Does Financial Leverage Influence Investment Decisions? The Case Of Mauritian Firms

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ABSTRACT

This paper primarily focuses on the impact of financial leverage on investment decisions of firms and it is an attempt to explore the impact of financial leverage on investment levels using firm-level panel data in Mauritius. We expect to contribute to the existing literature by bringing evidence from a panel data set, which comprises 27firms, all listed on the Stock Exchange of Mauritius (SEM), sampled over a 15 year-period (i.e. from 1990 to 2004). In addition, we demarcate between two types of firms, namely: (i) high-growth firms; and (ii) low-growth firms. The results reveal a significant negative relationship between leverage and investment. More interestingly, while we found a negative relationship between leverage and investment for low growth firm, our econometric results reveal an insignificant relationship between the two variables for high growth firm.

Keywords: Investment and Financial Leverage

1. INTRODUCTION

In Mauritius corporate firms play a significant role in contributing to economic growth. In order to attain their objectives, firms need to efficiently manage their funds. To respond to global competition firms need to make massive capital investment in modern technologies, infrastructure, product development and product promotion and so on. Such investments may promote productivity and efficiency. There are several sources of financing those investments. Financial leverage is one of them. In its simplest form, financial leverage is the amount of debt used to finance a firm's assets and projects. It is good to note that during the great depression and throughout the 1930s and 1940s, financial leverage was predominantly viewed as a clear evil. It was perceived that huge amount of debt leads to financial distress. However, such a view point is no more universal. Nowadays, financial leverage is seen as important resource for the production of goods and services as well as for their distribution. Financial leverage is an important component in capital structure along with equity and retained earnings. One of the main debates in Corporate Finance is the impact of financial leverage on a firm's investment.

Among the various sources of corporate financing, financial leverage is perceived to have both positive and negative attributes as a debt financing instrument. The issuance of debt commits a firm to pay cash as interest and principal. A firm with significantly more debt than equity is considered to be highly leveraged. Leverage helps both the investor and the firm to invest or operate. However, it comes with greater risk. If an investor uses leverage to make an investment and the investment moves against the investor, his or her loss would be much greater than it would have been if the investment had not been leveraged. Therefore leverage magnifies both gains and losses. In the business world, firms can utilise leverage and try to generate shareholder wealth, but if it fails to do so, the interest expense and credit risk of default payment can destroy shareholder value.

Some authors who maintain that the total cost of capital of a particular corporation is independent of its method of financing that is the investment policy of a firm should be based only on those factors that will increase the profitability, cash flow or net worth of a firm. Modigliani and Miller (1958) stated that we should not "*waste our*

limited worrying capacity on the second-order and largely self-correcting problems like financial leveraging." However, a lot of theoretical and empirical literatures have challenged this point, arguing that financing considerations considerably complicate the investment relation. Myers (1977), for instance, explained how highly levered firms are less likely to exploit valuable growth opportunities as compared to firms with low leverage levels.

This paper attempts to add to the existing literature by bringing new evidence on the relationship between leverage and investment decisions over a period of 15 years for the case of 27 companies, which are listed on the Stock Exchange of Mauritius. The remainder of the paper is organized as follows. Section 2 provides a brief empirical review of the relations between financial leverage and capital investment. Section 3 describes the econometric analysis adopted to explain the relationship between financial leverage and investment. In section 4, we provide the reader with an overview of panel data estimation. Section 5 reports the results of the findings. We conclude in section 6.

2. RELATIONSHIP BETWEEN LEVERAGE AND INVESTMENT

Several authors[1] have studied the impact of financial leverage on investment. They reached conflicting conclusions using various approaches. When we talk about investment, it is important to differentiate between over-investment and under-investment. According to Myers (1977), high leverage overhang reduces the incentives of the shareholder-management coalition in control of the firm to invest in positive net present value of investment opportunities, since the benefits accrue to the bondholders rather than to the shareholders. Thus, highly levered firm are less likely to exploit valuable growth opportunities as compared to firm with low levels of leverage. A related *underinvestment theory* centers on a liquidity effect in that firms with large debt commitment invest less no matter what their growth opportunities. Theoretically, even if leverage creates potential underinvestment incentives, the effect could be reduced by the firm corrective measures. Ultimately, leverage is lowered if future growth opportunities are recognized sufficiently early.

Another problem which has received much attention is o*ver-investment theory.* It can be explained as investment expenditure beyond that required to maintain assets in place and to finance expected new investments in positive NPV projects whereas. Here there is a conflict between mangers and shareholders. Managers perceive an opportunity to expand the business even if that means undertaking poor projects and reducing shareholder welfare. The managers' abilities' to carry such a policy is restrained by the availability of cash flow and further tightened by the financing of debt. Hence, leverage is one mechanism for overcoming the overinvestment problem suggesting a negative relationship between debt and investment for firm with low growth opportunities. Does debt financing induce firms to make over-investment or under-investment? The issuance of debt commits a firm to pay cash as interest and principal. Managers are forced to service such commitments .Too much debt also is not considered to be good as it may lead to financial distress and agency problems.

Modigliani and Miller (1958) argued that the investment policy of a firm should be based only on those factors that will increase the profitability, cash flow or net worth of a firm. Many empirical literatures have challenged the leverage irrelevance theorem of Modigliani and Miller. The irrelevance proposition of Modigliani and Miller will be valid only if the perfect market assumptions underlying their analysis are satisfied. However, the corporate world is characterized by various market imperfections, due to transaction costs, Institutional Restrictions and asymmetric information. The interactions between management, shareholders and debt holders will generate frictions due to agency problems and that may result to under-investment or over-investment incentives. As stated earlier, one of the main issues in Corporate Finance is whether financial leverage has any effects on investment policies.

Modigliani *et al* (1963) argued that we should not '*waste our limited worrying capacity on second-order and largely self correcting problems like financial leveraging*'. That is firms should not be worried about growth

[1] Modigliani & Miller (1958), Gregg, J.,(1984), Bradley; Michael (1984), Jensen (1986), Cantor (1990) , Harris; Milton and Arthur, R., (1991), Whited (1992), Mc Connell and Servaes (1995), Novaes, W.; Zingales, L., (1995), Lang (1996), Myers(1997), Lally, M.,(2004), Childs (2005), Johnson, Shane, A., (2003), Korajczyk, Robert, A. and Levy, A., (2003), Baker, M. and Wurgler, J.,(2002), Chevalier, J., (2004), Carlos, A., (2005), , Lally, M., (2004).

till they are having good projects in hand, they will be able to find means of financing those projects. Myers (1997) has examined possible difficulties that firms may face in raising finance to materialize positive net present value (NPV) projects, if they are highly geared. Therefore, high leverages may result to liquidity problem and can affect a firm's ability to finance growth. Under this situation, debt overhang can contribute to the under-investment problem of debt financing. That is for firms with growth opportunities debt have a negative impact on the value of the firm.

Furthermore, Jensen (1986) argues that firms having more internally generated funds than positive net present value investment opportunities, the presence of debt in the firm's capital structure may force managers to utilize the funds in servicing the debt which could have been utilized in investing in negative net present value projects at the detriment of shareholder's interest. Such situation can be coined as the over-investment problem. Hence debt financing can be utilized as an instrument to curtail the over-investment problem by forcing managers to pay out excess funds to service debt. Hence for these types of firms debt financing has a positive impact on the value of the firm.

Whited (1992) has shown how investment is more sensitive to cash flow in firms with high leverage as compared to firms with low leverage. Cantor (1990) showed that investment is more sensitive to earnings for highly levered firms. Kopcke and Howrey (1994) have utilized balance sheet variables as separate regressors in the investment equation and argue that these effects are not important. There is support for both the over-investment and under-investment theories in the extant empirical literature. Accordingly, Mc Connell and Servaes (1995) have examined a large sample of non financial United States firms for the years 1976, 1986 and 1988.They showed that for high growth firms the relation between corporate value and leverage is negative, whereas that for low growth firms the relation between corporate value and leverage is positively correlated. Also the allocation of equity ownership between corporate insiders and other types of investors is more important in low growth than in high growth firms.

Lang *et al* (1996) has use a pooling regression to estimate the investment equation and most of other studies have also used a pooling regression method. They have shown that there is a negative relation between leverage and future growth at the firm level and for diversified firms, at the business segment level. Also debt financing does not reduce growth for firms' known to have good investment opportunities. But it is negatively related to growth for firms whose growth is either not recognized by the capital market. Childs et al (2005) argued that financial flexibility encourages the choice of short-term debt thereby dramatically reduces the agency costs of under-investment and over-investment. However the reduction in the agency costs may not encourage the firm to increase leverage, since the firm's initial debt level choice depends on the type of growth options in its investment opportunity set. Previous studies that have shown relationship between leverage and growth, such as McConnell and Servaes (1995) and Lang *et al* (1996) have use a pooling regressions to identify the impact of leverage on growth. Such an approach may not fully growth opportunities. Aivazian *et al* (2005) analyse the impact of leverage on investment on 1035 Canadian industrial companies existing at the end of 1999. The data files cover the period from 1982 to 1999. They found a negative relationship between investment and leverage and that the relationship is higher for low growth firms rather than high growth firms.

3. ECONOMETRICS ANALYSIS

We estimate a short form of investment equation to examine the effect of leverage on investment (the model has been adapted from Aivazian, Ge and Qiu (2005)). Which is as follows:

$$I_{i,t} / K_{i,t-1} = \alpha + \beta\left(\frac{CF_{i,t}}{K_{i,t-1}}\right) + \beta_1 Q_{i,t-1} + \beta_2 LEV_{i,t-1} + \beta_3 SALE_{i,t-1} + \beta_4 ROA_{i,t-1} + \beta_5 LIQ_i, y_{t-1} + u_{it}$$

Where $I_{i,t}$ represents the net investment of firm *i* during the period t; $K_{i,t-1}$ is the net fixed ; $CF_{i,t}$ is the cash flow of firm *i* time t ; $Q_{i,t-1}$ is the Tobin's Q; $LEVERAGE_{i,t-1}$ represents the leverage; $SALE_{i,t-1}$ stands for the net sales of firm I ; $ROA_{i,t-1}$ is the profitability of firm *i.*

K: Net Fixed Assets

LEV: LEV denotes Leverage. We have used the same definition of leverage as Lang *et al*, namely the ratio of the book value of long-term debt to the book value of total assets. This measure would not reflect recent changes in the market's valuation of the firm.

TOBIN Q (Q): We use Tobin's Q as a proxy for growth opportunities defined as the market value of total assets of the firm divided by the book value of assets. Market value of the firm is the sum of total liabilities, the value of equity shares and the estimated value of preference shares. The market value of preference shares is calculated as preference dividend multiply by ten.

SALE: Sale is measured as net sales deflated by net fixed assets.

PROFITABILITY (ROA): The profitability is measured in terms of the relationship between net profits and assets. It is calculated as earnings after tax add interest minus tax advantage on interest divide total fixed assets. It shows the operating efficiency of the total funds over investments of a firm.

CASH FLOW (CF): The cash flow is measured as the total of earnings before extraordinary items and depreciation.

LIQUIDITY (LIQ): The liquidity ratio is measured by the current assets divided by the current liabilities

The data used in this paper are from the annual report of Mauritian companies which are listed on the Stock Exchange of Mauritius. This data has been obtained from the Mauritius stock exchange handbooks. The handbook contains financial data and information of a panel of 27 companies from the period 1990 to 2004.

Our variable of interest is leverage. We used the book value definition of leverage as to the market value of leverage. Lang *et al* (1996) pointed that the market value leverage gives too much weight to the deviations in equity values. The book value of leverage does not reflect recent deviations in the market valuation of the firm. If leverage has a significant negative effect on investment, two interpretations can be adopted. First, it would mean that capital structure plays an important role in the firm's investment policies. Second, it can also be explained by an Agency problem between the agents and the shareholders. If managers are overburden by debt they may give up projects which may yield positive net present values. Also, there will be support for both the underinvestment and overinvestment theory.

Tobin's Q, which measures growth opportunities and it, compares the value of a company given by financial markets with the value of a company's assets. If the market value reflected solely the recorded assets of a company, Tobin's q would be 1.0. If Tobin's q is greater than 1.0, then the market value is greater than the value of the company's recorded assets. This suggests that the market value reflects some unmeasured or unrecorded assets of the company. High Tobin's q values encourage companies to invest more in capital because they are "worth" more than the price they paid for them. On the other hand, if Tobin's q is less than 1, the market value is less than the recorded value of the assets of the company.

Sales growth here measures the efficiency with which net fixed assets are measured. A high ratio indicates a high degree of efficiency in asset utilization and a low ration reflects inefficient use of assets.

Cash flow of firms is an important determinant for growth opportunities. If firms have enough cash inflows it can be utilized in investing activities. It also provides evidence that investment is related to the availability of internal funds. Cash flow may be termed as the amount of money in excess of that needed to finance all positive net present value projects. The purpose of allocating money to projects is to generate a cash inflow in the future, significantly greater than the amount invested. That is the objective of investment is to create shareholders wealth. In order to eliminate any size effect, we normalize this measure by taking the book value of assets. This method was utilized by Lehn and Poulson (1989) and Lang *et al* (1991).

Profitability is another important variable that are utilized to measure growth opportunities as it tries to explain how much the assets that the firm is employing in contributing to the total profitability. Therefore investment in assets contributes to the increase of profitability and we can proxy high profitability with high growth firms.

Liquidity is the ability of firms to meet its current obligations. Firms should ensure that they do not suffer from lack of liquidity as this may result into a state of financial distress ultimately leading to bankruptcy. Lack of liquidity can lead to a struggle in terms of current obligations, which can affect firms' credit worthiness. Bernake and Gerler (1990) argued that "*both the quantity of investment spending and its expected return will be sensitive to the credit worthiness of borrowers.*" That leads us to say that investment decisions of firms are sensitive to current liquidity. However, firms with high liquidity give the signal that funds are tied up in the current assets.

4. AN OVERVIEW OF PANEL DATA ESTIMATION

From the panel data set we can obtain two dimensions of the data (cross section and time series) and with observations for several time periods for each of several individual firms. From a statistical point of view, the size of the sample that can be bought to bear on a particular empirical question may be multiplied. A two-year panel of individual data in principle double the size of the sample used for a study of net investment.

With panel data, one can control for the individual fixed effects that can common to individual firms across time, but which may vary across firms at one time period. In cross-section, the fixed effects are absorbed into the unobservable component of the model, which can cause statistical difficulties, especially if these individual-specific effects are correlated with observed characteristics used in the modeling of the behavior. On the other hand, in a panel study, one can relatively easily differentiate the individual fixed effect from purely random unobserved heterogeneity.

Time series studies may more readily be applied to the examination of temporal patterns of behaviour, but at the cost of aggregating potentially heterogeneous individuals in each time series observation. This can introduce a well-known problem of aggregation bias, whereby behaviour in the aggregate does not accurately represent behaviour at the micro level. Panel data studies have the ability to control for individual heterogeneity when examining temporal effects on behaviour.

Consider the following panel data generating process

$$I_{i,t} / K_{i,t-1} = \alpha + \beta\left(\frac{CF_{i,t}}{K_{i,t-1}}\right) + \beta_1 Q_{i,t-1} + \beta_2 LEV_{i,t-1} + \beta_3 SALE_{i,t-1} + \beta_4 ROA_{i,t-1} + \beta_5 LIQ_i, y_{t-1} + u_{it}$$

There are two methods of estimating panel data, first fixed effects (FE) and random effects (RE). The fixed effects estimator is appropriate for estimating slopes both in the distinct intercepts data generating process and the error components data components data generating process. Another estimator, the random effects estimator, is suitable for estimating slopes in the first error component (in which the random individual effects are uncorrelated with the disturbances).

In reading empirical work, you may find that authors decide between fixed and random effects based on whether the fixed effect best viewed as parameters to be estimated or as outcomes of a random variable. When we cannot consider the observations to be random draws from a large population, it often makes sense to think of the unobserved as parameters to estimate, in which case we use fixed effects methods. Using fixed effects is the same as allowing a different intercept for each observation.

Even if we decide to treat the unobserved effect as random variables, we must decide whether they are uncorrelated with the explanatory variables. People sometimes mistakenly believe that assuming is random automatically means that random effects is the appropriate the unobserved effect estimation strategy. If we can

assume the unobserved effect is uncorrelated with all explanatory variables, then the random effects method is appropriate. But if the fixed effects *are* correlated with some explanatory variables, the fixed effects method (or first differencing) is needed; if RE is used, then the estimators are generally inconsistent. Comparing the FE and RE estimates can be a test for whether there is correlation between the unobserved effect and the explanatory variables, assuming that the idiosyncratic errors and explanatory variables are uncorrelated across all time periods. Hausman (1978) first suggested this test. Some econometrics packages routinely compute the test under the ideal random effects assumptions listed in the chapter appendix.

The next section reports the result from the regression estimation. We present result for the whole sample, and for low growth and high growth firm. To demarcate high-growth firms and low-growth firms, we use firm's price-to-operating-earnings (P/E) ratio. This ratio is obtained by dividing the stock price at the end of the period by the operating earnings per share for these years. We have utilized the operating earnings per share because it is being calculated before interest payments. Hence the earnings figure is unaffected by leverage. Firms with negative earnings are discarded from the sample that is, 11 firms are removed from the list. The next step is to rank the firms for each year according to their end-of-year P.E ratio. Firms with high P.E ratio (i.e. above the median P.E ratio) are classified under high growth opportunities firms and firms with low P.E ratio (i.e. below the median P.E ratio) are classified under low growth opportunities firms. This method was also adopted McConnell and Servaes (1994).

5. RESULTS

Whole Sample

Table 1 shows the econometrics results for the whole sample. It shows the pooled estimates, random effect estimates and fixed effects estimates. Standard errors are shown in italics.

Two statistical tests are used in order to identify which methodology is appropriate. First, to compare the pooled estimates and random effect estimate, the Lagrangian Multiplier Test is performed. With a large chi-square test, indicative of a low p-value, we reject the null that the pooled estimate is appropriate. Second, to compare the random effect estimates with the fixed effect estimates, the Hausman test is performed. If the model is correctly specified and if the individual effects are uncorrelated with the independent variables, the fixed effect and random effect should not be different. A high chi-square value is indicative of the appropriateness of the fixed effect.

The null hypothesis of the one-way random group effect model is that variances of groups are zero. If the null hypothesis is not rejected, the pooled regression model is appropriate. With the large chi-squared, we reject the null hypothesis in favor of the random group effect model. With firms fixed, the chi-square is 11.63 whereas when time is fixed, the chi-square is 0.09. The two way random effects model has the null hypothesis that variance components for groups and time are all zero. The LM statistic with two degrees of freedom is 11.63 + 0.09 = 11.74 ($p<0.005$). Thus, we reject the null that the appropriate model is a pooled regression. The hausman test produces a chi-square of 130.76. Hence, the fixed effect model is the appropriate model to use. The random effect assumes that the error term is uncorrelated with the dependent variable. However, this is not the case when using the fixed effect method. The correlation between the error term and the dependent variable is confirm when performing the fixed effect estimation, i.e. corr (u_i, X_b) = - 0.8609. This is another reason why the fixed effect estimation method is better than the random effect model and pooled regression.

Table 1: Regression Results: Independent Variable (Net Investment)

	Pooled		***Random Effect***		***Fixed Effect***	
Dependent Variable	*Coefficient*	*p-value*	*Coefficient*	*p-value*	*Coefficient*	*p -value*
Constant	-2.036		-8.096		-8.340	
	5.315	0.702	*4.807*	0.092	*4.740*	0.078
Leverage	-12.7269		-13.762		-12.348	
	5.317	0.017	*5.542*	0.013	*5.308*	0.020
Sales Growth	-0.5435		0.593		0.547	
	0.087	0.000	*0.092*	0.000	*0.0877*	0.000
Profitability	1.667		1.774		1.7391	
	0.932	0.075	*0.932*	0.057	*0.931*	0.062
Tobin Q	5.878		7.096		7.206	
	4.117	0.154	*4.114*	0.085	*4.081*	0.077
Liquidity	0.654		0.556		0.594	
	0.214	0.003	*0.215*	0.100	*0.213*	0.005
Cash Flow	4.816		4.531		4.692	
	1.082	0.000	*1.097*	0.000	*1.080*	0.000

The estimates have been corrected for both heteroscedasticity and serial correlation. We next address the issue of multicollinearity. First, there is a possibility of high correlations among the independent variables. As an example, profitability may be positively correlated with both cash flow and sales growth. A high sales growth always brings high profit. Similarly, cash flow may help in day to day running of a firm's business. Table 2 shows the correlation among independent variables. As expected, the correlations between first profitability and cash flow and secondly, between profitability and sales growth are high, 0.8975 and 0.8368. However, since multicollinearity is a problem of degree not kind, it does not affect the result, all the p-values are significant in table 1, at 10%. The fixed effect estimation produces a within R^2 and a between R^2 of 0.6195 and 0.8329 respectively. The overall R^2 is 0.6207.

Table 2: Correlation among Independent Variables

corr	Liquidity	Tobin's Q	Profitability	Sales Growth	Leverage	Cash Flow
Liquidity	1	-	-	-	-	-
Tobin's Q	0.0773	1	-	-	-	-
Profitability	0.0965	0.0389	1	-	-	-
Sales Growth	0.0149	0.0349	0.7563	1	-	-
Leverage	-0.0647	0.0293	0.3348	0.4813	1	-
Cash Flow	0.1046	0.0309	0.8975	0.8368	0.3382	1

Our variable of interest, i.e., leverage is statistically significant at 2% and is negatively related to net investment. A 1unit increase in the leverage ratio leads a 12.34 decrease in net investment (refer to Table 1). This implies that as leverage increase, firms in our sample struggle to increase investment. In fact, net investment decreases, as firms tend to become more dependent on debt as a source of long term financing.

Table 1 report that firms are utilizing efficiently their fixed assets and it reflects the ability in producing large volume of sales. The estimate of SALES is 0.54. The variable is statistically significant at 1%.

The Regression coefficient of profitability is 1.73 which is statistically significant at 7% and positively related with investment. It indicates the operating efficiency of the total funds over investments is positive. It is good note that high profitability also attracts funds from investors for expansion and growth. Also, it contributes towards the social overheads for the welfare of the society.

Liquidity is statistically significant at 5% and is positively related with net investment. The regression coefficient of liquidity is 0.549. The failure of a firm to meet its obligations due to lack of sufficient liquidity, will result in poor creditworthiness, loss of creditor's confidence and this is not the case as shown by the results from the above table.

From the table it can be observed that Tobin Q is also statistically significant at 7.7% and is positively related with net investment. The regression estimate is 7.2. It can be noted that firms that have a propensity to expand the scale of the business and management's ability to carry out such a policy is constrained by the availability of free cash flow, and this constraint can be further tightened via financial leverage. The issuance of debt engages the firm to pay cash as interest and principal, forcing managers to service such commitments with funds that may have otherwise been allocated for investment projects. As depicted by Table 1 Cash Flow has a point estimate of 4.7.This indicates that cash flow is significant determinants of investment at the 1% significance level and also investment is related to the availability of internal funds.

Table 3 shows the regression results for low-growth firm.

Table 3: Regression Results: Independent Variable (Net Investment)

	Random Effect		***Fixed Effect***	
Dependent Variable	*Coefficient*	*p-value*	*Coefficient*	*p -value*
Constant	-5.162 *7.998*	0.519	-22.536 *8.365*	0.008
Leverage	-34.767 *9.152*	0.000	-20.899 *13.505*	0. 003
Sales Growth	0.797 *0.087*	0.000	1.7096 *0.173*	0.000
Profitability	1.667 *0.932*	0.442	3.428 *1.096*	0.002
Tobin Q	8.430 *6.875*	0.222	13.045 *6.588*	0.049
Liquidity	-1.814 *1.105*	0.102	-0.518 *1.154*	0.659
Cash Flow	4.245 *1.336*	0.002	0.845 *1.447*	0.000

The Hausman test produces chi-square of 71.80, which indicates that the fixed effect model is right model. The estimates have been corrected for both heteroscedasticity and serial correlation.

Table 4: Correlation among Independent Variables

corr	Liquidity	Tobin's Q	Profitability	Sales Growth	Leverage	Cash Flow
Liquidity	1	-	-	-	-	-
Tobin's Q	-0.0107	1	-	-	-	-
Profitability	-0.0451	0.0358	1	-	-	-
Sales Growth	0.0455	0.0760	0.7683	1	-	-
Leverage	-0.0389	0.0949	0.4681	0.6391	1	-
Cash Flow	-0.0137	0.0409	0.8949	0.8485	0.4959	1

Table 4 shows the correlation among independent variables. We note high correlation between cash flow and sales growth and between cash flow and profitability (0.8949 and 0.8485 respectively). However, these correlations are not severe enough to affect the estimates.

Referring to table 3, leverage has a negative effect on low growth firm's net investment. The estimated coefficient is significant at 5%. Leverage has an estimates of 20.9.The results once again reflects that when low growth firm are debt overhang their investment opportunities decreases may be because of a lack of recognized investment opportunities, poor managerial performances, or other reasons.

The profitability coefficient is 3.4 and is statistically significant at 2%. One possible reasons could be that when low growth firm's are making profits part of the profits are being plough back in investing activities engaged by the firm's. Liquidity is negatively related with net investment and has a coefficient -0.58. It is not statistically significant. Tobin Q is statistically significant at 5% and has an estimate of 13. It can be reported that low growth firms have the potential to invest more and expand.

Cash Flow is statistically significant at 1% and has a coefficient 0.8. It clearly indicates that low growth firms' relies much on free cash flow to increase investments, as it is the cheapest mode of financing. Furthermore leverage is having a negative impact on investment and issuing equity shares are also not at their advantage.

High Growth Firm

Table 5 shows the regression estimates for high growth firm. The Hausman test has a chi-square value of 39.67 that indicates that the fixed effect model is the appropriate model to be used. Table 6 shows the correlation among independent variables. The correlation note high correlation between cash flow and profitability, i.e. 0.8004. However, it is not severe enough to affect the estimates.

The liquidity coefficient is 0.3 and is statistically significant at 6%. The interpretation could be that these firms are not having any liquidity crunch kind of situation therefore they have a good credit worthiness and also they are not having funds tied up in inventories.

Referring to table 5, leverage has no impact on high growth firms' investment since the coefficient on leverage is not statistically significant. The logic is that leverage has less of an effect for firms whose investment opportunities are recognized by the capital market[2] that is high growth firms. These firms can obtain funds easily from the capital market and does not depend only on financial leverage to boost their investments. Profitability is statistically significant at 1% and the coefficient is 4 . It is a good indicator to show investors confidence, as the firms' are making profit the investment is increasing.

Tobin Q is statistically significant at 5% and the coefficient is 7. This gives an indication of further growth opportunities. Cash Flow is statistically insignificant and thus has no impact on high growth firm's investment. One possible reason could be that since leverage has no impact on their investments, high growth firms' have other sources of financing their investment opportunities like issuing ordinary shares and retained earnings.

[2] A capital market is said to consist with private and corporate savings that are being used for investments through new capital issues.

Table 5: Regression Results: Independent Variable (Net Investment)

	Random Effect		***Fixed Effect***	
Dependent Variable	*Coefficient*	*p-value*	*Coefficient*	*p -value*
Constant	-1.2763		-15.337	
	1.335	0.342	*4.596*	0.001
Leverage	2.613		-6.025	
	1.455	0.076	*7.243*	0.406
Sales Growth	0.437		1.722	
	0.227	0.057	*0.135*	0.000
Profitability	8.833		3.965	
	2.051	0.000	*0.836*	0.000
Tobin Q	2.378		7.320	
	0.944	0.014	*3.724*	0.050
Liquidity	-1.355		0.371	
	0.557	0.017	*0.195*	0.058
Cash Flow	-6.742		0.532	
	2.213	0.002	*1.112*	0.633

Table 6: Correlation among Independent Variables

corr	Liquidity	Tobin's Q	Profitability	Sales Growth	Leverage	Cash Flow
Liquidity	1	-	-	-	-	-
Tobin's Q	-0.0133	1	-	-	-	-
Profitability	0.1678	0.2544	1	-	-	-
Sales Growth	0.2133	0.1060	0.3135	1	-	-
Leverage	-0.0014	-0.0874	0.1301	-0.3723	1	-
Cash Flow	0.2091	0.2164	0.8004	0.4967	-0.2748	1

6. CONCLUSION

This paper extends earlier empirical studies on the relationship between leverage and investment in several important dimensions. It examined the relationship for 27 Mauritian firms that are quoted on the stock exchange of Mauritius for the year 1990 – 2004. Prior theoretical work posits that financial leverage can have either a positive of a negative impact on the value of the firm because of its influence on corporate investment decisions. The investigation is motivated by the theoretical work of Myers (1977), Jensen (1986), Stulz (1988, 1990), and by empirical work of McConnell and Servaes (1990). As stated in the paper we adopt the book value of leverage compared to the market value definition for reason mentioned in the paper. The empirical prediction of the conjecture is that for low growth firms the relation between corporate value and leverage is also negative but statistically significant whereas for high growth firms the relation between corporate value and leverage is negative but insignificant.

We have shown that leverage has a significant negative effect on investment, suggesting that capital structure plays an important role in the firms' investment policies. We divide our sample using the PE ratio. While the negative relationship persists for low growth firm, this is not the case for high growth firm. The econometric results suggest that the negative relationship between investment and leverage is not statistically significant for high growth firm. Our result is in line with that of Aivazian *et al* (2005). However, it will good to see what happen if we adopt a simultaneous equation model whereby leverage affect investment and vice versa. This is another project in its own.

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