

Project Report on

Impacts of Debt Financing on Financial Performance of listed Engineering Industry in Dhaka Stock Exchange.

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Subject: Impacts of Debt Financing on Financial Performance of listed Engineering Industry in Dhaka Stock Exchange.

Dear Sir,

I am very happy to submit you my thesis project report on "Impacts of Debt Financing on Financial Performance of listed Engineering Industry in Dhaka Stock Exchange: A literature-based study on Engineering Industry in Bangladesh." It's been an excellent pleasure on behalf of me to possess the chance to use my academic knowledge within the practical field.

I tried to give my best for the preparation of this report. As an undergraduate thesis researcher, it's usual that inadequacy or error may arise and it's often lack professionalism in some cases. For any inadequacy within the report, your sympathetic consideration would be highly appreciated.

I, sincerely expect that you simply would be kind enough to take my report for evaluation and oblige thereby.

Sincerely,

Md. Yeashin Arafat ID: 114-152-004 BBA in AIS

ACKNOWLEDGEMENT

At first, I might wish to express my gratitude to Almighty Allah for giving me the strength and opportunity to finish the report within the scheduled time successfully. I'm also grateful to my parents who provided me with the essential necessities of life since my infancy.

The submitted report is "Impacts of Debt Financing on Financial Performance of listed Engineering Industry in Dhaka Stock Exchange: A literature-based study on Engineering Industry in Bangladesh" has been prepared to satisfy the wants of BBA degree. I'm considerably fortunate that I even have received almost and sincere guidance, supervision and co-operation from various persons while preparing this report. Many people have responsible in making this report. First of all, I might wish to thank my academic Supervisor of the of the project report, honorable teacher Asst. Prof. Rana Mazumder, ACMA School of Business, UIU for giving me the chance to organize this report & effortful supervision. He also provided me some important advice and guidance for preparing such sort of new idea-based report. Without his help this report couldn't are a comprehensive one.

I am grateful to all or any those people who have at least minimum effort and contribution to finish the report. I feel very lucky to get their co-operation.

DECLARATION

Md. Yeashin Arafat is a student of Bachelor of Business Administration (BBA) in Accounting information systems (AIS) under the school of Business and Economics does hereby declare that the project report on "Impacts of Debt Financing on Financial Performance of listed Engineering Industry in Dhaka Stock Exchange: A literature-based study on Engineering industry in Bangladesh". This is my new work and has not been submitted by me before for any degree, diploma title or recognition. It's completed under the supervision of Rana Mazumder ACMA, Assistant Professor, and School of Business & Economics.

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CERTIFICATION OF SUPERVISOR

This is certify that Md. Yeashin Arafat, student of BBA in AIS bearing ID-114-152-004 of United International University, under the school of Business and Economics department has successfully completed project report on "Impacts of Debt Financing on Financial Performance of listed Engineering Industry in Dhaka Stock Exchange: A literature based study on Engineering Industry in Bangladesh" I have read through the report and found in to be a well report. He has finished the report by himself under my supervision.

I intend him every success in life.

Rana Mazumder, ACMA

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ABSTRACT

Debt financing decision is the most important financial decision for a Firm. Debt financing has a long-term impact on the financial performance. Debt financing used as an instrument of filling the budget deficits of a firm. Now every firm report their debt financing in the two ways, short term debt (STD), long term debt (LTD). Explaining the impacts of debt financing helps to answer some financial question 1. establish the relationship between debt financing and financial performance of selected firms. 2.determine the impact of short debt ratio on financial performance of a firm. For the purpose of this study I take 27 firms with the debt in their capital structure. I determine two independent variables; they include Short term debt ratio (STDR) and Long-term debt ratio (LTDR). There are four dependent variables determine: they include Profitability analysis, Liquidity analysis, Return on Equity (ROE) analysis, Return on Asset (ROA) analysis. This study used secondary data from audited financial report of those firms between periods of 2016 – 2019. Descriptive statistics, correlation and regression analysis were used to analyze the data.

INTRODUCTION

Background to the study

Debt financing has become a common event in the corporate world in whole globe. It provides finance to fulfill deficits financing of business firm. There are two components whose creates financing to the firm. It's also called capital structure -combination of equity financing and debt financing. Capital structure decision directly impacts the financial performance of the firm. "Baltac & Ayadin" (2014) state that Debt financing is the chief component of exterior funding for companies raising additional funds after formation. It has both a positive and a negative impact on the growth of corporations and for its strategic investments (O'Brien and David, 2010). Fama and French (2002) state that the benefits of debt funding comprise the tax deductibility of interest and the decrease of free cash flow problems, whereas the costs of debt financing comprise possible bankruptcy costs and agency fights between stockholders and debt holders. Hence, in making debt funding choices, managers try to build a balance between the corporate tax advantages of debt financing and the costs of financial distress that rise from bankruptcy risks (Kraus and Litzenberger, 1973) and agency costs (Jensen and Meckling, 1976). When high levels of debt are used in the capital structure, there will be a rise or a fall in the return on shareholders' equity. Return on equity is the monetary gain by shareholders in profit for the capital they would have given to firms. Debt is always desired if a firm achieves relatively high profits as this result in higher profits to shareholders, positive leverage. If a company experiences a major drop in income, taking more debt in the capital structure will be harmful as the company will not be able to cover the cost of debt, negative leverage (Brown, 2007).

This study research inspects the impacts of debt financing on the financial performance of manufacturing companies (Engineering industry) listed at the DSE in Bangladesh. The purpose of this research study is to determine if the use of debt or leverage by manufacturing companies in Bangladesh leads to an increase in the returns generated by a company with the intention of improving the performance of manufacturing companies.

Objective of the study

The primary objective of this study will be to establish the impacts of debt financing on Financial Performance of manufacturing firms listed in the Dhaka stock exchange. The specific objectives were: -

- a) To determine the effect of short-term debt financing on financial performance of Manufacturing firms (Engineering industry) listed in DSE.
- b) To establish the effect of long-term debt financing on financial performance of Manufacturing firms (Engineering industry) listed in DSE.
- c) To determine profitability analysis on financial performance of Manufacturing firms (Engineering industry) listed in DSE.
- d) To determine Liquidity analysis on financial performance of Manufacturing firms (Engineering industry) listed in DSE.
- e) To establish ROE analysis on financial performance of Manufacturing firms (Engineering industry) listed in DSE.
- f) To establish ROA analysis on financial performance of Manufacturing firms (Engineering industry) listed in DSE.

Methodology of the study

The study is mainly based on secondary data and the secondary data have been collected from the Annual Reports. To understand and present the different terms, some books as well as articles have been reviewed by the researcher. For the analysis of data simple statistical tools like ratios and percentage have been used.

Scope of the study

The study covers almost the financial operations covered by the "Impacts of debt financing on financial performance of Engineering Industry in Bangladesh". The study has been conducted with the data available in the audited financial records. Annual reports are the audited financial records

of the company. The researcher tries to evaluate the financial performance of the company that includes sources of finance, liquidity, profitability, and return on assets and equity. The study covers 05-year period data ranging from 2014 to 2019 of Engineering industry.

Limitations of the study

The study has some limitations. Actually, this study is based on secondary sources like as company annual reports that publish in DSE. There is also some limitation to assess some analysis such as profitability, liquidity, return on asset & return on equity. This study only covers listed engineering company in DSE. Other's (which not listed DSE) are not included in this study.

LITERATURE REVIEW

The study was supported by the subsequent theories;

The Trade-Off Theory

The tradeoff theory was initiated by Modigliani and Miller 1958 and assumes that there are benefits of debt within a capital structure up until the optimal capital structure is reached. The idea recognizes the tax break from interest payments. Studies suggest that, most companies have fewer leverage than this theory would suggest is perfect.

Pecking Order Theory

Myers and Majluf 1984 shows Pecking Order Theory (POT) supported the asymmetry of data between internal stakeholders (owners and managers) and external providers of the firm. Business leaders takes a financial policy, which gives at minimizing the prices associated with asymmetric information, especially adverse selection, and like internal financing to external financing.

Agency Theory

This theory brings to focus the cost arising from conflict of interest between the owners, the debt holders and therefore the management. Consistent with Frank & Goyal, 2005, it's expected that the debt providers to be served with detailed investment information to assist within the monitoring process. However, management is against the screening idea and opts to explore Alternative Avenue to finance their investments. This theory favors firm's uptake of high debt financing levels at it encourages management to figure hard to safeguard the shareholders' interests.

Conceptual frame work

Based on the study's objectives, a conceptual framework has been developed as indicated in the figure below.



THEORETICAL REVIEW

Short-term debt

Short-term debt, also called current liabilities, may be a firm's financial obligations that are expected to be paid off within a year. It's listed under the current liabilities portion of the total liabilities section of a organization's balance sheet." Short term debt is formed form of any debt incurred by a corporation that's due within the present financial year. The worth of short-term debt

is extremely important when determining a company's financial performance. Consistent with Muchugia (2013) there was significant positive relationship between short term debt financing and profitability because short-term debt tends to be less costly and increasing it with a comparatively low rate of interest will cause a rise in profit levels and thus performance.

{Mathematically, Short Term Debt Ratio = Short Term Debt / Total Debt}

Long-term debt

Under the framework of Modigliani and Miller (1958), the capital structure has nothing to try to with the enterprise value. However, inconsideration of the company income tax, the high rate the tax, the more debt interest deduction. Thus, companies which apply high tax rates may choose higher leverages to extend business values. Modigliani and Miller (1963) support this phenomenon that the worth of the corporate with debt is above the debt free company. Therefore, it concludes that debt can generate profits due to interest tax break. De Angelo and Masulis (1980) find that depreciation, investment tax credits and deferred tax losses are often against taxes like debt interest. Ebaid (2009) and Huang and Song (2006) presented contradicting results on the effect of long-term debt on ROA. While the previous found that long term debt has a negative effect on return on asset, the latter found that a long-term debt has a negative effect on profitability as measured by the return on assets. This leads to a gap in knowledge for further research.

{Mathematically, Long Term Debt Ratio = Long Term Debt / Total Debt}

Liquidity

According to the International Accounting Standards (IFRS, 2006) liquidity point out the at hand cash for the upcoming future, following taking into account financial liability correlating to that time period. Liquidity is usability to a business or company of liquid assets. Mayo (2003) defined liquidity as the Convenience with which assets may be converted to cash, with a low risk of principal loss. Liquidity of an asset depend mostly on how speedily the asset can be converted to cash or how much cash it can generate and cheaply it can generate. According to Bodie & Merton

(2000) liquidity is characterized by the comparative ease, value and quickly turning of an asset into cash. According to Reimers (2011) how easily a company turns its short-term investments into cash to pay off maturing liabilities. Liquidity is the ability to sell and convert the asset to cash at current market value. Tangible assets such as furniture, building, manufacturing plant, land is all relatively illiquid. Other financial assets such as marketable share, debt, bond, equity is more liquid. It also can be cash or emergency savings account that can be used in case of any financial difficulty or accidental scenario. As stated by Kester, Ruback & Tufano (2005) Liquidity determines an entity's ability to meet financial obligations upon maturing. According to Shim and Siegel (2000) accounting liquidity of the company is the capacity to liquidate the maturing shortterm liability within one year. Sufficient liquidity maintaining is not only a corporate objective but also a prerequisite in which a business sustainability is at risk. Poor liquidity could also mean the company is not generating enough with its asset to fulfill its current obligation. The ongoing firm's liquidity does not depend on the liquidation value of its assets, it depends on the operating cash flows produced by those assets.

Liquidity is necessary for the firm to survive. Liquidity compared with profitability; liquidity is given greater priority. Maintaining orthodox liquidity shows that funds confined to liquid asset are not available for operational maneuver or investment objectives for high returns. As a result, there's an opportunity cost correlated to continuation of the liquid assets and this can determine the general profitability of the company. Nevertheless, improving profits at the expense of liquidity could cause the firm significant trouble and this issue could result financial insolvency of the company. Most business failures are attributed to their inability to pay their debts, while companies will make profits and have a long-term financial strength. Liquidity of the company should be moderate. On one side excessive liquidity stipulates collection of inactive funds that does not generate any return for the company. On the other hand, inadequate liquidity may impair the goodwill of the company, weaken the credit position which may lead to involuntary liquidation of the company assets. Later on, company may face bankruptcy or insolvency problem. A business which cannot make money may be considered a weak business but a company which has no liquidity will cease to exist. Management decision and action that impacts the dimension and effectiveness of the liquidity is known as liquidity management. In the opinion of Kishore (2008) liquidity management is overseeing cash, inventories and trade receivable and payable. It highlights the supervision of current asset and liabilities and the relationship between these two.

As per Raheman & Nasr (2007) a symmetry between profitability and liquidity could be found in liquidity management. Liquidity lines and funding resource can impact on company's liquidity scheme through assisting help in any short-term intricacy occurs by reimbursing short term cash commitments. Liquidity management objective in the opinion of Gallinger & Healey (1991) to supply for sufficient availability and control of corporate funds under various economic situation to help firm achieve the Corporate goal of optimizing shareholder capital. Liquidity management involves reducing risk of the inefficiency to handle the short-term obligations by arranging and managing current assets and current liabilities in proper manner avoids redundant investment. It is exceptionally vital for each organization to give focus to liquidity management for payment of current liabilities of business where the payment obligations include short term yet maturing long term operational and financial expenses. Companies think about improving liquidity management usually after reaching crisis situation or on the edge of bankruptcy. Liquidity management is cooperative for the company management to intensify the financial situation of the business no matter what the size and nature of the company. Steps must be taken logically and productively if investment in liquid assets is greater than the most of the asset. Therefore, profitability and liquidity objectives should be linked together and one's objective should not interfere with another's. Investment in liquid asset are avoidable since it insures transmission of goods or services to final customer in appropriate time. A stable liquidity management will secure needed profitability and liquidity intensity. A firm should establish that it does not experience lacking of liquidity or surplus of liquidity to meet its short-term obligations. So, liquidity need to be managed at optimum degree, that is a level where surplus liquidity is ignored because it shows poor choice of management ideas. Liquidity level also should not lag behind minimum requirement because it results in organizations inability to meet current obligation. Accordingly, company's ultimate objective should be boosting the profitability of the company through safeguarding the liquidity. Both creditors and investor as well as internal management examines a company's liquidity position. In the opinion of Bhunia (2010) provided close relation between liquidity and daily operations of the business both internal and external user of financial reports evaluates liquidity situation of the company. If circumstances emerge that make it difficult for them to meet shortterm obligations such as repaying their loans and paying their workers, a liquidity crisis may arise even at healthy companies. In this report liquidity analysis based on only Current Ratio.

Current Ratio

The current ratio may be a liquidity ratio that measures a company's ability to pay short-term obligations or those due within one year. It tells investors and analysts how a corporation can maximize the present assets on its balance sheet to satisfy its current debt and other payables.

{Mathematically, Current ratio = Current Asset / Total Asset}

Profitability

Profitability is firm's ability to produce earnings over expenditure of generating such earnings. Profitability indicates complete success of the firm and its necessary survival position. Profitability also estimates sufficiency of generated earnings in specific year of a firm through contrasting the earnings made by the firm in previous year and also one or more other similar-industry firms. Profitability also measures management efficiency in the use of organizational resources in adding value to the business. Company's effectiveness of producing profits from running its operations. Waściński (2010) in simple term profit produced from company running its operations expressed by profitability. Owolabi and Obida (2012) also explained Profitability Company's ability to generate profit from performing activities related to business. Profitability is a calculation of how much income an organization exceeds its related expenses. Profitability measures financial success of the company. Profitability is the ability of a company to yield a return on an investment based on its capital relative to an alternative investment. It is the variable used for assessment of the scale of the income for a company relative to the size of the company. In other words, profitability can refer firm's ability to yield investment return from its assets investment that promised a positive net present value. It can be justified to say that financial asset promising positive net present value is desirable by the shareholders since it will generate wealth. Investment with negative net present value can condoned to drop. Furthermore, profit can result from income in working capital variables. So faster income can result to increased profit thus increase the profitability overall. Saghafi and Aghayie (1994) the investor, manager and financial analyst consistently make use of profitability to be of vital intelligence regarding economic conclusion making. Profitability provided a guideline of payment of dividend, management efficiency measuring mechanism and contraption for anticipating and analyze economic conclusion making. As reported by Walt (2009)

profitability is more significant because it's liquidity. Profit can be converted into liquid asset readily. Businesses success or failure can be measured by profitability as well as efficiency of the business. Pimentel et al, (2005) final measure of a company's economic performance in relation to the capital invested therein can be described as the Profitability. Harward and Upton (1961) profitability is competency to attain investment return. Measuring productivity is the strongest predictor of the company's performance. Net profit can economic growth of a company. According to Osiegbu and Nwakanma (2008) profitability support and provides guideline in decision making processes and designing up business policies. Investors, creditors and internal management reviews these data to evaluate a company's performance and future potentiality of the company could achieve for its efficient business operation. Owolabi & Obida (2012) to thrive and expand over a long period of time a business must earn income. While a company can make a profit, this doesn't necessarily imply the business is profitable. If a company is earning profit but is unprofitable, various technique can be implemented to increase profitability and increase overall company growth. One of first and important step a company can take to improve profitability is to increase sales. Increasing sales requires production increase. Marginal product otherwise known as marginal return concept can come in handy in these situations. Marginal product theory suggests that there is point to which increase of worker will increase the efficient use of the capital, exceeding that point worker will result in negative returns which will ultimately lead to reduced profitability. Profitability is calculated with income and expenses. Activities of business generates money which is income. Cost of resource usage or absorption for performing business activities is expenses. Various report can be used to find out profitability of the company. Although external users usually rely on numbers disclosed in income statement. So, profitability can be found with an income statement which is basically a record of income and expenses occurred during a particular period of time usually a year for the whole business. In this report profitability determine based on two ratios

Gross Profit Margin Ratio

Gross profit margin ratio (GP ratio) may be a profitability ratio that shows the connection between gross profit margin and total net sales revenue. It's a well-known tool to determine the operational performance of the business. The ratio is computed by dividing the gross profit margin figure by total net sales.

{Mathematically, Gross Profit Margin Ratio = {(Gross Profit / Net Sales) *100}

Net profit Margin ratio

The net profit margin is adequate to what proportion of net profit is generated as a percentage of revenue. Net profit margin is that the ratio of net profits to revenues for a corporation or business segment. The net profit margin illustrates what proportion of every dollar in revenue collected by a corporation translates into profit

{Mathematically, Net Profit Margin Ratio = {(Net Profit / Net Sales) *100}

Return on Equity (ROE)

The Return on Equity ratio essentially measures the rate of return that the owners of common stock of a company receive on their shareholdings. Return on equity signifies how good the company is in generating returns on the investment it received from its shareholders. A higher ROE suggests that a company's management team is more efficient when it comes to utilizing investment financing to grow their business (and is more likely to provide better returns to investors). A low ROE, however, indicates that a company may be mismanaged and could be reinvesting earnings into unproductive assets. ROE is more than a measure of profit: It's also a measure of efficiency. A rising ROE suggests that a company is increasing its profit generation without needing as much capital. It also indicates how well a company's management deploys shareholder capital. Put another way, a higher ROE is usually better while a falling ROE may indicate a less efficient usage of equity capital. Still, when interpreting ROE, it's important not to look at this ratio in isolation. A high ROE could indicate a good utilization of equity capital but it could also mean the company has taken on a lot of debt. Return on equity is concerned with the total shares, additional paid-in capital if present, and earnings retained if present. According to him it calculates the value the company gains from investments made by stockholders. The earnings can be allocated to investor or maintained in the company. Net income after tax, however, does mark their return. The return on equity is after tax net income divided by the equity of the investor. Return on equity can increase significantly because it can simply benefit from a higher return helped by a greater asset base even without any additional equity. A business increases its asset size and produces stronger returns

with higher margins, while equity investors can keep the additional growth in value as additional assets arising from use of debt. Company's equity holders are most concerned with return on equity ratio given that it provided company's return earning ability of their investment. Net income percentage proportionate to investor's equity or Investor rate of return on their invested equity is expressed by return on equity. Stock analyst and investor usually looks for the return on equity ratio most meticulously.

{Mathematically, Return on Equity = Net Income or Profits / Shareholder's Equity}

Return on Asset (ROA)

Profitability is measured in relation to costs and expenditures and it is evaluated in relation to assets to see effectiveness of an organization is in leveraging assets to produce revenue and thus profit. Net profit or net profits after the sum of sales earnings, all costs, expenditures, taxes typically represent the "Return" word used in the return on assets ratio. Owolabi & Obida (2012) a company's net profit as in the form of percent of the total assets accessible to the company for use is described by Return on Assets. Therefore, return on assets is the profits before any payment to those who supplied the company with funds. Many business that went bankrupt showed profit and were profitable during the time of bankruptcy and many unprofitable businesses not in the verge of bankruptcy is supported by this practice. Percent of total earning related to total assets of the company is return on asset. The return on assets ratio provides to what extent after tax Profit Company produces from holding each one dollar of assets. Assets Strength is measured by return on assets. The more assets-vigor the company is, the higher the profit earned against per dollar of asset. Huge investment is needed to obtain equipment and machinery is high assets-vigor company. Return on assets identifies a company's management ability of realizing return on the company's investment. Return on assets implies asset-vigor (high amount of asset) company may earn steep income level. More sales leading to more profit earning may be result of the company holding vast amount of asset. Considering economies of scale influence dropping down the cost and raising the margins, faster rate of return elevated than asset may ultimately increase the return on assets.

{Mathematically, Return on Assets = Profit before Taxes / Total Assets}

RESEARCH METHODOLOGY

Introduction

This section analyzes the research design and methodology of the study. Establishment of full definition of the research design, the research variables is also discussed. A distinct point of view of the narrative and choice of the sample and population is provided. The research mechanism, data collection procedure and data analysis method are also been pinpointed.

Research Design

A descriptive research composition was materialized in this research. A descriptive research describes the characteristics of population, segment, components, surroundings and tries to "describe a word picture" of a given position.

The trait of the variables or their behavior is not within control of the researcher. After comprehending the factors thoroughly descriptive statistics is implemented to explain "what" of the research principal theme instead of the "why" of the research subject matter.

In this proceeding, the correspondence among debt financing and business performance of Engineering company of Bangladesh registered under SEC will be established. The principal variable is profitability as measured through various component such as ROA, ROE, LTD, STD and CR.

Population

The population of significance in this study was composed of all Engineering manufacturing companies in Bangladesh between years 2016 and 2019 in that period, 27 companies (Appendix I) satisfied the data compilation benchmark and the research variables were procured from audited financial statements of the companies. This time period was considered appropriate to procure the requisite figures evaluating the data analysis involved.

Sample and Sampling Procedure

A precise plan to get a sample from a given population is sampling design. This refers to the strategy or method that the researcher will follow when choosing sample objects. This study was a census of all Engineering manufacturing companies in Bangladesh, for a distinctive company to certify it needed to have regulated throughout the set period of study. Given the population of the content of study all the manufacturing companies were studied due to the accomplishable figures involved and sample distribution was not imperative.

Data Collection

The study administered secondary fact compilation. The research variables were derived from the audited financial statements Engineering manufacturing companies in Bangladesh for the financial periods 2016 to 2019. Data was gathered for the manufacturing companies were in operation in this period and this ensured comprehensiveness and certainty of the study factor.

Data Analysis

The data was extracted from the audited financial statements of these Engineering manufacturing companies. The research is quantitative in essence. The data is scrutinized over descriptive statistics such as percentages. Then correlation analysis is employed. The analysis was on the Debt financing relationship with business performance among engineering manufacturing companies. The data analysis is accompanied by data interpretation of the results of the analysis.

DATA ANALYSIS AND FINDINGS

This was a case study focusing on debt financed Engineering industry in Dhaka stock exchange. A case study research design is suitable for extensive research, rapid data collection, and ability to understand the population. In addition, results from this study can be extrapolated to represent the entire population. The study population was composed of firms 27 listed Dhaka stock exchanges whose capital structure comprises of debts financing as reflected in their financial. This study employed purposive sampling technique because only those firms with short term loans and long-term loans in their financial reports for the last four consecutive years from 2016-2019 will be selected from the sample of 27 firms.

This study utilized secondary data contained in the financial reports of the selected firms. The research examined audited financial report of the firms in order to obtain the viable information for this study. Secondary data is the data that have been already collected by other researchers and readily available from other sources.

The equation for the regression model used was expressed as:

 $Y = \alpha + \beta 1 X1 + \beta 2 X2 + \beta 3 X3 + \varepsilon$ Where Y = Short Term Debt, Long Term Debt α , $\beta 1$, $\beta 2$, $\beta 3$ =Coefficients of the model X1-Profitability X2-Liquidity X3-Return on Asset (ROA) X4-Return on Equity (ROE) ε = error term

Regression analysis

Regression analysis may be a powerful statistical procedure that permits to look at the connection between two or more variables of interest. While there are many sorts of regression analysis, at their core all of them examine the influence of one or more independent variables on a dependent variable. Typically, a regression analysis is completed for one among two purposes: so as predict the worth of the dependent variable for individuals for whom some information concerning the explanatory variables is available, or in order to estimate the effect of some explanatory variable on the dependent variable. Regression analysis may be a reliable method of identifying which variables have impact on a subject of interest. The method of performing a regression allows you to confidently determine which factors matter most, which factors are often ignored, and the way factors influence one another. In order to determine regression analysis fully, it's necessary to comprehend the subsequent terms:

Dependent Variable: This may be the only main factor that you're trying to know or predict.

Independent Variables: These are the factors that you simply hypothesize have an impression on your dependent variable.

Regression analysis for Profitability as the dependent variable

Regression analysis for Gross Profit Margin

Gross Profit margin Ratio is one of the components of profitability analysis. In the regression shows that there is any impact on gross profit margin. Which means debt financing has any impact on profitability. Note that, In the SPSS only Long-term debt consider the overall debt financing. So, impacts of debt financing is based on long term debt.

Model Summary

			Adjusted R	Std. Error of
Model	R	R Square	Square	the Estimate
1	.160 ^a	.026	.017	8.77476

a. Predictors: (Constant), LTD

The correlation coefficient (R) was.160. This indicates a strong positive relationship between gross profit margin and financing debt. R squared which is the coefficient of determination explains the impacts of short term and long-term debt financing on the gross profit margin ratio. Multiple coefficients of determination: -

Multiple $r^2 = 0.026$

The change in the dependent variable (gross profit margin) can be explain by the changes in the independent variable (LTD, STD) by 2.60%. The Standard Error of the estimate of the actual data 8.77476.

Γ		Sum of		Mean		
Μ	odel	Squares	df	Square	F	Sig.
1	Regression	215.612	1	215.612	2.800	.097
	Residual	8161.611	106	76.996		
	Total	8377.224	107			

ANOVA^a

a. Dependent Variable: GPM

b. Predictors: (Constant), LTD

It was found that the overall model was statistically significant at F statistic 2.80 at 5% significance level with P-value 0.097 > 0.05. This implied that the model fitted the study well and the results of the study were reliable.

Ho: There is a liner relationship between Gross Profit Margin & Debt Financing.

H1: There is not a liner relationship between Gross Profit Margin & Debt Financing.

F= 2.8

Significance of F= .097

$\propto = 0.05$

 $H_{0 \text{ hypothesis}}$ will be accepted because the value of significant is more than the required value of Sig .097 > $\propto 0.05$. So, it can be concluded that there is a liner relationship between Gross Profit Margin & Debt Financing.

		Unstandardized		Standardized		
		Coefficients		Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	19.317	1.173		16.473	.000
	LTD	5.085	3.039	.160	1.673	.097

Coefficients^a

a. Dependent Variable: GPM

The coefficients of Debt Financing are 5.085 with a P-Value of .097>.05. This implies that a unit value increase in Debt Financing will result into 5.085 units increase in Gross Profit Margin. The result also imply that Debt Financing has a significant impact on gross profit margin, hence the null hypothesis that Debt Financing has no significant impacts on gross profit margin was rejected at 5% significant level.

 H_0 : Debt Financing has significant impacts on gross profit margin

 H_1 : Debt Financing has no significant impacts on gross profit margin

T= 1.673

Significant=0.097

 $\alpha = 0.05$

 $H_{0 \text{ hypothesis}}$ will be accepted because the Sig $0.097 > \alpha \ 0.05$

Regression analysis for Net Profit Margin

Net Profit margin Ratio is one of the components of profitability analysis. In the regression shows that there is any impact on net profit margin. Which means debt financing has any impact on profitability. Note that, In the SPSS only Long-term debt consider the overall debt financing. So, impacts of debt financing is based on long term debt.

	Mouch Summary							
			Adjusted R	Std. Error of				
Model	R	R Square	Square	the Estimate				
1	.001 ^a	.000	009	9.31331				

Model Summary

a. Predictors: (Constant), LTD

The correlation coefficient (R) was.001. This indicates a weakly positive relationship between net profit margin and financing debt. R squared which is the coefficient of determination explains the impacts of short term and long-term debt financing on the net profit margin ratio. Multiple coefficients of determination: -

Multiple $r^2 = 0.000$

= 0%

The change in the dependent variable (net profit margin) can be explain by the changes in the independent variable (LTD, STD) by 0%. The Standard Error of the estimate of the actual data 9.31331.

	ANOVA ^a							
		Sum of		Mean				
Mo	del	Squares	df	Square	F	Sig.		
1	Regression	.002	1	.002	.000	.996 ^b		
	Residual	9194.199	106	86.738				
	Total	9194.202	107					

a. Dependent Variable: NPM

b. Predictors: (Constant), LTD

It was found that the overall model was statistically significant at F statistic .00 at 5% significance level with P-value .996 < 0.05. This implied that the model fitted the study well and the results of the study were reliable.

Ho: There is a liner relationship between Net Profit Margin & Debt Financing.

H1: There is not a liner relationship between Net Profit Margin & Debt Financing.

F= .00

Significance of F= .996

 $\propto = 0.05$

 $H_{0 \text{ hypothesis}}$ will be accepted because the value of significant is more than the required value of Sig .996 > $\propto 0.05$. So, it can be concluded that there is a liner relationship between Net Profit Margin & Debt Financing.

Coefficients ^a								
		Unstandardized Coefficients		Standardized Coefficients				
Model		В	Std. Error	Beta	t	Sig.		
1	(Constant)	6.813	1.245		5.474	.000		
	LTD	017	3.225	001	005	.996		

a. Dependent Variable: NPM

The coefficients of Debt Financing are -.017 with a P-Value of .097 >.05. This implies that a unit value increase in Debt Financing will result into -.017 units decrease in Net Profit Margin. The result also imply that Debt Financing has a significant impact on net profit margin, hence the null hypothesis that Debt Financing has no significant impacts on net profit margin was rejected at 5% significant level.

 H_0 : Debt Financing has significant impacts on net profit margin

 H_1 : Debt Financing has no significant impacts on net profit margin

T= -.005

Significant=0.996

 $\alpha = 0.05$

 $H_{0 \text{ hypothesis}}$ will be accepted because the Sig $0.996 > \alpha \ 0.05$

Regression analysis for Liquidity as the dependent variable

Regression analysis for current ratio

Current Ratio is one of the components of liquidity analysis. In the regression shows that there is any impact on Current Ratio. Which means debt financing has any impact on liquidity. Note that, In the SPSS only Long-term debt consider the overall debt financing. So, impacts of debt financing is based on long term debt.

			Adjusted R	Std. Error of
Model	R	R Square	Square	the Estimate
1	.120 ^a	.014	.005	3.61359

a. Predictors: (Constant), LTD

The correlation coefficient (R) was.120. This indicates a strong positive relationship between current ratio and financing debt. R squared which is the coefficient of determination explains the impacts of short term and long-term debt financing on the Current ratio.

Multiple coefficients of determination: -

Multiple $r^2 = 0.014$

= 2.80%

The change in the dependent variable (Current ratio) can be explain by the changes in the independent variable (LTD, STD) by 2.80%. The Standard Error of the estimate of the actual data 3.61359.

	ANOVA								
		Sum of		Mean					
Mod	lel	Squares	df	Square	F	Sig.			
1	Regression	20.201	1	20.201	1.547	.216 ^b			
	Residual	1384.149	106	13.058					
	Total	1404.350	107						

ANOVA^a

a. Dependent Variable: CR

b. Predictors: (Constant), LTD

It was found that the overall model was statistically significant at F statistic 1.547 at 5% significance level with P-value 0.216 > 0.05. This implied that the model fitted the study well and the results of the study were reliable.

Ho: There is a liner relationship between Current Ratio & Debt Financing.

H1: There is not a liner relationship between Current Ratio & Debt Financing.

F= 1.547

Significance of F= .216

 $\propto = 0.05$

 $H_{0 \text{ hypothesis}}$ will be accepted because the value of significant is more than the required value of Sig $.216 > \propto 0.05$. So, it can be concluded that there is a liner relationship between Current Ratio & Debt Financing.

Coefficients ^a								
		Unstandardized Coefficients		Standardized Coefficients				
Model		В	Std. Error	Beta	t	Sig.		
1	(Constant)	3.006	.483		6.225	.000		
	LTD	-1.556	1.251	120	-1.244	.216		

a. Dependent Variable: CR

The coefficients of Debt Financing are -1.556 with a P-Value of .216 >.05. This implies that a unit value increase in Debt Financing will result into -1.556 units decrease in Current ratio. The result also imply that Debt Financing has a significant impact on current ratio, hence the null hypothesis that Debt Financing has no significant impacts on current ratio was rejected at 5% significant level.

 H_0 : Debt Financing has significant impacts on current ratio

 H_1 : Debt Financing has no significant impacts on current ratio

T= -1.244

Significant=0.216

α= 0.05

 $H_{0 \text{ hypothesis}}$ will be accepted because the Sig $0.216 > \alpha 0.05$

Regression analysis for Return on Equity as the dependent variable

In the regression shows that there is any impact on Return on equity. Which means debt financing has any impact on ROE Note that, In the SPSS only Long-term debt consider the overall debt financing. So, impacts of debt financing is based on long term debt.

Model Summary									
			Adjusted R	Std. Error of					
Model	R	R Square	Square	the Estimate					
1	.132ª	.018	.008	.14789					

a. Predictors: (Constant), LTD

The correlation coefficient (R) was.132. This indicates a strong positive relationship between ROE and financing debt. R squared which is the coefficient of determination explains the impacts of short term and long-term debt financing on the ROE.

Multiple coefficients of determination: -

Multiple $r^2 = 0.018$

= 3.60%

The change in the dependent variable (ROE) can be explain by the changes in the independent variable (LTD, STD) by 3.60%. The Standard Error of the estimate of the actual data 0.14789.

	ANOVA ^a									
		Sum of		Mean						
Mo	del	Squares	df	Square	F	Sig.				
1	Regression	.041	1	.041	1.888	.172 ^b				
	Residual	2.318	106	.022						
	Total	2.360	107							

a. Dependent Variable: ROE

b. Predictors: (Constant), LTD

It was found that the overall model was statistically significant at F statistic 1.888 at 5% significance level with P-value 0.172 > 0.05. This implied that the model fitted the study well and the results of the study were reliable.

Ho: There is a liner relationship between ROE & Debt Financing.

H1: There is not a liner relationship between ROE & Debt Financing.

F= 1.888

Significance of F= .172

 $\propto = 0.05$

 $H_{0 \text{ hypothesis}}$ will be accepted because the value of significant is more than the required value of Sig $.172 > \propto 0.05$. So, it can be concluded that there is a liner relationship between ROE & Debt Financing.

			Coefficients	a		
		Unstanc Coeffi	lardized icients	Standardized Coefficients		
Model		В	B Std. Error		t	Sig.
1	(Constant)	.123	.020		6.243	.000
	LTD	070	.051	132	-1.374	.172

a. Dependent Variable: ROE

The coefficients of Debt Financing are -.070 with a P-Value of .172 >.05. This implies that a unit value increase in Debt Financing will result into -.070 units decrease in ROE. The result also imply that Debt Financing has a significant impact on ROE, hence the null hypothesis that Debt Financing has no significant impacts on ROE was rejected at 5% significant level.

 H_0 : Debt Financing has significant impacts on ROE

 H_1 : Debt Financing has no significant impacts on ROE

T= -1.374

Significant=0.172

 $\alpha = 0.05$

 $H_{0 \text{ hypothesis}}$ will be accepted because the Sig $0.172 > \alpha 0.05$

Regression analysis for Return on Equity as the dependent variable

In the regression shows that there is any impact on Return on asset. Which means debt financing has any impact on ROA Note that, In the SPSS only Long-term debt consider the overall debt financing. So, impacts of debt financing is based on long term debt.

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate					
1	.177 ^a	.031	.022	.06212					

a. Predictors: (Constant), LTD

The correlation coefficient (R) was.177. This indicates a strong positive relationship between ROA and financing debt. R squared which is the coefficient of determination explains the impacts of short term and long-term debt financing on the ROA.

Multiple coefficients of determination: -

Multiple $r^2 = 0.031$

= 6.20%

The change in the dependent variable (ROA) can be explain by the changes in the independent variable (LTD, STD) by 6.20%. The Standard Error of the estimate of the actual data 0.06212.

	ANOVA ^a									
Sum of Mean										
Mo	del	Squares	df	Square	F	Sig.				
1	Regression	.013	1	.013	3.414	.067 ^b				
	Residual	.409	106	.004						
	Total	.422	107							

a. Dependent Variable: ROA

b. Predictors: (Constant), LTD

It was found that the overall model was statistically significant at F statistic 3.414 at 5% significance level with P-value 0.067 > 0.05. This implied that the model fitted the study well and the results of the study were reliable.

Ho: There is a liner relationship between ROA & Debt Financing.

H1: There is not a liner relationship between ROA & Debt Financing.

F= 3.414

Significance of F = 0.067

 $\propto = 0.05$

 $H_{0 \text{ hypothesis}}$ will be accepted because the value of significant is more than the required value of Sig $.067 > \propto 0.05$. So, it can be concluded that there is a liner relationship between ROA & Debt Financing.

	Coefficients ^a											
		Unstanc Coeffi	lardized icients	Standardized Coefficients								
Model		B Std. Error		Beta	t	Sig.						
1	(Constant)	.060	.008		7.239	.000						
	LTD	040	.022	177	-1.848	.067						

a. Dependent Variable: ROA

The coefficients of Debt Financing are -0.040 with a P-Value of .067 >.05. This implies that a unit value increase in Debt Financing will result into -0.040 units decrease in ROA. The result also imply that Debt Financing has a significant impact on ROA, hence the null hypothesis that Debt Financing has no significant impacts on ROA was rejected at 5% significant level.

 H_0 : Debt Financing has significant impacts on ROA

 H_1 : Debt Financing has no significant impacts on ROA

T= -1.848

Significant=0.067

 $\alpha = 0.05$

 $H_{0 \text{ hypothesis}}$ will be accepted because the Sig $0.067 \geq \alpha \ 0.05$

Descriptive statistics

The descriptive statistics gives discussion of the characteristics of business firms that utilized debt financing during the period 2016-2019. Descriptive statistics provides information of means and standard deviations scores relating to each of the variables used in the analysis. Means and standard deviations illustrate the movement pattern for all variables under study. (Profitability ratio, liquidity ratio, returns on asset, return on equity, long term debt ratio, and short-term debt ratio).

Descriptive Statistics									
	Ν	Minim	Maxim	Mean	Std.	Varian			
		um	um		Deviation	ce			
STD	108	.00	1.00	.7322	.27916	.078			
LTD	108	.00	1.00	.2678	.27916	.078			
GPM	108	-5.97	39.32	20.678	8.84827	78.292			
				2					
NPM	108	-27.81	48.94	6.8083	9.26969	85.927			
CR	108	.50	25.98	2.5891	3.62281	13.125			
ROE	108	21	1.33	.1045	.14850	.022			
ROA	108	07	.53	.0494	.06281	.004			
Valid N	108								
(listwise)									

Short term Debt

In this data short term debt impact financial performance on maximum value is 1 & minimum value .00. Mean value is .7322, St. Deviation .27916 & Variance .078 among 108 data.

Long Term Debt

In this data long term debt impact financial performance on maximum value is 1 & minimum value .00. Mean value is .2678, St. Deviation .27916 & Variance .078 among 108 data.

In the table shows, the value of St. Deviation & Variance both types of debt are same.

Gross profit Margin

In this data gross profit margin impacted by debt financing on maximum value is 39.32 & minimum value -5.97. Mean value is 20.6782, St. Deviation 8.84827 & Variance 78.292 among 108 data. This data shows debt financing strongly impact gross profit margin. Which means debt financing impact in profitability.

Net Profit Margin

In this data net profit margin impacted by debt financing on maximum value is 48.94 & minimum value -27.81. Mean value is 6.8083, St. Deviation 9.26969 & Variance 85.927 among 108 data. This data shows debt financing strongly impact net profit margin. Which means debt financing impact in profitability.

Current Ratio

The data shows current ratio highly impacted by debt financing on maximum value is 25.98 & minimum value .50. Other value of current ratios is – Mean value 2.5891, St. Deviation 3.62281 & variance 13.125 among 108 data. This data shows debt financing strongly impact Current ratio. Which means debt financing impact in liquidity.

Return on Equity

The data indicates that debt financing is less impacted in Return on Equity. The maximum value of ROE is 1.33 and minimum value is -.21. The data also shows Mean value .1045, St. Deviation .14850 and variance .022 among 108 data.

Return on Asset

The data shows that Return on Asset is less impacted by debt financing. Because of its minimum value -.07, maximum value .53, mean .0494, St. deviation .06281 and Variance .004.

In the Conclusion, Descriptive statistics table shows that profitability and liquidity are highly impacted by debt financing. Because of debt financing organization loss their profitability and

liquidity ability. In the contrast, debt financing is less effected in return on equity and return on asset. It means organization carefully used their debt financing.

Correlations Analysis

The Pearson's correlation was used to establish the nature and strength of a correlation relationship existing between variables (profit margin ratio, liquidity ratio, return on equity and return on asset, long term debt ratio, and short-term debt ratio). Pearson Correlation (r), is the commonly used bivariate correlation technique, that is used to measure the association between two quantitative variables without distinction between the independent and dependent variables (For instance; it can be employed to establishing the relationship between profit margin ratio, liquidity ratio, return in equity, return on asset, long term debt ratio, short term debt ratio). Table provides a Correlation Statistics analysis for key variables use in this study.

	Correlations										
		STD	LTD	GPM	NPM	CR	ROE	ROA			
STD	Pearson Correlation	1.00									
LTD	Pearson Correlation	-1.00**	1.00								
GPM	Pearson Correlation	16	.16	1.00							
NPM	Pearson Correlation	.00	.00	.62**	1.00						
CR	Pearson Correlation	.12	12	.12	.18	1.00					
ROE	Pearson Correlation	.13	13	.18	.63**	07	1.00				
ROA	Pearson Correlation	.18	18	.27**	.73**	.06	.94**	1.00			

**. Correlation is significant at the 0.01 level (2-tailed).

Short term debt

In this correlation table indicates, there are positive and negative relationships among the dependent and independent variables. The relationships between short term debt and long-term debt are negative. There is also negative relationship with gross profit margin. Short term debt has significant positive relationships among other variables (net profit margin, current ratios, return on equity, return on asset). Because their correlation value nearly exists at the significant level 0.01.

Long term debt

The correlation table indicates, long term debt has negative relationships among current ratios, return on equity and return on asset. There are also positive relationships gross profit margin and net profit margin. Because their correlation value nearly exists at the significant level 0.01.

Gross Profit Margin

The table shows, gross profit margin relationship among the variables. The relationship is positively correlated. Some (net profit margin and return on asset) are weakly correlated, because the variable not nearly exist at the significant level 0.01. Some are strongly correlated with gross profit margin, because their correlation value nearly exists at the significant level 0.01.

Net Profit Margin

The correlation table indicates, net profit margin has strongly relationship with current ratio. Because the value of current ratio is .18 which exists at the significant level 0.01. But current ratio has weakly relationships with return on equity and return on asset. Because their correlation value not nearly exists at the significant level 0.01.

Current Ratio

The relationships between current ratio and return on equity is negative. Because the value of correlation is -.07. But, the relationships between current ratio and return on asset is strongly positive. Because the value of correlation is .06 which exists at the significant level 0.01.

Return on Equity

The relationship between return on asset and return on equity are weakly positive. Because their correlation value is .94 which not exists at the significant level 0.01.

Return on Asset

The relationship of return on asset with all variables are positively correlated except long term debt. Return on asset and Long-term debt are correlated with negatively. Return on asset and current ratio has strongly correlated. Because their correlation value is .06 which exist at the significant level 0.01.

In the conclusion, Correlation analysis shows what are relationship among the variables. In the analysis, some variable is positively related and some are negatively. Some are strongly related, because of correlation value are nearly exists at the significant level 0.01. Some are weakly related, because of correlation value are not nearly exists at the significant level 0.01.

CONCLUSIONS AND RECOMMENDATIONS

Introduction

This summarizes the results from Data analysis and findings. It's also describes the study's conclusions, limitations and recommendations based on the study's objectives. The objective of the study was to establish the relationship between debt financing and financial performance of listed engineering industry in Bangladesh.

The study used secondary data from financial statements of the companies for year 2016 to 2019 and measured profitability through Net profit & Gross profit, Return on Assets, Return on Equity, and liquidity through current ratio.

Summary of Findings

The research findings come out from data analysis and findings. In the data analysis and findings describes analysis in three way 1. Regression analysis 2. Descriptive Statistics 3. Correlation analysis. Based on those analysis, some findings are represented

- a) Debt financing significantly impact on profitability & Liquidity under the regression analysis. Profitability and Liquidity may be increase or decrease for debt.
- b) Under the regression analysis shows that ROA & ROE are decrease when debt financing increase. It means there are negative relationship among ROA, ROE & debt financing.
- c) In the descriptive statistics, gross profit margin, net profit margin & current ratio are strongly impacted by debt financing. It means debt financing have strong impact on profitability and liquidity.
- d) Descriptive statistics indicates that debt financing have less impact in ROA and ROE.

Conclusions

It was considered to be very important when finance directors and managing directors trying to Finance the firm's assets to understand the impact of debt financing on the financial performance as well the cost of funds. It was evident from the study and analysis arising thereof. This study established that profitability analysis and liquidity structure analysis was a very important analysis used to boost firm's competitive advantage and consequently profitability & liquidity. Return on equity and return on asset does not significantly impacted by debt financing.

Recommendations

Arising from this study, the following directions for future research were recommended as follows: First, this study focused on all the 27 listed companies in the Dhaka stock Exchange. Therefore, generalizations could not adequately be extended to every listed company as they have varying industry risk and asset structure. Based on this fact among others, it is therefore, recommended that a narrow-based study covering a specific segment or company be done to find out the Impact of debt financing on financial Performance. Similar studies to this can also be replicated in a few years to come to asses if the Impact of debt financing on financial Performance of the firms listed at the Dhaka Stock Exchange has changed as the Dhaka stock Exchange continues to change.

Suggestions for Further Study

The current study looked at the impact of debt financing on financial performance of listed manufacturing firms in Dhaka Stock Exchange. There is need for studies of this nature to be carried out using the same variables since this was the first study to be conducted using these variables and also by incorporating new variables in the models, and increasing the number of years for the research to more than four years. This study focused on all the 27 listed companies in the Dhaka Stock Exchange. These results cannot address specific risk associated with different industries across the economy. Based on this fact among others, it is therefore, recommended that a narrow-based study covering a specific industry to find out the impact of debt financing.

REFERENCES

- *Edward Lowe Foundation*. (2020). Retrieved from https://edwardlowe.org/how-to-analyze-profitability-2/
- A., O. (2015). Examining the effect of capital structure on financial performance: a study of firms listed under manufacturing, construction and allied sector at the Nairobi Securities Exchange.
- Abdel Shahid, s. (2003). *Does Ownership Structure Affect Firm Value*? Egyptian Stock Market. Retrieved from 2003.
- Abor, J. (2005). The Effect of Capital Structure on Profitability. Empirical Analysis of Listed Firms in Ghana. Journal of Risk Finance.
- Abor, J. (2007). *Debt policy and performance of SMEs: Evidence from Ghanaian and South African firms.* The Journal of Risk Finance.
- ACCOUNTINGGVERSE. (n.d.). Retrieved from Return on Equity: https://www.accountingverse.com/managerial-accounting/fs-analysis/return-onequity.html
- ACCOUNTINGVERSE. (n.d.). Retrieved from Liquidity Ratios: https://www.accountingverse.com/managerial-accounting/fs-analysis/liquidity-ratios.html
- Adam, M. (2004). Evaluating the Financial Performance Of banks Using Financial ratios-A case study of erbil. Euorepean journal of Accounting Auditing & Finance Researsh.
- Ahmed, H. (2012). An investigation of the effect of financial leverage on firm financial performance in Saudi Arabia's public listed companies.
- *allBusiness*. (n.d.). Retrieved from short-term debt ratio: https://www.allbusiness.com/barrons_dictionary/dictionary-short-term-debt-ratio-4947307-1.html
- Al-tally, H. A. (2014). An Investigation of the Effect of Financial Leverage on Firm Financial Performance in Saudi. Doctoral dissertation, Victoria University Melbourne, Australia.
- Apima, E. (n.d.). *EFFECTS OF DEBT FINANCING ON BUSINESSES FIRMS FINANCIAL PERFORMANCE*. IJSSIT Publication.
- Baker, M. &. (2002). Market Timing and Capital Structure. The Journal of Finance.
- Baltaci, N. &. (2014). Firm, Country and Macroeconomic Determinants of Capital Structure: Evidence from Turkish Banking Sector. *Emerging Markets Journal*.
- Baum, C. F. (2006). *The Effects of Short-Term Liabilitieson Profitability: A Comparison of German and US Firms*. Boston College Department of.

- Benter Achieng Omollo, W. M. (2018). Effect of Debt Financing Options on Financial Performance of Firms Listed at the Nairobi Securities Exchange, Kenya. iiste.
- Berger, A. N. (2006). Capital Structure and Firm Performance: A New Approach to Testing Agency Theory and an Application to the Banking Industry. *Journal of Banking and Finance*.
- Bistrova, J. L. (n.d.). The influence of capital structure on Baltic corporate performance. *Journal* of Business Economics and Management, vol. 12, no. 4, pp. 655-669.
- *CFI*. (n.d.). Retrieved from Profitability Ratios: https://corporatefinanceinstitute.com/resources/knowledge/finance/profitability-ratios/
- *CFI*. (n.d.). Retrieved from Return on Equity (ROE): https://corporatefinanceinstitute.com/resources/knowledge/finance/what-is-return-onequity-roe/
- *CFI*. (n.d.). Retrieved from Return on Assets & ROA Formula: https://corporatefinanceinstitute.com/resources/knowledge/finance/return-on-assets-roa-formula/
- Cheng, M. (2009). Relative Effects of Debt and Equity on Corporate Operating Performance: A Quantile Regression study. *International Journal of Management*.
- *conjointly*. (n.d.). Retrieved from descriptive-statistics: https://conjointly.com/kb/descriptive-statistics/#:~:text=Descriptive%20statistics%20are%20used%20to,every%20quantitative %20analysis%20of%20data.&text=In%20a%20research%20study%20we%20may%20ha ve%20lots%20of%20measures.
- Dr Wallace Atambo (Ph D), D. W. (September 2016). *EFFECTS OF DEBT FINANCING ON BUSINESSES FIRMS FINANCIAL PERFORMANCE*. ijssit.
- Dube, H. (2013). *The impact of debt financing on productivity of small and medium scale enterprises, A case study of SMEs in Masvingo urban.* International Journal of Economics, Business and Finance.
- *e*/*CAPITAL*. (n.d.). Retrieved from The Importance of Profitability Analysis: https://www.ecapitaladvisors.com/blog/the-importance-of-profitability-analysis/
- *eanaliza.pl.* (n.d.). Retrieved from Short-term debt to equity: https://eanaliza.pl/en/short-term-debt-to-equity
- *efinancemanagement*. (n.d.). Retrieved from Return on Assets (ROA): https://efinancemanagement.com/financial-analysis/return-on-assets-roa
- Ezekiel Apima Onchong'a, D. W. (2016). EFFECTS OF DEBT FINANCING ON BUSINESSES FIRMS FINANCIAL PERFORMANCE. ijssit.
- Fama, E. F. (2002). *Testing Trade-Off and Pecking Order Predictions about Dividends and debt.* The Review of Financial Studies.

- Fan, J. T. (2012). An International Comparison of Capital Structure and Debt Maturity Choices. Journal of Financial & Quantitative Analysis,.
- FINSTANON. (n.d.). Retrieved from Long-Term Debt Ratio: https://www.finstanon.com/ratiosdictionary/69-long-term-debt-ratio
- *flexmr*. (n.d.). Retrieved from correlation-analysis: https://blog.flexmr.net/correlation-analysisdefinition-exploration
- Frank, M. Z. (2011). "Trade-off and Pecking Order Theories of Debt". Handbook of Empirical Corporate Finance. *Empirical Corporate Finance. Elsevier*.
- *FreshBooks*. (n.d.). Retrieved from What Is a Good Liquidity Ratio?: https://www.freshbooks.com/hub/accounting/good-liquidity-ratio
- Gang Fu, W. F. (2012). Emipirical Study on Financial Risk Factors: Capital Structure, Operation Ability, Profitability and Solvency Evidence from Listed Companies in China. Sichuan agricultural university.
- *GMT*. (n.d.). Retrieved from ACCOUNTING RATIOS: https://www.gmtresearch.com/en/accounting-ratio/short-term-debttotal-debt/
- Goswami, G. T. (1995). Debt Financing under Asymmetric Information. Journal of Finance.
- Harelimana, J. B. (2017). *Effect of Debt Financing on Business Performance: A Comparative Study between I&M Bank and Bank of Kigali, Rwanda.* Global Journal of Management and Business Research: C Finance.
- Harvard Business Review. (n.d.). Retrieved from Regression-analysis: https://hbr.org/2015/11/a-refresher-on-regression-analysis
- Holz, C. A. (2002). *The impact of the liability-asset ratio on profitability in China's industrial state-owned enterprise*. China Economic Review.
- Inc. (n.d.). Retrieved from Return on Assets (ROA): https://www.inc.com/encyclopedia/returnon-assets-roa.html
- *InvestFAQ*. (n.d.). Retrieved from LONG TERM DEBT TO ASSET RATIO: https://invest-faq.com/long-term-debt-to-asset-ratio/
- *Investing Answers*. (n.d.). Retrieved from Return on Assets (ROA): https://investinganswers.com/dictionary/r/return-assets-roa
- *InvestingAnswers*. (n.d.). Retrieved from Return on Equity (ROE): https://investinganswers.com/dictionary/r/return-equity-roe
- Investopedia. (n.d.). Retrieved from Profitability Ratios: investopedia.com/terms/p/profitabilityratios.asp

- Investopedia. (n.d.). Retrieved from Debt Ratio Definition: https://www.investopedia.com/terms/d/debtratio.asp
- Investopedia. (n.d.). Retrieved from What Is Return on Equity (ROE)?: https://www.investopedia.com/terms/r/returnonequity.asp#:~:text=Return%20on%20equi ty%20(ROE)%20is,net%20income%20by%20shareholders'%20equity.&text=ROE%20is %20considered%20a%20measure,company's%20assets%20to%20create%20profits.
- Jaramillo, F. a. (2002). Access to long Term Debt and Effects on firms` performance:lessons from Ecuador. IADB. Research Network Working Paper.
- Jim, M. (n.d.). *statisticsbyjim*. Retrieved from Regression-analysis: https://statisticsbyjim.com/regression/when-use-regression-analysis/
- Kabiru, P. N. (2015). *DEBT FINANCING AND FINANCIAL PERFORMANCE OF SMALL AND*. Journal of Economics, Finance and Accounting – (JEFA).
- Karuma, M. N. (May11, 2018). EFFECT OF DEBT FINANCING ON FINANCIAL PERFORMANCE OF MANUFACTURING FIRMS IN NAIROBI. The Strategic Journals.
- Kebewar, S. (2012). *The effect of debt on corporate profitability: Evidence from French service sector*. University library of Munich.
- *kellogg*. (n.d.). Retrieved from Interpreting a Regression Analysis: https://www.kellogg.northwestern.edu/faculty/weber/jhu/statistics/regression.htm
- Kirimi, P. N. (2017). Effect of Debt Finance on Financial Performance of Savings and Credit Cooperative Societies in Maara Sub-county, Tharaka Nithi County, Kenya< Previous ArticleNext Article >. International Journal of Accounting, Finance and Risk Management.
- Kraus, A. &. (n.d.). A State-preference model of optimal financial leverage. *The Journal of Finance*.
- L., M. (2013). The effect of debt financing on firm profitability of commercial banks in Kenya.
- L., M. (2013). The effect of debt financing on firm profitability of commercial banks in Kenya.
- *laerd statistics*. (n.d.). Retrieved from descriptive statistics: https://statistics.laerd.com/statistical-guides/descriptive-inferential-statistics.php
- Langat C.P., C. L. (2015). The effect of debt financing on the profitability of Kenya Tea Development Authority processing factories.
- *lumen.* (n.d.). Retrieved from Ratio Analysis and Statement Evaluation: https://courses.lumenlearning.com/boundless-business/chapter/ratio-analysis-and-statement-evaluation/

- *lumen*. (n.d.). Retrieved from The DuPont Equation, ROE, ROA, and Growth: https://courses.lumenlearning.com/boundless-finance/chapter/the-dupont-equation-roe-roa-and-growth/
- *lumenlearning*. (n.d.). Retrieved from Calculate Ratios That Analyze a Company's Short-Term Debt-Paying Ability: https://courses.lumenlearning.com/sacfinaccounting/chapter/calculate-ratios-that-analyze-a-companys-short-term-debt-payingability/
- M.H, M. F. (1958). *The Cost of Capital, Corporate Finance, and the Theory of Investment.* American Economic Review.
- Maina, L. &. (2014). Capital structure and financial performance in Kenya: Evidence from firms listed at the Nairobi Securities Exchange. *International Journal of Social Sciences and Entrepreneurship*.
- MANAGEMENT STUDY GUIDE. (n.d.). Retrieved from Return on Assets (ROA) Meaning, Formula, Assumptions and Interpretation: https://www.managementstudyguide.com/return-on-assets.htm
- Miras, D. (2015). 'Debt level and firm performance: A study on low-cap firms listed on the Kuala Lumpur stock exchange. International journal of Accounting, Business and Management.
- Mirza, S. a. (2013). Determinants of financial performance of a firm: case of Pakistani Stock Market. *Journal of Economics and International Finance*.
- MONEY-ZINE . (n.d.). Retrieved from Short-Term Debt to Long-Term Debt Ratio: https://www.money-zine.com/definitions/investing-dictionary/short-term-debt-to-long-term-debt-ratio/
- Muchugia, L. M. (2013). *The Effect Of Debt Financing On Firm Profitability Of Commercial Banks in Keneya.* Doctoral dissertation, University of Nirobe.
- *My Accounting Course*. (n.d.). Retrieved from Long term debt: https://www.myaccountingcourse.com/almost-done
- *My Accounting Course*. (n.d.). Retrieved from Return on Equity (ROE) Ratio: https://www.myaccountingcourse.com/financial-ratios/return-on-equity
- N., C. (2013). An analysis of the effect of capital structure of SMEs on financial performance. Kabarak University.
- N., C. (2013). An analysis of the effect of capital structure of SMEs on financial performanceA case of A case of. Unpublished research project of Kabarak University.
- Opler, T. &. (1994). Financial Distress and Corporate Performance. Journal of Finance.
- R., T. S. (1988). The determinants of capital structure. Journal of Finance, Vol. 43 1-19.

- Rahman, D. M. (n.d.). *Financial Performance of Pharmaceutical Industry in Bangladesh with Special Reference to Square Pharmaceuticals Ltd.* Journal of Business and Management.
- Ramzan, I. (November 2016). *Impact of Debt financing on corporate financial performance*. ResearchGate.
- Rao, N. V. (2007). Capital structure and financial performance: evidence from Oman. *Indian Journal of Economics and Business*, 1-23.
- *Ready Ratios.* (n.d.). Retrieved from Long Term Debt to Total Asset Ratio: https://www.readyratios.com/reference/debt/long_term_debt_to_total_asset_ratio.html
- *Ready Ratios*. (n.d.). Retrieved from Return On Equity (ROE): https://www.readyratios.com/reference/profitability/return_on_equity.html
- *ReadyRatios*. (n.d.). Retrieved from Liquidity ratios: https://www.readyratios.com/reference/liquidity/
- *Runrun.it blog.* (n.d.). Retrieved from Understanding the Relationship Between Customers and Profitability Analysis: https://blog.runrun.it/en/profitability-analysis/
- *SF Learn finance, accounting and business.* (n.d.). Retrieved from Long Term Debt Ratio: https://studyfinance.com/long-term-debt-ratio/
- Sisson, N. B. (n.d.). *PocketSense*. Retrieved from Short-Term Debt Ratio: https://pocketsense.com/shortterm-debt-ratio-8041372.html
- Skopljak, V. &. (2012). Capital structure and firm performance in the financial sector: Evidence from Australia. Asian Journal of Finance & Accounting.
- Smith, B. (n.d.). *ChatterSource*. Retrieved from What is Your Long-term Debt Ratio and What Does it Mean?: https://www.chattersource.com/article/long-term-debt-ratio
- Sohail Aziz, U. A. (n.d.). *Effect of Debt Financing on Firm Performance: A Study on Non-Financial Sector of Pakistan.* Institute of Southern Punjab Multan.
- *sphweb*. (n.d.). Retrieved from Correlation Analysis: https://sphweb.bumc.bu.edu/otlt/MPH-Modules/BS/BS704_Multivariable/BS704_Multivariable5.html
- statisticshowto. (n.d.). Retrieved from Regression-analysis: https://www.statisticshowto.com/probability-and-statistics/regression-analysis/
- *statisticshowto*. (n.d.). Retrieved from descriptive-statistics: https://www.statisticshowto.com/probability-and-statistics/descriptive-statistics/
- *statisticssolutions*. (n.d.). Retrieved from Correlation (Pearson, Kendall, Spearman): https://www.statisticssolutions.com/correlation-pearson-kendall-spearman/
- *surveygizmo*. (n.d.). Retrieved from How does regression analysis work?: https://www.surveygizmo.com/resources/blog/regression-

analysis/#:~:text=Regression%20analysis%20is%20a%20powerful,variables%20on%20a%20dependent%20variable.

- *surveysystem*. (n.d.). Retrieved from Correlation anlaysis: https://www.surveysystem.com/correlation.htm
- *TechTarget*. (n.d.). Retrieved from profitability analysis: https://searcherphttps://searcherp.techtarget.com/definition/profitabilityanalysis.com/definition/profitability-analysis
- *the balance small business*. (n.d.). Retrieved from What Is Profitability Ratio Analysis?: https://www.thebalancesmb.com/profitability-ratio-analysis-393185
- *the balance small business.* (n.d.). Retrieved from Analysis of Liquidity Position Using Financial Ratios: https://www.thebalancesmb.com/liquidity-position-analysis-with-ratios-393233
- *the balance*. (n.d.). Retrieved from Return on Equity (ROE) and Income Statement Analysis: https://www.thebalance.com/return-on-equity-roe-357601
- *The Strategic CFO*. (n.d.). Retrieved from Return on Equity Analysis: https://strategiccfo.com/return-on-equity-analysis/
- *ThefreeDictionar*. (n.d.). Retrieved from Long-term debt ratio: https://financialdictionary.thefreedictionary.com/Long-term+debt+ratio
- *wealthyeducation.* (n.d.). Retrieved from Financial Ratios Analysis: https://wealthyeducation.com/long-term-debtratio?doing_wp_cron=1599743756.3947730064392089843750
- *WIKI ACCOUNTING*. (n.d.). Retrieved from Return on Equity Ratio: Definition : https://www.wikiaccounting.com/ultima-return-equity/
- *wikiHow*. (n.d.). Retrieved from How to Analyze Return on Assets: https://www.wikihow.com/Analyze-Return-on-Assets
- wikipedia. (n.d.). Retrieved from Regression_analysis: https://en.wikipedia.org/wiki/Regression_analysis
- *Your Article library*. (n.d.). Retrieved from Analysis of Liquidity Ratios (With Examples): https://www.yourarticlelibrary.com/accounting/ratio-analysis/analysis-of-liquidity-ratioswith-examples/61846

APPENDIX 01: - ORGANIZATION NAME

No	Organization Name
01	AFTAB AUTOMOBILES
02	ANWAR GALVANIZING
03	APPOLLO ISPAT COMPLEX
04	AZIZ PIPES
05	BANGLADESH BUILDING SYSTEMS
06	BBS CABLES
07	BANGLADESH LAMPS
08	BANGLADESH AUTOCARS
09	BENGAL WINDSOR THERMOPLASTICS
10	BANGLADESH THAI ALUMINIUM
11	BANGLADESH STEEL RE-ROOLING MILLS
12	BSRM STEELS
13	DESHBANDHU POLYMAR
14	EASTERN CABLES
15	GOLDEN SON
16	GPH ISPAT
17	KDS ACCESSORIES
18	NAHEE ALUMINUM COMPOSITE PANEL
19	NAVANA CNG
20	NATIONAL POLYMER INDUSTRIES
21	OLYMPIC ACCESSORIES
22	OIMEX ELECTRODE
23	RANGPUR FOUNDRY
24	RATANPUR STEEL RE-ROLLING MILLS
25	SINGER BANGLADESH
26	YEAKIN POLYMER
27	WESTERN MARINE SHIPYARD

APPENDIX 02: - RAW DATA

Name	Year	Total Debt	Short term Debt	Long term debt	Gross Profit
AFTAB AUTOMOBILES	2019	4,419,537,000	3,761,802,832	657,734,168	494,511,587
	2018	2,207,069,052	1,447,851,956	759,217,096	668,259,731
	2017	3,432,784,666	1,324,948,819	2,107,835,847	793,756,137
	2016	2,089,055,478	920,718,015	1,168,337,463	574,015,610
ANWAR GALVANIZING	2019	125,677,546	115,357,493	10,320,053	54,186,759
	2018	202,595,886	192,186,822	10,409,064	50,929,003
	2017	184,431,056	177,109,345	7,321,711	35,653,493
	2016	156,101,382	151,364,218	4,737,164	23,043,242
APPOLLO ISPAT COMPLEX	2019	3,506,665,136	2,054,600,717	1,452,064,419	124,499,890
	2018	3,130,414,435	2,358,954,856	771,459,579	716,027,797
	2017	2,978,512,036	1,914,143,972	1,064,368,064	1,110,370,428
	2016	2,307,759,179	1,047,339,663	1,260,419,516	1,194,145,762
AZIZ PIPES	2019	1,019,842	1,019,842	-	34,213,359
	2018	52,869,219	22,119,842	30,749,377	30,541,499
	2017	56,110,478	22,119,842	33,990,636	26,203,332
	2016	200,603,950	158,313,314	42,290,636	13,288,128
BANGLADESH BUILDING SYSTEMS	2019	1,153,865,989	1,035,382,970	118,483,019	376,164,446
	2018	966,142,865	934,588,966	31,553,899	397,827,632
	2017	1,123,467,062	1,076,757,008	46,710,054	624,014,893
	2016	841,827,747	819,702,747	22,125,000	605,881,560
BBS CABLES	2019	2,348,734,189	2,013,171,813	335,562,376	2,819,302,245
	2018	2,226,240,348	1,936,940,551	289,299,797	2,225,377,138
	2017	2,162,712,955	1,868,878,295	293,834,660	1,195,482,477
	2016	1,942,342,711	1,580,344,761	361,997,950	889,041,719
BANGLADESH LAMPS	2019	161,341,943	59,999,886	101,342,057	373,066,220
	2018	712,815,021	612,612,270	100,202,751	330,565,645
	2017	354,342,637	304,961,210	49,381,427	294,354,571
	2016	348,604,178	294,719,937	53,884,241	148,084,554
BANGLADESH AUTOCARS	2019	1,332,377	-	1,332,377	13,333,794
	2018	2,720,585	-	2,720,585	13,383,137
	2017	3,946,450	-	3,946,450	11,983,063
	2016	17,176,959	10,157,761	7,019,198	8,544,974
BENGAL WINDSOR THERMOPLASTICS	2019	84,202,358	84,202,358	-	189,473,562
	2018	157,981,510	127,895,751	30,085,759	225,543,665
	2017	247,434,933	182,501,973	64,932,960	257,982,204
	2016	259,672,617	160,924,343	98,748,274	323,544,245
BANGLADESH THAI ALUMINIUM	2019	1,551,408,332	1,195,276,802	356,131,530	385,271,685

	2018	1,442,636,165	1,106,398,896	336.237.269	420.613.521
	2017	1,255,790,656	887.661.558	368 129 098	282, 120, 772
	2016	1.048.215.118	610.996.629	437.218.489	337.806.239
BANGLADESH STEEL RE-ROOLING MILLS	2019	43.162.525.547	38.152.951.121	5.009.574.426	8.186.274.671
	2018	48,100,406,899	39.794.968.538	8,305,438,361	8,147,155,404
	2017	33,146,353,341	26 547 656 785	6,598,696,556	4 696 530 554
	2016	12 287 647 588	9.015.063.382	3 272 584 206	1 362 027 330
BSRM STEELS	2010	29 525 368 707	20,457,420,060	9.067.948.647	5 051 913 913
	2019	21,072,579,671	19 295 024 003	1 777 555 668	4 879 167 782
	2017	22,464,154,966	21 346 253 998	1 117 900 968	4 557 295 000
	2017	17 877 944 840	16 264 707 464	1,613,237,376	3 331 072 925
DESHRANDHU POLVMAR	2010	917 161 801	917 161 801	1,015,257,570	116 556 011
DESILDANDINO I OLIMIAK	2019	717,600,546	717,600,546		126 826 134
	2018	660 786 774	660 786 774		78 710 030
	2017	162 919 793	162 010 703		78 302 222
EASTEDN CADLES	2010	511 270 112	422 922 279		(26 860 746)
EASTERN CABLES	2019	182 0/1 9/3	104 660 898	77 381 045	122 601 965
	2016	117 914 718	40 533 673	77 381 045	178 688 200
	2010	123 465 017	46,083,073	77 381 045	161 084 518
COLDEN SON	2013	2 567 276 512	1 139 870 428	1 427 406 084	97 663 866
GOLDEN SON	2019	2 438 113 124	1 545 598 037	892 515 087	26 639 372
	2010	1 530 182 591	1 530 182 591		(23,653,270)
	2017	1 002 898 009	1 002 898 009		133 781 188
GPH ISPAT	2010	23,797,374,681	7,120,943,855	16 676 430 826	2.157.928.766
	2018	15 613 521 537	7 254 491 296	8 359 030 241	1 602 544 541
	2017	6 692 390 331	4 971 423 126	1 720 967 205	1 373 720 336
	2016	4 577 287 834	4 254 214 515	323 073 319	960 168 032
KDS ACCESSORIES	2019	758.261.801	590.432.585	167.829.216	418.004.019
	2018	956,182,392	842.600.806	113.581.586	377.208.994
	2017	796,477,403	617,937,369	178,540,034	268,777,165
	2016	422.375.082	323.293.548	99.081.534	174,934,049
NAHEE ALUMINUM COMPOSITE PANEL	2019	90.335.385	90,335,385	_	351,540,933
	2018	96,059,415	90,550,174	5,509,241	262,013,316
	2017	111,199,221	73,306,627	37,892,594	181,919,338
	2016	166,783,198	91,621,450	75,161,748	134,525,917
NAVANA CNG	2019	1,758,423,724	842,820,203	915,603,521	249,963,531
	2018	1,817,239,693	1,134,207.036	683,032.657	438,800,136
	2017	2,481,227,480	158,461,417	2,322,766,063	461,920,595
	2016	659,432,186	70,111,115	589,321,071	496,008,084

NATIONAL POLYMER INDUSTRIES	2019	2,255,162,051	1,572,712,365	682,449,686	557,787,699
	2018	1,848,422,958	1,446,935,448	401,487,510	387,459,951
	2017	1,570,721,971	1,447,690,594	123,031,377	307,293,861
	2016	1,122,858,140	917,435,353	205,422,787	291,563,613
OLYMPIC ACCESSORIES	2019	101,000,514	101,000,514	-	166,207,167
	2018	35,859,423	35,859,423	-	234,990,926
	2017	35,859,423	35,859,423	-	234,990,926
	2016	10,250,819	10,250,819	-	308,653,103
OIMEX ELECTRODE	2019	147,270,944	119,576,517	27,694,427	157,089,804
	2018	110,233,648	63,516,043	46,717,605	155,846,887
	2017	113,757,900	50,242,731	63,515,169	130,504,187
	2016	123,216,468	72,756,696	50,459,772	121,616,363
RANGPUR FOUNDRY	2019	110,030,291	110,030,291	-	276,283,334
	2018	167,317,905	167,317,905	-	253,782,112
	2017	163,501,628	163,501,628	-	236,336,107
	2016	195,522,019	195,522,019	-	213,819,573
RATANPUR STEEL RE-ROLLING MILLS	2019	1,673,281,429	823,619,989	849,661,440	1,067,042,792
	2018	1,568,158,042	1,568,158,042	-	1,276,991,454
	2017	1,453,574,424	1,453,574,424	-	1,257,365,287
	2016	1,394,848,443	1,385,504,042	9,344,401	650,543,192
SINGER BANGLADESH	2019	1,746,661,938	1,746,661,938	-	4,223,777,503
	2018	2,119,372,532	2,119,372,532	-	3,626,273,855
	2017	1,457,644,580	1,457,644,580	-	3,121,717,716
	2016	1,130,878,507	1,130,878,507	-	2,593,688,313
YEAKIN POLYMER	2019	199,651,554	196,974,424	2,677,130	49,131,410
	2018	160,356,742	147,975,378	12,381,364	40,229,452
	2017	131,422,033	115,047,951	16,374,082	77,692,954
	2016	123,574,160	101,134,518	22,439,642	98,955,096
WESTERN MARINE SHIPYARD	2019	12,662,656,971	1,018,877,394	11,643,779,577	947,060,458
	2018	11,412,979,101	572,832,637	10,840,146,464	914,568,241
	2017	9,135,127,297	1,493,532,896	7,641,594,401	982,751,460
	2016	8,171,608,952	1,588,624,689	6,582,984,263	894,164,683

Net Profit	Sales	Current Assets	Current Liability	Equity	Total Asset
120,085,308	1,957,393,139	8,596,492,251	5,681,593,188	5,834,726,541	13,507,719,571
256,456,025	3,359,756,688	6,412,776,010	3,147,628,049	5,829,520,140	11,289,748,396
394,492,235	3,703,934,655	5,753,424,321	2,739,307,255	5,673,466,466	10,096,777,347
276,864,123	2,372,686,547	4,258,574,615	2,007,253,958	5,367,358,474	8,348,436,233
21,888,967	433,443,776	180,560,140	115,357,493	142,914,117	268,591,663
180,237,796	368,290,713	249,572,656	191,186,822	135,650,975	338,972,385
15,050,119	249,107,204	162,839,306	177,109,345	117,780,579	302,211,635
9,605,186	182,258,220	145,645,263	151,364,218	111,135,056	267,236,438
14,517,736	688,808,884	7,781,703,809	3,683,416,372	7,793,314,059	12,928,794,851
21,409,645	3,863,827,323	7,972,955,981	4,353,596,460	7,867,319,460	12,992,375,500
478,725,330	5,714,343,956	7,588,072,483	3,590,054,543	7,845,909,815	12,500,332,422
753,449,659	5,306,374,138	6,550,208,668	2,631,233,663	7,528,184,485	11,419,837,664
4,508,533	311,130,942	214,059,117	162,233,926	89,497,897	463,194,699
3,544,933	252,473,856	211,202,929	148,124,157	93,748,865	467,328,777
2,758,709	233,466,248	234,715,108	140,850,749	260,473,347	320,327,287
(3,496,061)	154,085,107	232,657,116	400,471,376	263,232,056	322,705,871
279,220,961	1,630,744,700	2,403,253,739	1,482,363,051	2,327,668,711	4,195,017,808
246,945,352	1,850,097,703	2,140,906,334	1,356,856,768	2,048,447,750	3,679,039,273
340,034,464	2,489,426,423	2,182,093,054	1,451,596,155	1,859,793,598	3,584,137,117
250,105,767	2,364,949,940	1,945,331,230	1,306,366,648	1,555,821,515	3,100,030,324
1,455,863,480	8,514,278,261	6,586,264,603	3,287,334,046	4,673,116,630	8,515,470,257
1,114,841,746	6,588,108,937	4,675,603,902	2,616,737,682	3,355,253,150	6,446,868,838
413,347,214	3,516,787,664	4,023,776,275	2,823,946,733	2,300,414,404	5,560,236,650
246,084,653	2,586,928,680	3,328,469,038	2,335,827,323	1,687,064,190	4,481,487,050
29,273,932	1,573,489,302	1,232,903,239	1,013,434,140	865,288,297	1,980,064,494
40,479,116	1,475,772,071	1,251,229,401	1,055,290,339	830,164,478	1,985,657,568
39,350,199	1,219,930,700	849,352,231	652,489,645	878,148,590	1,580,019,662
26,869,322	624,034,809	812,663,014	636,854,614	632,701,897	1,323,440,752
6,606,741	96,651,994	29,966,166	29,915,634	32,202,982	70,619,284
5,890,139	109,221,196	24,763,340	32,226,276	26,747,995	69,154,796
3,549,935	101,412,294	23,794,191	39,794,074	20,857,857	72,297,494
819,931	89,313,905	20,962,104	41,804,922	36,407,890	73,994,545
96,713,718	805,948,380	1,693,717,522	202,650,133	2,266,402,286	2,506,893,878
140,382,962	887,739,706	1,701,564,283	234,193,495	2,159,847,968	2,453,152,907
153,492,273	904,792,492	1,875,574,782	280,818,163	2,185,733,300	2,568,520,974
211,693,775	923,749,434	1,788,951,802	251,987,430	2,115,509,252	2,501,838,641
69,733,838	1,212,213,517	2,770,653,268	1,470,079,096	3,393,836,842	5,638,927,933
117,706,710	1,604,136,432	2,627,380,588	1,364,482,731	3,322,863,842	5,512,423,167

68,931,863	1,046,355,839	2,364,776,304	1,109,444,432	3,200,546,792	5,160,848,067
113,216,734	982,006,956	1,784,780,249	790,472,131	4,339,457,456	4,339,457,456
2,504,437,455	83,115,330,837	43,941,110,195	50,407,096,049	30,508,519,275	91,067,184,337
3,295,140,371	68,924,014,793	40,703,277,970	48,035,230,441	17,064,036,591	76,596,706,008
266,207,293	42,182,532,928	24,553,985,706	37,898,789,661	13,753,068,208	60,609,514,074
588,654,818	9,713,862,363	13,217,738,398	16,865,681,595	10,309,786,655	31,724,993,079
1,728,128,923	61,060,152,014	39,014,321,356	33,888,181,620	20,897,219,619	65,808,184,796
1,800,795,558	48,289,925,736	31,685,544,730	29,799,375,094	12,808,900,532	45,680,555,312
1,705,414,659	37,996,410,539	25,503,554,368	23,549,726,842	11,630,298,681	37,607,775,141
1,254,771,090	20,066,076,442	21,087,276,161	18,991,066,107	10,601,823,522	32,530,539,095
28,743,046	799,252,742	1,517,911,318	1,236,176,825	657,557,510	1,960,224,320
34,418,853	945,699,450	1,405,735,889	1,030,583,697	659,497,039	1,760,878,386
20,382,270	733,827,609	1,271,207,697	935,389,473	625,078,186	1,632,853,731
10,409,975	562,355,995	762,444,000	438,861,137	604,584,426	1,120,772,201
(124,570,994)	449,870,822	1,487,348,804	916,240,402	582,593,182	1,677,147,427
(3,574,689)	1,236,948,172	1,320,913,262	581,823,584	731,164,175	1,496,938,108
28,512,743	1,287,855,142	1,354,052,405	580,252,877	494,738,864	1,526,501,697
32,439,424	1,211,785,294	1,281,061,364	624,505,935	490,226,121	1,436,161,619
(170,307,675)	733,599,254	3,414,113,973	1,961,852,608	3,619,330,668	7,144,639,138
(178,574,634)	642,213,950	3,319,049,912	2,214,300,082	3,787,260,261	7,035,833,998
(202,963,122)	753,136,868	2,859,087,336	1,939,546,804	3,980,103,824	6,063,303,740
29,579,726	991,718,326	2,843,711,445	1,590,819,299	4,227,836,692	5,967,653,368
806,201,728	13,268,683,927	8,419,817,759	8,205,228,596	6,335,357,430	31,493,025,039
666,060,230	9,814,101,120	8,717,684,532	8,549,174,333	5,525,349,832	22,694,238,398
571,303,361	7,955,715,990	8,120,052,898	5,881,993,803	5,035,603,612	12,866,206,824
289,619,816	5,843,411,764	8,186,724,848	5,018,129,829	4,819,087,643	10,294,255,863
138,440,217	2,302,159,637	1,906,815,257	1,417,325,234	1,572,910,769	3,278,162,975
132,984,828	2,070,885,808	2,290,180,683	2,012,391,304	1,494,530,552	3,730,981,433
107,187,358	1,160,870,465	1,605,688,716	1,347,796,367	1,418,745,724	3,045,221,653
61,822,200	812,827,587	1,206,118,716	1,048,767,072	1,299,606,476	2,529,168,525
219,619,126	985,452,986	833,909,775	293,449,987	963,109,709	1,279,793,560
148,116,922	749,155,485	582,457,086	232,449,149	780,450,583	1,038,754,904
84,471,470	525,890,785	415,808,044	237,534,316	506,333,661	800,306,466
51,498,850	400,753,353	290,818,586	207,892,083	421,862,191	719,764,103
5,327,223	777,913,306	1,972,188,656	1,887,840,125	512,796,174	3,677,766,649
132,369,480	1,403,614,715	1,660,312,925	1,745,946,616	510,889,604	3,297,638,446
112,811,972	1,592,280,577	1,263,279,932	706,086,256	2,268,289,061	5,344,694,974
134,298,859	1,689,312,235	1,093,266,292	274,995,775	2,116,373,034	3,025,415,057
127,207,270	3,000,007,744	2,353,922,517	2,252,938,054	1,165,907,991	4,180,780,745

1	1				
79,350,886	2,366,380,577	1,832,529,414	1,919,205,568	1,062,094,916	3,462,273,008
66,741,634	1,866,687,057	1,597,946,088	1,611,959,788	1,030,197,514	2,844,673,694
48,945,858	1,759,312,097	1,245,871,358	1,049,908,321	985,204,015	2,320,020,137
96,652,915	1,103,799,292	988,767,659	115,430,912	2,484,034,812	2,663,007,488
120,096,189	1,356,740,777	1,132,083,667	57,541,811	2,494,381,897	2,494,540,133
120,096,189	1,356,740,777	1,132,083,667	57,541,811	2,387,381,897	2,494,540,133
178,147,446	1,465,328,349	1,183,083,519	45,533,365	2,267,285,708	2,356,227,262
94,079,869	519,173,980	561,833,974	172,005,529	859,225,442	1,087,098,322
91,289,306	494,752,023	498,721,496	135,350,062	765,145,573	968,501,084
64,580,275	440,297,050	393,224,987	146,949,799	523,856,267	753,652,326
64,206,768	410,164,512	352,009,280	144,814,205	459,275,992	666,207,063
39,060,305	1,351,726,641	362,845,258	141,968,281	269,235,559	411,548,851
38,951,652	1,241,669,839	392,626,658	199,250,993	253,175,254	452,907,718
39,167,690	1,153,659,512	390,541,908	226,367,128	237,223,602	464,248,354
37,908,402	1,033,725,840	427,355,650	266,231,366	210,025,912	476,648,285
584,408,217	8,808,684,500	5,385,876,582	1,401,857,878	5,008,797,272	7,400,011,747
713,459,972	7,859,878,631	4,898,332,947	2,066,053,270	4,527,478,325	8,735,748,748
707,857,860	7,488,695,752	3,759,680,971	1,864,184,494	3,857,261,553	5,862,322,040
271,226,432	5,377,411,796	3,003,792,077	1,627,118,149	3,228,027,693	4,995,989,159
1,034,574,115	15,370,867,488	6,630,230,972	3,843,864,245	3,417,494,042	9,806,371,505
900,153,413	13,467,035,283	6,082,612,273	3,890,427,507	2,317,948,306	7,896,440,465
775,109,519	10,967,033,473	4,940,188,055	1,472,948,961	2,184,546,451	6,679,275,360
546,322,199	8,844,133,053	4,089,413,802	1,444,915,010	1,947,030,527	5,700,118,993
10,717,926	196,641,346	464,234,256	255,907,971	864,609,699	1,183,155,161
9,875,047	183,619,342	385,896,471	216,133,194	853,891,773	1,132,706,266
34,759,524	324,472,756	466,298,171	200,410,181	844,016,726	1,091,998,391
39,337,267	374,856,443	376,431,664	191,283,816	609,257,202	854,666,811
378,526,690	2,408,535,561	9,525,835,544	1,865,030,353	5,868,658,654	19,421,960,062
356,474,902	2,404,362,591	8,416,062,532	1,391,920,445	5,490,131,964	17,768,375,087
317,682,949	2,978,544,328	8,050,834,051	3,476,630,776	5,083,527,050	16,247,455,880
298,962,534	2,813,975,718	7,559,820,671	3,456,958,718	4,765,844,100	14,847,872,820

STD RATIO	LTD RATIO	GPM	NPM	CR	ROE	ROA
0.85	0.15	25.26	6.13	1.51	0.02	0.01
0.66	0.34	19.89	7.63	2.04	0.04	0.02
0.39	0.61	21.43	10.65	2.10	0.07	0.04
0.44	0.56	24.19	11.67	2.12	0.05	0.03
0.92	0.08	12.50	5.05	1.57	0.15	0.08
0.95	0.05	13.83	48.94	1.31	1.33	0.53
0.96	0.04	14.31	6.04	0.92	0.13	0.05
0.97	0.03	12.64	5.27	0.96	0.09	0.04
0.59	0.41	18.07	2.11	2.11	0.00	0.00
0.75	0.25	18.53	0.55	1.83	0.00	0.00
0.64	0.36	19.43	8.38	2.11	0.06	0.04
0.45	0.55	22.50	14.20	2.49	0.10	0.07
1.00	0.00	11.00	1.45	1.32	0.05	0.01
0.42	0.58	12.10	1.40	1.43	0.04	0.01
0.39	0.61	11.22	1.18	1.67	0.01	0.01
0.79	0.21	8.62	-2.27	0.58	-0.01	-0.01
0.90	0.10	23.07	17.12	1.62	0.12	0.07
0.97	0.03	21.50	13.35	1.58	0.12	0.07
0.96	0.04	25.07	13.66	1.50	0.18	0.09
0.97	0.03	25.62	10.58	1.49	0.16	0.08
0.86	0.14	33.11	17.10	2.00	0.31	0.17
0.87	0.13	33.78	16.92	1.79	0.33	0.17
0.86	0.14	33.99	11.75	1.42	0.18	0.07
0.81	0.19	34.37	9.51	1.42	0.15	0.05
0.37	0.63	23.71	1.86	1.22	0.03	0.01
0.86	0.14	22.40	2.74	1.19	0.05	0.02
0.86	0.14	24.13	3.23	1.30	0.04	0.02
0.85	0.15	23.73	4.31	1.28	0.04	0.02
0.00	1.00	13.80	6.84	1.00	0.21	0.09
0.00	1.00	12.25	5.39	0.77	0.22	0.09
0.00	1.00	11.82	3.50	0.60	0.17	0.05
0.59	0.41	9.57	0.92	0.50	0.02	0.01
1.00	0.00	23.51	12.00	8.36	0.04	0.04
0.81	0.19	25.41	15.81	7.27	0.06	0.06
0.74	0.26	28.51	16.96	6.68	0.07	0.06
0.62	0.38	35.03	22.92	7.10	0.10	0.08
0.77	0.23	31.78	5.75	1.88	0.02	0.01
0.77	0.23	26.22	7.34	1.93	0.04	0.02
0.71	0.29	26.96	6.59	2.13	0.02	0.01
0.58	0.42	34.40	11.53	2.26	0.03	0.03
0.88	0.12	9.85	3.01	0.87	0.08	0.03
0.83	0.17	11.82	4.78	0.85	0.19	0.04

0.80	0.20	11.13	0.63	0.65	0.02	0.00
0.73	0.27	14.02	6.06	0.78	0.06	0.02
0.69	0.31	8.27	2.83	1.15	0.08	0.03
0.92	0.08	10.10	3.73	1.06	0.14	0.04
0.95	0.05	11.99	4.49	1.08	0.15	0.05
0.91	0.09	16.60	6.25	1.11	0.12	0.04
1.00	0.00	14.58	3.60	1.23	0.04	0.01
1.00	0.00	13.41	3.64	1.36	0.05	0.02
1.00	0.00	10.73	2.78	1.36	0.03	0.01
1.00	0.00	13.94	1.85	1.74	0.02	0.01
0.85	0.15	-5.97	-27.69	1.62	-0.21	-0.07
0.57	0.43	9.91	-0.29	2.27	0.00	0.00
0.34	0.66	13.87	2.21	2.33	0.06	0.02
0.37	0.63	13.37	2.68	2.05	0.07	0.02
0.44	0.56	13.31	-23.22	1.74	-0.05	-0.02
0.63	0.37	4.15	-27.81	1.50	-0.05	-0.03
1.00	0.00	-3.14	-26.95	1.47	-0.05	-0.03
1.00	0.00	13.49	2.98	1.79	0.01	0.00
0.30	0.70	16.26	6.08	1.03	0.13	0.03
0.46	0.54	16.33	6.79	1.02	0.12	0.03
0.74	0.26	17.27	7.18	1.38	0.11	0.04
0.93	0.07	16.43	4.96	1.63	0.06	0.03
0.78	0.22	18.16	6.01	1.35	0.09	0.04
0.88	0.12	18.21	6.42	1.14	0.09	0.04
0.78	0.22	23.15	9.23	1.19	0.08	0.04
0.77	0.23	21.52	7.61	1.15	0.05	0.02
1.00	0.00	35.67	22.29	2.84	0.23	0.17
0.94	0.06	34.97	19.77	2.51	0.19	0.14
0.66	0.34	34.59	16.06	1.75	0.17	0.11
0.55	0.45	33.57	12.85	1.40	0.12	0.07
0.48	0.52	32.13	0.68	1.04	0.01	0.00
0.62	0.38	31.26	9.43	0.95	0.26	0.04
0.06	0.94	29.01	7.08	1.79	0.05	0.02
0.11	0.89	29.36	7.95	3.98	0.06	0.04
0.70	0.30	18.59	4.24	1.04	0.11	0.03
0.78	0.22	16.37	3.35	0.95	0.07	0.02
0.92	0.08	16.46	3.58	0.99	0.06	0.02
0.82	0.18	16.57	2.78	1.19	0.05	0.02
1.00	0.00	15.06	8.76	8.57	0.04	0.04
1.00	0.00	17.32	8.85	19.67	0.05	0.05
1.00	0.00	17.32	8.85	19.67	0.05	0.05
1.00	0.00	21.06	12.16	25.98	0.08	0.08
0.81	0.19	30.26	18.12	3.27	0.11	0.09

0.58	0.42	31.50	18.45	3.68	0.12	0.09
0.44	0.56	29.64	14.67	2.68	0.12	0.09
0.59	0.41	29.65	15.65	2.43	0.14	0.10
1.00	0.00	20.44	2.89	2.56	0.15	0.09
1.00	0.00	20.44	3.14	1.97	0.15	0.09
1.00	0.00	20.49	3.40	1.73	0.17	0.08
1.00	0.00	20.68	3.67	1.61	0.18	0.08
0.49	0.51	12.11	6.63	3.84	0.12	0.08
1.00	0.00	16.25	9.08	2.37	0.16	0.08
1.00	0.00	16.79	9.45	2.02	0.18	0.12
0.99	0.01	12.10	5.04	1.85	0.08	0.05
1.00	0.00	27.48	6.73	1.72	0.30	0.11
1.00	0.00	26.93	6.68	1.56	0.39	0.11
1.00	0.00	28.46	7.07	3.35	0.35	0.12
1.00	0.00	29.33	6.18	2.83	0.28	0.10
0.99	0.01	24.99	5.45	1.81	0.01	0.01
0.92	0.08	21.91	5.38	1.79	0.01	0.01
0.88	0.12	23.94	10.71	2.33	0.04	0.03
0.82	0.18	26.40	10.49	1.97	0.06	0.05
0.08	0.92	39.32	15.72	5.11	0.06	0.02
0.05	0.95	38.04	14.83	6.05	0.06	0.02
0.16	0.84	32.99	10.67	2.32	0.06	0.02
0.19	0.81	31.78	10.62	2.19	0.06	0.02