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ANALYSIS OF THE RELATIONSHIP BETWEEN DEBT FINANCING AND FIRM PROFITABILITY OF SOME SELECTED QUOTED FIRMS IN NIGERIA

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Abstract

Analysis of the relationship between debt financing and firm profitability of some selected quoted firm. Between 2008 to 2012; was carried out with the following objectives (i) to determine the relationship between debt financing and firm profitability for Nigerian firms (ii) to determine the relationship between debt financing and Nigerian firm asset utilization. The following research questions were asked (a) what is the relationship between debt financing and firm profitability for Nigerian firms? (b) what is the relationship between debt-financing and Nigerian firm asset utilization? The following hypotheses were stated (i) the relationship between debt financing and profitability of Nigerian firms is not positive. (ii) There is no positive relationship between debt financing and assets utilisation of Nigerian firms. The researcher sampled thirty 930) quoted firms that did not include financial service sectors which are known as fund providers. The hypotheses was tested using Pearson Moment Correlation. Findings from the hypotheses shows that the relationship between total debt ratio and net profit margin of Nigerian firms is positive. The relationship between total debt ratio and total asset turnover of Nigerian firms is not positive. The implications of the findings, is that management needs to pay serious attention to the composition of the firms financial structure. This is because the failure to achieve an optimal financial structure may lead to influence and financial distress which may result to bankruptcy. The conclusion is that the researcher identified firms value parameters and used them to determine the firms performance with the use of debt in financing the firms operations. The recommendation is that the firm management should ensure that there is properly financed in a way that it will enhance full utilization of the firms assets. The conclusion is that.

Introduction

A common phenomenon in the financed reports of Nigerian firms is the volume of short term and long term liabilities that form a considerable size of their capital structure. In Nigeria, some empirical studies have been done in this area of corporate finance and its effect on the value of the firm. Among such was Ezoha (2007) who examines the impact of major firm characteristics on the financial leverage of quoted companies in Nigeria and used panel data from 71 quoted Nigeria companies for 17 years period (1990-2006). The result showed that the relationship between corporate ownership and financial leverage was positive across the proxies

but more significant within the classes of foreign and indigenous firms. The relationship asset tangibility was forward to be non significant and negative, using total debt ratio or short term debt ratio as the dependent variable. It was also seen from the research study that the relationship between leverage and profitability was significance and negative (Ezeoha, 2007).

There are three essential theories which highlight the influence of debt on corporate profitability, namely, signaling theory, the agency cost theory and Tax theory. First, according to signaling theory, the debt in the presence of asymmetric information should be correlated positively to profitability.

According to the agency costs theory, there use two contradictory effects of debt on profitability, firstly it is positive in the case of Agency cost of equity between shareholders and managers. Secondly its effect is negative resulting from the Agency cost of debt between shareholders and lenders finally, the influence of taxation is complex and difficult to predict because it depends on the principles of tax deductibility of interest, income tax, and non debt tax shield.

Statement of Problem

Despite different methods of financing decision choice for firms, many firms in Nigeria are yet to show reasonable leverage, huge capitalization not withstanding. Additionally this study improves the precision of estimation by reducing the heterogeneousness between size of companies, thus considering the behaviours of Nigerian firms given their classification to analyze the relationship between debt, financing and firm profitability of Nigerian firms.

Objective of the Study

(1) To determine the relationship between debt financing and firm profitability for Nigerian firms.

(2) To determine the relationship between debt financing and Nigerian firm asset utilization

Research Question

(1) What is the relationship between debt financing and firm profitability for Nigerian firms?

(2) What is the relationship debt financing and Nigerian firm asset utilization?

Hypotheses of the Study

Ho_1: The relationship between debt financing and profitability of Nigerian firm is not positive

Ho_2: There is no positive relationship between debt financing and asset utilisation of Nigerian firms.

Scope and Delimitation of the Study

The Nigerian stock exchange is made up of 13 industrial classification and 48 sub industrial classifications. (Nigerian stock Exchange Fact Book 2012) including the managed fund, banking and insurance sub sectors as well as the manufacturing. Sub sectors this work had a population of (45) forty five actively quoted companies excluding Insurance Banking and other financial subsectors because such sectors do not apply debt financing. This serves as the scope.

Review of Related Literature Concepts

Corporate finance deals with the decisions and techniques firms uses to raise funds for its investment decision. Demodaran (2002) says that corporate finance as a discipline can be divided into two decisions that the firm makes long term and short term decisions and techniques, while long term decision are called capital investment decisions relating to fixed assets and financial structure of the firm (Brealey, Myers and Marcus 2004). They went further to say that the short term decision also called working capital management are decisions that involves managing the relationship between a firms short term assets and its short-term liabilities. But the positive difference between the current assets and current liabilities of any given corporate organisation

results of working capital (profit). However Swanson and Marshall (2008) hold that in the case of Asset, debt is a means of using future purchasing power in the present before a summation is earned, thus a firm uses various tend of debt to finance its operations. The various types of debt can generally be categorized into (1) Secured and unsecured debt (2) Private and public debt and (3) Syndicated and bilateral deb.

Theoretical Framework

This work is anchored on agency cot theory. The classical Agency concept was developed by Berley and Means (1932). The observed that ownership and control which have been separated in larger corporations as a result of dilution in equity positions provided an opportunity for professional managers to act in their own best interest. Thus, the agency theory attempted to provide explanation to firm behaviours in the area of choice financing. Agency debt provides a means of bonding managers promises to pay out future cash flows and as well, as providing the means for controlling opportunistic behaviour by reducing the cash flows available for discretionary spending thus ensuring that top managers attention is then clearly focused on those activities necessary to ensure that debt payments are made.

Ross (1977) says that a performing firm is once that borrows and is capable to honour its commitment for reimbursement without any serious problem, by contrast a bad firm is one that acts similarly but is a posterior, inapt to face debt reimbursement agency theory also has important implications for the relationship between equity holders and debt holders (Simerly and Mingfang, 2000). Thus while equity holders are interested in the return over and above the amount which is required to repay debt. Debt holders are only interested in the debt payment specified in the contract.

Empirical Review

Wali, Goher and Mehoboob (2012) analyzed the impact of capital structure (ie short term, long term and total debts) on the profitability of companies in textile industry of Pakistan, while controlling the size of the company. A total of 17 companies (initially 7 and then another 10) were selected randomly for the study. Regression analysis results show that there is to significant and positive impact of short term debts on the profitability of the firm, however long term debt has no impact on the profitability. Their study also shown that short term debt are useful for companies having small sales and vise versa.

Methodology

This work made use of secondary data which was easily gathered from the published account of the various companies, therefore it is based on ex-post facto.

Population and Sample Size

The Population of forty five (45) on find raiser quoted companies were study, and a sample size of theory (30).

Model Specification

The hypotheses were tested using correlation analysis. In writing the equation, the following symbols were used to denote there respective variables.

TDR	=	Total Debt Ratio
NPM	=	Net profit margin
a	=	Regression equation intercept
b	=	Regression equation co-efficient
X	=	Co-efficient for value parameters
M	=	Error term.

Section 1.01 Test of Hypothesis One

Hypothesis one seeks to reveal whether debt financing has a positive effect on net profit margin of Nigerian firms. The data from Appendix I and II were used at 90% confidence level.

Re-Statement of Hypothesis One

Ho_1: The relationship between debt financing and profitability of Nigerian firm is not positive

Ho_2: The relationship between debt financing and profitability of Nigerian firm is positive.

To test hypothesis one, data from Appendix I and II above were used.

***Decision criteria*:** Reject H_0 if the sign of the correlation coefficient is positive otherwise accept.

Results

Table 1 below presents the Pearson Moment Correlation result between total debt ratio and the net profit margin for the sampled Nigerian firms.

Table 1: Correlation Analysis: Pearson Moment Correlation

Sample (adjusted): 1 150

Included observations: 140 after adjustments

Balanced sample (listwise missing value deletion)

Correlation t-Statistic Probability	TDR	NPM	EPS	TAT
TDR	1.000000 ----- -----			
NPM	0.114861 1.358300 0.1766	1.000000 ----- -----		
EPS	0.069531 0.818786 0.4143	0.619099 9.260980 0.0000	1.000000 ----- -----	
TAT	-0.143198 -1.699718 0.0914	-0.196571 -2.355139 0.0199	0.223853 2.698149 0.0078	1.000000 ----- -----

Source: Author's Eviews Output.

Decision

The decision criteria was to accept the null hypothesis if the sign of the correlation coefficient is – tive. Table 1 shows the sign of the correlation coefficient to be positive at 0.114861 therefore, the null hypothesis was rejected and conclude that at 10% level of significance, which is at 90% confidence level, the relationship between debt financing and profitability of Nigerian firms is positive.

Section 1.02 Test of Hypothesis Two

Section 1.03

Hypothesis two seeks to establish if there is a positive relationship between debt financing and asset utilization of Nigerian firms.

To test this hypothesis, data from Appendix I and III below were used at 90% confidence level.

Re-Statement of hypothesis Two

$H_{0:}$ There is no positive relationship between debt financing and asset utilization of Nigerian firms.

H_1: There is positive relationship between debt financing and asset utilization of Nigerian firms.

Decision Criteria: Reject H_o if the sign of the correlation coefficient is negative otherwise accept.

The Pearson Moment Correlation between total debt ratio and the total asset turnover for the sampled Nigerian firms are presented below in Table 2.

Table 2: Correlation Analysis: Pearson Moment Correlation

Sample (adjusted): 1 150
Included observations: 140 after adjustments
Balanced sample (listwise missing value deletion)

Correlation t-Statistic Probability	TDR	NPM	EPS	TAT
TDR	1.000000 ----- -----			
NPM	0.114861 1.358300 0.1766	1.000000 ----- -----		
EPS	0.069531 0.818786 0.4143	0.619099 9.260980 0.0000	1.000000 ----- -----	
TAT	-0.143198 -1.699718 0.0914	-0.196571 -2.355139 0.0199	0.223853 2.698149 0.0078	1.000000 ----- -----

Source: Author's Eviews Output.

The above result includes 140 (one hundred forty) observations at 90% confidence interval.

Decision

The decision criteria is to accept the null hypothesis if the sign of the correlation coefficient is -tive. Table 2 shows the sign of the correlation coefficient of -0.143198 to be

negative. Therefore, the researcher accepted the null hypothesis and concludes that there is no positive relationship between debt financing and asset utilization of Nigerian firms.

Discussion

From this work, total debt ratio (TDR) in 2012 the end of the period, UAPCDN, Julius Berger, Thomas Wyatt Nigeria, Leventis, Nigeria Ropes, Afromedia and BOC Gases recorded total debt ratio of over 100% from 2008 to 2012 indicating that the firms-depends solely on debt for the financing of their operation. First Aluminum Courtville, and Livestock recorded total debt ratio of less than 1% indicating that the firms have debt of lower than 1% in their capital structure while Triple Gee and Pharma Deko had negative total debt ratio in most of the period under study.

In the profit margin in 2012, Okonu oil palm had the highest net profit margin (NPM) at 88% followed by Pharma Deko at 69.7% while Afromedia, first Aluminum and Thomas Wyatt recorded negative NPM indicating that the firm incurred losses. Okomu had maintained a steady increase in profitability while Pharma Deko recovered from losses in 2011 to record the highest NPM for the sample in 2012. However, the results show that the relationship between total debt ratio and net profit margin of Nigerian firms to be positive but not significant.

In 2012, Eterna Oil emerged as the best efficient firm in our sample that used its assets to generate the highest sales revenue; followed by Unliver, Guinnes and Red Star express at over 100% each. These firms maintained efficiency in the utilization of their asset to generate sales revenue throughout the period under study. The researcher concludes that the relationship between total debt ratio and total asset turnover of Nigerian firm is not positive though significant. Thus from the above debt finance has a negative impact on asset usage of the firm.

Summary of Finding

1. The relationship between total debt ratio and net profit margin of Nigerian firms is positive
2. The relationship between total debt ratio and total asset turnover of Nigerian firms is not positive

Conclusion

This research attempted to extend the argument on the links between the firms financing options and the value of the firm. In theory, the financial goal of the firm should be shareholders wealth maximization as reflected in both book value and the market value of the firms stock. It was in line with the above that the researcher identified firms value parameters and used them to determine the firms performance with the use of debt in financing the firms operations.

Recommendations

- Firms management should ensure that financial decisions made by them are in consonance with the shareholders wealth maximization objective which encompasses the profit maximization objective of the firm.
- The separation of ownership and management in modern day corporations (firm) demands that agents must act in ways that are in line with the objectives of the principal in order to achieve enhanced earnings per share for the firm owners.
- Managers should employ debt financing in a way that it enhanced value for owners i.e. leading to an increase in returns to equity holders.

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APPENDIX I
Total Debt Ratio (TDR)

Firms/Years	**2012**	**2011**	**2010**	**2009**	**2008**
Okomu	0.2164	0.1886	0.336	0.582	0.48497
Presco	0.579	0.724	0.946	1.138	NA
UAC	0.4998	0.6643	0.909	0.31	0.23085
TRANSCORP	0.5605	0.6129	0.514	2.987	2.43473
UACPDN	1.2837	1.3035	1.33	1.087	1.06397
JuliusBerger	6.5063	10.323	5.086	0.14	1.69396
Guinness	0.3812	0.3962	0.355	0.338	0.42992
DangoteFlour	0.1373	0.1425	0.017	0.016	0.01428
GSK	0.5107	0.4993	0.45	0.455	0.43281
PharmaDeko	1.9497	-4.946	-4.683	-2.408	-6.40489
HIS	0.6759	0.5803	0.572	0.724	0.837
CourtVille	0.0402	0.0073	0.014	0	0.45331
BagCo	0.345	0.4297	1	1	10.0007
BetaGlass	0.2764	0.2988	0.306	0.301	0.30702
TWN	2.5509	2.0875	1.726	1.615	1.57583
FirstAlum	0.0755	0.0591	0.038	0.089	1.71078
Eterna	0.0817	0.4214	0.867	7.829	0.09489
MRS	0.2093	0.1571	0.474	0.666	0.33802
AcadPress	0.9473	1.302	1.068	0.265	0.37931
RedStar	0.1973	0.2274	0.309	0.133	0.13329
Livestock	0.0005	0.0012	0.002	0.002	0.00329
Leventis	1.9306	1.5357	1.02	0.736	0.50189
Nig. Ropes	1.1542	0.6813	1.069	1.112	0.96486
May & Baker	0.898	0.744	0.514	0.603	0.69738
JAPAUL	0.0991	2.1134	0.843	0.523	0.7326
Costain	0.467	0.6165	0.476	0.45	0.50598
Triple Gee	-4.4954	-1.199	-2.46	16.04	15.3327
AfroMedia	8.6766	0.8068	0.764	0.47	0.2132
BOC Gases	6.0616	3.5143	3.222	1.847	1.36802
Unilever	0.6576	0.4084	0.375	0.459	0.71703

Source: Author's Compilation (2014) from Audited Financial Reports of various years.

APPENDIX II
Net Profit Margin (NPM) for the Sample

Years	2012	2011	2010	2009	2008
Okomu	0.882535	0.352824	0.267658	0.115904	0.255051
Presco	0.268443	0.198265	0.203308	0.059789	0.170025
UAC	0.059039	0.01608	0.060997	0.071001	0.079046
TRANSCORP	0.089316	0.230295	-0.0563	-0.59073	-1.01372
UACPDN	0.181095	0.246226	0.278001	0.716296	0.276316
JuliusBerger	0.039461	0.026355	0.016145	0.021958	0.021813
Guinness	0.144974	0.125599	0.151895	0.171467	0.171701
DangoteFlour	-0.00677	-0.04047	0.004853	-0.00179	-0.00273
GSK	0.111566	0.106616	0.117259	0.113816	0.101828
PharmaDeko	0.694118	0.033409	-0.93859	-0.91944	-0.21911
HIS	-0.18022	0.006209	0.063084	0.104339	0.088935
CourtVille	0.354879	0.368181	0.389699	0.621966	0.010275
BagCo	0.055166	0.021888	-0.00915	0.025699	0.095981
BetaGlass	0.121464	0.131844	0.131119	0.131412	0.123183
TWN	-0.22701	-0.22152	-0.03823	0.004837	0.01243
FirstAlum	-0.04314	-0.00452	0.004043	-0.02129	-0.05886
Eterna	0.029491	0.051118	-0.16207	-0.03382	-0.02761
MRS	0.014604	0.024703	0.014087	-0.00463	0.026977
AcadPress	0.040293	0.051733	0.068395	0.034496	0.044913
RedStar	0.075412	0.071617	0.043605	0.041235	0.063154
Livestock	0.181242	0.161132	0.133757	0.104155	0.031783
Leventis	0.03132	0.037559	0.040402	0.025846	0.027846
Nig. Ropes	0.067142	0.05996	0.050485	0.034095	0.040702
May & Baker	0.076833	0.053972	0.093845	0.050957	0.047946
JAPAUL	0.171599	0.162386	0.135558	0.195048	0.177966
Costain	0.170871	0.158185	0.128392	0.094047	0.117675
Triple Gee	0.092315	0.035792	-1.33899	-0.12694	-0.37167
AfroMedia	-2.6858	-0.09294	0.117896	0.142188	0.224174
BOC Gases	0.015701	0.025132	0.040421	0.137737	0.083121
Unilever	0.10034	0.089314	0.092035	0.069468	0.0317

Author's Compilation (2014) from Audited Financial Statements of various Firms.

APPENDIX III
Total Asset Turnover

Years	2012	2011	2010	2009	2008
Okomu	0.326719	1.058903	0.776854	0.688365	0.744355
Presco	0.650038	0.668	0.519632	0.486433	0.585014
UAC	0.880237	0.740624	0.70643	1.000265	0.934916
TRANSCORP	0.338839	0.324155	0.373932	0.109393	0.08165
UACPDN	0.16872	0.098278	0.121185	0.053489	0.20822
JuliusBerger	1.806868	1.535204	3.707701	7.996833	9.391876
Guinness	2.222591	2.29048	2.086472	1.402018	1.376302
DangoteFlour	1.306481	1.410789	1.537429	1.279397	1.408794
GSK	1.161312	1.199867	1.183081	1.237953	1.30525
PharmaDeko	0.383592	0.49111	0.201232	0.551505	1.106393
HIS	0.481733	0.495682	0.387323	1.339148	0.862435
CourtVille	0.39923	0.281745	0.266403	0.214272	0.194449
BagCo	1.504283	4.595776	1.005789	0.998736	1.351985
BetaGlass	0.892413	0.875945	0.948623	0.957234	0.795883
TWN	0.375782	0.283571	0.285769	0.404247	0.296701
FirstAlum	1.338691	1.270737	1.171541	2.907509	3.292716
Eterna	6.506616	2.15123	1.266381	1.749972	3.782736
MRS	3.26441	3.488057	17.06741	13.67156	13.41791
AcadPress	1.710747	1.569223	1.645578	2.773158	2.508069
RedStar	2.180721	1.914549	2.610298	2.300696	2.339243
Livestock	0.898723	0.92912	0.940476	1.096573	NA
Leventis	2.776749	3.505065	4.106466	2.927355	NA
Nig. Ropes	0.699644	0.543257	0.719119	0.819397	NA
May & Baker	1.446369	1.190891	1.444532	1.616155	NA
JAPAUL	0.839595	1.227317	1.35243	0.633245	NA
Costain	1.203249	1.061702	1.01901	0.695941	NA
Triple Gee	1.720311	1.398941	0.420808	1.231843	NA
AfroMedia	0.188555	0.355545	0.521564	0.42643	NA
BOC Gases	0.744776	0.615711	1.616027	0.64086	NA
Unilever	4.66156	4.692403	4.911699	4.325612	NA

Source: Author's Compilation (2014) from Audited Financial Reports of various years