EFFECT OF CAPITAL STRUCTURE ON CORPORATE LIQUIDITY AND GROWTH: EVIDENCE FROM TOBACCO INDUSTRY IN PAKISTAN

Asma Salman, American University in the Emirates

ABSTRACT

Financing decision is one of the important areas in financial management to attain high profitability, assets utilization, market value and growth rate. This research paper measures the effect and relationship between capital structure, liquidity and growth in the Pakistan tobacco industry. It analyzes whether the capital structure affects corporate liquidity and growth within the firms. To that affect, four leverage ratios are used to define capital structure, four liquidity ratios are used to define liquidity and two marketability ratios with four profitability ratios are assumed for corporate growth. Leverages ratios provide a guideline to see the company's method of financing and its solvency, while the liquidity ratios measure the amount of liquid assets and whether these are enough to meet the current obligations. Similarly, the corporate growth is defined by considering market measures and profitability ratios. The purpose is to find out how firms' financing decisions affect the corporate liquidity and growth in tobacco industry. Secondary data of tobacco companies listed on Karachi stock exchange over the period of 2011-2016 is used. The regression test applied on calculated ratios demonstrated that leverage influences corporate liquidity and growth. It finds that tobacco companies are depending on debt financing and holding high proportion of short term debt. It is also explored that tobacco companies are highly liquid, attaining good market position and enjoying high profits which shows that leverage is positively related to corporate liquidity and growth.

Keywords: Liquidity, Debt Financing, Corporate Growth, Financial Ratios, Regression Analysis.

INTRODUCTION

Finance is the science of funds management and considered as lifeblood of a business. It can be categorized as personal finance, business finance, corporate finance and international finance. This study relates to corporate finance which deals with assets management, cash flows, financing and investing decisions. Capital investment decisions are long term decisions whether to finance that investment with equity or debt or reserves. On the other hand, working capital management is the short-term decision which deals with the balance of current assets and current liabilities.

In corporate finance, capital investment decision to carry on its activities is reflected by capital structure of a company. Capital structure is mixture of sources that firms use to deal with operational activities, long term and short-term investment. Capital structure can be viewed as the permanent financing which consists of debt, preferred stock, common stock and retained earnings. Firms design capital structures depending on the various attributes that determine their costs and benefits linked with debt and equity financing. Common stock represents equity ownership in a corporate and entitles the owner to dividend and voting rights in proportion to

their percentage ownership in the corporate. Preferred stock is highly ranked with common stock but is subordinate to bonds. Preferred stock can be converted into common stock. These stocks are having a nominal or face value. Market value is set by the price another investor is ready to pay for them. In the case of public companies, shares are traded on stock exchange to determine their market value. In the case of private companies, market value is often determined when the business is sold or when a minority shareholding is valued for taxation purposes. Shares nominal value and market value are interrelated when company issues new like shares at par it means market value is equal to nominal value, issue at premium means market value is greater than nominal value and issue at discount means market value is less than nominal value.

Debt financing can be short term meaning one year or less for repayment and long term means repayment over more than one year. Mostly companies' startup by taking debt to run their operation. When the proportion of debt is high in a corporate capital then it is said to be highly "*leveraged*". There are various types of debt can be categorized as: secured and unsecured debt, private and public debt and syndicated debt. Liquidity is the ability of a company to meet the short-term obligations. It is firms' ability to convert its assets into cash quickly, also known as marketability. Assets that can be converted into cash quickly with little or no loss of value are known as "*liquid assets*". Firms holding excess of liquid assets maintained good repute of paying back its debts on time. So, solvency is a major cause of attracting debtors. Firm choice of holding liquid assets helps to survive in a period of low earnings and unable to access capital market. So, it is compulsory for company to design cash holding policies for proper management of cash. By considering capital structure and liquidity there is one major factor which is affecting that is firm growth. The welfare of a society depends upon the economic growth of their industries and their people.

Growth in the economy results from both savings and improvements in production efficiency. By the creation and expansion of firms, the economy generates new employment and opportunities making possible a more flourished life for the people. Firm growth is defined as the process that leads to an increase of the firm's capacity to employ, educate, and reward employees and improve its performance. Firm growth is basically expansion in respect of its size, age, profitability and investment in total assets. The main engine of firm growth is research and development investment. Firm upgrades the quality of its products and innovate products conducting research and development to prevent other firms to overtake its product line. Firms' growth rate enables the firm to perform well and attain market position to compete in the global economy. Lack of growth-oriented firms is one of the main obstacles to economic growth and prosperity in a society. The politicians, economists and international development agencies realize the importance of firms' growth that's why they devoted considerable resources to the creation and implementation of programs to assist firms' growth and which ensure economic prosperity. So, the political instability in the society, economic crises and agencies involvement affects those programs and in the result firms' growth suffers. The availability of resources is playing main role in firm's growth because without having sufficient funds, firms cannot operate its operations and flourish in the economy. This study highlights how the capital structure effects on corporate growth.

Next sections will highlight the work done by previous researchers and the subsequent link of the literature with the hypotheses. This includes a section on Literature Review and Hypotheses Development, Methodology, Analysis, Discussion and Conclusion.

Pakistan Tobacco Industry

According to article published in Business Recorder (2010) the Pakistan tobacco industry contributes significantly in the Pakistani economy. It is reported that tobacco industry on average contributes 4.4 percent to the total GDP of Pakistan. Transnational tobacco companies have had a presence in Pakistan for over 50 years. British American Tobacco (BAT) established Pakistan Tobacco Co. (PTC) in 1947, making it one of the first foreign companies in the newly established country; PTC "*inherited the business previously conducted by Imperial Tobacco Co., Tobacco Manufacturers India and ILTD (Indian Leaf Tobacco Development)*". Philip Morris (PM) entered the Pakistani market in August 1967, obtaining interests in Premier Tobacco Industries Ltd (PTI) through its purchase of the British holding company Godfrey Phillips Ltd. There is no shortage of domestic tobacco companies in Pakistan, including Sarhad Cigarette Industries Ltd and Souvenir Tobacco Co. Ltd. However, transnational tobacco companies, which included Rothmans International until 1998, have been the dominant force in the manufacture, marketing and sale of tobacco products in Pakistan. In practice, as one BAT document suggests, "*there are only two global tobacco competitors, PM and BAT*". Pakistan Tobacco Company is on top level where as Lakson Tobacco Company comes second. In 1947 it had set up business in Pakistan and began operations out of a warehouse near Karachi Port. It started as a single factory operation to a company which is now involved in every aspect of cigarette production. In 1955, Pakistan Tobacco Company became a public limited company and listed on Karachi stock exchange.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Literature Review

Relationships between capital structure, liquidity and growth have been explored in many of research articles. Few of these researchers are discussed in literature review which explains dimensions of capital structure, corporate liquidity and corporate growth, their cause and effects relationships among them.

Tsegaye et al. (2018) examine the determinants of three forms of foreign capital. The Cross-border Bank Flows (CBF), Foreign Direct Investment (FDI) and Oversees Development Assistance (ODA) in the SADC region. The sample taken is over a period from 1980 to 2012 using the three-Stage Least Square (3SLS) model and the General Methods of Moments (GMM) estimation to generate the results. In comparison to the forms of capital used, the foreign variables emerged as the contributing factor in bringing financial flows to the SADC region.

Matteo et al. (2016) discussed the financing methods for Small and Medium Enterprise companies (SMEs) and compared them across Italy and Germany. They used alternative instruments and informative matrix to draw comparisons. The same method concluded with opposing results for Italian and German SMEs which helped companies to alter their financial culture and paved ways for using alternative financial instruments. This added value to the existing literature of how same methodology can have opposing impacts in various financial cultures.

Giacosa et al. (2016) analyzed the evaluation trends in performance for the small and medium enterprises. They used a model to distinguish these enterprises using several topologies over a three-year period. Their aim was to assess the evolution of the economic and financial situation of small and medium-sized enterprise over time. They concluded that the pathway for a

stable financial health lies in adopting a series of measures to improve their situation in terms of growth, profitability and capacity of repayment of loans.

Giacosa et al. (2016) surveyed about the financial leverage in medium-sized Italian companies within the food and beverage sector. They aimed to highlight the impact of financial leverage in a medium-sized company, by taking a sample size of 4705 companies. Their analysis highlighted how the improper allocation of funds can create a financial tension with the medium sized companies and upset their financial well-being. While the correlation between liabilities and fixed assets emerged moderate, the relationship between liabilities and revenues was strong and showed a decreasing trend, where debt management was done appropriately.

Rossi (2015) used different capital budgeting techniques such as, the Payback Period (PP), the Net Present Value (NPV) and the Internal Rate of Return (IRR) in Italian firms to evaluate capital budgeting projects. This exploratory research can help decision makers and investors alike. It provides both the advantages and common pitfalls, if avoided can assists the policy makers and evaluators of investment projects along with the financial and budgeting world at large. Matteeo concluded that NPV is by far the most commonly sued capital budgeting technique for evaluators and largely favored by the multinational companies.

Rossi et al. (2015) tested the capital structure choices of Italian Agri-food firms through various financing theories. A sample of 82 Italian Agri-food Small and Medium Enterprises (SMEs) was used to test the hypothesis that how do companies finance themselves and what are the mains factors that influence a firm's financing decisions. After applying the Pecking Order Theory (POT), Trade-off Theory and Fiscal Theory, the results concluded that companies are particular about the initial availability of internal resources followed by bank debts, which conforms to the POT.

Rossi (2014) used different capital budgeting techniques, such as the payback period, the accounting rate of return, the present value and the internal rate of return and the profitability index to analyze the capital budgeting structure in Italy, France and Spain. This conceptual paper revealed that since the financial leverage is used differently by various financial cultures, the payback period was the most used method in these countries followed by net present value. These results again differ between large and small firms. This article added value to the existing body of literature by demonstrating that the capital budgeting decision making is a complex process, and which is sometimes undervalued by SMEs.

Rossi (2014) aimed to understand the very nature of the capital structure of Small and Medium Enterprises (SMEs) in Italy by creating hypothesis of how firms finance themselves and their investments. Similarly, what factors influence their financing decisions? An empirical study was conducted by taking a sample of 764 non-financial Italian SME. Although the sample presented a high heterogeneity, but it gave policy makers a starting point. Various financing theories were applied and tested on the samples to generate relevant results. The pecking order theory seems to explain the debt policy in SMEs pretty well.

Mihai et al. (2013) used a combination of relationship management theories as well as banking, economics, and finance theories, to discuss the critical variables in the development of Bank-SME relationships. This chapter highlighted the effect of economic crisis on the Bank-SME relationships in the long run. It also determined the fact that the crisis has far reaching long-term effects that can be more external to the Bank rather than internal. This chapter adds value to the literature by recommendations to reduce negative impact by adding technological advancements and using social media Bank-SME relationship’s success.

Anderson & Carverhill (2002) presents the relationships among the capital structure, liquidity and growth. He designed a theoretical model of the firm's choice of dividends and holding of liquid assets to derive the relation. The model considered that when issue of new equity was restricted and liquid assets were taken as reserves because approaching to external capital markets was very expensive. The model also assumed that solvent firms faced no fear of bankruptcy because the liquid assets cash flows were enough to meet debt obligations and other fixed cost which show that liquid assets served as preventive motive for firm. The model found that high levels of debt finance tend to be linked with high levels of liquid asset holding. Secondly the derived relationship was further tested empirically by estimating the determinants of liquid asset holdings. The determinants of liquid assets holdings were defined as liquid assets, cash flow, long term debt, and medium-term debt, short term debt to total assets, expenditures on research and development to total sales and market to book value. Beside these variables, industries dummy values were also considered which help to find out the significance difference by applying t-statistics with linear regression. For empirically testing the relation, 11 years annual reports of Belgian and UK firms listed on stock exchange were taken. The results show that there exists a positive relation between leverage and liquid asset holding and the increase in proportion of liquid assets reduces the firm growth rate.

Capital structure of firms may contain high proportion of debt as compared to equity. Here the causes and effects of highly leverage firms are discussed. Capital structure of banks which highlighted the issue of high leveraged is studied in this article. Banks are holding subordinate loans and unsecured debt which are mostly above to their leverage base. The model was designed which derive that leverage consistently lead to extreme risk because banks would not get all the profits out of finance projects that they did not own and before making new loans banks also check the creditworthiness of borrower's investment project. It was found that when banks are sufficiently levered then riskiness do not affect. So, the banks should follow the regulations to be sufficiently levered and to make optimal credit decisions (Inderst & Mueller, 2008). On the other hand, highly leverage firms may cause financial distress. According to John (1993) firms face financial distress because of mismatch between liquid assets and their obligations of hard financial contracts. The researcher studied that issue by designing regression model in which he considered the liquidity and debt were dependent on proxy variables: Tobin's Q, research and development, an index of asset specificity, advertising expenditures and an index of the probability of bankruptcy. It was noticed that the cost of financial distress is to restructure the firm's assets or to restructure the financing contracts. The results identified that liquidity is directly related to proxies of financial distress whereas total debt is inversely related to Tobin's Q, asset specificity and measures of intermediate cash flows. Optimal capital investment decision affects the different factors which are discussed here.

According to Salehi (2009) optimal capital investment decision increases firm's productivity and efficiently utilized the resources. He defined capital structure with scale of book value, market value and adjusted value whereas firm's performance defined by five financial ratios that are liquidity ratio, leverage ratio, return on assets, return on equity, return on investment. To measure the impact of capital structure decisions on firm's performance Pearson's correlation and ANOVA tests were applied on 5 years data of 117 non-financial corporate listed on Tehran stock exchange. The results revealed that market value of capital structure is more significant in evaluation. Although considering capital structure in relation with firm performance, high leveraged firms are having less profitability and faces poor performance. Capital structure is a mixture of different securities, like firm can issue convertible bonds, issue

long or short-term debt, take lease financing. Although firm must design optimal capital structure because perfect combination of debt and equity enables the firms to fight in competitive market, to enjoy high profits and to attain the higher market value which results in efficient growth. In this article the impact of capital structure on profitability was empirically analyzed by reviewing the theories that explained capital structure with agency cost, peeking order and bankruptcy cost. To measure the relationship between capital structure and profitability, 22 listed firms on the Ghana Stock Exchange (GSE) over the period of 5 years were taken into consideration. Capital structure was explained by leverage ratios that are short-term debt, long-term debt and total debt each divided by total capital and profitability was taken as return on equity equal to earnings before interest and taxes to equity. Firm's size and sales growth were also considered in formulating regression equations as control variables. The regression model explained that short term debt ratio and total debt ratio are positively related to return on equity whereas negative relationship exists between long term debt and return to equity. The result also show that profitable firms run majority of operations through short term financing and Ghanaian firms contained 85% short term debt out of total debt financing (Abor, 2005).

There are many theories on capital structure which helps in explaining its relations. Few of the empirically analyzed theories are discussed here. These theories state capital structure attributes as asset structure, growth, non-debt tax shields, uniqueness, industry classification, earnings volatility, size and profitability. These attributes were explained and empirically tested by gathering data of 469 firms for the period of 9 years as sampling period was divided in to three sub periods to calculate averages of the variables. The measures of financial leverage are short term debt, long term debt and convertible debt divided by market and by book values of equity. Factor analytic technique was also used to overcome the issues arise in choice of corporate debt ratios because of proxy variables. The results revealed that transaction cost is also weighty in determinant of capital structure choice as the small firms are rely more on short term financing just because of high transaction cost in case of long term financing. It was considered that uniqueness in firms and profitable firms have low debt levels comparative to the equity market value. In case of a firm's expected growth, non-debt tax shields, volatility and the collateral value of its assets, no facts were empirically found which explain their relation to debt. Finally, it was explored that cost and benefits are involved in capital structure choice (Titman & Wessels, 1988).

On contrary to capital structure theories, the previous studies explained the profitability, growth and risk are the main determinants of firm capital structure. To measure the effects of profitability, growth and risk on firm's financial structure, an international research was conducted in which five industrial countries that are France, Norway, Japan, Holland and the United States. The sample size contains 816 firms of four manufacturing sector that are paper, electronics, food and chemicals over the period of 7 years. In this article the financial structure was denoted by debt ratio equals to total debt including accounts payable, accruals, and short-term debts to total assets, profitability equals to earnings to total assets and risk equals to the standard deviation of the earnings rate to average earnings rate. The regression model was applied which derive that profitability is inversely related to debt ratio whereas growth and risk are positively related to debt ratio. On model t-test was also applied which explain that debt ratio is different among manufacturing industries of each observed countries (Toy et al., 1974). According to Omran & Pointon (2009) Capital structure is different among the industry with respect to corporate characteristics. They have been studied that issue across Egypt industry. To find out the differences, 122 firms of four main industrial sectors: food, heavy industries,

contracting and services were taken. Capital structure was an independent variable; define by gearing ratios that are financial leverage, the long-term capital structure, the short-term financing and interest ratio. These gearing ratios were measured by applying ANOVA and multiple regressions followed by corporate characteristics such as liquidity, assets structure, growth, size, tax rates and market measures. The conclusion revealed that there were differences in gearing ratios across Egypt as short-term financing and interest ratios were significantly different in contracting industry whereas services sector would not bring out high debt level as to pay high tax rate. In case of heavy industry, assets' backing was compulsory for having long term capital structure whereas increase in firm size and growth increases the proportion of short term financing in heavy industries and service sectors. For Egyptian firms, long term capital structure is not inversely related to business risk. What happened when firms prefer equity in their capital structure? By considering the relationship between capital structure and liquidity is bi-directional many researchers were conducted on it. There are factors affecting liquidity and how equity market liquidity affects the capital structure is discussed in this article. The researchers argue that mostly equity financing is expensive because firms must pay issuance cost. The evidence suggests that high equity liquidity would have lower issuance cost. To examine the choice of capital year to year changes in capital structure were considered. Stock liquidity in market defined by assets price and expected return and measured in 5 ways. These measures were trading cost calculated by using stock returns, the illiquidity calculated by using stock returns and trading volume, share turnover calculated by trading volume and shares outstanding and bid-ask spreads calculated by using trade and quote data. The regression model was applied variables and derive that there exists a negative relationship between liquid stock and leverage when preferring equity financing. It was found that equity market liquidity reduces the cost of equity and induces a greater reliance on equity financing (Lipsona & Mortlab, 2009).

Capital structure and cash holding policy is discussed in this article. Firm has to balance the cash whether to issue new equity, to pay dividends or to retain reserves for bank borrowings. Here the researcher explains the optimal cash holding policy which benefits both shareholders and creditors and prevent the firm from bankruptcy and agency cost. The model was designed that contains liquid reserve, optimal debt and equity issuance and dividend policy. The model results were consistent with empirical bench marks including cash holdings, yield spreads, leverage, equity volatility, default probabilities and recovery rates. After that optimal capital structure theory incorporate into model of liquidity which reflects the pecking order theory set financing priorities as first firm should approach to internal reserves, debt and then equity. It was found that cash provides protection to highly leverage firms so positive relationship exists between leverage and liquidity. It also found that under normal course of business, liquidity policy is resulting in maximum firm value and in poor business condition it raises agency cost (Anderson & Caverhill, 2006).

Assets liquidity is defined as an easy way to sold firms assets in secondary market. The impact of asset liquidity on corporate securities and financing decision is examined in this article. To explore the cause and effects, researcher designed a model that was related to value of the debt and unlevered firm. After designing model, comparative statistics were used to find out capital structure with fixed capacity, adjusted capacity and with secured debt. The results show that when bond agreements restrict the nature of pledged assets to be liquid then increase in asset liquidity increases the debt capacity and decreases the credit spread. When company takes debt against security it prevents the firm from selling assets and consider liquid assets as reserve

which increases its liquidity and decreases the risk of default. In case of selling assets, value of equity increases but the value of debt and optimal leverage ratio decreases (Simon, 2001).

Investment in liquid assets is of major concern for firms as to run their operations. Empirical analyses have been done by many of researchers; one of them is discussed here. In this article researcher analyzed the cost and benefits of investment in liquid assets. The model was designed which predicted that cost of liquid assets was lower rate of return and benefits of liquid assets was minimizing the need of external financing when internal financing was not much sufficient. So firms invest in liquid assets when external financing is expensive. Further model results were empirically analyzed by collecting data of 915 U.S industrial firms over the period of 20 years. The measured variables were the liquidity as cash and marketable securities to the book value of total assets, firm size as log of market value of firm's assets, growth opportunities as ratio of market value of the firm's assets to the book value of its assets. Beside this return spread, return on assets and cash flow uncertainty as operating cash flow and variability of free cash flow were also measured. The control variables were average cash cycle, debt ratio, cash flows, free cash flows and bankruptcy risk. It found that empirical findings were consistent with model predictions (Kim et al., 1998). Liquidity is affected by firm's capital structure that is proportion of firm debt and equity. Its relationship with leverage is explored in prior literature. Here the relationship between liquidity and equity holder is examined. In this article investor protection environment and liquidity is discussed. The sample was contained data of 31 Hong Kong blue chip companies and 64 China based red chip companies listed on Hong Kong stock exchange over the period of 16 months. To empirically analyze the monthly averages of market capitalization, trading volume in number of shares and in dollar volume, share price, return, volatility, absolute and relative bid-ask spread were calculated at individual firm level and then taking averages across sampled firms. To check the empirical analyses, regression analysis was used which considered price, volatility and volume as control variables. It was revealed that blue chip companies were providing high level investor protection environment means lower bid ask spread and bearing less liquid cost as compare to red chips companies. The results show that control variables volume and volatility don't induce any effect on relation. It was concluded that highly liquid firms raise high cost of capital and losses its investment opportunities and market value (Brockman & Chung, 2003).

Debt and liquidity are interrelated, and both affect the corporate investment decision. Many researchers are done in which debt and liquidity are on top rank to generate agency cost and bankruptcy. In this article liquidity influence on corporate leverage and investment policy that causes the conflict between stock holder and bond holder. The model was designed by suggesting that higher leverage increases the agency cost and distorted the investment policy. However, it only proves in two cases of firm having sufficient cash and insufficient cash to meet investment requirements. It explored that there exists non-monotonic relation between leverage and investment policy in the presence of moderate liquidity. It was also derived that optimal level of liquidity under debt financing reduces the agency conflict and increases the tax benefits (Hirth & Uhrig-Homburg, 2010). While considering liquidity, there liquidity constraints faced by firms. In this article the researcher studied the effects of liquidity constraints on firm's growth. First, correlation and regression model were designed to measure the effect of internal financing on firm's growth. Secondly, 7653 Portuguese manufacturing firms were taken as sample over the period of 11 years. This data set included firm's data with all age and size classes, including micro firms. Here variables were measured as firm size equals to the number of employees, and firm age equals to the number of years a firm is operating in an industry and cash flow was

measured by adding depreciation to profits net of interest and taxes. To measure the effects pooled OLS and GMM-system techniques were used. The results revealed that younger and smaller firms are relying more on internal reserves so high cash flow availability constraints the younger and smaller firm's growth rate (Oliveira & Fortunato, 2006). According to Amihud & Mendelson (1988) liquidity and marketability are important attribute of financial instruments. Liquidity of assets attracts the investors that are willing to pay against assets and determine the assets prices. The liquidity of assets was measured by difference between bids and ask price which reflects trading cost. It was found that highly liquid assets lead the firm towards cost and benefit. The cost of high liquidity is decrease in average returns and the benefits are balance of financial policies against their cost. There are different effects of leverage one of its main effects in relation with investment opportunities and growth is discussed in this article. The researchers explore this issue by gathering data of 142 small and large firms over the period of 20 years. The sampled firms must hold data on sales, capital expenditure and number of employees which define the firm growth, investment opportunities and firms size whereas leverage was defined as ratio of the book value of short-term and long-term debt to the book value of total assets. Beside this growth control variable; Tobin's q was also defined as the ratio of the sum of the book value of debt and market value of equity to the replacement cost of the firm's assets as high q-value means firm is having high growth opportunities. The correlation regression was applied on core and noncore business segments and results show that there is strong negative relation exist between leverage and growth. In noncore business segments Tobin's q-value was low which shows that business have less growth opportunities because of high leverage firm investment opportunity is lost. It was found that highly leverage firms retained their cash flows to meet the obligations and firms fail to avail investment opportunity which in results blocked the firm's growth. It was concluded that firms with valuable growth opportunities should go for low leverage (Lang et al., 1996).

Firm's growth is controlled by different variables one of them is internal finance. In this article the researcher examined the growth of small firm's constraints by internal finance. He designed the growth model that predicted a dollar for dollar relationship between growth and internal finance. It was also predicting that the relationship between growth and internal finance was faded in access to external financing. Model findings were further tested by gathering data of 1600 small manufacturing firms built in United States over the period of 13 years. Firm's growth was measured by the log change in total assets and firms and other activities were also defined to apply regression model. The results explored that firm's growth rate was high when new share issues and cash flow was set to be above normal. This shows that there is positive relation between investment and cash flow for firms. But the growth rate is controlled when debt is taken, and internal finance is bound to pay current obligation. So, it was concluded that growth is constraints by internal financing in effects of leverage (Carpenter & Petersen, 2002).

Growth of a firm is subject to economy changes if there is inflation in the economy. How firm's growth and leverage affected through inflation is studied in this article. Here the author firstly explained the determinants of growth in formulas that are after tax percentage profit margin on sales, dividend payout ratio of profits, ratio of cash plus accounts receivable to annual sales, ratio of inventory to annual sales, ratio of net fixed assets to annual sales, ratio of spontaneous liabilities to sales, borrowed funds as a percentage of total book capitalization. Then he formulated the different equations of these determinants of growth. The equations derive in the absence of inflation show that every aspect of the firm like its sales, assets, debts, dividends, profits and equity was growing at real growth rate which was accurate at given point in time. It

was found that firms increase in sales volume must balances its increase in assets and liabilities. In case of growth with inflation it was explored that prices of firm products increased which raised need to increase in operating cash, account receivables, account payables and accruals. But inventory was not increased because of inflation and firm's expenditures on new fixed assets only affected. In inflation period tax was also affecting growth opportunities by increasing tax liabilities and by giving tax deduction only on payment of high nominal interest rate. The Dardy effect on Miller model was also discussed which derive that firm's investment decision during inflation is not dependent on capital structure. Although firm's investment plan is maintained without making any change in firm's debt or dividend policies. It was concluded that if new debt and dividend policies are required during inflation period than the debt ratio is only way to determine the right decision (Lewellen & Kracaw, 1987). By considering relative size and relative growth of rims the impact of owner and manager control on firm performance is measured in this article. Performance measures were defined by liquidity, leverage, growth, owner's earnings, management performance and capital investment. To determine the impact, 88 firm's data of 4 years were taken and classified in to owner control and manager control. After classifying data analysis of variance was applied with dichotomous measures. The results evaluate that firm size and control status is not affected the firm performance whereas growth affected the firm's debt position as the firm's debt value is high than growth tends to be slow (Elliott, 1972).

The relationship between growth opportunities, capital structure and dividend policy is explored in many of previous researchers. Here the article examined that relationship by considering sample of 5308 observations of listed Japanese firms over the period of 5 years. By conducting a cross sectional time series and lagged analysis at the firm, an index of investment opportunities based on six proxies for growth opportunities were used as designed by Gaver & Gaver (1993). To measure growth opportunities the ratio of market value to the book value of assets, market value to book value of equity and the earnings per price ratio were used. Financing structure was defined by book debt to equity ratio and market debt to equity whereas dividend policy was defined in terms the dividend payout ratio and the dividend yield. The regression model was applied on these explained proxies with time series and lagged analysis. It was found that high growth options reduce the proportion of debt and dividend yield after controlling firm profitability, size and industry regulation (Gull, 1999). In corporate finance the sources and uses of funds are central area of concern. The financing policy and growth opportunities are inter-related. In many of previous researches finance policy is donated by leverage ratio and growth opportunities are defined by market to book ratio. Here the relationship between leverage ratio and market to book ratio is explored. It is widely document that market to book ratio and leverage ratio are negatively related. To check this relation data was collected from 72084 firms over the period of 11 years. The pooled and fixed effects regression was applied by taking three sets of control variables. First set explained as bond specific including size, equity volatility, leverage ratio and equity return, and third set explained as macro variables including 3-month T-bill rate and interest rate slope. The parametric and non-parametric test results show that non-monotonic relation exists between market to book value and leverage. For most firms there is significant positive relation between market to book value and leverage as explained by empirical findings that firms with higher market to book ratios issue more debt and have higher retained earnings and issue more equity. As per one of the pecking order theory that firm prefer debt financing when market to book value is low and firms having not much retained earnings (Chen & Zhao, 2006).

Hypotheses Development

In the light of the above literature, the following hypothesis is developed.

H_o: Leverage is negatively related to liquidity and positively related to growth.

H_1: Leverage is positively related to liquidity and negatively related to growth.

METHODOLOGY

There are only three tobacco companies listed on Karachi stock exchange that are Pakistan Tobacco Company (PAKT), Lakson Tobacco Company (LAKST) and Khyber Tobacco Company (KHTC). But only Pakistan Tobacco Company and Lakson Tobacco Company are qualified to be included in the study sample because of availability of their annual reports and market shares data over the period of six years (2011-2016). The data used for the study is secondary data by using company's yearly published annual reports on their websites.

Leverage Ratios

Variables are measured by calculating ratios. Each variable is defined by different ratio which is adopted from the books by Gibson (1997) and Wild et al. (2005). First variable leverage is an independent variable which is defined by four ratios that are:

1. Lev 1: Total debt to equity=Total liabilities/Shareholders equity.
2. Lev 2: Long debt to equity=Long term liabilities/Shareholders equity.
3. Lev 3: Debt Ratio=Total debt/Total assets.
4. Lev 4: Times interest earned=EBIT/Interest expenses.

These leverages ratios provide a guideline to see the company's method of financing and its solvency.

1. Lev 1 ratios explains the total liabilities in relation to shareholder's equity.
2. Lev 2 explains the proportion of long term debt in relation to shareholders equity.
3. Lev 3 indicates what proportion of the company's assets are being financed through debt.
4. Lev 4 ratio indicates how easily a company is able to pay interest expenses associated to the debt they currently have.

If these ratios show higher value it means company is relying more on debt financing and paying its interest payment on time.

Liquidity Ratios

Second variable corporate liquidity is dependent variable which is defined by four ratios that are:

1. Liq 1: Liquid assets=Sum of cash, bank balances, and investments in current assets/Total assets.
2. Liq 2: Current ratio=Current assets/Current liabilities.
3. Liq 3: Quick ratio=Current assets-inventory-prepaid expenses/Current liabilities.
4. Liq 4: Cash ratio=Cash/Current liabilities.

Liquidity ratios measure the how much liquid assets firm is having and whether these liquid assets are enough to meet its current obligations.

1. Liq 1 indicates the proportion of current assets to total assets.
2. Liq 2 indicates how much current assets are available to pay off current liabilities.
3. Liq 3 indicates most liquid assets by excluding inventory and prepaid expenses because it takes time to convert into cash against current liabilities.
4. Liq 4 indicates conservative approach by including only cash against current liabilities.

Usually high liquid ratios indicate that the firm is liquid and has the ability to meet its current obligations.

Growth Ratios

Third variable corporate growth is dependent variable which is defined by considering market measures and profitability ratios that are as follows:

1. Gro 1: Price to book ratio=Market price per share/Book value per share.
2. Gro 2: Dividend payout ratio=Cash payment per share/Earning per share.
3. Gro 3: Return on equity=Net income/Average shareholders' equity.
4. Gro 4: Return on assets=Earnings before taxes and interest/Total assets.
5. Gro 5: Net Profit margin=Net income*100/Sales.
6. Gro 6: Operating profit margin=Operating income*100/Sales.

The market measures show company market position and considered to measure growth variable because if company market position is good it attracts more investors which results in high growth.

1. Gro 1 ratio use to compare a stock's market value to its book value if ratio value is high it means that the stock is not undervalued.
2. Gro 2 ratios indicate that the percentage of earnings paid to shareholders in dividends if ratio value is high it means company financial position is sound and frequently paying dividends to shareholders. The profitability ratios show firm success which indicates its growth.
3. Gro 3 ratio indicates how much profit company generates on shareholders' investment.
4. Gro 4 ratio explains how efficiently profits are being generated from the assets employed.
5. Gro 5 ratio explains amount of earnings on sales, higher profit margins show that firm is able to control its production cost.
6. Gro 6 explains company income before deducting interest and tax expenses. So high profitability ratios show that firm is earning high profits, performing good and growing which is a good sign.

The SPSS software is used to analyze data and relationships between these ratios are tested by applying multiple regressions (Figure 1).

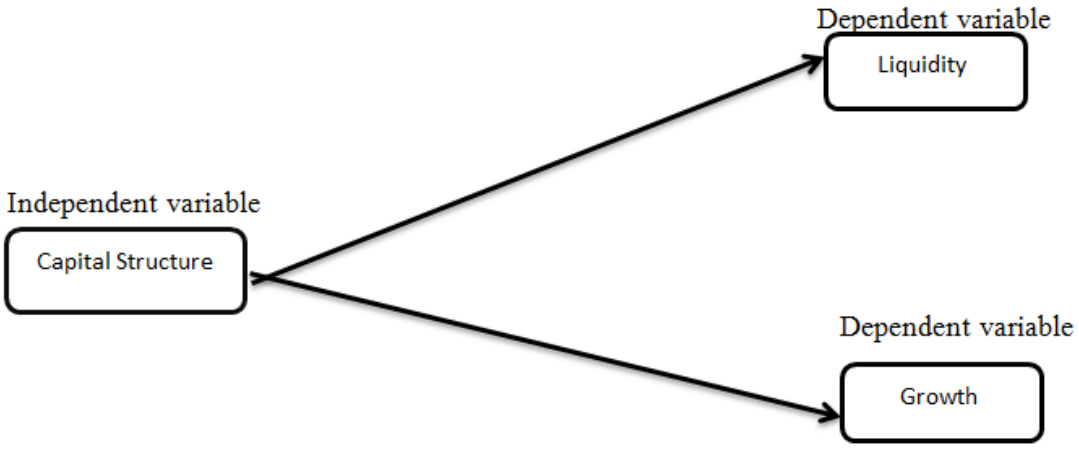

FIGURE 1
THEORETICAL FRAMEWORK

RESULTS

Ratios are calculated by considering annual reports of companies over the period of last 6 years. To calculate leverage (independent variable) four ratio formulas are used whereas ten ratio formulas are considered for liquidity and growth (dependent variables). These numbers of ratios under each variable are not transformed because each ratio shows different aspect of that variable in relation with each ratio. By using SPSS, multiple regression test is applied which shows each ratio of dependent variables in relation with each ratio of independent variable. Here ten models are formulated between independent and dependent variables. Each model relation is analyzed step by step. Before discussing each model in detail, first look at model's summary and coefficient tables (Tables 1-3).

Table 1
REGRESSION MODEL SUMMARY

Models	Adj. R sq.	Durbin Watson	ANOVA	
			F	Sig
1	0.660	1.893	6.348	0.018
2	0.945	3.027	48.700	0.000
3	0.896	3.179	24.750	0.000
4	0.973	1.598	100.39	0.000
5	0.376	2.690	2.658	0.123
6	0.173	1.960	1.577	0.281
7	0.699	2.565	7.399	0.012
8	0.845	1.666	15.960	0.001
9	0.666	2.018	6.494	0.017
10	0.695	1.880	7.259	0.012

Table 2
COEFFICIENTS

Models	Dependent Variables	Lev 1			Lev 2		
		Beta	T	Sig	Beta	T	Sig
1	Liq 1	1.105	0.820	0.439	-1.403	-2.573	0.037
2	Liq 2	1.318	2.442	0.045	-0.081	-0.372	0.721
3	Liq 3	-0.352	-0.473	0.651	-0.152	-0.505	0.629

4	Liq 4	-1.100	-2.89	0.023	0.320	2.085	0.076
5	Gro 1	0.307	0.168	0.871	0.654	0.855	0.405
6	Gro 2	0.490	0.233	0.822	0.990	1.164	0.282
7	Gro 3	-2.83	-.224	0.830	0.055	0.107	0.918
8	Gro 4	0.944	1.036	0.355	-0.306	-.831	0.433
9	Gro 5	-0.632	-.473	0.650	0.006	0.011	0.992
10	Gro 6	-3.708	0.023	0.023	0.676	1.308	0.232

Table 3
COEFFICIENTS

Models	Dependent Variables	Lev 3			Lev 4		
		Beta	T	Sig	Beta	T	Sig
1	Liq 1	-0.600	-0.537	0.608	-0.091	-0.352	0.735
2	Liq 2	-2.152	-4.809	0.002	0.000	0.003	0.998
3	Liq 3	0.129	0.210	0.840	0.781	5.435	0.001
4	Liq 4	0.586	1.863	0.105	0.936	12.783	0.000
5	Gro 1	-0.145	-0.096	0.926	0.222	0.629	0.549
6	Gro 2	-1.040	-0.597	0.569	-0.251	-.619	0.555
7	Gro 3	0.964	0.918	0.389	1.062	4.342	0.003
8	Gro 4	0.354	0.469	0.654	0.712	4.050	0.005
9	Gro 5	0.858	0.775	0.464	1.065	4.134	0.004
10	Gro 6	3.970	3.750	0.007	1.242	5.040	0.001

First model explains the impact of leverage ratios on liquidity assets ratio. The value of adjusted R-square=0.66 which shows that leverage ratios causes 66% change in liquid assets ratio. The ANOVA F=6.348, significant value=0.018 and Durbin Watson statistics=1.893 which show model is significant. The values of R square, ANOVA and Durbin Watson show that model is perfect to measure the relation. To measure the relation between variables, coefficients significant value, t value and beta value are considered. The significant values of total debt to equity, total debt to assets and times interest earned ratios are greater than 0.05 which shows that these leverage ratios are having no relation with liquid assets ratio. The significant value of long term debt to equity is 0.037 which shows that relationship exists between long term debt ratio and liquid assets ratio. The t value of long term debt to equity in relation to liquid assets is -2.573 and beta value is -1.403 which shows that there exists a negative relation between them.

Second model measures the impact of leverage ratios on current ratio. The value of adjusted R-square=0.945 which shows that leverage ratios causes 94% change in current ratio. The ANOVA F=48.70, significant value=0.000 and Durbin Watson=3.027 which shows that regression model is perfect to measure the relation. The long-term debt to equity and times interest earned ratios significant values are not less than 0.05 which showing no relation. The significant value of total debt to equity is 0.045 and total debt to assets ratio is 0.002 which shows that both leverage ratios are significantly related to current ratio. The t value of total debt to equity in relation to current ratio is 2.442 and beta=1.318 so there exist strong positive relation between them. By considering t value of total debt to assets in relation to current ratio is -4.809 and beta=-2.152 which shows strong negative relation between them.

Third model finds the impact of leverage ratios on quick ratio. The value of adjusted R square=0.896 which shows that leverage ratios causes 89% change in quick ratio. The ANOVA F=24.75, significant value=0.000 and Durbin Watson=3.179 which shows that regression model is perfect to measure the relation. The significant values of total debt to equity, long term debt to equity, total debt to assets ratios are greater than 0.05 showing no relation with quick ratio. The

significant value of times interest earned ratio in relation with quick ratio. So, the t value of times interest earned ratio in relation to quick ratio is 5.435 and beta=0.781 which shows that there exists a strong positive relation between them.

Fourth model explains the impact of leverage ratios on cash ratio. The value of adjusted R square=0.973 which shows that leverage ratios causes 97% change in cash ratio. The ANOVA F=100.39, significant value=0.000 and Durbin Watson=1.598 which shows that regression model is perfect to measure the relation. The significant values of long term debt to equity and total debt to assets ratio is greater than .05 showing no relation with cash ratio. The significant values of total debt to equity=0.023 and times interest earned=0.000 which represents their significant relation with cash ratio. The t value of total debt to equity ratio=-2.899 and beta=-1.100 whereas times interest earned t value=12.783 and beta=0.936. So the value shows that there exists a negative relation between total debt to equity and cash ratio, on other hand there is strong positive relation between times interest earned and cash ratio.

Fifth model measures the impact of leverage ratios on price to book ratio. The value of adjusted R-square=0.37 which shows that leverage ratios causes 37% change in price to book ratio. Here the R square value is below average to cause the change. The Durbin Watson statistics=2.690 shows no issue of multi co linearity so model is significant. The ANOVA F=2.658, significant value=0.0123 shows model is not significant. So here the regression model is not that much perfect to measure the relation. The significant values of leverage ratios are not less than .05 which shows that there exists no relationship between leverage ratios and price to book ratio. The sixth model is calculated the impact of leverage ratios on dividend payout ratio. The value of adjusted R-square=0.17 which shows that leverage ratios causes 17% change in dividend payout ratio. In this case the R square value is also below average to cause the change in dependent variable. The ANOVA F=1.577, significant value=0.281 presenting insignificance of model. The Durbin Watson statistics=1.960 shows no issue of multi co linearity. So here the regression model is weak to measure the relation. The significant values of leverage ratios are greater than 0.05 which shows that there exists no relationship between leverage ratios and dividend payout ratio.

The seventh model measures the impact of leverage ratios on return on assets ratio. The value of adjusted R square=0.699 that means leverage ratios causes 69% change in return on assets ratio. The ANOVA F=7.399, significant value=0.012 and Durbin Watson=2.565 which shows that regression model is perfect to measure the relation. The significant values of total debt to equity, long term debt to equity, total debt to assets ratios are greater than 0.05 which shows no relation. The significant value of times interest earned ratio=0.003 represents the significant relation with return on assets ratio. So the t value of times interest earned ratio in relation to return on assets ratio=4.342 and beta=1.062 which derives a strong positive relation.

The eighth model measures the impact of leverage ratios on return on equity ratio. The value of adjusted R square=0.845 which shows that leverage ratios causes 84% change in return on equity ratio. The ANOVA F=15.960, significant value=0.001 and Durbin Watson=1.666 which shows that regression model is perfect to measure the relation. The significant values of total debt to equity, long term debt to equity, total debt to assets ratios are greater than 0.05 which shows no relation with return on equity ratio. The significant value of times interest earned ratio=0.005 represents the significant relation with return on equity ratio. The t value of times interest earned ratio in relation to return on equity ratio=4.050 and beta=0.712 which derives a strong positive relation between them.

The ninth model measures the impact of leverage ratios on net profit margin ratio. The value of adjusted R square=0.666 which shows that leverage ratios causes 66% change in net profit margin ratio. The ANOVA F=6.496, significant value=0.017 and Durbin Watson=2018 which shows that regression model is perfect to measure the relation. The significant values of total debt to equity, long term debt to equity, total debt to assets ratio are greater than .05 which shows no relation with net profit margin ratio=4.134 and beta=1.065 which shows strong positive relation.

The tenth model measures the impact of leverage ratios on operating profit margin ratio. The value of adjusted R square=0.695 which shows that leverage ratios causes 69% change in operating profit margin ratio. The ANOVA F=7.259, significant value=0.012 and Durbin Watson=1.880 which shows that regression model is perfect to measure the relation. The significant value of long term debt to equity is 0.232 which shows that there is no relation. The significant value of total debt to equity ratio=0.023, showing relationship significance and its t value=-2.899 and beta=-3.703 tells that there is strong negative relation. The total debt to assets ratio significance value=0.007 and times interest earned ratio=0.004 represents the significant relation with operating profit margin ratio. The t value of total debt to assets ratio=3.750 and beta=3.790 showing strong positive relation. The times interest earned ratio t value=5.040 and beta=1.242 which shows strong positive relation with operating profit margin ratio.

DISCUSSION AND RECOMMENDATIONS

The regression results show the leverage ratios relations with liquidity ratios and marketability and profitability ratios. First discuss leverage ratios in relation to liquidity ratios. The first model explains that liquid assets ratio is negatively related to long term debt ratio. Such inverse relation is not found in any previous researchers. It may be because of tobacco companies are relying less on long term debt and holding high liquid assets. The second model explains that current ratio is positively related to total debt to equity ratio and negatively related to total debt to assets. It means that increase in total debt increases or decreases the current assets. Such bi-directional relation is due to different seen and unseen factors. In tobacco industry companies are relying on debt financing but focusing more on short term financial management. The positive relation presents that increase in total debts against equity requires the company to hold high proportion of current assets to meet its obligations and it may reduce the agency cost. On other hand the negative relation presents that total debts are sufficient to finance its total assets as total debts contains high proportion of short term debt and financing assets though short term debt is less risky do not requires huge amount of liquid assets.

The third model derives positive relation between quick ratio and times interest earned ratio. It means when companies have to make interest payments it must hold most liquid assets. The positive relation represents tobacco companies are relying on debt financing and to make high interest payments there is sufficient high liquid assets holdings. The fourth model results explain that cash ratio is negatively related to total debt to equity and positively related to times interest earned ratio. It means that increase in total debts decreases the cash and high interest payments requires high cash. Such results are derived because tobacco companies are relying on debt financing and to secure that huge amount of debt only cash is not sufficient, but cash is sufficient to makes yearly interest payments of short term debts.

Overall the results show that when companies are relying highly on debt financing and the risk factor is always involved in it. Mostly the highly leverage companies face the risk of

bankruptcy and agency cost. To overcome the riskiness, they must hold high proportion of liquid assets. In tobacco industry companies are highly leveraged but relying more on short term financing which is less risk because of no chance of bankruptcy. However, to overcome the agency cost hey is holding high proportion of liquid assets. Finally, it is explored that there exists a positive relation between leverage and liquidity. It is consistent with previous researchers of Anderson (2002); Anderson & Carverhill (2006) and Hirth & Uhrig-Homburg (2010).

Now leverage ratios in relation to marketability ratios are discussed. The fifth and sixth models results show no relation between leverage ratios and marketability radio. Such results are surprising and not consistent with any previous researches. Mostly previous literature explains that leverage affected marketability and show negative relation. Negative relation opportunities and market value (Anderson, 2002; Brockman & Chung, 2003 and Chen & Zhao, 2006). But our results show no relation it may be because of data collected just from tobacco industry. In tobacco industry companies are highly leverage but holding high proportion of short term finance which reduces the riskiness of default and investors are willing to invest in tobacco companies and paying high market price as compare to its book value. Other reason may be tobacco companies are dealing in developing financial market in which tobacco companies are having strong market position besides the fact that they are highly leverage. Finally, it is concluded that in tobacco companies' marketability is not affected by leverage.

After explaining leverage ratios in relation to marketability ratios, we move to profitability ratios. The seventh model explains that returns on assets ratio is positively related to times interest earned ratio and eighth model shows the positive relation between return on equity ratio and times interest earned ratio. The ninth model derives net profit margin ratio is positively related to times interest earned ratio. The results show that times interest payment affects the profitability. It means that when high interest payments are made then company return on assets, return on equity and net profit margin are also high. The tenth model explains operating profit margin is positively related to total debt to assets ratio and times interest earned ratio and negatively related to total debt to equity ratio. The results show that total debt against assets and times interest payment is directly related to operating profits. When total debt is sufficiently financing assets and high interest payments are made to creditors that means company is also earning high operating profit. When total debt to equity is high it may decrease the operating profit margins because total debt contains the proportion of long term financing as well which is normally very expensive and risky, so it may affect the company operating profits.

Overall it is finds that companies profitability depends on debt financing. In tobacco industry, companies are highly leverage and generating high profitability. So, it is explored that leverage and profitability are positively related, consistent with previous research by Abor (2005). But our findings is not consistent with few previous researches that explored, when companies are depending on high debt financing their profitability suffers because high risk, high costs external resources and inefficiency of the market is involved in it (Salehi, 2009 and Toy et al., 1974). However, tobacco companies are depending on debt financing but holding high proportion of short term debt which is less risky, less costly and its marketability also not affected so it shows that results varies because of tobacco companies financing decisions.

By considering marketability and profitability under corporate growth, the leverage relation with corporate growth is measured. Our finding reaches to a point that corporate growth is dependent on financing structure. So, the results revealed that highly leverage companies are showing high growth, as consistent with previous research by Toy et al. (1974). However various researchers show inverse relation between leverage and growth. There are many reasons of

inverse relation, but main aspect is that high leverage companies bounds their liquid assets as reserve to meet obligations and loses investment opportunities which slow down their growth (Anderson, 2002; Lang et al., 1996 and Carpenter & Petersen, 2002). Although our results vary just because of tobacco companies are holding high proportion of short term debt and utilizing their liquid assets to maximum extend, having sound market repute and enjoying high profits. Finally, the relationship between leverage, liquidity and growth is measured and after analyzing and discussing data it finds that's leverage is positively related to liquidity and growth in tobacco industry. Hence H_o and H_1 are partially accepted.

CONCLUSION

In this study relationship between financial structure, corporate liquidity and growth is measured. The relationship is empirically tested in tobacco industry by gathering secondary data over the period of last six years (2011-2016). The secondary data helped out in calculating ratios for each variable. Leverage is measured by calculating total debt to equity ratio, long term debt to equity ratio, total debt to assets ratio and times interest earned ratio. Liquidity is measured by calculating liquid assets ratio, current ratio, quick ratio and cash ratio. Growth is measured by calculating marketability ratios which include return on assets ratio, return on equity ratio, net profit margin ratio. Further multiple regressions are applied on these calculated ratios under SPSS. The regression test formulates ten models in which ratios of independent variable in relation with ratios of dependent variables are measured. They result in significant and insignificant relations of models which are shown in regression model summary and coefficients tables. The results revealed significantly negative relation between long term debt and liquid assets, shows that tobacco companies liquidity is high as compare to their long-term debts. However, the total debt to assets is also negatively related to the liquidity, shows that liquid corporate is less financing its assets through total debts. Inverse relations are derived because tobacco companies are relying more on short term financing and its maximum operations are performed by working capital management. However, results showed a positive relationship between times interest payment made and liquidity. Regarding the relationship between total debt to equity and liquidity, the regression results showed a significantly positive association between total debt to equity and liquidity. This suggests that liquid corporate depend more on debt financing and there exists a positive relation between leverage and liquidity. The results explored no relationship between leverage ratios and marketability ratios, suggesting that tobacco companies' marketability is not affected by its debt financing because they are relying on short term financing which is less risky, and investors are willing to pay high prices. The results also revealed significantly positive relation between times interest payment made and profitability, suggesting that profitable firms are making high interest payments. However, the results showed a positive relation relationship between total debt to assets and operating profit whereas operating profit is inversely related to total debt to equity because its operations are financed through short term debt only. This suggests that profitable corporate depend more on debt financing and explores positive relation between leverage and growth. By analyzing the regression model, it finds that both hypotheses are partially accepted. It is concluded that leverage is positively related to corporate liquidity and growth. Future research can be done by expanding the data set and adding a possible questionnaire in the light of the results attained from the ratio analysis. Further a CHAID analysis can be run to verify responses.

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