tools can help firms and investors, makes informed decisions, and limit the amount of loses procured.

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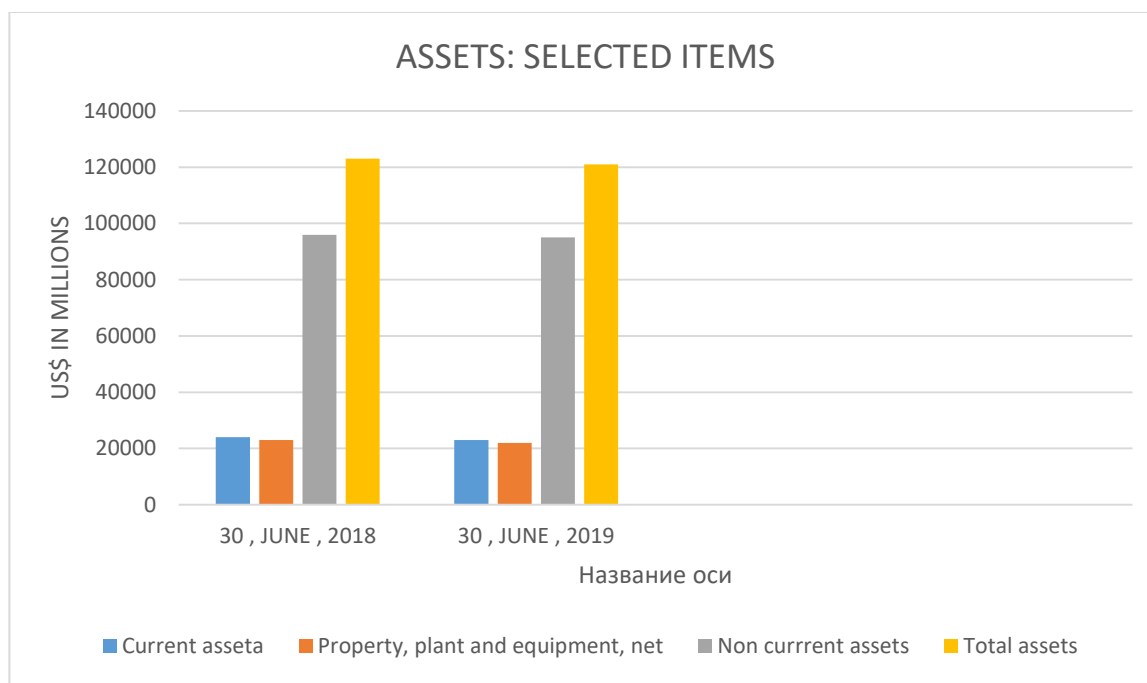
APPENDIX A

Procter & Gamble Co. consolidated balance sheet: assets

US$ in millions, 2018 – 2019

Annual Data | Millions of US $ except per share data		2019-06-30	2018-06-30	2017-06-30	2016-06-30	2015-06-30
Cash On Hand		$10,287	$11,850	$15,137	$13,348	$11,603
Notes And Loans Receivable		-	-	-	-	-
Inventory		$5,017	$4,738	$4,624	$4,716	$4,979
Other Current Assets		-	-	-	$7,185	$4,432
Total Current Assets		$22,473	$23,320	$26,494	$33,782	$29,646
Property, Plant, And Equipment		$21,271	$20,600	$19,893	$19,385	$19,655
Long-Term Investments		-	-	-	-	-
Goodwill And Intangible Assets		$64,488	$69,077	$68,886	$68,877	$69,632
Other Long-Term Assets		$6,863	$5,313	$5,133	$5,092	$5,358
Total Long-Term Assets		$92,622	$94,990	$93,912	$93,354	$99,849
Total Assets		**$115,095**	**$118,310**	**$120,406**	**$127,136**	**$129,495**
Total Current Liabilities		$30,011	$28,237	$30,210	$30,770	$29,790
Long Term Debt		$20,395	$20,863	$18,038	$18,945	$18,327
Other Non-Current Liabilities		$10,211	$10,164	$8,254	$10,325	$8,432
Total Long Term Liabilities		$37,505	$37,190	$34,418	$38,383	$36,655
Total Liabilities		**$67,516**	**$65,427**	**$64,628**	**$69,153**	**$66,445**
Common Stock Net		$4,009	$4,009	$4,009	$4,009	$4,009
Retained Earnings (Accumulated Deficit)		$94,918	$98,641	$96,124	$87,953	$84,807
Comprehensive Income		$-14,936	$-14,749	$-14,632	$-15,907	$-12,780
Other Share Holders Equity		$-1,146	$-1,204	$-1,249	$-1,290	$-1,320
Share Holder Equity		**$47,579**	**$52,883**	**$55,778**	**$57,983**	**$63,050**
Total Liabilities And Share Holders Equity		**$115,095**	**$118,310**	**$120,406**	**$127,136**	**$129,495**

APPENDIX B

Procter & Gamble Co. income statement all in thousands, 2018 – 2019

Breakdown	TTM	6/29/2019	6/29/2018	6/29/2017	6/29/2016
Total Revenue	68,792,000	67,684,000	66,832,000	65,058,000	65,299,000
Cost of Revenue	35,007,000	34,768,000	34,268,000	32,535,000	32,909,000
Gross Profit	33,785,000	32,916,000	32,564,000	32,523,000	32,390,000
˅ Operating Expenses					
Research Development	-	-	-	-	-
Selling General and Adminis···	19,217,000	19,084,000	18,853,000	18,568,000	18,949,000
Total Operating Expenses	19,217,000	19,084,000	18,853,000	18,568,000	18,949,000
Operating Income or Loss	14,568,000	13,832,000	13,711,000	13,955,000	13,441,000
Interest Expense	488,000	509,000	506,000	465,000	579,000
Total Other Income/Expenses ···	-7,833,000	-7,474,000	-126,000	-404,000	325,000
Income Before Tax	6,472,000	6,069,000	13,326,000	13,257,000	13,369,000
Income Tax Expense	2,100,000	2,103,000	3,465,000	3,063,000	3,342,000
Income from Continuing Opera···	4,372,000	3,966,000	9,861,000	10,194,000	10,027,000
Net Income	4,291,000	3,897,000	9,750,000	15,326,000	10,508,000
Net Income available to comm···	4,029,000	3,634,000	9,485,000	15,079,000	10,253,000
˅ Reported EPS					
Basic	-	1.45	3.75	5.80	3.80
Diluted	-	1.43	3.67	5.59	3.69
˅ Weighted average shares o···					
Basic	-	2,503,600	2,529,300	2,642,414	2,765,263
Diluted	-	2,539,500	2,656,700	2,740,400	2,844,400
EBITDA	-	9,402,000	16,666,000	16,542,000	17,026,000

APPENDIX C

Assets of Procter & Gamble Co. in mln, 2018 – 2019

ASSETS: SELECTED ITEMS

APPENDIX D

Current Assets of Procter & Gamble Co. in mln, 2018 – 2019

CURRENT ASSETS: SELECTED ITEMS

Legend: Cash and Cash equivalents, Available-for-investment, Accounts receivable, Inventories