



# Determinants of Capital Structure of Oil and Gas Firms in Nigeria

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## Abstract

The current paper looked at the determinants of Capital Structure of Oil and Gas Company existing and registered in Nigeria for a period of 10 years. The paper uses 12 companies based on the ones whose data are available giving rise to 120 firm-year observation. The data were analysed using the multiple regression method (panel data estimate) after subjecting them to correlation matrix. The results of the analysis show that some company select debt financing for tax benefits, while others prefer equity for no interest. Specifically, Asset Tangibility (AT), Size(FS), and Non Debt Tax Shield(NDTS) all proved not to be the important determinants of gearing(leverage) in the study. However, Profitability(PROF), revenue growth(GROW), and Liquidity(LIQ) proved to be the factors managers look at when making decision to finance projects in the sector. Profitability, expansion potential, and liquidity impact leverage importantly, but Asset tangibility, business size, and non-debt tax shield do not. The study established a link between Nigerian Oil&Gas businesses' financial structure and leverage. This study recommends including asset tangibility in capital structure decision since companies with more tangible assets are less financially limited and can use fixed assets as loan collateral. Financial and operational risks rise with bad debt mix. When market trends are good, firms gain more leverage. Rising markets lower book leverage, therefore management should be cautious with capital structure decisions.

**Key Words:** Determinants, Capital Structure, Leverage, LIQ, PROF, Growth

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## I. Introduction

Capital structure maximizes commercial enterprises' financing and dividend options. Financial decisions impact a company's success. To preserve shareholder interests, companies must make smart financial choices. Managers must optimize capital structure to boost owner wealth. Companies can invest using debt, equity, or both. Capital gearing can alter shareholder profits and risk, which can effect capital costs and business value (Chandrasekharan, 2012). Capital structure describes how a corporation finances its activities through debt, shares, or a combination (Akinsullire, 2008). It's a company's operating cash. Capital structure includes regular, preference, and loan capital. Internal and external factors impact corporate capital structure (Pinkova, 2012). External consequences include tax policy, financial markets and company-specific internal variables. Internal variables can affect capital structure, according to capital structure theories (Mazur, 2012). Internal factors include business size, profitability, asset tangibility, taxes, growth rate, and liquidity (Pinkova, 2012). Mazur (2012) found that social, environmental, economic, technological, and cultural development affect capital structure. It's hard to tell if theoretical and empirical results on established countries apply to emerging economies or if a distinct set of reasons drive Nigeria's capital structure. Emerging country research is contradictory. Nigeria lacks capital structure study. Several periodicals concentrated on banking and other industrial companies while leaving oil and gas underdeveloped. Capital structure influences financial performance (Ghosh, 2008). A company can increase or decrease its leverage by issuing shares to pay for stock buybacks or debt. Capital structure management maximizes shareholder return and reduces capital expenses. "Optimal capital structure" describes this balanced mix of financial sources (Margaritis and Psillaki, 2007). What's a good debt-to-equity ratio? What's the best capital structure? Capitalization perfection. What makes a good capital structure? Myers (1984). No one agrees on the options. Given the tax benefits of debt, borrowing and gearing may be beneficial. Practical borrowing limitations and high fixed interest rates constrain debt financing. Choosing the right capital structure to maximize wealth is a crucial component of corporate finance,

inspiring academic and practitioner publications and research (Chandrasekharan, 2012). Modigliani and Miller (1958) established unlevered and levered firm values. Capital structure analysis and financial decision considerations gained popularity. This research analyses Nigeria's oil and gas capital structure.

## **II. Literature Review**

### **2.1 Capital Structure Theories**

#### **2.1.1 Trade-Off Theory**

Capital structure has been researched since Modigliani and Miller. 1976's Jensen and Meckling introduced trade-off theory (TOT). An optimal capital structure balances tax, agency, and bankruptcy expenses, according to this idea. Agency costs can affect a company's capital structure. To reduce agency costs, develop the optimum ownership and debt structure (Jensen and Meckling, 1976). Jensen and Meckling studied agency-cost capital structure in 1976. TOT says capital structure affects profit, size, and growth. They represent debt-related tax advantages and/or bankruptcy expenses. Jensen and Meckling (1976) and Myers (1977) discovered a positive link between debt and collateral.

##### **2.1.1.1 Trade-off theory implications**

Debt as a company's principal source of finance raises financial risk. A company that accumulates debt but doesn't use the tax shield may collapse, warn Brealey, Myers, and Allen (2006). Risky businesses need less financing, says Myers (1984). Businesses should optimize debt financing's advantages and costs.

#### **2.1.2 Pecking Order Theory**

Donaldson (1961), Myers (1984), and Myers and Majluf (1984). If retained earnings are insufficient, corporations should choose internal funding over external borrowing, says the Pecking Order Theory. Net cash flow, not optimal capital structures, drives managers' financing decisions. Myers (1984) advances Pecking Order Theory by assuming manager-investor information gaps cause selection costs. Investors fear overvaluation when a new stock is offered, producing adverse selection costs. Debt causes financial difficulties, which boosts financing costs. New enterprises are usually funded internally. Large corporations issue the safest risky instruments first when resources are low.

Less evidence supports Pecking Order Theory. Frank and Goyal discovered little pecking order financing in U.S. companies (2003). Asia's finance is country-specific. Wiwattanakantang (1999) applies POT to Thai capital market tax, signaling, and agency costs. In South Korean capital structures from 1992 to 2001, Fattouh et al. identify nonlinearities. (2005). This validates asymmetry Pecking Order Theory. Seifert and Gonenc (2008) find Pecking Order Theory less supported in developing economies. Emerging nations issue stock more often than predicted by the Pecking Order Theory, indicating that entrepreneurship is the key to economic progress. European leverage and stock price movements demonstrate similar pecking order funding to the US (Bessler et al., 2008). Small firms and countries with small business structures support the Pecking Order Theory (González and González, 2012). Quality of financial analyst coverage is connected to a company's closeness to banks, leading to location effects, and small businesses have bigger information asymmetries between equity and debt holders (Arena and Dewally, 2012).

##### **2.1.2.1 Pecking order theory implications**

Before shares, debt and convertible debt are issued. High-performing companies are less leveraged because they can finance new capital projects without issuing debt or equity. Management and new shareholders have different levels of understanding, according to Myers and Majluf (1984).

#### **2.1.3 Agency Theory**

This theory focuses on shareholder-manager relations. Principals create an agency relationship when they recruit agents and give them decision-making power (Lawal et al., 2014). Means created Agency Theory (1992). Stock ownership separates corporate ownership and control, they say. Professional managers may prioritize themselves above shareholders (Jensen and Runback, 1983). Directors must maximize shareholder interests because shareholders are a company's only owners. Long-term shareholder returns boost revenue and cash flow (Eliot, 2002). Agents generally operate in the principal's best interests, not their own. It means the agent will constantly spend free cash flow to obtain power and prestige. Jensen discusses agency cash flow (1986). He suggested boosting business equity or capital structure debt to reduce managers' cash.

##### **2.1.3.1 Implications of agency theory**

Debt-financed companies limit managers' decision-making capacity. Lenders and shareholders can regulate corporate governance through debt.

## **2.2 Empirical Evidences on the Determinants of Capital structure**

### **2.2.1 Firm Size and Capital Structure (Leverage)**

This article describes Nigeria's capital structure. NSE has 86 manufacturing companies. Studying random companies. We collected 240 firm-year observations from 24 manufacturing enterprises' financial statements throughout 10 years. Leverage hurts a company's size and tax obligations but boosts tangibility, profitability, and growth. Size and physical asset worth are substantially related. Future academics should study several subjects. Paola (2016) studies corporate tangibility, taxation, age, and size. The survey included 35 COLSE industrial companies. Annual report contained study data. Examining leverage and independent variables with Pearson's correlation (tangibility, corporate tax rate, age, and company size). Leverage is unaffected by a company's longevity, taxes, or tangibility of assets. Size-capital structure trade-off hypothesis connects them.

Wanrapee (2009) analyzed 81 Thai companies' finances. Six industries' audited annual accounts from 2004 to 2008 provided secondary data. We utilized regression and correlation. After accounting for profitability, industry, size, and tangibility linked substantially. High-profit corporations issue less debt, demonstrating a negative correlation. High-debt corporations are more likely to borrow. Tangibility hurts debt-to-equity ratio. Capital-intensive companies issue less debt.

### **2.2.2 Asset Tangibility and Capital Structure (Leverage)**

Onaolapo, Kajola, and Nwidobie (2015) analyzed 2006-2012 NSE debutants. Panel data. OLS calculated firm-specific coefficients. Leverage (total, long-term, short-term) Ratios reduce profits. Proxy metrics link to business size and tangibility. According to a survey, Nigerian firms that lack funds look elsewhere. Pecking Order Theory and finance are supported. In 2011, Mishra analyzed 48 Indian industrial companies' finances. 2006-2010 analysis. Investigated many regressions. Rising debt reduces profitability, confirming the hierarchical perspective. Leverage is real. Contrary to perception, leverage reduces tax rates.

Chen (2004) rated 88 Chinese enterprises. Considerations were profitability, growth potential, size, asset structure, crisis cost, and tax shelter. Comparing data Less lucrative, less expandable, and smaller, the more concrete something is. The tradeoff model and Pecking order theory cannot explain Chinese capital structure preferences when firm-specific variables and leverage are considered. So many firms seek debt. Saylgan et al. (2011) (2006). Hall et al. found varied connections between debt types, leverage, and tangibility (2004). Tangibility negatively correlates with short-term debt, according to Mateev, Poutziouris, and Ivanov (2013) and Sogorb-Mira (2005). It's practical and real.

### **2.2.3 Profitability and Capital Structure (Leverage)**

Aws (2017) analyses the Global Financial Crisis's impact on 346 oil and gas businesses during 2000-2015. (OILGSWD). Six firm-level factors affect leverage. Relevant factors include liquidity, profitability, expansion, tax-free debt, physical presence, and scalability. Data Stream provides secondary-source information. Oil and gas capital structure is tangible, profitable, scalable, liquid, and debt-free. Growth isn't crucial. Trade-off, pecking order, and agency cost analyze capital structure. The global financial crisis harmed oil and gas businesses' capital structure but not their liquidity, according to OLS regression research.

Igbinosa and Chijuka (2013) studied Nigerian capital structures (2014). A two-variable cross-sectional least-squares model calculates the debt ratio. Profitability doesn't scale. Profitability hurts leverage and isn't predictive. Size doesn't affect success. Assessing a company's financial structure can boost shareholder profitability.

2010 economic study by Khrawish&Khrawish. Our analysis used 30 Amman Stock Exchange companies' 2001-2005 annual reports. Size, fixed-asset access, profitability, long-term and short-term debt-to-total-assets ratios were analyzed. The study revealed no link between business size, tangibility, long-term debt, and profitability.

### **2.2.4 Growth opportunities and Capital Structure (Leverage)**

In 2006, Tariq and Hijazi studied Pakistan's cement industry. Pakistan's State Bank published five-year economic data. 80 firm-years and 16 companies were analyzed using panel data. Variables included assets, size, growth, and profitability. Leverage was conditional. Size and profitability hurt growth and tangibility.

Akinlo (2011) studied Nigeria's capital structure. 66 Nigerian stock market companies were studied between 1999 and 2007. Assessed were size, profitability, growth, tangibility, climate, and liquidity. Leverage harms growth, profitability, and access. Firm size and liquidity positively connected with leverage.

Opong-Boakye, Appiah, and Afolabi evaluated Ghana's enterprises. Profitability, tangibility, company size, risk, expansion, and taxation were evaluated. Multiple regression was used on cross-sectional and longitudinal data. Leverage improves profit, assets, scale, and risk. It slows growth and boosts taxes.

### **2.2.5 Non- debt tax shields and Capital Structure (Leverage)**

Kiran toured Islamabad in 2013. Audited textile, chemical, fuel, and energy annual reports provided secondary data. Leverage was linked to size, non-debt tax shelter, growth, earnings volatility, profitability, and asset availability. Earnings volatility was negatively correlated with business size, growth, profitability, and leverage, but positively correlated with non-tax shield and asset tangibility.

2009's Gill, Bigger, Pai, and Bhutanianalyzed service sector capital structure. Leverage harms collateralized assets, profitability, company size, and growth. Profit and debt are detrimental, unlike income tax and debt. Tax protection, firm size, growth potential, and leverage were unrelated.

### **2.2.6 Liquidity and Capital Structure (Leverage)**

Sheikh and Wang researched Pakistani corporate funding (2011). This study examined whether Western capital structure models correctly reflect Pakistan's decision-making factors. 2003–2007 panel data included 610 Karachi Stock Exchange businesses. Higher debt levels suggest a larger corporation with worse profitability, liquidity, earnings volatility, and tangibility. Debt-to-income, tax shelters, and growth are unrelated. Advanced economy capital structure models can help understand Pakistan's private sector finance, the study found.

Zabri (2012) studied SME capital structure using 50 award-winning Malaysian enterprises from 1998 to 2010. (SMEs).Data analysis using regression. Profitability, size, asset tangibility, growth, age, and non-debt tax shield were evaluated. We found substantial connections between the firm's capital structure and three criteria (liquidity, tangibility of assets, and non-debts tax shield). Liquidity, asset accessibility, and non-debt tax shield affect the firm's capital structure.

### **2.3 Summary of Empirical Evidence**

Based on a detailed review of the various theories and empirical findings of several authors on the factors that affect capital structure in the Oil and Gas industry in Nigeria, each theory discussed on the theoretical framework should have a positive or negative effect on the capital structure independent variables.

The trade-off theory enhances asset tangibility, but the pecking order idea hurts it. Pecking order and trade-off theories can affect business size. Earnings are affected by pecking order and trade-offs. Growth, trade-off, and market timing theories are connected. Pecking order and trade-off theory have advantages and disadvantages. Debt-free. Pecking order and trade-off limit liquidity.

## **III. Methodology**

The study looked at 12 of the 14 Oil and Gas companies listed on the Nigeria Stock Exchange over 10 years, making 120 observations.

Secondary data is used. Capital structure factors are explored using 12 Nigerian Oil and Gas companies from 2007 to 2016. The study used numbers and statistics. OLS, pooled, random, and fixed effect models were used for multiple regression. The fixed effect model fits the data better than the pooled and random model, using Breusch-Pagan and Hausman tests. The Fixed Effect result was shown. "Determinants of Capital Structure in Nigeria" by Akinyomi and Olagunju (2013) inspired the regression model. Thus, business size, asset tangibility, profitability, non-debt tax shield, growth, and liquidity affect Capital Structure [proxy with Leverage (LEV)].

$F = LEV (FS, AT, PROF, NDTS, GROW, LIQ)$

$LEV = \beta_0 + \beta_1 FS + \beta_2 AT + \beta_3 PROF + \beta_4 NDTS + \beta_5 GROW + \beta_6 LIQ + \epsilon$

Where;

The a priori expectation is  $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$ , is lesser or greater than 0.

LEV = Leverage

FS = Firm Size

AT = Asset Tangibility

PROF = Profitability

NDTS = Non Debt Tax Shield

GROW = Growth

LIQ = Liquidity

E = Error Term

$\beta$  = Intercept

$\beta_1 - \beta_6$  = Coefficient of the Independent Variables.

## IV. Analysis and Discussion of Results

### 4.1 Descriptive Statistics

Table 4.1.1: Descriptive statistics output of the Independent and Dependent Variables

VARIABLEs	N	MINI	MAX	MEAN	ST DV
Leverage	120	0.0008	0.8436	0.1437	0.1659
Asset Tangibility	120	0.0688	0.9921	0.5016	0.2590
Firm Size	120	18.9792	26.7282	23.2716	2.2015
Profitability	120	-1.9293	15.3903	0.1700	1.4902
GrowthOpportunity	120	-0.9478	7.9525	0.14642	0.8379
NonDebt Tax Shield	120	0.00146	0.3310	0.0362	0.0490
Liquidit	120	0.03310	19.2585	1.5651	2.4211

Source: Extracted from Result output

Above is data for descriptive statistics. Only the minimum growth rate is negative. It suggests oil and gas companies have had poor performance throughout time. Liquidity is over 1, indicating high liquidity, and profitability is 17%. The most indebted business had 84% of its total assets leveraged. The smaller standard deviation suggests that more Oil and Gas firms are debt-free.

### 4.2 Correlation Matrix

Table 4.2.1: Correlation output of the Independent and Dependent Variables

AssetTangibility	FirmSize	Profitability	Growthopp_	NondebtTaxshield	Liquidity	Leverage	
1.0000	-0.6253	-0.0026	0.1204	-0.1641	-0.0368	0.3749	AssetTangibility
	1.0000	-0.0090	-0.0447	0.1899	0.0096	-0.0606	FirmSize
		1.0000	0.1543	-0.0015	0.0281	-0.0477	Profitability
			1.0000	-0.0604	-0.0087	-0.1587	Growthopp_
				1.0000	0.0090	-0.0007	Non_debtTaxshield
					1.0000	-0.0347	Liquidity
						1.0000	Leverage

Source: Extracted from Correlation output (See appendix 1 for detailed)

Correlation coefficients, using the observations

5% critical value (two-tailed) = 0.1793

Except for tangibility, all factors had a negative connection with gearing. Tangibility has a vital impact in determining the quantity of debt in organizations' capital structures. High-quality fixed assets can be used to get loan finance in Nigeria's Oil & Gas business.

	Robust (HAC) standard errors			
	Coefficient	Std. Error	t-ratio	p-value
const	2.06166	1.44836	1.4234	0.15766
AssetTangibility	-0.0186268	0.136881	-0.1361	0.89203
FirmSize	-0.0806282	0.0608096	-1.3259	0.18783
Profitability	-0.0161798	0.00246179	-6.5724	<0.00001 ***
Growthopp_	-0.037257	0.0108357	-3.4384	0.00085 ***
Non_debtTaxshield	0.136719	0.241649	0.5658	0.57279
Liquidity	-0.0184949	0.00678228	-2.7269	0.00753 ***
Mean dependent var	0.143773	S.D. dependent var		0.165918
Sum squared resid	1.293822	S.E. of regression		0.112626
LSDV R-squared	0.605050	Within R-squared		0.245920
LSDV F(17, 102)	9.191803	P-value(F)		5.59e-14
Log-likelihood	101.5209	Akaike criterion		-167.0417
Schwarz criterion	-116.8669	Hannan-Quinn		-146.6655
Rho	0.400577	Durbin-Watson		1.078861

Tangible assets reduce corporate leverage, showing that a significant oil and gas company High interest rates and rigorous lending requirements produce less debt funding, requiring assets to grow organically. Mateev, Poutziouris, and Ivanov (2013) and Sogorb-Mira (2005) agree, however Onalapo, Kajola, and Nwidobie (2015) and Mishra disagree. Leverage is inversely related to size and capitalization (-0.0806). According to trade off theory, business size corresponds with leverage. Large corporations facing insolvency use debt, says the idea. Stable, larger organizations are better loan borrowers. Companies have a variety of assets to guarantee



debt. Larger oil and gas businesses in Nigeria have no leverage advantage over smaller ones, according to Akinyomi and Olagunju (2016) but not Paola (2016). Profitability and leverage have a statistically significant negative connection, demonstrating that profitable enterprises search within for funding and only take on debt when the internal fund is insufficient. This supports tangibility and leveraging of assets. Profitable firms borrow less. Profitable companies utilize less debt. Leverage and profitability aren't explained by trade-offs. According to trade-off theory, profitable companies have more tax money to hide, yet the pecking order principle favors internal finance. Aws (2017) agrees, while Igbinsosa and Chijuka disagree (2014). Growth hurts capital structure, especially debt. Growth Opportunities had a negative coefficient of -0.0373. Growing companies need less external capital. Given that growth is evaluated by revenue growth, the finding suggests that enterprises only borrow externally when growth slows, likely to boost revenue growth. The study's findings confirm Pecking order theory, which states corporations prefer debt over equity for external financing. Contradicts Trade-off and Agency cost theories. Fast-growing oil and gas firms have more leverage. Companies with little growth borrow less. This contradicts Akinlo (2011) and Oppong-Boakye, Appiah, and Afolabi (2013).

Indebtedness and non-debt tax shelter regression coefficients were connected. Unlike debt, tax shelters reward leverage. Non-debt tax shielding and corporate leverage are unrelated. Non-debt tax shields reduce leverage like depreciation. Larger non-debt tax shielding reduce long-term debt. Gill, Bigger, Pai, and Bhutani agree (2009). Positive coefficients for liquidity, capital structure, and leverage. Oil and gas companies rely on cash since borrowing is expensive. According to Pecking Order theory, liquid companies value internal assets. Oil and gas firms use equity financing when cash-strapped. The agency theory supports this stance by stressing the discrepancy between bond and stockholder interests and corporate stockholders who aim to impact the firm's market value for personal gain. Companies avoid debt using cash reserves. Currency measures liquid assets. Larger firms need more capital. Businesses shouldn't borrow during recessions because debt threatens liquid assets. Sheikh and Wang (2011) disagree with Zabri (2012).

## V. Conclusion/Recommendation

The research examined Nigerian Oil and Gas businesses' capital structure during 2007-2016. Some companies chose debt for tax reasons, while others chose stock for no interest. This data aids capital structure choices. AT, FS, and NDTs aren't linked to leverage, but PROF, GROW, and LIQ are. Profitability, expansion potential, and liquidity affect leverage more than asset tangibility, firm size, and non-debt tax shield. The study linked Nigerian O&G financial structure and leverage. This study advocates considering asset tangibility when deciding capital structure since organizations with more tangible assets are less financially constrained and can utilize fixed assets as loan collateral. Bad debt increases financial and operational concerns. Companies gain leverage when market trends are positive. Rising markets reduce book leverage; management should be cautious with capital structure decisions.

## References

- [1]. Acaravci, S.K.(2015).The determinants of capital structure:Evidence from the Turkish manufacturing sector.International Journal of Economics and Financial Issues, 5(1):158-171.
- [2]. Akinlo, O.(2011).Determinants of capital structure:Evidence from Nigerian panel data.African Economic and Business Review,9(1):1-16.
- [3]. Akinsulire O.(2008).Financial management,5th edition.El-Toda Ventures:Lagos.
- [4]. Akinyomi J.O.&Olagunju A.(2013).Determinants of Capital Structure in Nigeria.International Journal of Innovation and Applied Studies,3(4),999-1005.
- [5]. Arena M. P.&Michael D.(2012),Firm location and corporate debt.Journal of Banking & Finance21(36),1079-1092.
- [6]. Aws Y. S.(2017)The Determinants of Capital Structure:Empirical Analysis of Oil and Gas Firms during 2000-2015.Asian Journal of Finance & Accounting,9(1),1-34.
- [7]. Baker, M. &Wurgler, J.(2002).Market timing and capital structure.Journal of Finance,57(1),1-32.
- [8]. Banerjee, S.,Dasgupta, S.,& Kim, Y.(2008).Buyer-Supplier relationships and the stakeholder theory of capital structure.Journal of Finance,37(63),2507-2552.
- [9]. Bradley, M., Gregg A. J.& Han E.K.(1984).On the Existence of an Optimal Capital Structure:Theory and Evidence.The Journal of Finance,19(39),857-878.
- [10]. Brealey R.A., Myers S.C., &Allen F.(2006).Principles of Corporate Finance.8th edition,New York:McGraw Hill.
- [11]. Bris A., Ivo W. & Ning Z.(2006).The cost of bankruptcy:Chapter 11 Liquidation versus Chapter 7 Reorganization.The Journal of Finance,38(61),1253-1303.
- [12]. Chandrasekharan C.V.(2012).Determinants of Capital Structure In the Nigerian Listed Firms.International Journal of Advanced Research in Management and Social Sciences.7(2),108-133.
- [13]. Chen, J.(2004).Determinants of capital structure of Chinese-listed companies.Journal of Business Research,24(57),1341-1351.
- [14]. De Miguel, A & Pindado, J (2001). Determinants of capital structure: new evidence from Spanish panel data. Journal of Corporate Finance, 10(7):77-99.
- [15]. Deesomsak, R., Krishna, P. & Pescetto, G.(2004).The determinants of capital structure:Evidence from the Asia Pacific region.Journal of Multinational Financial Management,14(4/5),387-405.

- [16]. Donaldson G.(1961).Corporate Debt Capacity:A Study of Corporate Debt Policy and the Determination of Corporate Debt Capacity.Harvard Graduate School of Business Administration,Boston, U.S.A.
- [17]. Drobetz, W., Gounopoulos, D., Merikas, A.&Schröder, H.(2013).Capital Structure Decisions of Globally Listed Shipping Companies.Transportation Research Part E,42(52),49-76.
- [18]. Easterbrook, F.(1984).Two agency-cost explanations of dividend.American Economic Review,41(74),650-659.
- [19]. Eldomyati, T.&Azim, M.H.(2008).The dynamics of capital structure and heterogeneous systematic risk classes in Egypt.International Journal of Emerging Markets,3(1),7-37.
- [20]. Elliot B& Elliot J(2002).Financial Accounting and Reporting.12th Edition,London,Prentice Hall/Financial Times.
- [21]. Fattouh, B, Harris, L &Scaramozzino, P(2002).Capital structure in South Korea:Aquantile regression approach.Royal Economic Society Annual Conference,45(70),1-34.
- [22]. Fischer E. O., Heinkel R.&Zechner J. (1989).Dynamic Capital Structure Choice: Theory and Tests.The Journal of Finance,28(44),19-40.
- [23]. Frank M., &Goyal V.(2003).Testing the Pecking Order Theory of Capital Structure.Journal of Financial Economics,19(67),217-248.
- [24]. Frank M.,&Goyal V.(2009).Capital Structure Decisions:Which Factors are Reliably Important?Financial Management,3(8),1-37.
- [25]. Gill A., Bigger N., Pai C.&Bhutani S.(2009).The determinants of capital structure in the service industry:Evidence from United States.The Open Business Journal,2(9),48-53.
- [26]. Gill A., Bigger N., Pai C.&Bhutani S.(2009).The determinants of capital structure in the service industry:Evidence from United States.The Open Business Journal,2(12),48-53.
- [27]. Harris, M.&Raviv, A. (1991).The theory of capital structure.Journal of Finance,46(1), 297-355.
- [28]. Hennessy, C.&Whited, T. M.(2005).Debt Dynamics.Journal of Finance,60(3),1129-1165
- [29]. Igbinsola S.O.&Chijuka I. M.(2014).The Determinants of Capital Structure of Listed Firms in Nigeria.European Journal of Accounting,Auditing and Finance Research,2(10),96-111.
- [30]. Jensen M.&Ruback R(1983).The market for corporate control:The scientific evidence.J. Financial Economics,7(11),5-50.
- [31]. Jensen,M.(1986).Agency costs of free cash flow,corporate finance, and takeovers.American Economic Review,76(2),323-329.
- [32]. Jensen, M.&Meckling, W.(1976).Theory of the firm:Managerial behavior,agency cost and ownership structure.Journal of Financial Economics,43(74),271-281.
- [33]. Khravish, H.A.&Khravish, A.H.A(2010).The determinants of the capital structure:Evidence from Jordanian industrial companies.Journal of King Abdul –Aziz University Economic and Administration,24(1),173-196.
- [34]. Kiran S.(2013).Determinants of capital structure:A comparative analysis of textile, chemical and fuel and energy sectors of Pakistan(2001-2006).International Review of Management and Business Research,2(1),37-47.
- [35]. Kochhar, R. (1997).Strategic assets,capital structure,and firm performance.Journal of Financial and Strategic Decisions,10(3):23-36.
- [36]. Lawal BA, Edwin TK, Kiyanjui MW,&Kayode MA (2014).Effect of Capital Structure on Firm's Performance:Empirical Study of Manufacturing Companies in Nigeria.J. Fin. Investment Analysis,3(4),39-57.
- [37]. Leland H.&Toft E.(1996).Agency costs,risk management and capital structure.Journal of Finance,27(53),1213-1243.
- [38]. Margaritis D.&Psillaki M.(2007).Capital Structure and Firm Efficiency.Journal of Business Finance & Accounting,34(10),1447-1469.
- [39]. Mazur K.(2007).The determinants of capital structure choice:Evidence from Polish companies.International Atlantic Economic Society,13(65),495-514.
- [40]. Mazur K.(2007).The determinants of capital structure choice:Evidence from Polish companies.International Atlantic Economic Society,13(71),495-514.
- [41]. Mishra C. S.(2011).Determinants of capital structure:A study of manufacturing sector PSUs in India.International Conference on Financial Management and Economics IPEDR,11(81),247-252, IACSIT Press,Singapore.
- [42]. Modigliani F.&Miller M. (1958).The Cost of Capital, Corporation Finance,and the Theory of Investment.American Economic Review,16(48),261-297.
- [43]. Modigliani, F.&Miller, M.H.(1963).Corporate income taxes and the cost of capital: a correction.American Economic Review,53(3),433-443.
- [44]. Morri G.&Beretta C.(2008).The capital structure determinants of REITs:Is it a peculiar industry?Journal of European Real Estate Research,1(1),6-57.
- [45]. Myers, SC(1977).Determinants of corporate borrowing.Journal of Financial Economics,5(2),147-175.
- [46]. Myers, SC(1984).The capital structure puzzle.Journal of Finance,39(3),575-592.
- [47]. Myers, SC&Majluf, N.S.(1984).Corporate financing and investment decisions when firms have information that investors do not have.Journal of Financial Economics,13(51),187-221.
- [48]. Myers, SC&Rajan, R.G.(1998).The paradox of liquidity.The Quarterly Journal of Economics,113(3),733-771.
- [49]. Onaolapo A.A., Kajola S.O.&Nwiodobie M.B(2015).Determinants of capital structure:A study of Nigerian quoted companies.European Journal of Business and Management.7(23),170-184.
- [50]. Oppong-Boakye P.K.Appiah K.O.&Afolabi J.K.(2013).Determinants of capital structure:Evidence from Ghanaian firms,Research Journal of Finance and Accounting,4(4):44-54.
- [51]. Pandey, I.M.(2001).Capital structure and the firm characteristics:Evidence from an emerging market.Working Paper, Indian Institute of Management, Phinedabad, the newspaper industry. Universidad Torcuato Di Tella, escharge/Revision Dept February 22\_2002.PDF, 1-32.
- [52]. Paola S.(2016).Determinants of Capital Structure for Listed Companies in the Colombian Industrial Sector.Catalyst,13(2),33-45.
- [53]. Pinkova P.(2012).Determinants of capital structure:Evidence from the Czech automotive Industry.Acta Universitatis Agriculturae Et Silviculturae Mendelianae Brunensis,60(7),217-224.
- [54]. Rajan, R.G.&Zingales, L.(1995).What do we know about capital structure?Some evidence from international data.Journal of Finance,50(5),1421-1460.

- [55]. Shehu U.H.(2011).Determinants of CapitalStructure in the Nigerian Listed Insurance Firms.International Journal of China – USA Business Review,10(12),81-98.
- [56]. Sheikh, N.A.&Wang, Z.(2011).Determinants ofcapitalstructure.Anempirical study of firms in manufacturing industry of Pakistan.Managerial Finance,37(2),117-133.
- [57]. Tariq Y.B.&Hijazi S.T.(2006).Determinantsof capital structure:A case for the Pakistani cement industry.The Lahore Journal of Economics,11(1),63-80.
- [58]. Titman, S.&Wessels, R.(1988).The determinantsof capital structure choice.Journal of Finance,43(1),1-19.
- [59]. Um, T(2001).Deterialmination ofcapital structure and prediction of bankruptcy in Korea. Unpublished PhD Thesis,Cornell University.
- [60]. Wanrapee B. (2009).Capital structuredeterminants of Thai listed companies.The Clute International Academic Conference,New Orleans Louisiana,2009.[Online] Available:<http://conferences.cluteonline.com/index.php/IAC/2011NO/schedConf/presentations?searchInitial=B&track=11>
- [61]. Wiwattanakantang, Y.(1999).An empirical study on the determinants of the capitalstructure of Thai firms.Pacific-Basin Finance Journal,7(3/4),371-403.
- [62]. Zabri, S.M(2012).The determinants of capital structure among SMEs in Malaysia.Being a paper delivered at International Conference of Technology Management,Business and Entrepreneurship.