

## DETERMINANTS OF CAPITAL STRUCTURE: AN EMPIRICAL EVALUATION OF OMAN'S TOURISM COMPANIES

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### Abstract

**Purpose:** The purpose of this research is to investigate the determinants of the capital structure of tourism companies in Oman. This study uses the trade-off theory and pecking order theory to postulate hypotheses related to determinants of capital structure.

**Methodology:** In line with extant literature, size, liquidity, tangibility, growth opportunities, and risk are used as the determinants of the capital structure. The sample in this study includes nine listed tourism companies for the period 2007 to 2016, which aggregates to 90 firm-year observations.

**Main findings:** The results show that the capital structure of tourism companies is influenced by size, growth, and risk. The trade-off theory and pecking order theory are useful for partially explaining the leverage decisions of Oman's tourism companies.

**Implications:** The empirical findings of this research imply that tourism companies' corporate managers can make optimal capital structure decisions based on determinants.

**Novelty:** To the best of the author's knowledge, this study is a first for examining the determinants of capital structure for Oman's tourism companies using data over ten years. It lends support to the determinants identified in prior literature for developed and developing countries.

**Keywords:** *Leverage, Tourism, Trade-off Theory, Pecking Order Theory, Capital Structure, Oman.*

### Introduction

The Capital Structure also termed as 'Financial planning of an organization' corresponds to the short-term debt, long term debt and equity that would be used by an organization for financing their overall operations and development. Short term debt in an organization set under working capital requirement is also widely accepted as part of capital structure. A Debt exists in the form of loans or bond issues whereas Equity, as a result, will be in the form of retained earnings or common shares ([Alicia, 2019](#)).

The efficient raising of capital for operating activities is therefore considered a fundamental decision for any organization. Many alternative capital strategies may be preferred by organizations. A growing business should establish the target capital structure in a way to ensure that its leverage costs and benefits are balanced at a margin; as such structure maximizes its value ([Acaravci, 2007](#)). One of the most popular topics been discussed is Capital Structure. In financial terms, it indicates how a company finances its assets by combining equity, debt, or hybrid securities ([Saad, 2010](#)).

The modern theory of capital structure was established by [Modigliani and Miller \(1958\)](#) also known as MM theory. Modigliani-Miller (MM) theorem is broadly accepted by many scholars as it gives an empirical observation and analysis of financial plans by both investors and organizations.

The organization's performance is measured by using indicators such as Return on Equity (ROE), Return on Asset (ROA), Debt Ratio as well as Earning per Share (EPS) as capital structure variable ([Nassar, 2016](#)). To understand the organization's financial requirement for overall operations and growth through the means of different sources of funds, a capital structure is essential ([Arulvel and Ajanthan, 2013](#)).

The decision on the capital structure is financial management's most important decision. Capital structure is a core point of many other corporate finance decisions. This requires policies on asset management, dividends, borrowing, income enhancement, etc. One of the principal important management tools for managing capital costs is the capital structure. Many of the empirical research on capital structure determinations have been aimed largely at companies in developed countries such as the United Kingdom, the United States and Western Europe ([Prahathan, 2010](#)).

Capital Structure is classified into 4 major parts such as debt, Equity, family loans and retained capital profits ([Romano, Tanewski and Symrnios, 2009](#)). On the other hand, [Gibson \(2001\)](#) addressed five types of sources of finance such as related person debt, owner equity, trade credit, bank loan and other relevant equity for venture capital and government loans. The latest conceptual and field studies also show that the decision on the capital structure has a significant influence on the company's performance ([Ramadan, 2009](#)).

Many studies have explored the variables influenced by the capital structure. The commonly accepted determinants of firm-specific capital structure are profitability, the tangibility of assets, firm size and growth opportunity ([De Jong,](#)

[Kabur, Nguyen, 2008](#)). The objective of this study is to investigate the determinants of capital structure for listed tourism companies in Oman. This research uses 10 years of data from 2007 to 2016 available from the Muscat Securities Market. The following sections present the literature review of this research.

## LITERATURE REVIEW

### Theories related to capital structure

This section discusses the various theories of capital structure such as MM's theory, Signalling theory, The Agency theory, the Pecking order theory, and the static trade-off theory.

#### *i. MM's theory*

During 1958, [Modigliani and Miller](#) propounded many discussions on the capital structure. According to them, the capital structure needed to be strong for every firm to reduce its cost and increase the benefits and move towards growth. Until this period weak assumptions were made that directed the business growth that revolved around the investor's decision. According to [Myers et al. \(2003\)](#) capital structure as the firm's mix of various securities comprising of long - term securities that extended beyond a period of 12 months for repayment and bonds, capital and mortgage issue and various similar notes used for leasing. After having understood, the meaning of capital structure, [Brigham and Daves, \(2004\)](#), and [Brigham and Houston, \(2004\)](#) investigated and identified that there was a correlation between the debt levels adopted by a firm and the firm's value. [Titman and Grinblat \(2002\)](#) further elaborated that there were some positive and negative impacts of high debt levels. According to them, there was a negative correlation between the debt and value of the firm as it can move away from the stakeholders from doing business if the firm had a huge debt which can turn the business into financial distress. Not only this but also it can deviate the investors from investing capital with such type of indebted firms, which may reduce the competitiveness of the firm and may not attract efficient talent in the market. The study says in simple words, that if the debt of a firm was high the value of it was less and vice versa.

Prior studies contribute on a positive note that the firms with high debt can become more competitive to achieve efficient output levels, can overcome the problem of free cash flows, tax advantage is one such benefit that the financially distressed firms receive and also they pass on positive signals to investors who prefer highly levered firms who identify a good opportunity for investments ([Titman and Grinblat, 2002](#); [Jensen, 1986](#)). MM's theory is not free from criticisms. Many questions challenged this theory that states the debt levels give way to a tax benefit and so on. On this account stands [Stilgliz, \(1988\)](#) who questioned the risk class assumption, leverage, and tax returns.

On the other hand, academicians such as [Ross \(1977\)](#), [Ross, Westerfield, and Jaffe, \(2002\)](#) questioned the cost of bankruptcy. When the firms grow aggressive to achieve success, they burden up huge debts that include high interests that cannot be repaid and break promises with their creditors, ultimately running into financial distress ([Brealey et al., 2011](#)).

#### *ii. Agency Theory*

When we mention the capital structure theories the agency theory plays an important role. This theory was coined by [Jensen and Meckling in 1976](#) that focuses on the aspect of agency costs. This theory discusses how in the absence of any restrictions the firm decides to take actions that favor's the stockholders at the cost of bondholders. These costs arise because, in the absence of any restrictions, a firm's management would be tempted to take actions that would benefit stockholders at the expense of bondholders ([Jensen and Meckling, 1976](#)). The bondholders impose restrictions and make covenants that disrupt the legal operations of the firm and hinder its smooth functioning. The bondholders try hard in achieving their goals thereby leading to higher monitoring costs and efficiency costs. These costs are major costs for an agency that are passed onto the stockholders as debts in terms of a higher cost of debt. This leads the firm to lose its equity value and also reducing the advantages of debt.

Further [Jensen and Meckling \(1976\)](#), stated that a firm should consider the agency cost to determine the optimum debt. According to both, the optimum debt determines the equilibrium level where the marginal agency cost was equal to the marginal benefit of debt.

#### *iii. Pecking order theory*

This theory is very popular among the many theories of capital structure. It discussed how the management used to peck its finances giving high priority to internal funds and least priority to equity to avoid dilution of control of the firm ([Holmes and Kent, 1991](#)). Pecking order theory was introduced by Donaldson (1961), stated that owner-managers prefer to utilize internal funds first instead of external funds, for investment purpose irrespective of the firm's size. When the managers had an excess of retained earnings than their investment needs then the debt would be repaid, just to avoid external sources exercising powers on their business, even if external funds were required, external equity would be the last resort after considering the debt securities. According to this theory, the sources of finance are categorized into three different sections, retained earnings, debt borrowings, and equity funds. This theory was later improvised by [Myers](#) during 1977 and later 1984 then developed a hierarchical pecking order of preferred sources of firm's finance. He suggested that firms use retained earnings in all possible situations and when there is a requirement debt financing will

be used if the retained earnings are exhausted. The management always considers equity as the last resort as it tries to eliminate the constraints that management could face. Later the tax benefit was considered as a shield for firms that were indebted which could reduce the burden of income tax ([Kemsley and Nissim, 2002](#)).

This theory is based on the assumption that there is no fixed debt-equity ratio and firms try to capitalize on all the funds available internally. Academicians [Myers\(1977, 1984\)](#), [Myers and Majluf\(1984\)](#), believed in the hierarchical financing system which maximized the value of a firm. They believe when the firms have more cash flows than needed it invests in securities, pay off existing debts, increase dividends as well as repurchase stocks. If the internal cash flows are insufficient to cover up the expenditure it will, first of all, draw its marketable securities and then go to external capital where it will issue debentures, convertible bonds and finally issue common stock on the least priority. This theory is based upon asymmetric information between the owner-managers and investors who are outside.

To support this statement, [Myers and Majluf \(1984\)](#) and later [Newman et al. \(2011\)](#), stated that there existed the issue of information asymmetry when developing the pecking order model. They assumed that asymmetric information problems drive the capital structure of firms. [Myers and Majluf \(1984\)](#) argued that common stocks would be not be valued by the owner-managers as they possess more information than the investors who are outside the firm thereby getting greater leverage when the firm is viewed with higher risks.

In spite of its popularity, the theory is not free from weaknesses. This theory focuses on the manager's intention to maximize the firm's value without describing the manager's actual behavior as to, why managers actually should worry about the underpricing or overpricing of a new stock issue. Further, it does not explain clearly that when firm owners have more information than outside investors what could be the consequences. It does not clearly explain how the firms clash between asymmetric information and in a perfect market, the firm's value is not affected by the way firm finance. Thus, the firm's capital structure decisions do not hold any reference to the firm's value ([Brealey et al. 2011](#)).

According to [Brealey et al. \(2011\)](#), the pecking order derives the importance of asymmetric information that affects the firm's decision in choosing the source or mode of financing its capital needs. It attempts to explain why debt is preferred to common stock which leads firms to reach high profitable operations run on low debt ratio, keeping external finances at bay.

#### *iv. The Trade-Off Theory*

[Myers \(1984\)](#) realized the importance of interest tax shields to protect against the vulnerable costs of bankruptcy, the so-called financial distress and manipulative costs termed as agency costs. This theory reinforces the value of a firm with debt and equity ratios. According to [Myers\(1984\)](#), the firm to maximize its value keeps substituting debt for equity until it attains its goal. A firm that aims to maximize its value would equalize benefit and cost at the marginal level and operate at the top of the curve.

The curve would reach a level where relatively high debt ratios for safe, when the firm is making profits enjoy taxes benefits to shield and assets will be saved during the worst situation such as financial distress. The trade-off theory argues that when the debt level rises the cost and benefit balances. It discusses the tax benefit which the firm receives on the interest amount payable on debt says [Modigliani and Myers \(1963\)](#). Another benefit of debt is that it checks the agency problems and restricts the clash of interest between shareholders and managers by controlling excess funds known as free cash flows which can be misused by agency managers [Jensen, \(1986\)](#). The other benefit is the fact that debt acts to control agency problems between shareholders and managers by controlling free cash flows available to managers which they could use to satisfy their self - interest ([Jensen, 1986](#)). Free cash flow is cash flow above the required to fund all projects that have positive NPV when discounted at the relevant cost of capital ([Jensen, 1986](#)). [Miller \(1977\)](#) considers financial distress and the personal tax expense bondholders incur as major costs. An important point to be noted here is that in trade-off models' leverage is driven by an amalgam of forces; such as potential costs of bankruptcy pulls down the target level of the firms while agency costs of free cash flows push towards more debt. The importance of this theory is that it enables us to understand the cross-sectional relation between debt and asset risk and also predicts optimum debt ratio [Shyam-Sunder and Myers, \(1999\)](#).

#### *v. Signaling theory*

Stephen A. Ross developed the theory called signaling theory in the year 1977. This theory states that the firms pass signals to investors about the firm's information. The theory assumes that the outsiders do not have complete information about the firm as compared to the owner-managers. This theory gives importance to equity over debt as the excessive use of debts might cause the firm to stress on liquidation or even become insolvent. On the other hand, investors outside the firm receive a signal about the existing debt levels of the business and consider them as more challenging and competitive. According to [Akerlof \(1970\)](#), 'asymmetric information between owner-managers and investors is a driver to signaling games where the amount of debt and the timing of new issues are viewed as a sign of the performance of the firm'. However, this could lead to the problem of moral hazard and adverse selection problems, where the firm could end up losing its control and falling into the financial trap. When [Ross\(1977\)](#) argues that the traditional capital structure theories do not clearly explain the choice of a financial structure while others such as [Bhaduri \(2002\)](#) and [Baker and Wurgler's \(2002\)](#) theory does not determine the level of leverage. Ross argues further that

the traditional theories do not determine the cost of bankruptcy the firm could face. Thus, we conclude that the signaling theory has its implications on the manager's decision to give a positive signal to outside investors about their capital structure and achieving the increased value of the firm. On the other hand, [Myers \(2001\)](#) used information asymmetries to argue that managers are unlikely to issue equity because they fear it will signal negatively that the stock price is overvalued.

This research uses the pecking order theory and trade-off theory to formulate its hypothesis. As discussed, different theories the pecking order theory holds more practicality as firms first try to use retained earnings for their capital expenses and then debt and consider external debt in the form of equity as a last resort ([Myers, 1984](#)). On the contrary [Ross \(1977\)](#), debated over the pecking order stating that firms use more debt to overcome information asymmetries and signal 'better prospects'. The trade-off theory by [Myers \(1984\)](#) suggests that managers should be careful while handling their capital structure as it has advantages and disadvantages. The advantage is the tax shield that the firms receive, as the interest amount gets a tax waiver. And the disadvantages of the debt could lead to a high rate of bankruptcy, financial distress and agency cost. The pecking order has a stronghold in the capital structure as it designs the order of finance the managers peck from their available options of funds. The internal resources such as retained earnings receive priority while the next best option seems drawings from their marketable securities, borrowing through an issue of debt and when all the doors of capital are closed it opts for external equity in the worst situation. Pecking order contradicts with signal theory as the firm owner-managers do not wish to signal outside investors about their over-valued securities that could lead to a reduction in the value of its shares.

## Determinants of Capital Structure

### *i. Firm Size*

The prediction that size is positively related to leverage is agreed on by both the Trade-off and Pecking order theories of capital structure. Large companies are said to be more diversified according to the principles of the trade-off theory and are thus faced with the risk of bankruptcy ([Chen et.al., 1999](#)). Through their financial structures, it allows them to take on more debt.

[Bhaird and Lucey \(2010\)](#) have been able to determine that firm size has a positive profit relationship as surviving firms are gradually more dependent on in-house capital and reinvesting their accumulated profits. The size of the company is linked to several frameworks in the theory of capital structure, such as asymmetric information, financial hardship costs, transaction costs, and financial market accessibility ([Lew, 2012](#)).

Company sizes influence the company's value because large companies show that they have advanced and expect to return better to investors. Investors should respond positively and increase the stock price of the company to boost the company's value. The bigger the business, the bigger the external fund needed, the less the company requires, the smaller the external fund. Moreover, company size will provide the creditors with a preliminary description in which to assess their position on the payment of loan funds to be used by companies to finance their new projects. A large number of assets from the management side will promote business regulation and will boost the company's value ([Ngatemin et.al 2018](#)). The organization size offers a measure of the risk-sharing requirement and the capital value of the agency. The size of the company will also possibly capture other corporate characteristics (i.e. the debt reputation or the degree to which its assets diversify ([Siti, 2012](#)).

**H1:** Firm size has a positive relationship with leverage.

### *ii. Tangibility*

If companies fall into bankruptcy, firms with tangible assets will hold more value than firms with intangible assets, as tangible assets will have a higher liquidation value and less asymmetric cost of data ([Bader, 2018](#)).

Asset tangibility is the effect of the collateral value of the company's gearing level assets. There are different concepts for the impact on leverage decisions of tangibility. When debt can be protected against assets, the creditor is limited to specific ventures using debt funds. Creditors have an enhanced redemption guarantee, but there is no such guarantee without financial capital. Theories usually claim that tangibility is positively related to leverage on the relationship between tangibility and capital structure. There is almost always a positive correlation between tangibility and leverage. It supports the trade-off theory assumption that the debt potential would increase with the balance sheet proportion of tangible assets ([Siti, 2012](#)).

It is calculated that tangibility is the ratio of fixed assets to total assets. Such two are used as indicators for the credibility of the business on the debt market and variables that minimize debt costs. For large companies, the probability of bankruptcy is lower. In contrast, tangible assets are sold in the event of bankruptcy to satisfy the demands of the creditors. Both theories of trade-off and pecking order suggest a positive effect on the leverage ratio of firm size and tangibility ([Rumeysa and Yusuf, 2019](#)).

Organizations of tangible assets possess an excellent reputation for receiving funds because tangible assets are utilized as an external debt guarantee. Such funds are mostly used for higher-performance, sustainable ventures. Jordan et al. (1998)

stated that Trade-off theory implies that when faced with financial trouble firms with tangible assets are stronger, and these assets make the debt more secure. Asset Tangibility raises the company's liquidation value as well as reduces the risk of overvaluation and financial loss complications in the case of bankruptcy. Companies with predominantly intangible assets should borrow less because they cannot provide equity compared to those with relatively high tangible assets (Hafiza, 2015). Higher-tangible asset companies can more easily use debt because creditors assume that these companies can more easily fulfill their obligations. Tangibility should, therefore, have a positive influence on the leverage. "The higher the tangible asset of the company, the better it's capacity to issue secured debt and the lower revealed information about future income," says Booth et.al. (2001). Thus, a favorable correlation is expected between tangibility and leverage.

**H2:** Tangibility has a positive relationship with leverage.

### iii. Liquidity

As far as liquidity is concerned, Aftabet.al.(2012) indicated that liquidity-related industries have different liquidity levels to meet their operational requirements and to manage the company's return rate. Majumdar and Chibber (1999) suggest that liquidity is one of the most significant factors in determining the capital structure of an organization. The theory of trade-off and the theory of pecking order do not agree on the connection between liquidity and leverage. The principle of trade-off argues that the relationship is beneficial.

Highly liquid companies can easily satisfy their obligations and take on additional debts. The negative estimation of the Pecking Order Theory is simplified by the fact that companies favor internal funding rather than external financing. Organizations with high liquidity levels can first fund their internal assets and only get loans if these internal funds are inadequate (Buttet et al., 2013). They will not be able to finance their projects. Under financial crisis circumstances, Zhang and Mirza (2015) reported that there is a positive link between liquidity and leverage before and during the crisis. Eventually, Deesomsak et.al.(2004) suggest that liquidity and debt are negative before and after the financial crisis.

**H3:** Liquidity has a negative relationship with leverage.

### iv. Growth Opportunities

As said by Myers(1977) high future growth opportunities in an organization should use more equity funding because a highly leveraged business is more likely to pass on lucrative opportunities for investment. As Huang and Song (2002) claim: "Such an investment effectively shifts the capital to debt holders from stockholders". Higher growth opportunities are challenged with greater knowledge differences and higher levels of debt are therefore likely to reflect higher quality (Gul, 1999).

The results of Bulan (2009) indicated that larger, more sustainable and highly profitable firms with little growth opportunities and a positive history of credit are more suitable for first using internal capital and later debt before equity for their financing needs.

**H4:** Growth opportunities have a negative relationship with leverage.

### v. Risk

The corporate risk may be characterized as financial risk and corporate risk (Ward, 1993). The business risk is determined by revenue fluctuations and profit uncertainty if the climate is unpredictable. Financial risk is linked to debt obligation promises. Increased business risk also rises as a result of bankruptcy, which is related to firm financial risk (Perison et al.1990).

Kim and Sorensen (1986) say that businesses with high operating risk have a lower debt ratio due to higher financial risk. Companies in extremely risky environments must reduce their utilization of debt to reduce business risk, and thus reducing their bankruptcy risk as well. It shows that business risk and bankruptcy risk contribute directly correlated to debt usage (Andersen, 2005).

**H5:** Business risk of the firm influences the financing policy of a firm.

## METHODOLOGY

### Data Collection and analysis

This research has used cross-sectional data of nine tourism companies listed on the Muscat Securities Market (MSM) for the period 2007 to 2016. The tourism companies selected to assure the availability of 10 years of data thereby offering 90 firm-year observations. The accounting information is collected through the annual reports published on the MSM. As discussed in the prior literature (Booth et al, 2001; Hijazi& Shah, 2004; Shah & Khan, 2007), panel data is being used due to its time-series and cross-sectional features. Panel data provides the benefits of exploring many observations, promoting liberty and discussing various variables over time to establish a relationship between them. The data is investigated using fixed effects and pooled regression model which is useful to explore the panel data. The data is processed through the STATA13 software as it can handle panel regression analysis. Regression analysis supports in

measuring the impact of independent variables on dependent variables (Alisson, 1998). Thereby, the determinants of leverage in tourism companies can be adequately investigated using the regression analysis.

### Model Specification

The model specification to investigate the hypotheses is given as follows:

$$\text{Lev}_{i,t} = \beta_0 + \beta_1 \text{GrowOpp}_{i,t} + \beta_2 \text{ROA}_{i,t} + \beta_3 \text{Size}_{i,t} + \beta_4 \text{Tang}_{i,t} + \beta_5 \text{Tax-shield}_{i,t} + \beta_6 \text{Risk}_{i,t} + \beta_7 \text{Excomp}_{i,t} + \varepsilon$$

Whereby,

- Lev refers to leverage calculated as the total debt divided by total assets (Pandey, 2001),
- GrowOpp refers to growth opportunity which is measured as the market value of assets (book value of assets plus the market value of equity less book value of equity) divided by the book value of assets (Leary and Roberts, 2005),
- ROA refers to the return of assets measured as earnings before interest and tax divided by total assets (Chen and Hammes, 2003),
- Size refers to the size of the firm measured as the natural logarithm of total assets (Sbeiti2010),
- Tang refers to tangibility measured as fixed assets divided by total assets (Bulan and Yan, 2009),
- Tax-shield refers to non-debt tax shield calculated as the total sum of depreciation, amortization, and depletion divided by total assets,
- Risk is measured as the standard deviation of the annual percentage change in the earnings before interest and tax scaled by total assets (Drobotz and Fix, 2003),
- Excompensation refers to executive compensation and serves as the control variable. This is measured as 1 minus percentage of CEO salary in total executive compensation (Liu, Qi and Xie, 2020).

### Hypotheses

As established in the literature review, this study investigates the following hypotheses:

**H1:** There is a significant relationship between leverage and its determinants.

**H1a:** Using, the pecking order theory and the trade-off theory, this study hypothesizes that growth opportunity has a positive relationship with leverage.

**H1b:** Using, the pecking order theory, this study hypothesizes that profitability has a negative relationship with leverage.

**H1c:** Using, the pecking order theory this study hypothesizes that size has a negative relationship with leverage.

**H1d:** Using, the trade-off theory, this study hypothesizes that asset tangibility has a positive relationship with leverage.

## RESULTS AND DISCUSSION

### Descriptive Statistics

According to Morgan and Harmon (1999), descriptive statistics summarize the variables under study and communicate their important features. Table 1 provides the descriptive statistics of the dependent and independent variables used in this research. The tourism companies have an average of 0.194 as their leverage. However, the companies leverage ranges from 2.142 as the maximum to 0.001 as a minimum. The ROA of the companies is at a 10 percent average. This profitability measure also reflects a loss for some companies. The size of the companies on an average is 6.629. The size which is measured as the natural log of total assets reflects that the companies have a minimum of 4.290 and a maximum of 7.909. The proportion of fixed assets to the total asset is represented with the measure of tangibility and on average is at 1.219 for the tourism companies. However, the minimum tangibility score for companies is 0.446. The risk of these companies is very high and rightly so as the market has only just recently picked up for the tourism companies.

**Table 1:** Descriptive analysis of variables of the research

variable	mean	max	min	sd
Lev	0.194	2.142	0.001	0.293
GrowOpp	8.199	451.973	0.298	52.280
ROA	0.105	1.509	-0.107	0.209
Size	6.629	7.909	4.290	0.989
Tang	1.219	18.730	0.446	2.564
Tax-shield	0.057	1.325	0.000	0.183

Risk	15.315	1049.285	0.005	123.592
Excomp	-2.921	0.986	-48.473	7.515

### Correlation

Table 2 represents the correlation results of the variables of this study. The dependent variable leverage as a significant correlation with ROA, tangibility, and tax-shield. A very high positive correlation is seen between leverage and profitability measure ROA. This suggests that only companies with high profitability can borrow from the market. This is likely as financial institutions cannot lend loans to companies that are not financially secure. Similarly, the fixed asset proportion in total assets also has a positive correlation with leverage. Thereby, advocating that companies that have sizeable fixed assets can attract outside source of funds. Tax-shield benefits are only high for those companies that have leverage. Thus, when the leverage is high so is the tax-shield. There is a multi-collinearity issue between the variables ROA, tangibility, and tax-shield.

**Table 2:** Correlation matrix of the tourism sector variables for the period 2007-2016

	Lev	GrowOpp	ROA	Size	Tang	Tax-shield	Risk	Excomp
Lev	1.000							
GrowOpp	0.015	1.000						
ROA	0.8750*	-0.076	1.000					
Size	-0.094	0.3166*	-0.174	1.000				
Tang	0.9289*	-0.030	0.9023*	-0.202	1.000			
Tax-shield	0.9230*	-0.042	0.9313*	-0.173	0.993	1.0000		
Risk	0.018	-0.019	-0.058	0.154	-0.014	-0.038	1.000	
Excomp	-0.101	0.070	-0.037	-0.136	-0.011	-0.017	0.073	1.000

### Regression Analysis

The assumptions related to regression analysis is performed but not shown here due to the purpose of brevity. The Shapiro-Wilk W test suggested that the data is not normally distributed. The Breusch-Pagan test concluded that the data is homogenous and there is a constant variance. The VIF is more than 10 suggesting the presence of multicollinearity. The Ramsay Reset test showed that there were no variables omitted. To handle the multicollinearity the tax-shield variable is removed from the equated thereby reducing the VIF score. Additionally, to treat the non-linearity of the data, a robust – regression analysis is run on the variables.

**Table 3:** Regression analysis of the tourism sector variables for the period 2007-2016

Lev	Coef.	Std.	P> t	95% CI
constant	-0.365	0.063	-0.492	-0.239
GrowOpp	0.000	0.000	0.000*	0.001
ROA	0.658	0.136	0.388	0.929
Size	0.050	0.009	0.033*	0.067
Tang	0.245	0.039	0.167	0.323
Risk	0.000	0.000	0.000*	0.000
Excomp	-0.001	0.002	-0.005*	0.002

Table 3 presents the robust regression analysis of the tourism sector variables determined for this research. This model has a high R squared of 0.917 reflecting that the model has high predictability. The size of the companies is positively and significantly related to leverage. This suggests that large companies can attract debt. This is consistent with the result of the prior studies (Ngatemin et.al 2018; Lew, 2012). Andersen (2005) has suggested that earnings volatility is significant and influential for leverage. This is similar to the finding of the current study as it also reports risk has an impact on leverage. The profitability measure reflects no significant relationship with leverage. This is inconsistent with the extant literature that has reported a negative relationship and confirms the Pecking Order Theory (Correa et al., 2007; Delfino, 2006).

### CONCLUSION AND RECOMMENDATIONS

The financing decision is an important aspect of financial management for any company as there is a direct impact on its value. This research is the first to examine the approximation of factors that influence the leverage capital structure of companies in Oman A sample of 90 firm-year observations of listed tourism sector companies in Oman was chosen for

10 years. A panel data methodology was applied to explore the determinants that influence the capital structure. The designed variables have been selected from various studies and use the accounting data extracted from the annual reports.

The findings of this study suggested that size has a positive and significant relationship with leverage. There is no support for the pecking order theory. This, however, does signify that as the firms start investing more in assets, they tend to resort to financing these with long term debt. The growth opportunity is the other variable that has a significant relationship with leverage. There is support for the pecking order and trade-off theory. Overall, it might be concluded that the very limited support is found for the pecking order and trade-off theory.

This research suffers from various limitations. The research is limited to the tourism companies of Oman. This leads to a low number of sample firms and only one sector being investigated. The study is only restricted to Oman. There are only limited accounting variables that are selected to investigate the influence on capital structure.

Future recommendations are to include all the non-financial listed companies in Oman. This would give a higher representative sample. The non-financial listed companies include various other sectors that help to differentiate the factors that influence the capital structure. The study can also be extended to the GCC countries.

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