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Static Trade-off theory or Pecking order theory which one suits best to the financial sector. Evidence from Pakistan.

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Abstract
This research is a contribution towards understanding the financial behavior of leasing sector of Pakistan for the period of 2001-2010. It is an attempt to investigate the key factors that influence the capital structure of leasing sector of Pakistan. Financial Leverage is taken as the dependent variable. Whereas, Size of Firm, Capital intensity; Liquidity, Profitability and Tangibility of assets are taken as independent variables. Empirically it has been found that size of assets has a negative and significant impact on leverage. It has also been found that Liquidity, Tangibility, profitability and capital intensity do not significantly influence Leverage. Hence, it is concluded that leasing sector of Pakistan is following Pecking Order Theory in terms of the Size of Firm, Tangibility, liquidity, profitability and capital intensity.

Key words: Leasing, financial sector, Karachi Stock Exchange, Tangibility, Pecking Order Theory, Static Order Theory

1. Introduction

The capital structure is a combination of both long term as well as short-term financing. It includes debentures, commercial papers, equity & share capital etc. Capital structure is the mix of debt and equity capital that are combined in such a manner that firm can easily achieve its goals (Wessels & Roberto, 1988).
The capital structure is one of those instruments that can be used to safeguard the effectiveness of corporate governance and defend its value creation capability (Rocca, 2007). The stochastic scenery of equity precariousness is endogenous and comes from the collision of revolutionization in the value of the firm's assets on the monetary Leverage (Bensoussan & Crouhy, 2008).
Whenever company made an announcement of issuing new stock, it gives a negative signal to potential investors and hence the market value of the firm minimizes (Rajan & Zingales, 1995).
Since the incorporation of leasing sector in 1984, it played a vital role in the financial sector of Pakistan. It is also notable that the banking sector has become the competitor-leasing sector of Pakistan and Leasing Sector had to face a competitive pressure from the banking sector. This competitive environment had a significant impact on the performance of leasing sector.
The leasing companies of Pakistan have faced huge problems in the last decades e.g. issues regarding liquidity, low capitalization, less sources for mobilizing resources and high cost of funds. In order to provide operational flexibility to leasing companies, SECP (security exchange commission of Pakistan) has increased the validity of license issued to them. Leasing sector of Pakistan had shown a marginal decrease of 1.5 percent. The total assets held by the leasing sector on March 31, 2011 were Rs 34.5 Billion and unlike to this total asset of leasing sector on December 31, 2011 were Rs. 35 Billion. On the other side, the equity of leasing sector has shown upward trend up to 0.7 percent. The total equity of leasing sector on March 31, 2011 is Rs 4.8 Billion. Moreover, the deposits held by leasing companies of Pakistan have shown an increase of 1.4 percent. The total deposits of leading companies on December 31, 2011 were worth of 3.9 Billion that has now increased up to 4.5 Billion. (Economic Survey of Pakistan 2011)

Table 1: Financial ratios of leasing companies

Ratios	2008	2009	2010
Profit after Tax / Total Assets	0.11	-0.79	-0.25
Profit after Tax / Total Equity	0.62	-7.57	-4.91
Dividend / Profit after Tax	3.29	-0.62	0.58
Total Borrowings / Total Assets	3.64	2.41	2.37
Total Borrowings / Total Equity	18.26	29.45	24.51
Current Assets / Current Liabilities	11.07	11.52	14.68
Total Incomes / Total Expenses	10.41	5.83	9.36

2. Literature Review

Chiarella & Phan (1991) conducted the research of 226 Australian companies. After applying the regression analysis, they concluded that there is a negative impact on profitability, the tangibility of assets and non-debt tax shield on Leverage live. Whereas, the debt ratio has a positive relationship with size, growth opportunities and cash holdings. Rajan & Zingales (1995) stated that the viability and the reliability of business could be examined by the time for which it is servicing its loan. As a result, the possibilities of asymmetries information between an organization and banks reduce. This ultimately has a positive impact on the Leverage ratio of the company. They argued that tangibility of assets and leverage of the firm has a positive relationship. In case, a firm fails to collaterals, there is a probability that moral hazards can arise at the end of borrower. In this scenario, lenders can ask for terms and conditions that are more suitable and therefore firms chose equity financing. To avoid this problem, firms have to make sure that their large numbers of assets are used as collateral.

Rajan (1995) examines the determinants of capital structure non-financial firms from G7 countries for the period of 5 years from 1987 to 1991. His findings show that in G7 countries there is a significant relationship of Leverage, tangibility and size except Italy. Moreover, it was found that potential growth and profitability had a negative relationship with a debt ratio in G7 countries except Germany. This is for nonfinancial firms.

Lin (2009) conducted a research to find the impact of default risk on the portfolio policies of lenders and what should be the capital structure of organizations when there is a perfect competition in the market. In the case of related diversification, Equity financing is more appropriate whereas debt financing is recommended in case of unrelated diversification. Moreover, when the companies diversify through acquisition, they probably use the public sources of financing (Kochhari & Michael, 1998). The capital structure is one of those instruments that could be used to safeguard the effectiveness of corporate governance and defends its value creation capabilities. (Rocca, 2007). The stochastic scenery of equity precariousness is endogenous and comes from the collision of revolutionists in the value of the firm's assets on the monetary Leverage (Bensoussan & Crouhy, 2008). No clarity in this

The findings of Alti (2006) show that leverage ratio of big companies increases following their IPO. However, in case of firms of small market, it is observed that they are satisfied with their leverage ratio they have after the IPO. He suggested that in case of short term financing, market timing is an important factor while in long run, the influence of market timing becomes limited. Christiawan & Tarigan (2007) argues that business decision process is totally different in managerial ownership companies and non-managerial ownership companies. In addition, debt related policies are different in both types of companies.

Since firms that have more opportunities for growth, transmit signal about the expected future performance of that firm, institutional investors will prefer high growth firms for investment purposes (Al-Najjar & Taylor, 2008). Those firms that have high growth rate, bring more capital gain to its institutional investor as compared to firms having less growth (Hovakimian & Tehranian, 2004).

Previous studies have shown the positive correlation between the Leverage level and the performance of the firm (Ei-Sayed, 2009). It is much evidence that size of firm influences the capital structure decisions. Firms having large size are more likely to more diversified and less exposed to the bankruptcy. Hence, the size of the firm and Leverage is positively correlated with each other (Bhaduri, 2002).

There are many evidences of theories that why the size of the firm must be associated with its capital structure. It is difficult for small size firms to resolve the issues of asymmetries information to its stakeholders, which does not encourage using outside financing (Viviani, 2008). Many studies have proved that Leverage and the size of the firm are negatively correlated

Zhang & Kanazaki (2007) stated that financial Leverage and firm size are tentatively predicted to have an optimistic correlation. However, studies conducted by Friend & Lang (1988), Kester (1996) and Wald (1999) showed that there is negative relationship between the profitability of the firm and Leverage.

Hailu et al (2009) explained that large firms predominate in those situations where the economies of scale are more significant. However, small firms can be more favorable when agency cost and transaction cost are high.
Rocca et al,. (2009) validates the findings of Titman & Wessels (1988) that there exists a positive relationship between Tangibility and Leverage. Shah & Hijazi (2004) and Ilyas (2008) also conducted research and concluded that a positive correlation exists between tangibility of assets and the leverage of firms.
Liquidity is among the most crucial factors in order to determine that capital structure of firms (Majumdar & Chhibber, 1999). Ahmad et al. (2010) suggested that there exists a negative correlation between liquidity and Leverage. According to their results, if the firms have more liquid assets, it will prefer to finance their own assets instead of going for external financing.
Gonenc (2003) and Awan et al. (2011) conducted a research on capital structure determinants and found the positive relationship between Leverage and growth. Zhang et al. (2007) stated that under the Static Trade off theory Leverage and growth are negatively related with each other. The bankruptcy cost also increases when the firm is growing hence the debt ratio of the company decreases.
Chen (2004) stated that a negative correlation exists between Leverage and international diversification. On the other hand, there exists a positive correlation between product diversification and debt ratio. However, negative relation was found between Leverage, risk and financial performance. Size and debt ratio were found positively correlated
William (2011) stated that size of firm and leverage has positive relationship. This positive relationship is due to many factors. Large firms can borrow debt at low interest rates as they have many advantages in economies of scale. Large firms have many financial resources so there are less chances of bankruptcy and they are considered as the less risky in their economic activities. According to the findings of Najjar & Petrov (2011), the revenue growth has no impact on the leverage.

3. Theoretical Framework

In this section, brief explanation of the static trade-off theory and the pecking order theory is given and its link with the current research.

Static Trade-off Theory

The basic concept behind the static trade-off theory is to minimize the cost of capital by employing an appropriate debt and equity financing. Firms are partly financed by debt and equity and the main benefit of debt financing is the tax benefit of that debt, while on the other hand, the disadvantage of debt financing is debt cost i.e. the interest or return which company pays on debt which is referred as bankruptcy cost. The static tradeoff theory of capital structure states that in order to maintain the balance between the pros and cons of debt and equity financing, the firm must choose the mixed type of financing. Moreover, the cost of capital cannot be minimized by increasing the debt level because at a specific point, the cost of debt will become more expensive than the cost of equity because it increases the Leverage level and due to which the risk of creditor increase because of which their required rate of return increases. Furthermore, the increased amount of debt also makes the investors and shareholders' financial position more risky. Hence, up to a certain limit, the cost of capital can be decreased by increasing debt. However, after that limit, the cost of capital will start increasing. Therefore, firms usually use the mixture of debt financing and equity financing in order to minimize the average cost of capital and to increase the market value per share.
The static tradeoff theory of capital structure of firms varies from sector to sector. Industries, whose firms are more tangible tend to borrow more rather using the equity because assets of these industries are collateral and considered relatively safe. By using trade off theory, Rajan & Zingales (1995) concluded that there is a positive correlation between Leverage, and profitability of a firm, whereas tangibility of assets and the size of the firm found positively correlated with firm's Leverage.
Under static trade off theory, de Mesquita & Lara conducted a research and concluded that the debt of the firm and Leverage was positively correlated in the short run whereas, their correlation was found inverse in the long run. Antonious, Guney, & Paudyal (2002) further validates the results of due Mesquita & Lara and concluded that firm size is positively correlated with Leverage ratio. The tangibility of assets was found positive in those countries where lending from banks was significant. Um (2001) argued that high profitability results in a higher debt capacity of the firm and hence, a firm can have more tax shield. Therefore, according to the static tradeoff theory there exist a positive relationship between profitability of a firm and financial Leverage.
Firms having more tangible assets will likely provide more collateral for debts. In the case of default, the assets of the company will be seized however; the company will be safe from bankruptcy. Moreover, firms having a large amount of tangible assets are less likely to default and will acquire more debt. Hence, according to the

static tradeoff theory it shows a positive relationship between financial Leverage and tangibility of assets (Rajan & Zingales, 1995).

Big firms are regarded as "too big to fail" having better access to capital market and hence tend to hold more debt than small firms. Large size firms prefer debt financing because they have a high debt capacity (Bevan & Danbolt, 2002).

Pecking Order Theory

The need of Pecking Order Theory becomes important because the information available to investors is asymmetric and they find it difficult in making a choice between external and internal financing. Myers & Majluf (1984) is of the view that retained earnings are more appropriate than debt financing. Moreover debt financing is better than equity financing because cost debt is much lesser than the cost of equity. This theory suggests companies that if they need financing then retained earning must be their first preference then they should go towards debt financing and equity financing must be their last option. This theory sets the hierarchical level of the organizations for their financial decisions.

The organizations must go for the internal resources i.e. Retained earnings. The benefit of using retained earnings is that it has occurred zero flotation cost and does not need any additional and extra disclosure of any secret financial information. In case, if the organization goes for external financing then they must follow a specific pattern i.e. Debt financing, issuing convertible securities, issuance of preferred stock and finally issuance of ordinary stock.

The major advantages of using the Pecking Order Theory is that it shows that finance managers are keen to maintain the control of the firm, and it helps in minimizing the cost of equity and agency problems. Pecking Order Theory is helpful in explaining the changes associated to capital structure. It considers the motivation of managers and allows firms to create dynamic capital structure.

However, there are also some limitations of Pecking Order Theory. The first limitation of the Pecking Order Theory is that it fails to incorporate the effect of taxes, cost of issuing new securities, agency cost, financial distress of the investment opportunities. The second problem related to Pecking Order Theory is that it overlook the problems associated with the decisions of financial managers to accumulate so much financial slack that they become protected to market discipline. It considers the impact of financial slack on the firm and the impact of availability of positive NPV's of projects. Due to these limitations, Pecking Order Theory is referred as complement rather than substitute of Static trade off theory.

Antonious, Guney, & Paudyal (2002) conducted research on determinants of capital structure of European countries and concluded that the size of a firm has a positive impact on the Leverage of the firm. Moreover, they concluded that there is an inverse correlation between profitability and Leverage. These findings support the assumptions of Pecking Order Theory.

Hijazi (2006) conducted a research on determinants of capital structure and concluded that firm size and Leverage of the firm have a negative relationship with Leverage which validates the Pecking Order Theory that there is a negative relationship between profitability and size of firm.

4. Research Methodology

Hypothesis

Based on above literature and theoretical framework. We propose the following hypothesis

H1a = There is a significant relationship between Leverage and size of firms in the leasing sector of Pakistan.

H1b = There is a significant relationship between Leverage and Collateral value of assets of firms in the leasing sector of Pakistan.

H1c = There is a significant relationship between Leverage and Liquidity of firms in the leasing sector of Pakistan.

H1d = There is a significant relationship between Leverage and profitability of firms in the leasing sector of Pakistan.

H1e = There is a significant relationship between the lever and the capital intensity of firms in the leasing sector of Pakistan.

Population and sample

All leasing companies working in Pakistan are the population of this study. According to a State Bank of Pakistan, currently 20 leasing companies are operating in Pakistan. In this study, 14 leasing companies are selected that are registered at the Karachi Stock Exchange and Leasing Association of Pakistan. Ten-year data from 2001 to 2010 of 14 companies are taken for the final analysis.

Data collection

Financial data are collected from Annual Reports of the selected leasing companies of the ten years. The book value based yearly financial data are collected from the financial statements (Statement of Comprehensive

Income, Statement of Financial Position, Statement of Change in Owners' Equity, and Statement of Cash Inflows & Notes to the Accounts) of leasing companies. Financi1al publications of the State Bank of Pakistan are used to collect some data. Balanced panel data of Pakistani leasing companies from 2001 to 2010 are statistically analyzed.

Statistical Analysis

I have applied panel regression to obtain the statistical results. Breusch and Pagan Lagrangian test is applied to test whether the fixed effect model will be applied or random effect model will be applied to obtain the accurate results.

Statistical Model

The sample data has collected on a random basis. Therefore, it is necessary to apply different panel regressions. The simple panel least squares is as following

$$Y_{it} = \beta_1 + \sum_{j=2}^{k} \beta_j X_{jit} + \delta_t + \varepsilon_{it} \quad \text{.....1}$$

Where, based on capital structure theories and empirical research regarding determinants of capital structure, the simple panel least square model is:

$$LG_{it} = \beta_1 + \beta_2 TA_{2it} + \beta_3 PR_{3it} + \beta_4 LQ_{4it} + \beta_5 CA_{5it} + \beta_6 SZ_{6it} + \delta_t + \varepsilon_{it}$$

Where,

β_1 = Representing the overall intercept of the regression
LG_{it} = Leverage
TA_{2it} = Tangibility of Assets
PR_{3it} = Profitability of the Firm
LQ_{3it} = Liquidity of the Firm
CA_{5it} = Capital Intensity of the Firm
SZ_{6it} = Size of the Firm
δ_t = Represent the shift in the intercept term
ε_{it} = error term of regression equation

Leverage (LG)

Harris & Raviv (1991), Rajan & Zingales (1995), Booth et al. (2001), Chen (2004) defined Leverage as total debt divided by total assets. The concept of using total debts is to avoid the conflicting relationship of long-term debt or short-term debt with Leverage. Previous studies have shown had that there is positive relationship of leverage with short-term debt and negative relationship with long term debt.

$$LG_{it} = \frac{Total\ Debt_{it}}{Total\ Assets_{it}}$$

Tangibility of Asset (TG)

According to Rajan & Zingales (1995) Tangibility of Assets is also an important factor in determining capital structure. It shows the impact of tangible assets of firms on the Leverage level of firmness. According to Static-Trade off Theory, the Tangibility of Assets is positively associated with the Leverage. If a firm has a higher amount of fixed assets it can acquire loan on more favorable terms. Creditors can impose more restrictions and strict terms if a firm has less tangible assets, hence the relationship between Tangibility of Assets and Leverage is positive. On the other hand, according to Pecking Order Theory the long-term debt is positively associated with Leverage while short-term debt is negatively associated with Leverage. The Tangibility of Assets is measured by Rajan and Zingales (1995), Omet & Nobanee (2001), Buferna, Bangassa, & Hodgkinson (2005) (Khrawish & Khraiwesh (2010) as:

$$TG_{it} = \frac{Fixed\ Assets_{it}}{Total\ Assets_{it}}$$

Profitability (PR)

Another important determinant of capital structure is Profitability. According to Pecking Order Theory, there exists a negative relationship between the Profitability of Firm and Leverage. The reason is that firms always prefer to use their own internal funds for financing. Hence, firms, which are more profitable, will use more internal funds. However, according to Static-trade-off theory, profitability is positively associated with the Leverage. Rajan & Zingales, (1995), Huang & Song (2002), Buferna, Bangassa, & Hodgkinson (2005) measured the profitability of a firm as net income before income tax divided by total assets.

$$PR_{it} = \frac{Net\ Income\ Before\ Tax_{it}}{Total\ Assets_{it}}$$

Liquidity (LQ)

Empirical research showed that liquidity is also an important determinant of capital structure. According to Pecking Order Theory, there exists a negative relationship between liquidity and Leverage of the firm. Firms having more liquid assets will prefer to use internal funding for investment instead of external financing. Hence, the relationship between liquidity and Leverage will be negative.

On the other hand, according to static-tradeoff theory liquidity is positively associated with Leverage. The high liquidity ratio shows the ability of the firms to satisfy the short-term liabilities, which indicate the positive relationship between liquidity and Leverage. Sheikh & Wang (2010) and Ahmed et al. (2010) Measured liquidity of the firm as:

$$LQ_{it} = \frac{Current\ Assets_{it}}{Current\ Liabilities_{it}}$$

Capital Intensity

Empirical research shows that Capital Intensity of firm is also an important determinant of capital structure. It is referred as the capital invested in obtaining an output of one dollar (Shaheen & Malik, 2012). According to Static trade off theory, when a firm has higher capital intensity, it will take more debt because it has more collateral assets. This shows that under static trade off theory, capital intensity has a positive relationship with leverage. (Anderson & Campbell, 1990). However, according to pecking order theory, when a firm has more capital intensity, it will have a high level of operating leverage. This results in higher risk for expected future income. This shows the negative relationship of capital intensity with the leverage.

$$CA_{it} = \frac{Total\ Assets_{it}}{Total\ Revenue_{it}}$$

Size (SZ)

Another widely accepted determinant of capital structure is firm size. Previous Research showed there is a mixed relationship of Leverage with a size of firm. According to static-trade -off theory, positive relationship exists between Leverage and size of firm. The reason for this positive relationship is; as larger firms are more diversified that small firms, hence large firms have less transaction cost of issuing new equity. Therefore the chances of bankruptcy for larger firms are less that smaller firms which show a positive relationship between size and Leverage.

However, according to Pecking Order Theory, the relationship between the size of a firm and Leverage is negative. Titman & Wessels (1998), Huang & Song, (2002)**,** Antoniou, Guney, & Paudyal (2002) and Khrawish & Khraiwesh (2010) measured the size of a firm by taking the natural log of total assets i.e.

$$SZ_{it} = \ln(Total\ Assets_{it})$$

5. Statistical Analysis

Descriptive Analysis

Table 5.1 shows the descriptive statistical analysis of Leverage, Size, Tangibility, Profitability, Liquidity and capital Intensity from 2001 to 2010. Size is an independent variable that is calculated by log of total assets. Statistical analysis showed that on average size of leasing companies are continuously increasing from 2001 to 2010. The mean value of size is at maximum level is13. 80 and the minimum is 11.51.

Table 5.1 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Leverage	140	-1.61	9.51	1.7620	2.27866
Size	140	11.51	13.80	12.8359	. 80474
Tangibility	140	-. 97	8.33	1.2655	1.36864
Profitability	140	. 10	8.64	1.4387	1.88936
Liquidity	140	-. 62	8.69	1.3359	. 98280
Capital Intensity	140	-. 74	9.31	1.2308	1.44498

Table 5.1 indicates the results of variable profitability, where the minimum level value in ten years is 0.10and the maximum level value is 8.64. It is a great and huge increase in the profitability of the leasing sector in Pakistan from 2001 to 2010. The mean value is 1.4387 and the standard deviation is 1.88936, which shows a higher value as compared to the other variables.

Tangibility, another independent variable in table 5.1 having the minimum level at 0.97 and the maximum level is 8.33. The mean value of the tangible is 1.2655 and standard deviation is the 1.36864. The difference between

the minimum and maximum value shows the huge fluctuation in the variable from 2001 to 2010 in leasing sector of Pakistan.

Correlation Analysis

This section provides the correlation of each variable (dependent and independent) of 14 leasing companies of Pakistan. Correlation analysis provides useful and appropriate information about the association of different variables. Furthermore, correlation statistics also facilitate to check the multi co-linearity among the different independent variables. Table 4.2 shows the correlation analysis of all the variables of leasing companies.

Table 5.2 Correlation Results

	SZ	***TG***	***PRF***	***LQT***	***CA***
SZ	1				
TG	-0.15242	1			
PRF	-0.009	0.01508	1		
LQT	0.23574	0.39396	-0.0815	1	
CA	0.036497	0.03995	0.21391	0.043978	1

Table 5.2 shows the Correlation result of variables. It is clear that none of the variable correlates with each other and none of the variable has value above than the 0.5% amongst independent variables. It means multi Co linearity does not exist amongst the variables. Thus, there is no problem of multicolinearity among variables as the correlation between independent variables is not much stronger.

The variable Size of assets has a weak negative association with Tangibility of assets (-0.15242) and profitability (-0.009) while weak positive association with liquidity (0.23574) and capital intensity (0.036497). The variable Tangibility of assets has a weak negative association with profitability (-0.01508), liquidity (-0.039396) and capital intensity (-0.03995). The variable Profitability has a weak negative association with liquidity (-0.0815) and capital intensity (-0.21391). The variable liquidity has a weak positive association with the capital intensity (0.043978).

Regression Analysis

Finally, the impact of five independent variables (size, liquidity, Tangibility of assets, profitability and Capital Intensity) is taken.

Table 5.3 Regression Analysis

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	19.14671	3.074404	6.227777	0.0000
SZ	-0.992840	0.179128	-5.542640	0.0000
CVA	-1.438546	1.589553	-0.905000	0.3671
PRF	-0.081463	0.069162	-1.177867	0.2409
LQT	0.010555	0.073657	0.143302	0.8863
CA	-0.048514	0.024196	-2.005091	0.0470
R-squared	0.215632	F-statistic		7.367618
Adjusted R-squared	0.186364	Durbin-Watson stat		0.483522

Table 5.3 of Leverage model reports the results of regression analysis in which five independent variables are redressed by using the data of leasing companies of Pakistan from 2001 to 2010 The value of the adjusted R square (0.18) indicates that the Leverage is nearly 18% dependant on these variables i.e. Size, profitability, capital intensity, tangibility, and liquidity. Above table represents the results of simple panel least squares. SZ (β = -0.99), CVA (β =-1.43), PRF (β =-0.08) and CA (β =-0.04) have negative coefficient, which means that they are inversely related to the dependent variables. Only LQT (β =0. 01) has a positive coefficient. SZ and CA are found statistically significant whereas, other variables CVA, PRF and LQT are not statistically significant. The adjusted R-squared value is 0.18%, which is quite low. The value of Durbin-Watson statistics (0.483522) is very less and shows that there is a problem of auto correlation in the model also the value of F-stat (7.367618) shows that model is not the best fit.

Breusch and Pagan Lagrangian multiplier test for Random Effects

In order to resolve these issues, I have applied balanced panel regression model. There are two models of balanced panel regression i.e. fixed effect model and random effect model. In order to check whether fixed effect or random effect is appropriate, I have applied Breusch and Pagan Lagrangian test. This result of this test tells that which model is more suitable for balanced panel regression.

Table 5.4 Breusch and Pagan Lagragian multiplier test for random effects

Breusch and Pagan Lagragian multiplier test for random effects		
	Var	**sd = sqrt(Var)**
Lvg	20.90586	4.572292
E	7.816032	2.795717
U	15.37019	3.920484
Prob > chi2 = 0.000		**chi2(1) = 174.69**

The p value clearly rejected the null hypothesis. It means random effect model is more appropriate than fixed effect model because results of random and fixed effects model do not differ significantly. This test is best over the hausman test because of less degree of freedom.

Random Effects Model

As determined from breusch pagan test that random effect model is more appropriate than fixed affect model. Therefore, the random effect equation is:

$$LG_{it} = \beta_1 + \beta_1 TA_{1it} + \beta_3 PR_{3it} + \beta_4 LQ_{4it} + \beta_5 CA_{5it} + \beta_6 SZ_{6it} + \delta_t + \omega_{it}$$
$$\omega_{it} = ei + \varepsilon_{it}$$

The error term of random panel regression is call idiosyncratic error because it is composite of two component the ei and ε_{it} which is equal to ω_{it}. It is considered that ω_{it} vary stochastically over the i or t that requires special treatment.

Table 5.5 Random effect model

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	16.16211	5.371222	3.009019	0.0031
SZ	-0.826402	0.330738	-2.498661	0.0137
TG	-1.596434	1.378406	-1.158174	0.2489
PRF	-0.051655	0.170839	-0.302361	0.7628
LQT	-0.009192	0.056045	-0.164015	0.8700
CA	-0.009660	0.026845	-0.359842	0.7195
R-squared	0.673141	Adjusted R-squared		0.660945

The above table is random effect results of generalized panel least squares. All the variables have an inverse relationship with the dependent variable. Only the size of assets is statistically significant, whereas other variables are not statistically significant. Now the adjusted –R squared value is 0.66 that means all independent variables explaining 66% variation in the dependent variable.

Table 5: Expected and observed sign of independent variables

Variables	Proxy	Expected sign Pecking Order Theory	Expected sign Static tradeoff theory	Observed sign
Size	Ln(total assets)	-(ve)	+(ve)	-(ve)
Collateral value of assets	Fixed assets/total assets	-(ve)	+(ve)	- (ve)
Profitability	Income before tax/total assets	-(ve)	+(ve)	- (ve)
Liquidity	Current assets/ current liabilities	-(ve)	+(ve)	- (ve)
Capital Intensity	Total Assets/ Total Revenue	-(ve)	+(ve)	-(ve)

Conclusions and Recommendations

This research is a contribution towards understanding the financial behavior of leasing sector of Pakistan for a period of 2001-2010. The leasing sector is considered as one of the important pillars of the financial sector of a Pakistan however in recent years the performance of leasing sector is not encouraging. After the statistical analysis of fourteen (14) companies of leasing sector of Pakistan, I can now conclude that leasing sector of Pakistan is completely followed Pecking order theory. Statistical analysis gives support to Pecking Order Theory i.e. all variables used have a negative relationship with leverage. With respect to size, tangibility, profitability, liquidity and capital intensity, leasing sector of Pakistan is following Pecking Order Theory. Major conclusions of this research are as follows.

- Based on these arguments and our findings, it is clear that firms in the leasing sector of Pakistan prefer using retained earnings rather than equity financing and debt financing.
- Our finding for liquidity is consistent with the Pecking order theory, showing a negative relationship of liquidity with Leverage. However, this relationship was insignificant. Therefore, we can state that there is no association of liquidity with the capital structure decision of leasing companies of Pakistan.
- Our findings conclude that highly profitable firms of leasing sector of Pakistan have less chances to face bankruptcy costs which enables them for using retained earning for further financing. Hence, we can state that in Leasing sector of Pakistan, the profitable firms prefer to retain earning rather than debt financing and equity financing.
- Based on our findings, we can now conclude that in the leasing sector of Pakistan, firms having high capital intensity will prefer using retained earnings. However, the relationship between capital intensity and Leverage was found insignificant. Therefore, we can say that there is no association between capital intensity and Leverage in the leasing sector of Pakistan.

Recommendations

Based on my results, I recommend leasing sector of Pakistan that the size of the assets should be the key element of the financing decision. The Less profitable firm should not go for debt financing. It is better for the less profitable firms to use their internal resource rather than external resources. The main reason for using internal resources is to protect them from any sudden bankruptcy. Moreover, in case of firms that are more profitable the priority must be external financing instead of internal financing. As the most profitable firms has, less chances of bankruptcy so than can have a debt at a lower mark-up so it is more suitable for them to go for debt financing.

Limitation and Direction for Future Research

This research has achieved most of its objectives however like any other research; there are some limitations in this study. Firstly, this research has focused only on two theories of capital structure i.e. Pecking Order Theory and static tradeoff theory. The focus of all the findings and results of this research is on the Pecking Order Theory and static trade off theory. We can use some other theories of capital structure to analyze the financial behavior of leasing sector of Pakistan. For example, Agency cost theory, signaling theory, net income approach. Another limitation of this research is that I have used only five variables as independent variables. Those variables are selected which are used in previous studies to explore the determinants of capital structure. We can use some other variables like non-debt tax shield, earnings volatility, industry effects, cash holdings, ownership structure etc. Another limitation of this research is that it covers only one sector. For future research, it is recommended to cover multiple financial sectors of a country to get more results that are accurate.

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