EFFECT OF DEBT MIX ON FIRM PERFORMANCE

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Abstract

Determining the optimal financing mix that will maximize the value of the firm is one of the most important financing decisions managers are expected to make. Thus, choice of the debt mix adopted has effect on the performance and market value of the firm. This study examines the effect of the use of debt financing on the performance of companies in Nigeria using a cross sectional data of eight quoted pharmaceutical companies collected in 2014. The study was based on ex-post –facto research design. The study used pool data collected from the 2014 published financial statements of selected quoted companies and stock exchange factbook. The firms data collected were analysed using descriptive statistics, correlation and regression analysis. The analysis showed that there is a relationship between debt mix and firm performance and the relationship is statistically significant. Based on the result and findings, the study recommended among others that mangers should adopt optimal debt financing mix that will help achieve the profit maximizing objective of the firm and reduce agency cost.

Keyword: Debt Financing, Optimal Debt Financing, Firm Performance, Short Term Debt, Long Term Debt and Leverage.

1. Background to the Study

Debt financing is the main element of external financing for firm raising extra funds after creation. Goswami and Shrikhande (2001) opined that most of the firm looking for external financing options use debt financing rather than equity financing. According to Mayer (1988), most firms use estimated debt financing of up to 90%. The increase in the use of debt was traced to the era of industrialization and economic expansion of firm. Fama and French (2002) believe that the desire for debt financing is as a result of the tax deductibility of interest and the reduction of free cash flow problems. The cost of debt financing includes bankruptcy costs and agency conflict between stockholder and debt holders. Hence in making debt financing decision, managers try to create a balance between the cost and the benefit of using the debt financing.

Debt mix is the combination of various debt stocks in financing investment in a firm. Debt mix as leverage constitutes a major component of a firm capital structure. Debt mix is combination of short term debt and long term debt used by a firm in financing investment.

The debt mix decisions have been extensively investigated in search of optimal debt mix that will maximize the value of a firm. The modern theory of capital structure espoused by Modigliani and Miller (1958) provided the base for theoretical directions on debt mix/ structure decisions.

Company's choice of debt structure, therefore, will determine the allocation of its operating cash flow of each period among debt holders. The debate over the significance of a company's choice of capital structure is still inconclusive. Thus, there have been various schools of thoughts on the relevance and importance of debt mix to a firm's performance and this study intends to examine the impact of debt mix on Nigeria firms.

Several theories have emerged which try to explain firms' debt mix and the resultant effects its performance and on their market values. These theories include the pecking order theory by Donaldson, (1961), the capital structure irrelevance theory by Modigliani and Miller (1963), the agency costs theory and the trade off theory (Bokpin & Isshaq, 2008). Although, there have been substantial research efforts devoted by different scholars to determining what seems to be an optimal debt mix for firms, yet there is no universal accepted theory throughout the literature that can explain the debt mix choice of firms.

Many studies in corporate finance focus on capital structure for instance, Titman and Wessels, 1988; Jensen and Langemeier, 1996; Boateng, 2004; Jong el al. 2008) have examined the determinants of capital structure of firms in different industries and their value implications. But very limited studies investigated the impact of debt mix on firm's performance (Boateng, 2004). Most of these studies are done in the US and other developed countries. Debt structure and debt mix decision in developing countries has not received much attention in the literature irrespective of its relevancy to firm and its performance in developing countries.

The few studies done on the effect of debt structure on firm's performance include, Samarakoon, (1997); Senaratene, (1998), Ogebe, Joseph and Alien, (2013), Pratomo and Ismail (2006), Goyal (2013), Zeitun and Tian (2007), etc. These studies have different findings, for instance; Pratomo and Ismail (2006), Goyal (2013), Saeed, Gull and Rasheed (2013) and Taani (2013) find that debt structure has positive effect on the firm. On the other hand, research conducted by Zeitun and Tian (2007), Victor and Badu (2012), Shubita & Alsawalhah (2012), Leon (2013) and Hasan, Ahsan, and Rahama (2014) find that the debt structure has negative effect on the performance of the firm. Ebaid (2009) study also found that the capital structure has a weak - no effect on the performance of the firm. The result from those studies are mix therefore difficult to draw policy implication from.

This study is carried out with the aim of evaluating the effect of debt mix on firm's performance under the Nigeria context using data collected from quoted firms in the pharmaceutical industry and provide empirical evidence to support the competing theory thus, it aims at updating previous studies and fill gap in literature.

The question that this paper wishes to seek answer to is: Does debt financing have effect on corporate performance of pharmaceutical industry in Nigeria?

Objective of the Study

The main objective of this research study is to ascertain the effect of debt mix on firm performance. The specific objective of the study includes to:

1.   Determine the effect of long term debt on firm performance.
2.   Examine the effect of short term debt on firm performance.
3.   Ascertain the effect of total debt on firm performance.

Hypotheses of the Study

The following hypotheses were tested in this paper.

$H0_1$ There is no significant relationship between short financing and firm performance.

$H0_2$ There is no significant relationship between long term debt and firm sperformance.

2.0   REVIEW OF RELATED LITERATURE

Debt mix is the combination of various debt stocks used in financing investment by a firm. Debt mix as leverage constitutes a major component of a firm capital structure. Debt mix is combination of short term debt and long term debt used by a firm in financing investment. Goswami and shrikhande (2001) opined that most of the firm looking for external financing options use debt financing rather than equity financing. Debt financing can be long term or short term.

2.1   Long Term Debt and Firm Performance

Companies with too much long-term debt will find it hard to pay off these debts and continue to thrive, as much of their capital is devoted to interest payments and it can be difficult to allocate money to other areas. A company can determine whether it has accrued too much long-term debt by examining its debt to equity ratio. A high debt to equity ratio means the company is funding most of its ventures with debt. If this ratio is too high, the company is at risk of bankruptcy if it becomes unable to finance its debt due to decreased income or cash flow problems. A high debt to equity ratio also tends to put a company at a disadvantage against its competitors who may have more cash. Many industries discourage companies from taking on too much long-term debt in order to reduce the risks and costs closely associated with unstable forms of income, and they even pass regulations that restrict the amount of long-term debt a company can acquire.

In practice, firms tend to use capital structure, preference stock and common equity with which the enterprise plans to raise needed funds. Since debt structure policy involves a strategic trade-off between risk and expected return, the optimal debt mix policy must seek a prudent and informed balance between risk and return that will maximaze the value of the firm. The firm must consider its business risk, tax positions, financial flexibility and managerial conservatism or aggressiveness.

2.2   Short Term Debt and Firm Performance

Leverage can be described as the extent to which a business or investor is using debt in financing investment. Leverage is denoted by three alternative measures: (1) total debt to total assets ratio (TD/TA) (2) total debt to total equity ratio (TD/TE) and (3) short-term debt to total assets ratio (STD/TA). A majority of studies (including this) use short-term debt as the major component of their debt capital and therefore STD/TA is used. Agency theory assumes either a positive or a negative relationship between performance and leverage of a firm. It holds that Companies that are highly levered are at risk of going into bankruptcy if they fail to pay Interest on the Debt and will not be able to get loans in future time period. Financial leverage is not often considered as negative indicator for the company.

2.3   Theoretical Framework

This work is anchored on agency theory. Though there are other relevant theories that explain the relationship between capital structure and firm performance.

2.3.2 Agency Theory

This is a theory concerning the relationship between the principal (shareholders) and the agent of the principal (company's managers). This suggests that the firm can be viewed as a nexus of contracts (loosely defined) between resource holders. An agency relationship arises whenever one or more individual, called principals, hire one or more other individuals, called agents, to perform some service and then delegate decision-making authority to the agents.

The agency theory concept was initially developed by Berle and Means (1932), who argued that due to a continuous dilution of equity ownership of large corporations, ownership and control become more separated. This situation gives professional managers an opportunity to pursue their interest instead of that of shareholders Jensen and Runback, (1983).

2.3.3 Pecking Order Theory

In the theory of firm's capital structure and financing decisions, the pecking order was first suggested by Donaldson in 1961 and it was modified by Myers and Majluf (1984). It states that companies prioritize their sources of financing (from internal financing to equity) according to the principle of least effort, or of least resistance, preferring to raise equity as a financing means of last resort. Hence, internal funds are used first, and when that is depleted, debt is issued, and when it is not sensible to issue any more debt, equity is issued. Pecking Order theory tries to capture the costs of asymmetric information. It states that companies prioritize their sources of financing (from internal financing to equity) according to the law of least effort, or of least resistance, preferring to raise equity as a financing means "of last resort". Hence: internal financing is used first; when that is depleted, then debt is issued; and when it is no longer sensible to issue any more debt, equity is issued. This theory maintains that businesses adhere to a hierarchy of financing sources and prefer internal financing when available, and debt is preferred over equity if external financing is required (equity would mean issuing shares which meant 'bringing external ownership' into the company). Thus, the form of debt a firm chooses can act as a signal of its need for external finance

2.4   Empirical Framework

There are various studies done on the effect of capital structure on firm performance, they include:

Abbadi and Abu-Rub (2012), examined the effect of capital structure on the performance of Palestinian financial institutions. Using the multiple linear regression model, they utilised the data of 8 banks listed on the Palestine Securities Exchange. They found that a positive relationship exist between debt and market efficiency. In a related research, Ali S., Bontage D. & Raheem H (2012) analysed the impact of capital structure on the profitability of petroleum sector of Pakistan, while controlling the size of the company. They carried out a regression analysis on the data of 12 randomly selected companies for a period of 10years. They found that in overall analysis, there is a significant and positive impact of capital structure on the profitability of the petroleum sector whereas in individual analysis, the analysis has no significance because every company has their own capital structure.

Soumadi and Hayajneh, (2012) studied the relationship between capital structure and corporate performance on Jordanian shareholdings firms. The study used multiple regression models by least squares (OLS) to establish the link between capital structure and corporate performance of firms over a period of 5 years. The results showed that capital structure was associated negatively and statistically with the performance of the firms in the sample. Another finding from the study was that there was no significant difference to the impact of financial leverage between high financial leverage firms and low financial leverage firms in their performance. The study also concluded that the relationship between capital structure and firm performance was negative for both high growth firms and low growth firms.

The recent study of Ogebe, Patric and Alewi, (2013) investigated the impact of capital structure on corporate performance in Nigeria from 2000 to 2010.The study paid particular attention to macroeconomic variables (Gross Domestic Product and inflation) on firm performance. The study concluded that there was a strong relationship between leverage and corporate performance. The study concluded that there was a significant negative relationship between capital structure and corporate performance.

Salawu (2007) carried out an empirical analysis of the capital structure of selected quoted companies in Nigeria between 1990 and 2004.Using panel data analysis; the author found that leverage is negatively related to profitability. He also confirmed that tangibility is positively associated with total debts and long term debt though negatively related to short term debt. He also opined that collateral has influence on all bank borrowing in Nigeria whether short term or long term. Furthermore, growth opportunity was found to be positively related to both total debts and short term debts.

David and Olorunfemi (2010) used panel data analysis to analyse capital structure and corporate performance in Nigeria petroleum industry. Their study finds no relationship between earning per share

(firm performance) and capital on one hand and positive relationship between dividend per share and leverage ratio on the other hand.

These studies use different tool of analysis, methodology, scope and are carried out in different political and economic conditions. The few study done in Nigeria are carried out in the banking and petroleum industry. The result from those studies are mix therefore difficult to draw policy implication from. No study has been done on the effect of capital structure on firm's performance in pharmaceutical industry to the best of my knowledge.

3.0 METHODOLOGY

The study used pool time series data and is predicated on ex-post facto and analytical research design. The study used pool data collected in 2014. The data were collected from the 2014 published financial statement of the various quoted companies used in the study and the stock exchange Fact-book. The study relies on data from such official sources.

3.1 Data and Variable Description

The study used a panel data collected from the quoted eight pharmaceutical companies in Nigeria within the period covering 2005 – 2014. The study used total debt, short term, long term debt as (independent variables); ROA (Dependent variable); and firm size and investment opportunities were added as \controlled variable.

Below are the dependent and independent variables and their proxy.

Variables	Measures/Proxy
Return on Assets (ROA)	ROA is a proxy for firm's performance. It can be determine/ calculated as PBT/Total Asset
Long Term Debt (LTD)	Long term debts are debt that will fall due or will be matured after the accounting year. E.g. debenture, bonds etc
Short Term Debt (STD)	Leverage is a proxy for short term debt. Debt that falls due within the accounting circle of the business.
Total Debt (TD)	Total debt is a combination of short term debt (leverage) and long term debt used by pharmaceutical industry in Nigeria.
Firm Size (SIZE)	Log of Total Asset
Investment opportunity (INV)	Amount spent on research and development

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3.4 Model Specification

The model for the study is premised on the main objective and anchored on the sub-objective. A linear regression model was design to test each of the Null hypotheses. The model used were adopted from the work of Hashem et al (2012) and were adapted to suite the variables used in this study.

ROA = f(LTD, LEV, TD, TA, INV) …………………………………..1

This can be mathematically express as

$$ROA_{it} = d_0 + d_1 \log LTD_{it-1} + d_2 \log STD_{it-1} + d_3 \log TD_{it-1} + E_{it} \ldots\ldots\ldots 2$$

Where: ROA=   Return on Equity; ROA=Return on Assets; LTD=Long Term Debt; STD=Short Term Debt; TD   =   Total Debt

d_0 =Constant; log=Logarithm; E=Error term; $i= i$ is the firm; t =is year (time series).

d_1, d_2, and d_3 = are the coefficient of the regression equation

The study used logarithm (Log) to reduce all the variables to the same unit (Tens) to avoid the possibility of outliers.

4,0   DATA ANALYSIS AND INTERPRETATION

4.1 Data Analysis

In analyzing the data, the study multiple regressions to identify the possible effects of capital structure on firm performance of quoted pharmaceutical companies in Nigeria. The study conducted some preliminary analysis such as descriptive statistics and correction matrix.

Added to the above, the variables for this study included form performance metric (ROA) as the dependent variable while the independent variables were long term debt (LTD), short term debt (STD) and total debt (TD).

Table 4.1 below, provides the summary of the descriptive statistics of the sampled quoted pharmaceutical companies in Nigeria stock exchange.

Table 4.1 Descriptive statistics

Variables	Mean	Median	Max	Min	Std Dev.	JB(P-value)
ROA	6.0978	5.5000	16.500	1.0300	4.5045	0.0000*
LTD	5.4050	5.3794	5.8040	5.0830	0.2384	0.0809**
STD	5.6223	5.5882	6.0343	5.3190	0.2271	0.0895**
TD	5.8318	5.8155	6.2353	5.5323	02110	0.0782**
No of cross section	9					
All data observation	180					

Source: Researchers summary of result

Note: *1% level of significance, **10% level of significance

Table: 4.1 Shows the mean (average) for each of the variables their mean, median values, standard deviation and Jarque-Bera (JB.) statistics (Normality test). The result provided some insight into the nature of the quoted pharmaceutical companies under study. Firstly, the small difference between the maximum and minimum values of total debt shows that the sampled companies in the study are not dominated by either high indebted or low indebted companies. Secondly, it was observed that on the average, the sampled quoted pharmaceutical companies in Nigeria was characterized by both positive average ROA (6.0978). The study observed that the average total debt (log TD) is 5.8318 the minimum amount of long term debt (log TD) is 6.2353 while the minimum stood at 5.5323. This shows that most pharmaceutical companies total debt are not different that is the ranges between the total debt of pharmaceutical companies are similar the value of total debt of pharmaceutical companies are close to each other). Thus close variation in total debt therefore justify the need for this study, as the study

expect the pharmaceutical's performance to be similar. The table 4.1 also shows that the sampled pharmaceutical companies have maximum long term debt (Log LTD) of 6.0343 and a minimum of 5.3190. This close variation in the by pharmaceutical companies confirms that our sample companies are heterogeneous and the selected estimation techniques must take into consideration heteroscedasticity problem. This therefore justifies the use of both OLS (ordinary least squared) least squared regression estimation techniques.

Lastly, in table 4.1, the Jarque–Bera (JB.) which test for normality or existence of outliers or extreme value among the variables shows that all the variable are normally distributed at 1% level of significance except long term debt (LTD), short term debt (STD) and total debt (TD) which was significant at 10%. This means that any variables with outlier are not likely to distort the conclusion and are therefore reliable for drawing generalization. This also justify the use of ordinary least square estimation techniques.

4.2 Correlation Analysis

In examining the association among the variables, the study employed the Pearson correlation coefficient (correlation matrix) and the result are presented in table 4.2

Table 4.2 Pearson correlation matrix

	ROA	LTD	STD	TD
ROA	1.0000			
LTD	0.2079	1.0000		
STD	0.0487	0.8485	1.0000	
TD	0.1028	0.8372	0.9782	1.0000

Source: Researchers summary of E-view 8 correlation analysis

The use of correlation matrix is to check for multi-colinearity and to explore the association between each explanatory variable and the dependent variable.

The findings from the correlation matrix table. This shows that ROE and ROA are both close proxy for measuring firm performance. The table shows that long term debt (LTD, ROA = 0.21) was positively and strongly associated with ROA. This suggests that the use of long term debt by pharmaceutical companies is positively associated with their performance. Short term debt (ROA = 0.05) was positively associated with firm performance. In checking for multicolinearity the study notice that no two explanatory variables were perfectly correlated. This means that there is the absence of multicolinearity problem in the model used for the analysis.

4.3 Regression Analysis

To examine the impact relationship between the dependent variable (ROE and ROA) and capital structure variables and to also test our formulated hypotheses, we used a multiple regression analysis.

4.3.2 ROA Model

The Return on Asset (ROA) OLS and WLS regression results examine how capital structure effect firm performance proxy by Return on Assets (ROA). The result obtained are presented in table 4.4

Table 4.4 Regression Result of OLS and WLS

		LTD	STD	TD
Coefficient	OLS	79.5349	80.8508	88.7480
	WLS	79.5349	78.8579	88.7487
P-value	OLS	0.0552	0.0395	0.0104
	WLS	0.0046	0.0010	0.0657
R.sq(adj.)	OLS	0.3479		
	WLS	0.3479		
Durbin Watson	OLS	1.8129		
	WLS	1.8129		
F-start	OLS	0.3117		
Wald F-Stat (Prob.)	WLS	0.0629		

Source: Researchers summary of OLS and WLS regression analysis Result

In testing for the cause effect relationship between the dependent and independent variables in the ROA model, the study reported the OLS and WLS regression results. In estimating the OLS result, the study follows the assumption of heteroscedalicity while in the case of WLS, the study assume the presence of Heteroscedalitcity. In selecting from the two regression results we used the WLS since the results would be more appealing statistically in the context of difference in our sampled companies.

In table 4.4 the WLS result showed the adjusted R-squared values of 0.3479. This indicates that all the independent variable jointly explain about 35% of the systematic variation in ROA of the sampled companies in the year 2014. While the other 65% variation in ROA is accounted for by other variable not captured in the model. This is different from the result obtained from the model of capital structure and ROA. The Wald F-start probability of 0.063 at 10% significant level showed that the regression model is generally significant and therefore well specified. The Wald –F-start probability also shows that the overall ROA WLS regression model is significant at 10% levels.

Long term debt and Return on Asset (ROA): Based on the coefficient 79.5349 and p-value of 0.0o46, long term debt appears to have a strong positive influence on ROA of our Sampled quoted companies. And the relationship is statistically significant at 5% level. Based on the analysis result the study rejects the null hypothesis and accept the alternate hypothesis, the study therefore conclude that long term debt have significant relationship with firms performance (ROA).

Short term debt and Return on Asset (A). the analysis result (WLS) showed a coefficient value showed that there is a positive relationship between short term debt and ROA while the P-value of 0.0010 shows the relationship is statistically significant at 1% level. The result means, the use of short term debt in financing investment by pharmaceutical companies influence their performance positively. Thus, the short term debt the companies use in financing operation and investment the more their performance improves.

Total debt and Return on Assets (ROA): the analysis result of (WLS) showed a coefficient value of 88.7487 and a p-value of 0.0657. The coefficient value of 88.7487 showed there in a strong positive relationship between the use of debt as a financing potion and the level of firm performance and the p-value of 0.0657 showed the relationship is statistically significant at 10% level. The WLS regression result means the more pharmaceutical companies use debt, as a financing option, the more their performance improves.

5.1 Summary of Findings

The specific objective of the study was to examine the effect of capital structure on firm performance. The study uses cross sectional data of quoted pharmaceutical companies.

The analysis result of the relationship between short term debt and firm performance shows a positive relationship, this provide evidence that supported the relevance of capital structure decisions. The findings explained the fact that the use and benefit debt out weight increase in cost of operation. Thus, the use of debt affects firm performance and can be a potent tool in governance mechanism by shareholders in order to help reduce the agency conflict, that is, will prefer the use of short term debt for financing operation and investment as against retained earnings (non divided payment).

The finding on the analysis of the relationship between long term debt and firm performance shows that the use of long term debt impacts positively on firms performance. Thus, when pharmaceutical companies increase the ratio of long term debt in the capital structure, the performance of the firm will increase. This finding is in line with of the findings of the study conducted by Rober (2015) in Kenya, Taiwo .(2012). Nigeria.

The relationship between short debt and firm performance proves positive. This means that the use of short term debt (overdraft, trade payable, arrears, etc) improves the leverage and liquidity position of Pharmaceutical companies, though this will increase the possibility of financial distress and cost of operation. The findings is in line with that of Zetun and Tian (2007), Ahmad, Abdullar and Roslan (2012) and contrary to that of Soumadi and Hayajney 2012

5.2 Conclusion

The finding of this study shows that capital structure have significant relationship with firm performance, thus, it has been empirically established by this study that capital structure is a viable tool in investment decision and firm performance. The study also established the relationship between short term debt and long term debt and firm performance.

The finding is in line with the traditional theory which posits that a positive relationship exists between capital structures and firm performance. Thus, in a company where there is no judicious use of finds, debt might not have positive effect on firm performance.

5.3   Recommendation

Based on the findings, the study recommends the following:

1.   Pharmaceutical companies should moderate the level of debt in their capital structure. High level of interest payment on debt reduces availability of internal funds for investment and net earnings. ROA, managers performance will be judge low. The opportunity cost of high interest payment is therefore the investment forgone using internal fund.
2.   It is difficult to make loan repayment of short term financing that was used for long term investment. Ideally the primary source of loan repayment should be cash flow from the project. Thus,

the study recommend that in taking decision on using short term debt, attention should be paid to the investment opportunity, that is, the type of investment- long term or short term.

3.   Since the pharmaceutical firms operating in the industry are large(size) and capital intensive, the study recommend that in making decision on the optimal capital structure, managers should consider the use of long term debt than short term debt.

REFERENCES

Abbadi T. & Abu-Rub, A. (2012). Capital Structure Effect on Firms Performance: Focusing on Consumers and Industrials Sectors on Malaysian Firms. *International Review of Business Research Papers 8(5)* 137 – 155.

Ahmad,O.; Abdullar H., & Roslan E. (2012). Ownership structure and corporate performance: evidence from India', . *International Journal of Humanities and Social Sciences, 1(1)* 23-29

Ali, S.; Bontage, D. & Raheem, H. (2012). Capital Control, Debt Financing and Innovative Activity. Centre for European Research.

Berle, A. & Means, G. (1932). *The Modern Corporation and Private Property*. MacMillan, New York.

Boateng, A. (2004). Determinants of capital structure: evidence from international joint

Bokpin, A. & Isshaq, E. (2008). Testing Static Trade-Off Against Packing Order Models of Capital Structure: A Critical Comment. *Journal of Financial Economics* 58: 417-425

Brogg, F. (2002). What do we know about capital structure? Some evidence from international data, *Journal of Finance*, 50, 1321-60.

David, A., & Olorunfemi, S. (2010). Bank Structure, Liquidity and Profitability: Evidence from the Nigerian Banking System". IJARAFMS 2,(3) 98-113.

Ebaid (2009). How big are the tax benefits of debt? *The Journal of Finance*, 55(5):1901-1942

Fabozzi and Markomits (2006). Determination of optimal capital structure: the effect of firm and industry debt ratios on market value. *Journal of Financial and Strategic Decisions*, 7 (3)

Goswami, A., & shrikhande (2001). Capital structure and systematic risk in the Philippine setting, *Revista de Estadistica, Econometria y Finanzas Aplicadas,* 5(6), 1-16.

Goyal (2013). Capital structure decisions: Which factors are Reliability important? Financial Management, 38:1-38.

Güven, S. (2013). The Firm-Specific Determinants of Corporate Capital Structure: Evidence from Turkish Panel Data

Hasan, A.; Ahsan A., & Rahama S. (2014) Impact of working capital management on profitability: Evidence from listed companies in Sri Lanka. In: Reshaping Management and Economic Thinking

through İntegrating Eco-friendly and Ethical Practices: Proceedings of the 3rd International Conference on Management and Economics, 26- 27 February, 2014. Sri Lanka.

Jensen, M. & Langemeier, C. (1996). Determinant factors of leverage: an empirical analysis of Spanish corporations. *Journal of Risk Finance*, 6(1), 60-68

Jensen, M. & Runback, E. (1983). Affects of working capital management on firm's performance: Evidence from Turkey. *International Journal of Economics and Financial Issues, 2(4), 488-495.*

Leon (2013). Managing efficiency and profitability through working capital: An empirical analysis of BSE 200 companies. *Asian Journal of Business Management, 5(2), 197-207*.

Modigliani and Miller (1963). The Cost of Capital, Corporation Finance and the Theory of Investment. *American Economic Review,* 48,(4) 261-297

Myers, S. & Majluf N. (1984), Corporate Financing and Investment Decisions when Firms Have Information that Investors do not Have. *Journal of Financial Economics, 13:187-221.*

Ogebe, P.; Ogebe, J. & Alewi, K. (2013) The Impact of Capital Structure on Firms' Performance in Nigeria. Munich Personal Repec Archive 3

Pratomo, E. & Ismail, A. (2006), The determinants of capital structure: evidence on UK property companies. „*Journal of Property Investment & Finance*, 17(5).

Rober, D. (2015) The cost of capital, corporation finance and the theory of investment. *American Economic Review,* 48(3), 261–97.

Saeed, A.; Gull E., & Rasheed S. (2013) The Capital Structure and Investment decisions of small owners managed firm: Some Exploratory Issues. *Journal of financial and strategic decisions 2(1)*

Salawu, E. (2007) Determinants of corporate borrowing. *Journal of Financial Economics*

Samarakoon, (1997); Determination of capital structure and prediction of bankruptcy in Korea. Unpublished PhD thesis, Cornell University. www.cornel uni.com/terms/c/capitalstructure

Senaratene, V. (1998), Corporate financing and investment decisions Vietnam. *Journal of Financial Economics*, 13:187 – 221.

Shubita & Alsawalhah (2012), Pecking Order Theory and the Financial Structure of Manufacturing SMEs: From Australia's Business Longitudinal Survey. Adelaide, South Australia: School of Commerce, Flinders University of South Australia.

Soumadi and Hayajneh (2012) Capital structure and corporate performance empirical study on the public jordanian shareholdings firms listed in the Amman stock market. *European Scientific Journal October edition 8(22)*

Taiwo .(2012). Capital structure and firm performance: evidence from quoted Companies Nigeria. *International Research Journal and Economics, 70:* 20-36.

Tian, G. (2001), The Modigliani and Miller theorem and market efficiency. Working Paper, National Bureau of Economic Research.

Titman S. & Wessels R. (1988). The determinants of capital structure choice. *Journal of Finance,* 43(1): 1-19

Victor O. & Badu C.(2012), Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13:187 –221.

Zeitun R, & Tian GG (2007) Capital structure and corporate performance: Evidence from Jordan. *Australasian Accounting, Business and Finance Journal, 1(4):40-61*.