"A STUDY ON IMPACT OF FINANCIAL LEVERAGE ON FIRM PROFITABILITY"

Mr. Madhusudhan, PG Research Scholar, Department of Management Studies, Global Academy of Technology, Bengaluru – 560 098

Prof. SARAH MERLYN, Professor, Department of Management Studies, Global Academy of Technology, Bengaluru – 560 098

ABSTRACT

This study's goal is to determine how financial leverage affects a company's profitability. The amount that a business relies on debt financing rather than equity financing to fund its operations is known as financial leverage. The goal of the study is to determine whether or notgreater financial leverage results in increased profitability. Data from publicly traded businesses operating across a range of industries will be used to conduct the study. Financialinformation will be gathered from financial statements, and return on asset (ROA), return on equity (ROE), and net profit margin (NPM) ratios will be used to assess profitability. It will be determined whether there is a connection between financial leverage and profitability using amultiple regression analysis.

INTRODUCTION

Leverage gearing in the united kingdom and Australia is any financial method that involves borrowing cash to acquire items in the hope that future earnings will be many times greater then the cost of borrowing. Because successful leverage converts the relatively little amount required for borrowing into significant quantities of profits, it is called after a lever in physics, which amplifies a tiny input force into a higher output force. However, the strategy has a great danger of not being able to repay a huge debt. Typically, a lender on how much leverage it will allow, and will need the purchased asset to meet those limits. And gains can be multiplied via leverage. Then losses are doubled, and there is a possibility that leveraging may result in a lossif finishing expenses exceed the assets income or the assets value declines.

STATEMENT OF THE PROBLEM

They may pay higher interest rates on loans since their risk is greater. Here are some other potential disadvantages of employing this financial method: Assets may lose value fast, and financial losses may escalate as financial debt increases. The part of a company's activities that is financed with debt is referred to as financial leverage. Being highly leveraged implies that you are carrying a significant amount of debt. While debt utilized to create income may increase revenue and profit over time, unproductive or excessive

OBJECTIVE OF THE STUDY

- To assess the relationship between leverage and performance.
- To identify the impact of Financial Leverage on Return on Assets (ROA), Return On Equity (ROE), Return On Sales (ROS), and Return On Capital Employed (ROCE).

II. REVIEW OF LITERATURE

Saira SUNDAS, Iminaam BUTT (2021) IMPACT OF LIQUIDITY ON PROFITABILITY AND PERFORMANCE. A CASE OF TEXTILE SECTOR OF PAKISTAN this case study concludes that Finance scholars have debated the relationship between liquidity and business performance. According to previous research, asset liquidity raises the level of debt, despite the fact that in some countries, businesses with greater liquidity were less leveraged and relied on internal funding. According to the findings, liquidity ratios have risen. Both have a positive correlation with profitability but a negligible correlation with return on equity. The order Sales growth and firm size are also related to firm performance and profitability.

Barween Al Kurdi, Hamzah Elrehai,Haitham M. Alzoubi,Muhammad Alshurideh,Raid Al-Adaileh, (2021) THE INTERPLAY AMONG HRM PRACTICES, JOB SATISFACTION AND INTENTION TO LEAVE: AN EMPIRICAL INVESTIGATIONTHE INTERPLAY AMONG HRM PRACTICES, JOB SATISFACTION AND INTENTION TO LEAVE: AN EMPIRICAL INVESTIGATION and this case study concludes that The research was useful in understanding the relationship between HRM practices and job satisfaction. This study demonstrates that MOE employees are extremely satisfied with the MOE's training system and career opportunities, implying that the MOE has excellent training and career opportunities.

Jiang Hongli (PhD Professor),Elizabeth Sena Ajorsu,Ernest Kay Bakpa, (2019) The Effect of Liquidity and Financial Leverage on Firm Performance: Evidence from Listed Manufacturing Firms on The Ghana Stock Exchange and this case study concludes that The study discovers that financial leverage has a strong positive impact on firm performance (ROA&ROE), with 65% of debt used to finance firm assets, which has a significant impact onfirm performance.

Zaher Abdel Fattah Al-Slehat, (2019) Impact of Financial Leverage, Size and Assets Structure on Firm Value: Evidence from Industrial Sector, Jordan and this case study concludes that The impact of financial leverage on firm value was non-existent, and the relationship between financial leverage and Tobin's q scale was negative. However, each size and shape had an effect.

Dr. Alhassan Bunyamin,Mr. Ibrahim Nandom Yakubu,Dr. Shani Bashiru, (2021) The effect of financial leverage on profitability an empirical analysis of recapitalized banks in ghana and this case study concludes that Regardless of the proxy for profitability, our findings show that leverage has a significant negative impact on bank profits. This lends empirical support to the theory of pecking order. The findings also show that the size of a bank has a positive and significant impact on profitability. Based on our findings, we conclude that financial leverage harms bank profit growth in Ghana.

Dr. Abdallah Barakat, (2014) The Impact of Financial Structure, Financial Leverage and Profitability on Industrial Companies Shares Value (Applied Study on a Sample of Saudi Industrial Companies) and this case study conclude that the dependent variable, stock market price, has a statistically significant direct relationship with two independent variables: return on equity and capital structure. However, there is one exception Financial leverage has a weak and inverse relationship with stock value, and this relationship is not statistically significant, so there is no statistically significant relationship between financial leverage and company value.

Nawaz Ahmad, Atif Salman, Aamir Firoz Shamsi,Impact (2015) of Financial Leverage onFirms Profitability: An Investigation from Cement Sector of Pakistan and this case study conclude that The study discovered that financial leverage has a statistically significant inverse impact on profitability at the 99% confidence level, and this study investigated the relationship between financial leverage and profitability of firms in Pakistan's cement manufacturing sector. **Nawaf Ahmad Salem AlGhusin, (2015) The Impact of Financial Leverage, Growth, and Size on Profitability of Jordanian Industrial Listed Companies** and this case study concludes that This finding is similar to those of Nguyen and Neelakantan [2006], as well as Biger et al. [2008]. Profitability is also positively related to Jordanian industrial companies' growth opportunities.

Angela Dirman, (2020) Financial distress the impacts of profitability, liquidity, leverage, firm size, and free cash flow and this case study concludes that provide understanding and knowledge to the public, particularly investors and creditors, about the effect of profitability, liquidity, leverage, company size, and free cash flow on financial distress and can be used as a reference for future researchers and stakeholders (investors, creditors, and government).

Van cong nguyen, Thi ngoe lan nguyen, Thi thu phong tran and thi tha nghiem, (2019) The inmpact of financial leverage on the profitability of real estate companies A study from vietnam stock exchange and this case study concludes that This calculates the effect of FL on Return On Assets (ROA), Return On Equity (ROE), Return On Sales (ROS), and Return On Capital Employed (ROCE) (ROCE). The study is based on data collected from 58 real estate firms listed on the Vietnam Stock Exchange, totaling 464 observations.

III. DATA AND METHODOLOGY

Type of research - Descriptive research

Sample size - For this study the data has been collected for 5 years
Instrument design - Descriptive statistic, Correlation, Regression

Limitations

- The small number of variables in this study may limit its contribution.
- High fixed costs have a negative impact on the firm's bottom line, reducing netincome.
- The larger the sample size, the less significant the problem is to the overall model'saccuracy.
- Only one independent variable, financial leverage, and one covariate variable, firm size, were used in this study.
- The variables studied in this study, namely profitability, liquidity, capital structure, and firm value, are the study's limitation.

IV. DATA ANALYSIS

Ratios and Graphical representation

Table 4.1 showing profit before tax from the year 2018-2022

	Ultratech cement	Ambuja	ACC ltd	JK Lakshmi cement	Sree cement
2018	3301.84	1619.12	1298.36	102.71	1827.16
2019	3492.38	1506.07	1494.29	104.43	1081.43
2020	5219.76	1948.02	2031.47	339.46	1960.21
2021	7896.07	2414.38	1687.78	496.59	3025.72
2022	8293.09	2785.25	2460.39	558.3	2930.92

From the above table we concluded that Ultratech cement has high profit that is high profit . where JK Lakshmi has compare all company it has very low profit and Acc ltd has less profit. Ambuja and sree cement profits are fluctuating.

Table 4.3 Showing financial leverage from the year ending 2018-2020

Financial leverage	Ultratech cement	Ambuja	ACC ltd	JK Lakshmi cement	Sree cement
2018	1.479796	1.295742	1.418275	1.223321	1.320031
2019	1.447649	1.012818	0.99181	1.312594	1.137091
2020	0.956782	1.274432	1.494926	1.443098	1.248398
2021	1.478092	1.34874	1.192828	1.364933	1.308742
2022	1.173572	1.338715	1.351662	1.309887	1.23323

From the above table we concluded that financial leverage of ultra tech company for the year 2020 is less risker and also the financial leverage for the company acc for the year 2019 is also less risker compared to all other companies

Table 4.7 Showing showing return on assets from the year 2018-2022

	Ultratech cement	Ambuja	ACC ltd	JK Lakshmi cement	Sree cement
2018	0.04	0.05	0.06	0.02	0.09
2019	0.03	0.06	0.09	0.02	0.06
2020	0.08	0.06	0.08	0.05	0.08
2021	0.07	0.07	0.08	0.08	0.11
2022	0.09	0.07	0.09	0.09	0.10

From the above table the sree cement company has higher return on assets and the jk Lakshmi cement has less return on assets compared to other cement companies. The sree company has higher returns on their assets.

Table 4.8 Descriptive statistic of Ultratech cement

	Maximum	Minimum	Mean	standard deviation
Debt ratio	37063.46	28449.98	33279.74	3482.992926
Debt equity ratio	130.98	103.6	117.572	11.96130929
Interest coverage ratio	9.387527	1.18768	4.002732	3.418915766
Return on assets	0.087607	0.034826	0.061173	0.022609828

The maximum value of the ultra tech cement company is 37063.46 and the minimum value is 28449.98 and the deviation according to debt ratio is 3482.9 when we consider debt equity ratio the maximum is 130.98 and the minimum is 103.6 and the standard deviation is 11.961 and according to interest coverage ratio the maximum value is 9.38 and the minimum value is 1.18 and the deviation is 3.418 the return of assets of 5 years has maximum value of 0.087 andthe minimum value is 0.03 and the deviation is 0.02

Table 4.13 Correlation analysis of Ultra tech cement

	Debt ratio	*Debt equity ratio*	*Interest coverage ratio*	*Return on assets*
Debt ratio	1			
Debt equity ratio	0.965566	1		
Interest coverage ratio	-0.06571	-0.23862	1	
Return on assets	-0.0006	-0.24925	0.763314	1

From the above table we conclude that the relation between debt equity ratio and debt ratio is 0.96 and with interest coverge ratio it is -0.065 and with return on assets it is -0.0006 and the debt equity ratio has -0.23862 relation with interest coverage ratio and with return on assets it has -0.2492 and the interest coverage ratio has relation of 0.763 with return on assets

Regression

Table 4.18 Regression Analysis of Ultratech

SUMMARY OUTPUT	
Regression Statistics	
Multiple R	0.96954
R Square	0.94002
Adjusted R Square	0.76007
Standard Error	0.01107
Observations	5

ANOVA					
	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	0.002	0.000641	5.22378	0.3086889
Residual	1	1E-04	0.000123		
Total	4	0.002			

	Coefficients	andardError	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper95.0%
Intercept	0.094664	0.0602	1.57173392	0.360735	-0.670619003	0.8599472	-0.670619003	0.8599472
debt ratio	1.95E-05	8E-06	2.42450046	0.24904442	-8.28592E-05	0.00012194	-8.28592E-05	0.00012194
debt equity ratio	-00.005865	0.0024	-2.4324253	0.24831297	-0.036502871	0.02477255	-0.036502871	0.02477255
Interest coverage ration	0.001459	0.0022	0.66351467	0.62705714	-0.026487071	0.02940578	-0.026487071	0.02940578

The above table indicates that R-square value is 0.940 that is 94.00%.which indicates that the all the ratios explains 94.0% variation on Return on assets . This implies debt ratio, debt equity ratio , interest coverage ratio , is impacting the return on assets to an extent of 94.00% and remaining 6.00 % of the impact is explained by other ratios some of which are considered this study . For 1 unit change in return on assets the debt ratio will show a positive change of 9.4 units and debt equity ratio shows 0.58 units and interest coverage ratio shows 0.14 units .

FINDINGS AND CONCLUSION

FINDINGS

❖ By the analysis , we found that profit before interest and taxes are more in ultra tech cement and less in jk Lakshmi cement company

❖ Profit after tax is also found by the analysis is more in ultra tech cement and less in jk Lakshmi cement company

❖ From the correlation analysis of ultra tech company it is found that it has a positive correlation with all the ratios

❖ There exists a positive correlation analysis of ambuja company with all the ratios

❖ From the correlation analysis of acc cement it is found that it has a positive correlation with all the ratios

❖ There exists a negative correlation analysis of jk company with all the ratios

❖ From the correlation analysis of sree cement it is found that it has a positive correlation with all the ratios

❖ By the regression analysis , there exists 94.0 % dependency on return on assets on all the ratios of ultra tech company

❖ The dependency on return of assets 91.5 % dependency on return on assets on all ratios of Ambuja company

❖ By the regression analysis , there exists 99.80 % dependency on return on assets on all the ratios of ACC company

❖ The dependency on return of assets 99.90 % dependency on return on assets on all ratios of JK Lakshmi company

❖ By the regression analysis , there exists 95 % dependency on return on assets on all the ratios of Sree company

CONCLUSION

Depending on the findings of the investigation, the conclusions of a study on the "Impact of Financial Leverage on Firm Profitability" may differ. However, based on typical findings in this field of study, the following conclusions might be made. The profitability of a company is positively impacted by financial leverage: This inference is frequently made when a study discovers a link between higher levels of financial leverage and higher levels of profitability. The profitability of a company is negatively impacted by financial leverage: The study's findingthat there is a link between higher financial leverage and lower profitability leads to this conclusion. This may be the case because other elements that affect profitability more significantly include firm size, industry, and management calibre. Industry differences exist in how financial leverage affects a company's profitability: When the study discovers that the relationship between financial leverage and profitability differs for enterprises in other industries, this conclusion is reached. It's also important to note that financial leverage is just one factor that can impact firm profitability.

REFERENCES

1. Guangchun Jin and Jian Xu (2022). Does Intellectual Capital Affect Financial Leverage of Chinese Agricultural Companies? Exploring the Role of Firm Profitability. Journal of MDPI.

2. Saira SUNDAS, Minaam BUTT(2021). Impact of liquidity on profitability and performance. A case of textile sector of Pakistan. International Journal of Commerceand Finance, 122-129.

3. Barween Al Kurdi,Hamzah Elrehai,Haitham M. Alzoubi,Muhammad Alshurideh,Raid Al-Adaileh (2021). The interplay among hrm practices, job satisfaction and intention to leave: an empirical investigation. Journal of Legal, Ethical and Regulatory Issues, 1544-0044-24.

4. Dr. Alhassan Bunyamin,Mr.Ibrahim Nandom Yakubu,Dr. Shani Bashiru (2021). The effect of financial leverage on profitability: an Empirical analysis of recapitalized banks in ghana. Research Journal of CRIBFB, USA, 2576-1285.

5. M. Ravindran and L. Kengatharan (2021). Impact of Financial Leverage on Firm Profitability: Evidence from Non-Financial Firms Listed in Colombo Stock Exchange- Sri Lanka. south asian journal of finance, 2719-2547.

6. Omaliko Emeka L. Amnim, Aipma, Okeke Prince C., Obiora Fabian C (2021). Impact of Covid-19 Pandemic on Liquidity and Profitability of Firms in Nigeria. international Journal of Academic Research in Business and Social Sciences, 1331-1344.

7. Angela Dirman (2020) financial distress: the impacts of profitability, liquidity, leverage, firm size, and free cash flow. International Journal of Business, Economicsand Law, 2289-1552.

8. Md. Musfiqur RAHMAN, Farjana Nur SAIMA, Kawsar JAHAN (2020). The inmpact of financial leverage on the profitability of real estate companies A study from vietnam stock exchange. Journal of business and economic environmental stadies, 2315-2326.

9. Mohammed Zaitoun , Hamza Alqudah (2020). The Impact of Liquidity and Financial Leverage on Profitability: The Case of Listed Jordanian Industrial Firm’s. International Journal of Business and Digital Economy,

10. Dr. Mohd Taq,Mr. Rizwan Khan,Mr. Imran Anwar (2020). Financial Leverage and Profitability: Evidence from Oil and Gas Sector of India. Research journal of GIS Busines, 1430-3663.

WEBSITES

https://www.nseindia.com/