Capital Structure and Financial Returns: Longitudinal Panel Evidence from N-Reits

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ABSTRACT: The study is an investigation of the nexus between capital structure and financial returns. The investigation was conducted on a panel data of all real estate investment trusts in Nigeria (N-REITs) listed in the Nigerian Stock Exchange during 2009 to 2020. The independent variable was capital structure indicators of short-term debt, long-term debt and total debt. The dependent variable was proxied using 3 accounting measures of return on asset, return on equity and earnings per share. Data was sourced from secondary sources, specifically from the annual records and financial statements of N-REITs for the period. Upon data analysis with regression, the study found that capital structure had an insignificant relationship with the financial returns of N-REITs. However, for Sky Shelter Fund REIT, the result was contrary due to its statistically significant positive relationship between capital structure and returns. The findings of the study on the means, median and standard deviation of N-REIT capital structures shows a compliance with the pecking-order hypothesis of firm financing.

KEYWORDS- Capital structure, Equity-financing, Financial leverage, N-REITs, Pecking-order model

I. INTRODUCTION

A crucial component of corporate management decision-making is the formation of value creating and maximization financial architecture that compensates equity and leverage management disquietudes. Empirical quests for the enablers and drivers of the resulting management choice have been approached from perspectives of pecking-order, market-timing, and trade-off models. These models emanate from a variance of proactive and retroactive behaviouristic psychology. On the proactivity side, the pecking-order hypothesis (Myers & Majluf, 1984) has postulations of an equity first outlook that sees leverage as secondary, as against the trade-off model (DeAngelo & Masulis, 1980) which sees management as equity-leverage equilibrists from perspectives of cost and benefit implications. In a more retroactive stance, the market-timing model (Stein, 1996) advocates for idiosyncratic decisions that stem from market forecast analysis.

Following Modigliani & Miller's (1958) cost, finance and investment modelling, there appears a relative fixation by a plethora of empiricisms on the enablers and drivers of capital structure choice (Li & Isalm, 2019; Li & Stathis, 2017; Moradi & Paulet, 2019; Ramli et al., 2019; Saif-Alyousfi et al., 2020; Vo, 2017). In a slight departure, the study extends the capital structure discourse to a determination of its impact on returns of REITs in emerging economies, with Nigerian Real Estate Investment Trusts (N-REITs) as test market. The Modigliani-Miller capital structure model does provide support for our choice of test market with the argument that a firm's capital structure is not priced in frictionless markets, unlike the market imperfections and transaction costs that characterize several emerging markets. This theory still finds relevance in recent research if one must identify with the extrapolations of Vo (2017) on the "unique legal, cultural and institutional characteristics of emerging markets", which present new insights into the dynamics of the capital structure-stock returns nexus.

We leverage on the Modigliani-Miller (1958) capital structure development to define corporate capital structure as the various securities mix an organization generates and employs for investment and business capitalization. These securities comprise equity and debt-financing aspects of capital generation. The equity aspect represents contributions by shareholders, assets, accumulated retained or residual earnings, as well as paid up capital, while debt-financing, also referred to as the financial leverage, is contributed by external creditors. The fact that this debt is liable to repayment, makes it more of a liability

than asset for the firm (Mirza et al., 2016), though it is also a realism that it affords the firm with potentials of increased revenue streams (Cole & Sokolyk, 2018), and opportunities for further growth and expansion (Mirza et al., 2016).

The catalytic influence of this mix on shareholder confidence and investor stock picking choice defines its criticality to the corporate governance literature and practice (Musatova, 2020; Tong & Ning, 2004). Actually, Aniagolu, Obodo & Ewurum (2018) and Ogebe & Ogebe (2013) aver that in emerging economies like Nigeria, most decisions on the capital structure are dictated by corporate managers. However, a review of extant literature available to us indicate a muddled, if not paucity of empirical directions on the nature of capital structure and REIT returns contagion for real estate finance and investment analysts and practitioners in emerging economies. From a perspective of deposit money banks, Okoro (2017) shares this concern with the avowal that, "the actual impact of firm capital structure on financial returns remains relatively unresolved in countries like Nigeria".

The implication of this knowledge gap is that in less frictionless markets like Nigeria with high economic and political volatilities, REIT capital structure configurations become riskier, obscurely, difficult and devoid of intelligence on an optimal capital structure and debt level for that investment class. In what might be viewed as a reaction, the study examines secondary data from a periodic scope of 2009 to 2020 that covers the entire performance record of N-REITs till date. This research is a longitudinal panel data analysis of the associations of short-term debt (STD), long-term debt (LTD) and total debt ratios (TD) with return on assets, return on equity, and earnings per share of N-REITs.

II. THEORETICAL PERSPECTIVES

The Capital Irrelevance Theory postulated by Modigliani & Miller (1958) argues against the pricing of capital structure in stock value. However, this theory has been disputed by a number of subsequent models. An instance is a study by DeAngelo et al (1980) which follows Myers (1977) in postulating that a firm's capital structure is determined by the trade-offs between the costs and benefits of the various finance sources that made up the previously employed securities mix. In a revision of their earlier hypothesis, if not an overhaul, Modigliani & Miller (1963) argue against the trade-off model with the insinuation that debt offers greater prospects to equity when it comes to maximizing firm value. The argument was leveraged upon the additional capital for investment which will be provided through debt financing.

In spite of these seeming rebuttals of the Capital Structure Irrelevance theory, Modigliani et al. (1963) position on equity financing may not present an all-encompassing assessment of emerging economies like Nigeria with their relatively attendant high cost of borrowing. This implies the prospect of a profit-sharing reality between shareholders and debt providers, thus indicating a likelihood of dividends policy alteration. The work of Myers et al. (1984) does provide some antithesis with the espousal that debt financing provides complications between shareholders and agents of the firm, leading to more favourable adoptions of the equity-first stance of the pecking-order model.

This divergence of capital structure models has not just muddled and unaided investor decision-making, it has also led to disconcerted schools of thoughts on the questions:

  i. Does capital structure impact returns? Or the *vice versa which also indicates as follows:*
  ii. Do returns influence capital structure formation?

Following the latter enquiry, Ahmed & Hla (2018) in their research on the "impact of "stock return volatility on various capital structure models of nonfinancial firms, employed a 2-step system generalized method of moment dynamic panel estimator on data obtained from Pakistan Stock Exchange listed firms from 2001 to 2014". The study found a significant negative impact of stock return volatility on "book leverage and long-term market leverage ratios." Conversely, the study also reported that capital structure formations were sensitive to stock return volatility with every increase in default risk.

Contrarily, we believe that an exposition of the dynamics of returns influence on capital structure may cause an awkward diversion towards the already mentioned saturated literature on enablers and encumbers of capital structure formation [even from a Nigerian perspective with an array of studies (Akinyomi & Olagunju, 2013; Bassey et al., 2014; Bolarinwa & Adegboye, 2020; Chandrasekharan, 2012; Dabara et al., 2018; Hassan, 2012; Onaolapo et al., 2015; Owolabi & Inyang, 2012; Salawu & Agboola, 2008)], which we are trying to deviate from. In light of inconclusive empirical direction on the former (impact of capital structure on stock returns) with respect to REITs, we approach our analysis from the perspective of the performance of the capital structure of N-REITs under the auspices of the theoretical foundation that postulates thus:

(1) ret = f(CS)

Where, "ret" represents REIT returns and "CS" is capital structure. This equation vividly demonstrates the assertions of the capital structure models on its statistically significant pricing in determining firm returns and performance. This informs the hypothesis of the study and further directs the development of our model specification.

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III. EMPIRICAL REVIEW

With the increasing popularity of REITs as an investment vehicle in juxtaposition with agreeable performance viability of the stock market, also comes a spate of interest into the dynamics of REIT stock returns (Letdin et al., 2020). In pursuit of sustainable organizational competitiveness and growth for REITs, a lot of market research, investment and considerations go into critical performance predictors, of which corporate capital structure demands significant reflection (Alcock & Steiner, 2017; Bao & Gong, 2017; Letdin et al, 2020). However, extant empirical analysis of this significance has produced a variety of linear and nonlinearity outcomes that do no justice to vivid interpretations and application of theories to practice in emerging economies. An empirical quagmire Dilrukshi (2017) terms "a puzzle".

In what might be understood as evidence of Modigliani & Miller's (1963) correction of their Modigliani et al (1958) capital structure irrelevance theory – which postulates capital structure - returns linearities for emerging markets, Bazofti & Salehi (2017) investigated the effect of growth opportunities on the capital structure – abnormal returns association amongst a compendium of 212 "listed companies on the Tehran Stock Exchange". The research method was "library and correlation" which employed "systematic elimination sampling" and multivariate regression to analyze pooled data obtained over a 6-year period. The study results indicate a symmetric relationship between growth opportunities and financial leverage increases on one hand, and abnormal returns on the other.

Similar findings were highlighted by Rahmatika & Dadan (2017) from a perspective of inflation-moderated capital structure and stock return relationship. The study approached the investigation from a perusal of "120 financial statement data obtained from 5 manufacturing firms in Russia". Data was analyzed by "General Linear Model", and a "high symmetric relationship between capital structure and stock returns" was found. Lending credence, Aharon & Yagil (2019) report a positive relationship between financial leverage and stock returns in a dataset of United States industrial firms. Of course, this latest result is surprising if one is to recall the disputed MM Capital Structure Irrelevance theory on the irrelevance of capital structure in frictionless markets.

Research by Ogebe et al. (2013) in a less frictionless market (Nigeria) instantiated a contention of Aharon et al.'s (2019) study of the US stock market that is fulcrumed on greater consideration for the equity-first approach. It assumed this position from findings of its examination of the "impact of capital structure on firm performance in Nigeria from 2000 to 2010". Data on the impact of highly geared-leverage (10% upwards) on firm performance, proxied by "return on investment, return on equity, operating expenses ratio and asset turnover", were analyzed using static panel analysis. Fixed effect regression estimation model was employed, and a "significant negative relationship was found between leverage and performance", which led to the recommendation that "firms should use more of equity than debt-financing".

Also under contention is the positive relationship reported in the earlier reviewed works, with an equivalent array of studies reporting negative or no relationship amongst the variables. From the negative outlook, Al-Salamat & Mustafa (2016) employed "market value per share and book value per share ratio, firm size, turnover ratio, stock liquidity, earnings per share and return on assets" as proxies for "examining the relationship between capital structure and stock returns". The scope of the study was "all industrial firms listed in the Amman Stock Exchange, Jordan from 2007 to 2014". The study used "unbalanced panel data statistical approach for analysis" and found a "statistically significant negative relationship amongst the variables".

Ngome's (2016) study is one of the few that reported both linearities and nonlinearities amongst the capital structure and stock returns variable, from its investigation into the "effect of capital structure on stock returns for firms listed on the Nairobi Securities Exchange", from 2011 to 2015. This causal research analyzed the dynamics of "earnings per share and firm size" with regression and found an "overall positive relationship between capital structure and returns". However, from a sectoral perspective, the dynamics began to change with no relationship amongst the variables reported for the "agricultural, investment and the telecommunications sector". The study also reported mixed results from the proxies employed, with "profitability and stock liquidity having a positive impact," unlike the negative association reported for firm size and firm-level returns.

Research on nonlinearities between capital structure and stock returns is accentuated by studies as Yooa & Wu (2019) who in a structural equation model analysis of the variables on Korean firms listed in KOSPI and KOSDAQ across a period of 17 years, found no significant impact of leverage on stock returns in the structural equation model. Similarly, Ibrahim (2009) "examined the impact of capital structure formation on firm performance in Egypt using multiple regression analysis over a period of 1997 to 2005". The study proxied returns with "return on equity, return on assets and gross profit margin", and found that "capital structure formation had a weak-to-no impact on firm financial performance". While these latter results support the Capital Structure Irrelevance theory, perusal of extant empirical literature from the REITs perspective show minimal evidence to support this claim.

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A study by Boa et al. (2017) "examined the relationship between leverage and real estate investment trust returns" and found a "positive leverage-return relationship". From this result, a common argument does appear which précises the capital structure-REIT returns nexus as positive. Giacomini et al. (2017) caught the essence of this inference with their examination of the effect of leverage decisions on risk and returns of US-REITs. The study made an overall finding that "REIT leverage had significant return performance effects". Explicitly and indeed quite interestingly, it was found that "highly levered REITs performed better on a risk-adjusted basis than under-levered REITs". Again, this finding from a study domiciled in a frictionless market as the US, offers more ammunition for the contention of the Capital Structure Irrelevance Theory.

From the perspective of an emerging economy, Jalil et al. (2018) adopted a descriptive analysis in the investigation of the links between capital structure policy of Malaysian REITs (M-REITs) and returns for a period of 10 years. Returns in this study was proxied by property portfolio enlargement, which further employed property total value as observed indicator, while debt-to-equity ratio was used to proxy capital structure. Contrary to evidence from the frictionless US market, this emerging economy reported a negative relationship between both variables.

This cornucopia of mixed results inspires the motivation of this study to examine this phenomenon from the perspective of N-REITs. When Ogebe's (2013) assertion that a firm's choice of capital structure is dependent on area-specific factors as "market forces, industry type, firm-level and macro-level policies, firm size, profitability, corporate tax and bankruptcy costs", then the need for a determination of the peculiarities of N-REITs in the discourse is elucidated.

IV. SUMMARY OF THE REVIEW

The capital structure concept has been elucidated by several theories, with the most recent ones postulating a relationship between capital structure and financial performance (returns). Studies have followed these postulations in investigating this supposed association and have met a cornucopia of mixed results which indicate various degrees of linearities and nonlinearities. While this lack of consensual foundation in extant literature provides research agenda, perhaps of pertinent worry is the clear evidence that several contributions in this regard have seemingly overlooked real estate investment trusts. Put succinctly, Feng et al. (2007) evokes and resonates this observation with the extrapolation that "much of the literature on capital structure excludes REITs".

Where the surface has been scratched, it was quite grim extricating such studies emphasizing on N-REITs. Therefore, the study contributes to extant literature with the determination of the performance of capital structure employed by N-REITs since their established corporate existence. The essence is that our findings will provide research-driven policy direction for informed decision-making by REIT management and board, and real estate finance and investment analysts.

Corporate Information Summary of N-REITs

The study examined the association between capital structure and financial performance of all the established real estate investment trusts in Nigeria. The Nigerian Stock Exchange delineates REITs as "corporations or trusts (traded as stocks) that use the pooled capital of many investors to purchase and manage income property and/or mortgage loans" (retrieved from http://www.nse.com.ng/products/equities/reits, on November 16, 2020). Established REITs in Nigeria are Sky Shelter Fund, Union Homes REIT and UPDC REIT, presented in alphabetical order.

a. Sky Shelter Fund (SFS)

Sky Shelter Fund was established under the ownership of the SFS Capital Nigeria Limited, and licensed as a Fund/Portfolio Manager. The REIT has its roots from investment banking and management practices as a Skye Bank Plc subsidiary, and is now part of a larger group called SFS Financial Services Group. The management style of the company is "more leadership-driven than management-driven" with emphasis on exemplariness, employee participation in decision-making, and flexibility of hierarchy. The company is led by a 5-man Board of Directors.

Source: https://www.sfsnigeria.com/about/, November 16, 2020.

b. Union Homes REIT (UH REIT)

UH REIT was listed in the Nigerian Stock Exchange in 2008 but did not commence full operations till February, 2009, with a net asset value of $83,694,000. The UH REIT portfolio is a compendium of residential and commercial real estate prevalently in the highbrows of Abuja and Lagos, Nigeria.

Source: http://unionhomesreit.com/about-us/, November 16, 2020.

c. UPDC REIT

UPDC REIT is owned by United Africa Company of Nigeria Plc, and commenced stock market operations in June 2013 after the conclusion of its initial public offering. The REIT holds "premium real estate" in the residential and commercial sectors, with

instances as "Victoria Mall Plaza 1 & 2, Festival Mall, and Abebe Courts" and other properties across Lagos, Abuja and Aba, Nigeria. It is currently listed on the floor of the Nigerian Stock Exchange as an equity REIT.

Source: https://www.fsdhaml.com/updc-real-estate-investment-trust/, November 16, 2020.

V. METHODOLOGY

Our unit of analysis is all 3 real estate investment trusts listed on the Nigerian Stock Exchange. The period of observation was 2009 to 2020, thus, permitting us to form a panel data cylinder of 34 observations. Data was obtained from the annual records and financial statements of these N-REITs. Performance in this study was proxied by ROA, ROE and EPS, in consistency with the methodologies of Beracha et al. (2019), Bron et al. (2018), Giacomini et al. (2015), Ovidiu et al. (2019), and emerging economy-based studies as Al-Salamat et al. (2016), Hong & Najmi (2020), Ibrahim (2009), Jalil et al. (2018), Ngome (2016). Accordingly, with net income as a constant numerator, ROA as a profitability indicator was obtained using division by total assets, ROE was determined using division by shareholder equity, while EPS was ascertained by dividing the net income by total number of outstanding shares, as listed in the financial statements of N-REITs from 2009 to 2020.

REIT capital structure, as the independent variable was proxied by STD, LTD and TD ratios in accordance with Borochin et al. (2017), Erol & Tirtiroglu (2011), Grybauskas & Pilinkiene (2019), Salim et al. (2012). STD represented the ratio of current liabilities of N-REITs over total assets, LTD is the ratio of long-term debt divided by the sum of equity and long-term debt. Total debt, on the other hand, is the ratio of the division of total assets less total equity, by total asset.

Model Specification

Pursuant to the previously highlighted studies, generic representations of firm capital structure and performance were STD, LTD, TD ratios, and ROA, ROE and EPS respectively. In testing their associations for N-REITs, we present the following regression models:

$$ROA_{I,t} \text{ (Performance)} = \beta_o + \beta_1 LTD_{I,t} + \beta_2 STD_{I,t} + \beta_3 TD_{I,t} + \pounds \quad \text{................(2)}$$
$$ROE_{I,t} \text{ (Performance)} = \beta_o + \beta_1 LTD_{I,t} + \beta_2 STD_{I,t} + \beta_3 TD_{I,t} + \pounds \quad \text{................(3)}$$
$$EPS_{I,t} \text{ (Performance)} = \beta_o + \beta_1 LTD_{I,t} + \beta_2 STD_{I,t} + \beta_3 TD_{I,t} + \pounds \quad \text{................(4)}$$

Where:

$ROA_{I,t}$ = return of assets for firm I in year t

$ROE_{I,t}$ = return on equity for firm I in year t

$EPS_{I,t}$ = earnings per share for firm I in year t

$LTD_{I,t}$ = long-term debt to total assets for firm I in year t

$STD_{I,t}$ = short-term debt to total assets for firm I in year t

$TD_{I,t}$ = total debt to total asset for firm I in year t

£ = error term

VI. ANALYSIS, RESULTS AND IMPLICATIONS

The study used the nature of interactions between STD, LTD, TD ratios, and ROA, ROE, EPS to proxy the performance of the capital structure choice of real estate investment trusts. The unit of analysis was the 3 REITs listed in the Nigerian Stock Exchange, comprising Union Homes REIT, UPDC REIT and Sky Shelter Fund. Mean, median, maximum, minimum, standard deviation, skewness, kurtosis, and Jaque-bera were employed in summarizing the descriptive statistics of the independent and dependent variables of the study, and this is presented in Table 1.

Table 1: Descriptive Analysis

	ROA	ROE	EPS	STD	LTD	TD
Mean	0.045531	0.054497	.03089412	.04307395	.02118666	.5364640.
Median	0.047473	0.055888	.02010000	.0227331.0	.0182900.0	.912502.0
Maximum	0.156621	0.134057	.1175000	.026059945	.018127560	.40112116
Minimum	-0.102020	-0.103210	-.05160000	.015638.00	.017958.00	.209132.0
Std. Dev.	0.039107	0.039865	.03305642	.08929799.	.04864697.	.11998340
Skewness	-0.834791	-1.603981	0.448063	1.737508	2.544636	2.388540
Kurtosis	8.806243	8.667943	3.496788	4.098630	8.014112	6.800919

Jarque-Bera	51.70828	60.09018	1.487275	18.81720	72.30951	52.79558
Probability	0.000000	0.000000	0.475382	0.000082	0.000000	0.000000
Sum	1.548043	1.852882	105.0400	1.46E+08	72034650	1.82E+08
Sum Sq. Dev.	0.050469	0.052443	360.5998	2.63E+15	7.81E+14	4.75E+15
Observations	34	34	34	34	34	34

The summarized descriptive statistics of the explained and explanatory variables as presented in Table 1, for the period 2009 to 2020, reveal the following observations. First, the ROA is reported to have a mean (median) value of 0.045531 (0.047473) and standard deviation of 0.039107, the ROE had a mean (median) value of 0.054497 (0.055888) and standard deviation of 0.039865, while EPS had a mean (median) value of 3.089412 (2.010000) and standard deviation of 3.305642.

Capital structure of N-REITs had means of 0.04307395, 0.02118666 and 0.5364640 for STD, LTD, and TD respectively. This indicates that N-REITs finance their investment by an average using only 4%. This may be explained by the relatively high cost of borrowing in Nigeria. The 4% leverage confirms that the capital structure of N-REITs is consistent with the pecking-order hypothesis. This opportunity for leverage accumulation leaves great potential for expansion and diversification. It is pertinent to note that the data was obtained from all REITs in Nigeria within the period of 2009 to 2020, though observations show a disparity in their years of operation.

Regression Results

Tables 2 to 4 show the results of the test of associations between capital structure indices and performance indices of N-REITs for the period 2009 to 2020. Table 2 displays the performance results of the N-REIT capital structure by virtue of its relationship with return on assets.

Table 2: Performance Measure by ROA

		SFS	UH	UPDC
LTD	P-value	0.0002***	0.7206	0.3976
	T-stat	6.450739	-369071	0.888102
STD	P-value	0.0006***	0.5074	0.0744***
	T-stat	5.42822	-0.690401	2.017490
TD	P-value	0.0003***	0.4257	0.2463
	T-stat	6.045262	0.834316	-1.240191
Adj.R²		0.292405	-0.281649	-2.555260

Result from Table 2 indicate an insignificant relationship between LTD, STD, TD and ROA, with a variety of outcomes for the companies. At a 99% level of confidence, the coefficients of LTD, STD and TD are positive and statistically significant for SFS, which implies that for every increase in leveraged capital structure associated with increase in ROA. However, apart from its TD coefficient, this does not significantly apply for UH; while our inference holds for UPDC, only with the exemption of TD coefficient, though not statistically significant.

Table 3: Performance Measure by ROE

IV		SFS	UH	UPDC
LTD	P-value	0.0003***	0.6633	0.3976
	T-stat	6.107934	-0.450076	0.888102
STD	P-value	0.0003***	0.4671	0.0744***
	T-stat	6.075377	-0.759298	2.017490
TD	P-value	0.0008***	0.3654	0.2463
	T-stat	5.247790	0.953263	-1.240191
Adj.R²		0.542157	-0.281690	-2.555260

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Table 3 presents the result of testing the relationship between capital structure measured by LTD, STD, TD and firm's performance measured by ROE. The results indicate that for SFS, LTD, STD and TD had significant positive relationship with ROE at 99% level of confidence. This implies that increase in the capital structure will increase the performance of SFS, as is also confirmed by a high and positive R-squared. It was also observed that LTD and STD had negative and insignificant relationship with the performance of UH, while the TD had positive and insignificant relationship with firm performance. The generalization of this result is that decrease in the capital structure will increase the performance of UH.

The results further show that LTD had positive and insignificant relationship with the performance of UPDC, STD has positive and insignificant relationship with the performance of UPDC while TD has negative and insignificant relationship with the performance of UPDC, as reported by ROE. This suggests that decrease in the capital structure will increase the performance of UH and UPDC. With slightly very low and negative R-squared, we extrapolate that firm performance by ROE had no significant relationship with capital structure for UH and UPDC.

Table 4: Performance Measure by EPS

IV		SFS	UH	UPDC
LTD	P-value	0.0009***	0.3481	0.6824
	T-stat	5.12654	-0.989939	0.422728
STD	P-value	0.0022***	0.2501	0.0143***
	T-stat	4.437582	-1.229325	3.028298
TD	P-value	0.0027***	0.1764	0.8077
	T-stat	4.275740	1.467207	0.250663
Adj.R²		0.200185	-0.192142	-0.380271

From Table 4, relationship between capital structure measured by LTD, STD, TD and firm's performance measured by EPS shows significant positive relationship between LTD, STD, TD and EPS for SFS at 99% level of confidence. This result is confirmed by the slightly high and positive adjusted R-squared. This implies that increase in the capital structure will increase the EPS of SFS. In this analysis, it was also observed that LTD and STD had a statistically insignificant negative relationship with the performance of UH, while the TD had a positive and insignificant relationship with performance of UH, as measured by their EPS. The generalization of this result is that decrease in the capital structure will increase the EPS of UH.

The results further show that LTD, STD and TD all had statistically insignificant positive relationship with the performance of UPDC, as reported by EPS. This suggests that increase in the capital structure will increase the performance of UPDC. With slightly very low and negative R-squared, we extrapolate that firm performance by EPS had no significant relationship with capital structure of UPDC.

CONCLUSIONS

The study investigated the performance of capital structure selected by N-REITs using 3 accounting-based measures of ROA, ROE and EPS. The results show that capital structure had an insignificant relationship with performance, measured by ROA, which is consistent with Ibrahim (2009), but disagrees with Al-Salamat et al. (2016). Similarly, capital structure had an insignificant relationship with performance, measured by ROE. This result is in consistency with Boa et al. (2017) and Giacomini et al. (2017), but finds disagreement with the findings of Jalil et al. (2018). With respect to EPS, capital structure indices (LTD, STD and TD) were insignificant. This is in alignment with Ngome (2016). Therefore, the impact of capital structure on the financial returns of N-REITs was statistically insignificant.

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