

LIQUIDITY, FIRM SIZE, FINANCIAL LEVERAGE ON FIRM VALUE MODERATED BY THE PROFITABILITY OF MARITIME FIRMS IN NIGERIA

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Abstract: Abstract: This study examines the moderating effect of profitability on the effects of liquidity, firm size, and financial leverage on firm value in Nigeria from 2013 to 2021. These bias-free secondary series were obtained from the annual reports of fifteen maritime companies. At a 95% level of confidence, descriptive, Hausman, and Random effect POLS techniques were employed. The Hausman test demonstrates that the Random effect model is superior to the fixed effect model. The Random effect POLS demonstrates that profit after tax and gearing ratio significantly increase firm value; current asset ratio is negative and insignificant to firm value; and firm size increases firm value but not significantly. The study concludes that liquidity ratio, financial leverage, and profitability are crucial factors for determining the value of Nigerian maritime firms. To maximise shareholder value, the study advises maritime companies to place greater emphasis on increasing their profitability while decreasing their liquidity. In order to increase their capital base and maximise their value, maritime companies should consider selling stock to the general public.

Keywords: Marine, Cash flow, Investment, Hausman, Companies

1. Introduction

As in the rest of the world, maritime companies in Nigeria have felt the effects of Covid-19 and its variants. This has had an effect on its method of obtaining funds, cash position, profitability, and core values. Given the maritime industry's already volatile business climate, these recent truths are all the more pronounced. This dilemma occurs and forces maritime company managers to choose between maintaining a healthy cash position in the form of liquidity or increasing profits with the attendant financial leverage (FLE) requirements. Financial leverage has no effect on firm value under the implausible presumptions by Modigliani and Miller (MM) (1958) regarding optimum cash mix, including the presence of efficient markets, tax truancy, and the nonappearance of transaction and liquidation costs (Abubakar, 2017). The no-tax presumption that underpinned MM's (1963) original proposal was dropped later on. Therefore, taxation has profound effects on a company's worth.

The FLE of a business is made up of both equity and debt funds. Investing with borrowed or owned funds is what this term describes (Burksaitiene & Draugele, 2018; Le & Phan, 2017; Olusuyi & Felix, 2017). Most companies, as stated by Pandey (2004), do not meticulously strategize their FLE choices but rather fall back on specific financial preferences that carry some degree of risk. Given the differing exposures of maritime firms, the discourse on the appropriate combination of FLE to boost firm value has remained the subject of much written work. Therefore, inefficient FLE can have a negative impact on a company's bottom line (Uremadu, 2012). Inordinate position of equity or borrowing in the FLE can contribute to dilution of influence, a high price of funds, profit sharing, conflicts, financial difficulties, and the danger of bankruptcy due to a shortage of liquidity. As debt is paid off, liquidity increases, but profits decline. Thus, the FLE tradeoff between liquidity and profitability is laid out (Anderson & Carverhill, 2010).

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According to Kimondo, Irungu, and Obanda (2016), liquidity is crucial for enhancing firm value in organisations. Careful strategizing, organisation, and allocation are essential to increasing returns for stockholders. This is attained when managers consistently deliver above-average results in fulfilling commitments as they actually incurred (Orshi, 2016; Apuoyo, 2010). In finance, liquidity is defined as the absence of risk when meeting short-term debt payments with readily available cash or other easily translatable assets. By maintaining an optimum level of liquidity, businesses are able to meet their obligations and establish a positive reputation (Akenga, 2017; Orshi, 2016; Alshatti, 2015). However, satisfactory cashflow is needed to attain optimal liquidity. Whether or not a business is risky and profitable depends greatly on how much cash it brings in. As cash and equivalents accumulate, profitability drops and the odds of a downturn increase. Orshi (2016) claims that adequate cash flow guarantees timely payment of all debts without resorting to avoidance strategies. According to Idamoyibo, Abner, Akpan, Orugun, Emmanuel, and Udo (2021), it is the "bloodstream" of a company. The company's bottom line will take a serious hit if performance falls short of the optimal level. Despite manufacturers' occasional capability to alter it, it remains one of the specifications for investors (Nwanyanwu, 2015) and a predictor of a firm's ultimate effectiveness (Ekwere, 1993).

A thorough look at the existing literature shows that most of the scholars (Nwanne & Ive, 2017; Ameh & Ken, 2016; Cyril, 2016; Nwaolisa & Chijindu, 2016) concentrated on the financial and the manufacturing sectors of the Nigerian economy. However, this study is distinct as it pays careful examination on how liquidity, firm size, and financial leverage moderated by profitability affects the firm value of maritime companies in Nigeria. The study concentrates on the maritime firm because of its erratic nature. This paper is structured into five sections: introduction, literature review, methodology, results and discussions, and conclusions and recommendations.

2. Literature Review

Here, the study takes a look at the pecking order and trade-off explanations. According to the trade-off theory, profits and liquidity are like two ends of a rope; changes in one

affect the other (Puneet & Parmil, 2012). That they are at odds with themselves is implied. Since you're only focusing on one, the other will leave unless you make sure things are running at peak efficiency. As Orshi (2016) argues, there is a firm connection between the two, it makes sense to take this optimality stance. According to this theory, businesses aim to find a sweet spot between the costs and benefits of managing their cash flow. It also argues that high-leverage firms incur higher interest and principal payments on their debt, which reduces their earnings potential. There is a risk that this will make it challenging for businesses to raise capital from other channels.

According to Donaldson's (1961) PO theory, businesses would rather use in-house resources than look elsewhere for what they need. This happens because the general populace and potential investors are interested in the information contained in financial documents. As a result, this data is extremely important for both managers' and investors' perception and subsequent financing decisions (Myers, 1984). They contended that managers' MT behaviour is evident in financing choices, such that when they believe their shares will be understated, they are hesitant to float the offering, and that investors are fully conscious of this. There appears to be a wealth distribution in favour of investors (Mohammed, 2010). Investment managers, then, resort to internal resources, debt, and finally, new equity to finance new investments.

On empirical ground, Supriati, Ramaditya, and Wardh (2019) use data from 11 Indonesian food and beverage companies to show a strong beneficial correlation between cash flow and profitability. Assigning liquidity as the most important factor in a company's success. As a result, Charmlet, Musah, Akomeah, and Gakpetor (2018) confirm that there is beneficial relationship between liquidity ratios and profitability among DMBs. Similar arguments to these are made by Malik, Awais, and Khursheed (2016), Khidmat and Rehman (2014), Sarwat (2017), Ibrahim (2017), Ajantham (2013), and Abdullah and Jahan (2017) in their earlier research on the impact of liquidity on DMBs' profits. Alternatively, Noor and Lodhi (2015) confirms an inverse link between liquidity and a firm's profitability. Using the POLS technique on publicly traded



companies in Nigeria, Augustine and Jacob (2017) discover a negative correlation between cash management and performance. From 2008 to 2015, Schulz (2017) representative sample of 3,363 of Dutch small and medium-sized enterprises (SMEs) confirms that liquidity has a negative impact on ROCE. The effect of different liquidity ratios on profitability was found to be both negative and positive in a study conducted by Mohanty and Mehrotra (2018) on 28 Bombay-listed small and medium-sized enterprises. Nazish and Shehla's (2017) research show a positive correlation between the current ratio and profits, but a negative one between the cash gap and those gains.

Nwanne and Ive (2017) take a look at the impact of FLE on firm performance in Nigeria from 2006-2015 using data from a sample of 13 DMBs. Through the use of the multivariate OLS technique, we find that the D/E ratio has a significant unfavourable impact on profitability. In a similar vein, Prempeh, Sakyere, and Asare (2016) used both the Random and Fixed effect models to find a negative correlation between FLE and profitability in a study of 5 publicly traded Ghanaian manufacturing firms between 2005 and 2015. From 2005-2013, Abubakar (2015) collects data on 9 DMBs in Nigeria. By making use of a correlational analysis, the author shows that there is a negative and statistically significant connection between the variables. Similarly, Abubakar (2016) examines the healthcare industry in Nigeria by analysing the performance of five publicly traded companies between 2005 and 2014. Specifically, he notes that a high D/E ratio has a devastating effect on profits. Abubakar (2017), on the other hand, discovered a positive correlation between FLE and profitability in a sample of 66 non-financial firms that were publicly traded between 2005 and 2014. Three Nigerian pharmaceutical companies were analysed by Enekwe, Agu, and Eziedo (2014), who found that

increasing the D/E ratio positively influenced profitability via Pearson correlation. However, using the POLS method, Nwaolisa and Chijindu (2016) find that FLE has no significant effect on the profitability of 23 consumer goods firms between 1993 and 2013. Cyril (2016) applies the POLS method to six publicly-traded companies across industries between 2011 and 2015 and concludes that none of them find FLE to be relevant to their operations.

3. Methodology

This study employs a retrospective research design. This is associated with the inability of the researchers to maneuver the data derived from these sources; since it is secondary in nature. This study draws its data from the annual reports of 15 maritime companies in Nigeria from 2013 to 2021. 15 of the 96 maritime companies (NIMASA, 2021) are utilised in this study. The 15 maritime companies used in this study were selected based on the availability of data; thus, the technique of purposive sampling was employed. Return on equity, current ratio, firm size, cash conversion cycle, and quick ratio are used as variables in the study (as seen in Mab & Makoni, 2019; Zalaghi & Godini, 2019; Augustine & Jacob, 2017). The study employs the descriptive analysis, Hausman, and Fixed effect regression tests at a 5% level of significance. Following is a description of the model used in this study:

$$ROE = f(PAT, CUR, FS, DER)$$

1

$$ROE_{it} = \alpha_0 + \alpha_1 PAT_{it} + \alpha_2 CUR_{it} + \alpha_3 FS_{it} + \alpha_4 DER_{it} + \sigma_{it}$$

2

On apriori, $\alpha_1 > 0$; α_2 , α_3 , and $\alpha_4 < 0$

Where, ROE = Return on equity, FS = Firm size, CUR = Current asset ratio, DER = Gearing ratio (Debt/Equity), PAT = Profit after tax, LN = Natural Logarithm, α_1 , α_2 , α_3 , and α_4 , and α_5 = Constant factors, α_0 = Intercept, it = different firm I in year t , σ_{it} = Error term.

4.0 Results and Discussion

Table 4.1: Descriptive Statistic Result

	ROE	LN PAT	CUR	FS	DER
Mean	0.247636	4.042645	1.631858	6.148397	0.221185
Maximum	0.540000	4.721699	3.263064	11.20677	0.550000
Minimum	0.020000	3.044367	0.210000	4.585733	0.020000
Std. Dev.	0.115877	0.429735	0.866226	1.110993	0.106302
Skewness	0.112568	-0.516777	-0.228960	3.066645	0.659291



Kurtosis	2.569410	2.464229	1.659953	13.60713	3.630511
Jarque-Bera	1.328027	2.623463	1.128047	844.4729	12.01614
Probability	0.514781	0.122610	0.393552	0.000000	0.002459

Source: E-views10 output

Table 4.1 display the mean yearly ROE, LNPAT, CUR, FS and DER as 0.247636, 4.042645, 1.631858, and 6.148397 respectively. The level of variability for ROE, LNPAT, CUR, FS and DER are 0.115877%, 0.429735%, 0.866226%, 1.110993%, and 0.106302% respectively. ROE, FS and DER are positively (0.112568, 3.066645, and 0.659291, respectively) skewed; whereas LNPAT and

CUR are negatively (-0.516777 and -0.228960, respectively) skewed. For Kurtosis, FS and DER are leptokurtic as their values are above 3; ROE is mesokurtic as its value is roughly 3; and LNPAT and CUR are platykurtic as their values are below 3. The J-Bera p-value show that ROE, LNPAT, and CUR are normally distributed; whereas, FS and DER are not normally distributed.

Table 4.2: Hausman Test Result

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	2.845172	4	0.5841

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LNPAT	0.000850	0.011179	0.000117	0.3393
CUR	-0.042791	-0.039198	0.000042	0.5775
FS	-0.010819	-0.011029	0.000008	0.9391
DER	0.547039	0.554132	0.000633	0.7781

Source: E-views10 output

Table 4.2 shows the preference of Random effect model over the fixed effect model. This is because the p-value associated to the Hausman test is above the 5% level; i.e,

0.5841. As a result, the study proceeds with the analysing of the Random Effect Ordinary Least Square (REOLS) Model.

Table 4.3: REOLS Result

Dependent Variable: ROE

Method: Panel EGLS (Cross-section random effects)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNPAT	0.547039	0.079497	6.881270	0.0000



CUR	-0.039198	0.011288	-3.472677	0.0007
FS	0.011029	0.007288	1.513376	0.1326
DER	0.554132	0.075408	7.348470	0.0000
C	0.211653	0.097874	2.162497	0.0324

Effects Specification

	S.D.	Rho
Cross-section random	0.066665	0.5005
Idiosyncratic random	0.066595	0.4995

Weighted Statistics

R-squared	0.714085	Mean dependent var	0.078235
Adjusted R-squared	0.669719	S.D. dependent var	0.083504
S.E. of regression	0.066298	Sum squared resid	0.571411
F-statistic	20.64388	Durbin-Watson stat	1.282784
Prob(F-statistic)	0.000000		

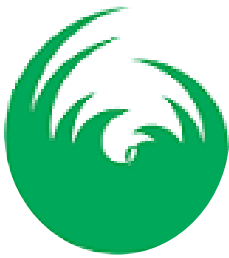
Source: E-views10 output

Table 4.3 shows that LNPAT is positive (0.547039) and significant (0.0000) to ROE. This implies that a unit increase in LNPAT will cause ROE to increase by 0.547039 unit. DER is positive (0.554132) and significant (0.0000) to ROE. A 1% increase in DER would cause ROE to increase by 0.554132%. However, CUR is negative (-0.039198) and significant (0.0007) to ROE. This means that a 1% increase in CUR would lead to about 0.039198% decrease in ROE. FS is positive (0.011029) but insignificant (0.1326) to ROE. A unit increase in FS would lead to about 0.011029% increase in ROE.

4.5 Discussion of Findings

The PAT of a maritime company significantly increases their worth. This indicates that as the PAT of maritime companies increases, so will their shareholders' wealth. The current asset ratio of maritime companies is inversely related to their shareholders' wealth maximisation. This signifies the trade-off between firms' profitability and

liquidity. To maximise the wealth of their shareholders, maritime companies must reduce their debt obligations to debtholders. This is consistent with the findings of Augustine and Jacob (2017) and Noor and Lodhi (2015), who discovered a negative correlation between liquidity and profitability. It disagrees with Supriati et al. (2019), Ajantham (2013), Sarwat (2017), Khidmat and Rehman (2014), and Abdullah and Jahan (2014) that liquidity and profitability are positively correlated. The size of maritime companies significantly increases their value. This implies that the wealth maximisation of shareholders will increase as the size of maritime companies increases. This is due to the economies of scale resulting from the size of these companies. The gearing ratio is an essential component of the FLE, and increasing it can increase a company's profitability. This relates to the ability of a company's management to determine the optimal debt-equity ratio in its capital structure. This is consistent with the findings of Nwaolisa and Chijindu (2016), Abubakar (2017), and



Enekwe et al. (2014), which indicate that optimal capital structure enhances firm performance. In contrast, Uremadu (2012) asserts that the capital composition of the majority of firms is insufficient, thereby limiting their profitability.

5. Conclusion and Recommendations

This study examines how profitability moderates the effects of liquidity, firm size, and financial leverage on firm value in Nigeria between 2013 and 2021. The study utilised information from the annual reports of fifteen maritime companies. This study utilises return on equity, PAT, current asset ratio, firm size, and gearing ratio as independent variables. The study employed the Descriptive, Hausman, and Random effect OLS tests at a significance level of 5% in order to properly analyse the data. The study demonstrates that PAT, gearing, and current ratio are the most significant determinants of firm value among Nigerian maritime companies. This agrees with the findings of Augustine and Jacob (2017), Mab and Makoni (2019), and Noor and Lodhi (2015).

In order to maximise shareholder value, the study recommends maritime companies focus more on boosting their profitability while reducing their liquidity. Maritime companies should consider offering shares to the general public in order to increase their capital base, thereby maximising their value.

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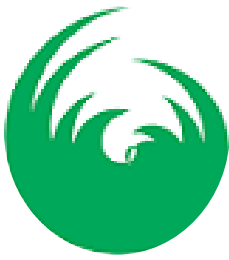
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