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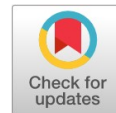


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IMPACT OF CAPITAL STRUCTURE ON FIRM'S PROFITABILITY WITH REFERENCE TO COMPANIES LISTED ON MSM (MUSCAT SECURITIES MARKET)

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Abstract. Capital structure is known as one of the most complicated parts of corporate finance. A firm's capital structure consists of a mixture of debt and equity used to finance the company's assets and projects. The capital structure of a company is impacting profitability of a company. This is analyzed in this research document concerning ten selected companies from the Muscat Securities Market (MSM). This analysis is done by analyzing the financial statements of these companies for the latest five years. To support this analysis, other secondary data are also used in the testing processes. As a result, this study states that there is no significant impact on the profitability of the companies through the changes in the capital structure of the companies, while the study has identified few other elements with significant impact.

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INTRODUCTION

The discussion about the optimal capital structure has been a dominant topic in corporate finance from several years. Determining the optimal capital structure is an essential decision for any kind business entity in any industry or economy. Besley and Brigham (2008) define capital structure as a company's combination of debt as well as equity. It is frequently challenging for companies to identify the right mixture of debt and equity as it implicates various factors like risk and profitability. When the business is entirely funded by common stock, all those cash flow goes to the shareholders. Whereas on the other hand when the business is funded with both debt and equity securities, it divides the cash flows into two parts, a safe part that goes to the debt holders and a riskier portion which goes to the shareholders (Brealey, 2008). Generally, companies have the option of choosing between many capital structures. There are various kinds of debt as well as equity such as ordinary and preferred. Companies may go for lease financing, issue bonds; on the other hand they may also issue different kinds of securities in many combinations.

Following to the corporate finance theory, the capital structure does have an impact on a firm's cost of capital; it plays a crucial part in determining the cost of capital which therefore consequently affects the business' profitability (Berk, Stanton, & Zechner, 2010; Cespedes, Gonzalez, & Molina, 2010; Velnamy & Niresh, 2012). The cost of capital (interest plus

dividends) serves as the benchmark for a company's capital budgeting decisions, therefore the optimal mix of debt and equity is vital. Furthermore the shareholders wealth maximization theory also indicates that firms should maintain the ideal combination of debt and equity financing, the optimal capital structure, which maximize returns as well as the firm's value and which reduce significantly the cost of capital. In other words, the one which best helps the business to achieve its main goal (Kayo & Kimura, 2011; Margaritis & Psillaki, 2010). This research paper will examine the relationship between capital structure and the financial performance of several public listed companies in Oman. Additionally the paper will also analyze how significant is the impact of capital structure on the profitability of a business. Moreover the research contains various chapters such as introduction, a literature review which analyses previously completed research papers. Furthermore, there will be a research methodology consisting of data collection from the Muscat Securities Market website, followed by data analysis, findings and lastly a conclusion will be drawn from the findings.

Hypothesis of the Study

The hypothesizes of this study are as follow:

H10: There is a significant impact of the debt equity ratio on the Net profit ratio.

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H11: There is no significant impact of the debt equity ratio on the Net profit ratio.

H20: There is a significant impact of the debt equity ratio on the Return on Equity.

H21: There is no significant impact of the debt equity ratio on the Return on Equity. H30: There is a significant impact of the debt equity ratio on the Return on Asset.

H31: There is no impact of the debt equity ratio on the Return on Asset.

H40: There is a significant impact of the debt equity ratio on the Return on Capital employed.

H41: There is no significant impact of the debt equity ratio on the Return on Capital employed.

Objectives of the Study

To analyze the relationship between capital structure and profitability ratios. To identify the significance of the impact of capital structure of profitability of public listed companies in Sultanate of Oman. To propose firms a way to raise profitability by choosing a better capital structure.

LITERATURE REVIEW

A business raises funds from several sources. The combination of these several sources is defined as the capital structure. According to Moles et al., (2011) capital structure is a mixture of debt and equity which may consist of ordinary shares and preference shares. Throughout decades, arguments have been carried by various researchers about the optimal capital structure. An optimal capital structure could be defined as a capital structure that reduces the costs of financing the firm's various projects. Consequently, by minimizing the costs of capital, the optimal capital structure maximizes returns, in other terms the firm's value.

Therefore, when managers choose a capital structure, their main task is to find out the appropriate mixture of debt and equity in order to reduce the costs of financing. However, it was argued what is the best capital structure that each company should adopt and whether the capital structure has an impact on the profitability of the firm. A variety of theories was then introduced. Nevertheless till now the optimal capital structure is yet not identified.

Modigliani and Miller (1958) commonly known as M&M, who proposed a capital structure irrelevance theory, states "that financial leverage of a company does not affect the firm's market value with assumptions related to homogenous expectations, perfect capital markets and no taxes." (Shailesh, 2013) One should consider that a perfect market doesn't have costs such as tax, transaction, etc... Thus in other words; M&M concluded that there is not a mixture of finances sources which is better

than the other as it doesn't affect a firm's value. Whether a company raises fund from internal or external sources, there will not be any impact on the firm's value. Moreover in 1963, M&M completed their theory by explaining that since there is no tax in a perfect market.

While on the other hand other authors such as Moles, Parrino and Kidwell (2011) explains that each source of finance has some benefits and costs which directly have an impact on the profitability of the company. Debt comes with many aspects that could benefit a firm. The key benefit is the "interest tax shield", as tax is calculated after deducting interest from profit, debt somehow lowers the tax payment of the firm while on the other hand firms can't do the same with dividends.

Furthermore another benefit is that studies have shown that issuing debt is usually less expensive if compared to issuing shares. Additionally debt also has other benefits; it pushes managers to maximize the firm's cash flows as it is mandatory to pay the interests on time. If interest is not paid, the firm may face bankruptcy. Therefore using debt in a firm's capital structure pushes managers to run the business more efficiently. Also another benefit of debt is that it can be used to create boundaries to the ability of managers to invest in negative NPV projects for their personal benefit. Debt actually motivates managers to only invest in positive NPV projects. These two benefits of debt were first highlighted by M&M. On the other hand, debt has also some limitations and costs which are categorized as bankruptcy and agency costs.

Bankruptcy costs, known as the costs of financial distress, could be defined as the various financial problems that a business may face for choosing debt financing. For example a firm may not be able to pay all interest as well as other payments to the lenders. Due to this, the firm may consequently enter in a formal legal bankruptcy process. Further bankruptcy costs could be divided in two parts, direct and indirect bankruptcy costs. Direct bankruptcy when a firm tries to negotiate with lenders to get more time to pay interest in financial distress, it does that with the help of lawyers, accountant as well as consultants. Therefore the firm will have to pay the fees of all the parties which assist them though their negotiations with the lenders. Therefore direct bankruptcy costs are in other terms a type of transactions costs.

Furthermore indirect bankruptcy costs are referred to the alterations in the conduct of people who deal with a business which is facing financial distress. The objectives of many of these people is to maximize the firm's value, but when a company faces bankruptcy, their objectives changes and they often try to protect their own interest which consequently lead to a drop in the firm's value. For example suppliers may be worried while providing goods on credit to a firm, as the company may not

pay them. Therefore they may require cash on delivery; hence this will impact significantly the firm as it doesn't have enough cash. Moreover another example is that firms may start losing its employees because their will start looking for new jobs in better financially stable companies. The impact of indirect bankruptcy costs vary from one company to another as for some companies, human resources may be more important while in other, suppliers may be more significant. One should consider that indirect bankruptcy costs are also a form of transactions costs.

Besides it is crucial to understand how managers choose a firm's capital structure. There are various theories which explain how manager do this specific and complex choice. The trade-off theory of capital structure states that managers chose a specific target capital structure based on the trade-offs between the benefits and the costs of debt. In other terms, managers analyze and compare the benefits and disadvantages of debt as well as equity stated above. Further, according to Shubita and alsawalhah (2012) profitable companies tend to use more debt in order to exploit to the maximum the tax benefit. The tradeoff theory, when companies are looking for external financing, they should go for equity financing when their leverage is above the targeted leverage, and go for debt financing when their leverage is below the target, or issue debt and equity proportionately to stay close to the target.

Moreover the Pecking Order Theory, initially introduced by Myers and Majluf (1984), proposes based on financial needs, companies decide its leverage ratio. Additionally, firm finance

initially their operations using their retained earnings, which are an internal source of finance. The internal source of finance is preferred as it doesn't have costs compared to debt and equity. If the need arise for external financing, companies prefer first issuing debt then issuing equity lastly. In other terms the pecking order theory explains that companies choose to use internal financing, then debt and lastly equity. Moreover this theory suggests that because profitable companies make sufficient earnings, they tend to use more internal financing rather than debt. Further raising external financing is expensive due to the fact that insiders of the firm are more aware about their companies' forecasts and predictions if compared to outsiders. Therefore, from the outsiders (the investors), equity more risky than debt, consequently the demands of the returns will also be higher. As a result, firms tend to consider that while compared to equity, debt is a better source of finance. However, one should consider that the best source of finance is internal financing. Moreover on the other hand, pecking order theory is based on the information differences between investors and managers. Managers usually have more information about a firm compared to investors. In this specific theory, managers don't tend to maintain a precise capital structure. Additionally Iqbal, Khattak, Khattak and Ullah (2012) enlighten that according to the equity market timing theory, firms will tend to issue equity when the shares are overvalued, whereas they will repurchase those shares when the market is undervalued. Similarly to other theories, the equity market timing theory doesn't define any optimal capital structure.

ANALYSIS AND INTERPRETATION

TABLE 1

Industrial Sector

	NPR	ROA	ROE	ROCE	Debt to Equity Ratio	Interest Coverage Ratio
NPR	1					
ROA	0.421614939	1				
ROE	0.427574626	0.241269744	1			
ROCE	0.646708979	0.05350492	0.35446025	1		
Debt to Equity Ratio	0.071082802	-0.08229587	-0.039911	-0.01961261	1	
Interest Coverage Ratio	0.141258283	0.603917507	0.05700352	-0.00277668	-0.052148867	1

Correlation Matrix

It can be seen that according to correlation matrix, there is a positive relationship between the debt to equity ratio and the two profitability measures variables that are the net profit ratio

and the return on capital employed, while on the other hand, there is a negative relationship between the debt to equity ratio and the return on asset as well as return on equity ratios.

TABLE 2
Regression Analysis

Independent Variable	Dependent Variable	R	R-square	Adjusted R-square	Std. Error
Debt to Equity Ratio	NPR	0.1051	0.0111	-0.0088	0.1658
Debt to Equity Ratio	ROA	0.2554	0.0652	0.0465	0.0718
Debt to Equity Ratio	ROE	0.6971	0.4860	0.4757	0.2409
Debt to Equity Ratio	ROCE	0.1478	0.0218	0.0023	0.1836

The *R* square of 0.011 and 0.065 indicate that only 1.1% of the net profit ratios and 6.5% of the Return on Asset ratio vary according to the debt to equity ratio. Therefore the remaining 98.9% are affected by other variables. Furthermore the *R* square value 0.4860 indicates that 48.6% of the variability of the Re-

turn on Equity ratio could be explained by the variability of the independent variable, that is the debt to equity ratio. The remaining 52% highlights that there may other factors as well that affect the return on equity other than the debt equity ratio.

TABLE 3
Hypothesis Testing using *t*-test Result

Independent Variable	Dependent Variable	$p(t \leq t)$ two-tail
Debt to Equity Ratio	NPR	0.007783
Debt to Equity Ratio	ROA	0.00682602
Debt to Equity Ratio	ROE	0.009292413
Debt to Equity Ratio	ROCE	0.007249

Hypotheses	Result	Tools
H10 There is a significant impact of the debt equity ratio on net profit ratio	Accepted	<i>t</i> -test
H11 There is a no significant impact of the debt equity ratio on net profit ratio	Rejected	<i>t</i> -test
H20 There is a significant impact of the debt to equity ratio on Return on Asset	Accepted	<i>t</i> -test
H21 There is no significant impact of the debt equity ratio on Return on Asset	Rejected	<i>t</i> -test
H30 Debt to equity ratio has a significant impact on Return on Equity	Accepted	<i>t</i> -test
H31 Debt to equity ratio has no significant impact on Return on Equity	Rejected	<i>t</i> -test
H40 There is a significant impact of debt to equity on Return on Capital Employed	Accepted	<i>t</i> -test
H41 There is a no significant impact of debt to equity on Return on Capital Employed	Rejected	<i>t</i> -test

The $p(t < = t)$ two-tail values are all below the level of significance that is 0.05 therefore all the null hypotheses shall be accepted. Consequently the hypothesis testing has shown that there is an impact of the debt equity ratio on all the profitability measures ratios, therefore the debt equity ratio affect the profitability of a firm.

TABLE 4
Correlation Analysis

	ROA	ROE	Debt to Equity	Net Interest Coverage
ROA	1	0.860024	-0.266298795	0.399392659
ROE	0.860024	1	0.232644684	0.142015986
Debt to Equity	-0.2663	0.232645	1	-0.534705936
Net Interest Coverage	0.399393	0.142016	-0.534705936	1

The correlation matrix analysis has shown that there is negative relationship between the debt to equity ratio and the Return on

Asset Ratio whereas there is a positive relationship between the debt to equity Ratio and the Return of Equity Ratio.

TABLE 5
Regression Analysis

Independent Variable	Dependent Variable	R-Square
Debt to Equity Ratio	Return on Equity	0.054124
	Return on Asset	0.70915048

The regression analysis between the independent variable, that is the debt equity ratio, and the dependent variable Return on Equity is R Square = 0.054 that is 5% that explains that only 5% of the variation of the return on equity is based on the debt equity ratio. Therefore 95% of the Return of Equity fluctuations

are affected by other variables. Further the regression analysis between Debt to Equity Ratio and Return on Asset has given a result R Square = 0.7 that explains that 70% of the variation of the Return on Asset is because of the Return on Asset ratio, therefore the remaining 93% is based on other variables.

TABLE 6
Hypothesis Testing using p -Value

H20	There is a significant impact of the debt equity ratio on the Return on Equity	p -value 0.097132	Reject
H21	There is no significant impact of the debt equity ratio on the Return on Equity		Accept
H30	There is an impact of the debt equity ratio on the return on asset ratio	p -value 0.001488199	Accept
H31	There is no significant impact of the debt equity ratio on the return on asset		Reject

The null hypothesis 2 was rejected as the p -value 0.097 is above the level of significance set to 0.05. On the other hand the null hypothesis 3 was accepted as the p -value which is equal to 0.00148 is below the level of significance that is 0.05.

DISCUSSION & CONCLUSION

The Correlation matrix of Industry and Service sector has shown that there is there is a positive relationship between the debt to equity ratio and the two profitability measures variables that are the net profit ratio and the return on capital employed, while on the other hand, there is a negative relationship between the debt to equity ratio and the return on asset as well as return on equity ratios. Whereas for the banking sector the correlation matrix has shown that there is negative relationship between the

debt to equity ratio and the Return on Asset Ratio but there is a positive relationship between the debt to equity Ratio and the Return of Equity Ratio.

In the Industrial and Service sectors, the T-test analysis has shown that there is an impact of the debt equity ratio on all profitability measures that are the net profit ratio, return on equity, return on assets and the return on capital employed. Further the mean value for the equity ratio in these sectors is 3.79, this proposes that on an average that debt is 3.79 times more than equity. However, in the banking sector, the mean debt equity ratio is 7.32 therefore banks tend to use more debt financing if compared to industrial or services firms. Moreover the regression analysis has shown that in the banking sector the debt equity ratio has an impact on the return on asset ratio.

REFERENCES

- Berk, J. B., Stanton, R., & Zechner, J. (2010). Human capital, bankruptcy, and capital structure. *The Journal of Finance*, 65(3), 891-926.
- Besley, S., & Brigham, E. (2008). *Principles of finance*. Cengage Learning.
- Brealey, R. A. (2008). *Principles of corporate finance* (9th ed.). Burr Ridge, IL: McGraw-Hill/Irwin.
- Cespedes, J., Gonzalez, M., & Molina, C. A. (2010). Ownership and capital structure in Latin America. *Journal of business research*, 63(3), 248-254.
- Iqbal, N., Khattak, S. R., Khattak, M. A., & Ullah, I. (2012). Testing the arbitrage pricing theory on Karachi stock exchange. *Interdisciplinary Journal of Contemporary Research in Business*, 4(8), 839-853.
- Kayo, E. K., & Kimura, H. (2011). Hierarchical determinants of capital structure. *Journal of Banking & Finance*, 35(2), 358-371.
- Margaritis, D., & Psillaki, M. (2010). Capital structure, equity ownership and firm performance. *Journal of Banking & Finance*, 34(3), 621-632.

- Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review*, 48(3), 261-297.
- Moles, P., Parrino, R., & Kidwell, D. (2011). *Corporate finance*. Chichester, UK: John Wiley & Sons Ltd.
- Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), 187-221.
- Shailesh N. R. (2013). Relationship between capital structure and profitability of Indian pharmaceutical industry. *Indian Journal of Accounting*, 44(2), 95-103.
- Shubita, M. F., & Alsawalhah, J. M. (2012). The relationship between capital structure and profitability. *International Journal of Business and Social Science*, 3(16), 104-112.
- Velnampy, T., & Niresh, A. (2012). The Relationship between capital structure & profitability. *Global Journal of Management and Business Research*, 12(13), 67-74.

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