



CAUSAL RELATIONSHIP AMONGST CORPORATE LONG-TERM FINANCING DECISIONS: EMPIRICAL EVIDENCE OF LISTED NIGERIAN MANUFACTURING FIRMS

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Abstract

Considering the effects of the COVID-19 pandemic amongst other present global economic challenges on the growing Nigerian manufacturing firms, this study is conducted to offer useful information to corporate executives and economic policy makers on the importance of the relationship between a firm's investment, financing and dividend payout choices (the corporate long-term financial decisions). Specifically, this study sought to ascertain if and how a firm's capital investment, finance and dividend payout decisions inform one another. To make the study eclectic, Agency theory of corporate and financial management and the Panel Granger's causality model were adopted as the study's theoretical frameworks. To achieve the aim of this study, a sample of 35 stratifiedly selected Nigerian manufacturing firms on the Nigerian Stock Exchange (NSE) between the periods of 1990-2020 (30 years) were examined, in the quest to fill sectoral and periodical gaps found in the extant empirical studies. The adopted methodology is quantitative and it is anchored on statistical and Panel Granger's causality techniques. The trio of capital investment, financing and dividend payout is the study's dependent and controllable variables, which are measured by the sampled firms' fixed assets; addition of equities and debts; and the declared dividend payments for the periods covered respectively. The data employed were of unbalanced panel that is purely secondary. In all, the study revealed through the conducted Granger's causality test that a bi-directional type of causation exists between the trio of capital investment, financing and dividend payout decisions. And based on this empirical evidence, the study concludes that a firm's capital investment, its finance and dividend payout decisions causal relates and influence one another. Following this conclusion, the study recommends to concerned corporate and governmental decision makers that at all times the multiplier implications surrounding any of the three examined long-term financing decisions (i.e. capital investment, finance and dividend payout) on one another, and their joint effects on the firm's, sectoral and economic stability, especially when seeking competitive edge and growth should be considered.

Key Words: Capital Investment, Finance, Dividend Payout and Decision Making.

INTRODUCTION

The extent to which a firm's capital investment, finance and its dividend payout choices influence one another, amongst other factors, has been the subject of discussion amongst scholars, such as: Modigliani and Miller (1963); Baker (2017) and Olowe (2018), to state a few (Annamalah, 2019). And since one of the major reasons why most growing firms stay competitive and contributes significantly to economic growth is anchored on its long-term business decisions-viz: investment, financing and its dividend payment decisions, it can be said that the role of decision making in



business management, particularly as it concerns manufacturing firms, cannot be undermined, if such sector will achieve full business potential (Olowe, 2018). And to achieve a full business potential, it will require that managers have extensive understanding of how corporate decisions taken at present, could have significant impact on other future corporate decisions (Baker, 2017).

Since the Modigliani and Miller's (1963) adjustment of the separation and irrelevance theorems that actually relaxed some of the issues raised by scholars regarding their earlier submissions of 1958 as it concerns the role of a firm's finance and dividend decisions on its investment decision, most finance scholars' attention, such as: Das (2020), Lucky (2019) and Olawale (2018), has shifted to how corporate long-term decisions, viz: investment, financing and dividend payout decisions could inform one another and save firms from being exposed to high level of risk, given the importance of this trio to corporate survival and growth. The theoretical and empirical efforts of Das (2020), Lucky (2019) and Olawale (2018), has shed light on the significance of understanding the consequential impact of business decisions taken without the consideration of other affiliated factors that may jeopardise its growth.

But despite the aforementioned scholars' contributions to this issue, and to a large extent, little or nothing can be said to have been documented at the empirical study level on causal relationship of investment, financing and dividend payout decisions, which is required to assist managers in deciding corporate financial affairs most appropriately (Olowe, 2018). More so, given the crisis period like the present global economic pandemic that the world is experiencing, it is most logical for growth seeking manufacturing firms to have extensive knowledge of how corporate financing decisions interacts and in turn influence firm's value. But if firms are to mitigate excessive risk and losses, understanding the causal effect of the three aforementioned financial decisions is required, so as to manage the unforeseen and plan for life after COVID-19 pandemic.

Statement of the Problem

For about two decades or more, most existing studies such as: Paseda, (2016); Hassan (2017); and Kumar (2018), have failed to look at the potential causal relationship between the trio of a firm's investment, financing and dividend payout corporate decisions in their consideration of factors requiring attention when planning for the business future outlook. This neglect has trimmed stakeholders' understanding of some factors, at the expense of the causal effect of these said trios (Dada & Ghazali, 2017).

To most growing economies of the world, manufacturing sector remains a key economic player (Das, 2020), and the Nigerian manufacturing industry is not an exception, given its actual 58% and of its potential 20% contributions to the nation's GDP, including other economic indicators. Despite its huge contributions to the Nigerian economy, the challenges in the areas of economic instability, poor taxation system, fluctuating governmental and industrial policies, volatile and risky business environment and, most importantly, the limited access to finance and difficulties of capital formation has restricted its achievement of full potential (Olawale, 2018 & Lucky, 2019).



Given the position of scholars like Jing (2020); Yinusa; Ola; Adeloipo & Rodionova (2019) and Hassan (2017), that if corporate executives adequately understand the role of their decisions and the sentiments of their valuation of management prowess on their firms, it will go a long way in assisting growing firms in the aspect of long-term investment, financing and dividend payment decision management, such that an efficient plan of today, should at least guarantee an 85% security of the business.

Analytically, the existence of mixed submissions on the financing pattern of firms operating within a developing economy has pointed to how the dynamic nature and the differences in the economic peculiarities of some countries and firms have rendered a number of theories somehow irrelevant in some market situations (Jing, 2020). First, capital investment is a long-term business decision that is meant to store and boost monetary value of a firm's shareholders' wealth, through productive assets (fixed financial assets). These firm's assets are procured to add value to equity through the incomes generated from it and mostly used by firms as collateral to secure external finance (Yinusa; Ola; Adeloipo & Rodionova, 2019). Although Fatima (2019), Olowe (2018) and Hassan (2017), identify its relationship with firms' financing decision, but however failed to point out how investment causal relate with finance and why it is so. Second, the role of finance on the corporate survival and its growth has made "borrowing" and "asset liquidation" a subject of debate amongst scholars such as: Yan (2018); Frank and Shen (2017). However, there is no conviction on how to efficiently decide it alongside other corporate decision in order to avoid agency problems (Kumar, 2018). And third, dividend payout have been a puzzle in corporate finance for years, since its role on firm's investment and finance has been questioned by the submission of Modigliani and Miller (1958). However, studies on it have not considered its possible long-term role on firms' value, judging from the decision made on other corporate financial decisions (Yan, 2018). Given its touch on corporate unity and its attachment to shareholders' confidence in the firm's management board, it is therefore important to examine its causal relationship with business capital investment and financing (Pinto, 2019).

Given the significant market imperfections of most African economies and firms, the supply of capital cannot be assumed to be worse as many of neoclassical models of finance will assume. It is on this ground that this study identifies some lapses which the study intends to fill in. coverage as in the theory tested as seen in the studies of Fatima (2019), Yan (2018), and Frank and Shen (2017). As a result of this, this study planned to test which variable impacts the other and Granger causality approach is adopted, where its p-value will indicate the test significance. The study's coverage is a developing economy (Nigeria), and financial data of the stratifiedly selected 35 listed firms of the manufacturing division on the Nigeria Stock Exchange (NSE) was used in this study to cover a period of last 30 years.

Research Objective

To achieve the objective of the study i.e. verifying if causation exists, and the type of causation that exists between a firm's capital investment, finance and its dividend payout decisions, the hypothesis below is formulated in null form:



H₀: No causal relationship(s) exist(s) between a firm's capital investment, finance and dividend payout decisions.

LITERATURE REVIEW

Conceptual Review

Generally, the word capital investment means different things to different entities, and it depends on the angle it is being viewed from. Smith (2019) defines capital investment as cash spending on assets or valuables that can hold and boost monetary value until a need for such a cash arises. Yan (2018) defines capital investment as the buying of stakes, such as: shares and bonds, in productive companies with the aim of earning added value on it in the nearest future. Jing (2020) defines corporate capital investment as acquisition of economic assets such as the manufacturing plants, real estates, machineries, vehicles and other production tools that will create more wealth and differentiate when or not an economy is experiencing healthy growth. Rasool (2020) defines capital investment as the financial assets acquired by a firm with the aim that those assets will generate more other incomes to cater for other financial commitments, or be kept for future sales at higher price and profit; on all of which this present study agreed to.

In consideration of the fact that finance decisions at all levels require being solvent, liquidity therefore becomes inevitable for corporate goals to be achieved. International Monetary Fund, IMF (2017) defines finance as the ability of a solvent institution to make agreed-upon payments in a timely fashion. This implies that being liquid is firm's ability to fund increases in assets and as well meet all obligations as they come due, without incurring unacceptable losses. This study states corporate financing to be exactly as put forward by the International Monetary Fund, IMF (2017).

Regarding dividend payment, dividend payout definitions is uncontroversial. Das (2020) describes dividend payout as non-obligatory payment or distribution of reward from a portion of company's earnings to a class of firm's shareholders which could be in form of a cash payment, share of stocks, or other valuables. Das (2020) singles out cash dividend as the most common type of dividend payments in corporations. Amaramiro (2019) interprets dividend payout as a 'willed' payments made by firms to its shareholders on an annual basis, being a distribution of investment profits or the shared part of a firm's corporate retained earnings.

Theoretical Review

First, Net Present Value (NPV) is a neoclassical rule of investment, which was propounded by Jorgenson (1963). The idea is to provide guidance to corporate investors and managers on what to invest in and what not to, considering the level of risk and uncertainty attached to corporate investment activities. The theory states that only investment projects with positive net present value should be considered, while negative ones should be ignored. The rationale is on the fact that positive NPV investment projects will reduce risk and generate streams of revenue, which will add value to investors' wealth. Eventually, this theory becomes one of accounting and finance estimating techniques for determining and deciding if an investment activity is worth taken or not (Annamalah, 2019). NPV's rule is simple and it could be determined by discounting both expected



future cash inflow and outflow of a project back to their present value at a discount rate, before summing them up to obtain the actual NPV of any estimated project. A firm will gain profit if an estimated investment project has a positive NPV, because such a project would add value to investors' wealth, while those having negative NPV puts a firm at risk (Jing, 2020).

Second, Agency cost theory is a finance theory that revolves around the costs of the agency, its associated problems and suggests controlling measures. The theory was propounded by Mitnick and Ross (1973) to relax the assumption of no conflicts between principals and agent. The theory states that debt serving obligations help in preventing over investment of free cash flow available to a firm, thereby assisting in improving a company's value and preventing agency problems (Jensen, 2016). Mostly, in practice, principal-agent problem exists between outside shareholders and management. This is due to separation of ownership and control. Jensen (2016) develops a "control hypothesis" for debt creation which predicts that debt reduces the agency costs of free cash flow by reducing the cash flow available for spending at the discretion of the managers. The agency perspective of debt financing is often embedded in the trade-off framework where the monitoring effects are considered alongside other benefits and costs of taking on additional debt (Nguyen, 2019).

And finally, the Catering theory is a dividend theory developed by Baker and Wurgler (2004) to explain how managers could cater for shareholders' demands through their dividend policies. This theory explains payout puzzle from a new perspective, which is meant to further relax the Modigliani-Miller's argument of market efficiency. Baker and Wurgler (2004) opines that the decision to pay dividends is driven by the prevailing investors' demand for dividend payouts. Essentially, the theory states that "managers tend to rationally cater to investors' demand by the initiating payout when investors put premium on the dividend, and by omitting dividend when investors prefer non-cash payment. Baker and Wurgler (2004) opines that the catering model of dividends is the most natural explanation of the discrete decision of whether to pay dividend or not. Li and Lie (2010) also extend Baker and Wurgler's (2004) discrete decision model by adding increase and decrease yardstick to corporate existing dividend standard in order to make it flexible. Accordingly, the extended catering model states that both the probability and the magnitude of the dividend changes are related to the dividend premium, which strongly suggests that dividends are highly related to share price and company value, but in different directions.

Empirical Review

This sub-section discusses some empirical studies relating to this enquiry. The rationale is to align the study with the existing ones and to identify the gaps required to be filled from the reviewed empirical studies.

Wang (2010) examined the relationship between investment, new debt and dividend payout decisions, using a sample of 2,710 listed firms on the Chinese Stock Exchange, for a period of 2000 and 2007. The objective was to verify if investment, debt funding and dividend payout decisions depend on each other and require joint determination. Using the balanced panel data approach, the study tested the predictions of the Financial Constraints theory, which were



supported by the study. Firm's specific-factors, viz: earnings per share, previous investments activities that were represented by capital stocks of preceding year, growth and debt to equity ratio were also tested, like that of Meng (2012). Directed acyclic graph model and the Path analysis were employed, and the result showed that the three decisions are better jointly taken.

Meng (2012) studied the relationship(s) between a firm's investments, its new debt and dividend payout decisions using a sample of seventy listed United Kingdom's (UK) firms between 1990 and 2010. The aim was to verify possible interdependence of investment finance and dividend payout, through a balanced panel data approach. Accordingly, the study tested the Financial Constraints theory and its predictions were supported by the study. Firm's specific-factors, viz: earnings per share, previous investments activities represented by capital stocks of preceding year, growth and debt to equity ratio were tested, and the 2-Stage Least Squares regression results showed that dividend payout depends on investment income and that U.K listed non-financial firms rely on the earnings per share and the profits to design investment and payout policies.

Faff (2016) analysed firm-specific characteristics as determinants of firm's financing policy, using different explanatory variables, to explain how institutional characteristics could inform capital structure of Spanish quoted companies. The study used panel data that were obtained from the database of the CNMV (Spanish Security Exchange Commission) from 1990 to 2015. The study applied econometric estimation of dynamic model with predetermined variables using a two-step Generalised Method of Moments (GMM). The model is estimated using the Dynamic Panel Data (DPD) program and the empirical evidence showed that tax and financial distress theories tested are both justified, and that there existed, interdependence between firm's investment and financing decisions. The results also provided additional evidence on the Pecking Order and Free Cash Flow theories. The strength of the work lies on its innovation to develop target adjustment model to study the debt pattern of Spanish listed firms, by adjusting to preferred target debt level of each firm sampled.

Fatima (2019) examined the determinants of investment behaviour of individual and corporate investors in Kashmir, using the financial market of Kashmir in India as a case study. Forty listed firms were covered, and information asymmetry theory was tested. A single econometric model was specified for the purpose of estimating the required variables, which was estimated using OLS regression method. The study revealed that investors do not always act rationally when taking financial decisions, but it is the capital market situation that forces them to behave in certain manner to adjust to economic situations. However, the study has failed to provide evidence on how economic uncertainty will influence financing decisions.

Yan (2018) conducted an in-depth analysis of the trio of corporate funding, dividend policy, and IOEC (Iranian Offshore Engineering and Construction) involvement of Chinese firms between 1995 and 2014. Following the Fama and French (2002) model, the study tested the effects of factors that influence firms' financial decisions. The Pecking order theory of capital structure was



tested and it was found to suit the data. Fama and French (2002) revealed that profitability is a significant determinant of finance, especially when seeking external aids, an outcome that is consistent with Adelegan's (2015) findings, but contradicts Pettit's (2020) findings. However, Yan (2018) failed to consider a multi-theoretical approach in executing this type of research, considering the fact that the Pecking-Order theory may not be enough to achieve the best of funding decision.

Das (2020) examined the impact of dividend payout policy on firm's financing performance; using selected companies listed on Pakistani (Bombay) stock exchange between the period of 2010 and 2020. The aim was to verify the exact impacts that dividend payout decision has on corporate performance during the COVID-19 pandemic. Based on a sample of 40 firms, the study used correlation matrix and panel regression model to ascertain if the sampled firms follow a consistent pattern of dividend payout and if the association between price earnings ratio and dividend payout ratio is high. It was revealed that the sampled firms do not follow consistent pattern of dividend payout and that the association between price earnings ratio and dividend payout ratio is positive. The study concluded that firms' performances do have momentous impact on dividend decision.

Gaps Identified

From the above reviewed empirical studies, it can be deduced on general note that none of those studies ascertained the predictions of the Agency theory; considered testing for variable causality relationship; adopts panel Granger's causality study approach; nor studied the manufacturing sector of the growing Nigerian economy.

Theoretical Framework

The Agency theory of corporate and financial management and the Grandger' causality model are adopted as the theoretical frameworks for this study. The choice of Agency theory is due to its acceptance in practice and its extensive descriptions of the corporate finance and the managerial behaviour from a more logical perspective. The choice of Granger's causality model is due to its ability to logically establish causal relationship between two independent testable variables and their causal directions. The Agency theory was propounded in the early 70's, from two independent theories of economics and business management, the result of combined efforts of Ross and Mitnick (1973; 1975). Agency theory's prediction is that most corporate shareholders desire high investment returns but at no or most minimum risk level and would strictly object to any managerial move to embark on investment or financing decisions relating to risky portfolios, high cost of debt, or any form of financial distress approaches that a manager may prefer, due to their fear for the loss of business control, bankruptcy and economic uncertainties. In this study, if each of the paired tested variables granger-cause each other, it will imply that the prediction of the Agency theory is supported but, if not, it will cast doubt on it. On the Granger's causality model as propounded by Granger (1969), its prediction is that any tested paired variable is said to have 'granger-cause' one another if either any of F-test or χ^2 -test statistic p-value is greater than the



critical value of 0.05, but if not, it means that the test null hypothesis stands to negate causality existence between the tested variables (Jindrichovska & Korner, 2010).

METHODOLOGY

Estimation Techniques

This section discusses the estimation approaches adopted in the study. In the main, inferential statistics were adopted to estimate variables' parameters, verify stated hypotheses, and draw logical inferences from the study. To achieve the study's specific objective, the study executes the panel Granger's causality test and the result is presented in Table 4.1. In conducting this test, the study follows the procedures of Dumitrescu and Hurlin (2012), the χ^2 test statistic, and its p-values are all reported for the estimated causality equations. The decision rule is to reject the test null hypothesis that a variable does not Granger-cause the other, if their p-values are less than 0.05 critical values. But, if the outcome is otherwise, the null hypothesis stands, meaning that the affected variable does not Granger-cause the left-hand variable in that particular equation.

In addition to this estimation method, series of diagnostic tests were conducted on the data used, and they includes Normality and Non-normality tests, Multicollinearity test, Homoskedasticity, Heteroskedaticity, Unit root and Robustness tests.

Data Sources, Variable Description and Measurement

This sub-section provides details of how variables were sourced, used and measured to actualise this study's objectives. Data used in this study are mainly secondary, and of unbalanced panel due to the non-availability of data for the entire period for most of the firms, which were collected from the following sources:

The Nigerian Stock Exchange Fact Books of 1990 to 2019;

Annual reports of the sampled listed firms within the period covered and the daily official lists of the NSE for the last days of trading in each of the years covered. A firm is included once it can produce all corporate, financial and other stock market information needed for the study, viz: Profit per Share (Annual reports) Corporate Dividend Policy (Annual reports), Company's Highest and Lowest Share Prices (Daily official lists of the NSE for the last day of trading), Current Share Prices, and other relevant information needed.

And in accordance with the exiting finance literature submissions, the variables of this study are described and measured as follows:

a. Capital Investment (INV): capital investment means the total amount of money a firm spends in procuring fixed/real assets, such as: the productive machineries, plants, motor-van, products' distribution trailers, warehouses, amongst other real assets (Smith, 2019). Capital investment in this study is measured by deducting all depreciation expenses of the sampled firms from its gross expenditure in procuring real/fixed assets (Rasool, 2020).



b. Financing (FIN): financing is the available/adopted funding method of a firm in prosecuting corporate long-term growth and expansion projects (Rasool, 2020). This explains how solvent a firm is and its ability to secure external financial aid. It comprises the change or flow of equity and debt finance. Simply put, a firm’s net finance (FIN) is measured by summing up changes in the book value of sampled firms’ equity (i.e., the shareholders’ capital) and its total borrowings (i.e., total corporate liabilities) as justified in the work of Faff (2016).

c. Dividend Payout (DIVP): dividend payout is the reported total periodic payments made by a firm to its shareholders (Amaramiro, 2019). It must be noted that: a dividend payout could include extra or special payments made by firms. In this study, dividend payout (DIVP) is measured by adding up sampled firm’s declared dividend payments for the period covered, just as adopted in the study of Das (2020).

RESULTS AND DISCUSSION

This sub-section presents and discusses results from the analysis of causal relationship amongst the endogenous variables of this study. This will assist in understanding if these three variables, (viz: investment, finance and dividend payout decisions) depend on each other or inform one another, just as contrarily argued by Modigliani and Miller (1958).

Accordingly, results from the panel Granger’s causality test conducted are presented in table 4.1. In conducting this test, the study followed the procedures of Dumitrescu and Hurlin (2012), as explained in sub-section 3.3. In table 4.1, the χ^2 test statistic, and its p-values are all reported for the estimated causality equations. As discussed in section three, the decision rule is to reject the test null hypothesis that a variable does not Granger-cause the other, if their p-values are less than 0.05 critical values. If otherwise, the null hypothesis stands, meaning that the affected variable does not Granger-cause the left-hand variable in that particular equation.

Table 4.1: Results of the Granger’s Causality Test

S/N	Null Hypotheses	Test Statistic (χ^2)	p-value	Existence or otherwise of Uni-directional Causality	Conclusion
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1.	(a) Capital Investment does not Granger-cause Finance.	15.04	0.000	Exists	} Bi-directional causality exists
	(b) Finance does not Granger-cause Capital Investment.	5.20	0.000	Exists	
2.	(a) Capital Investment does not Granger-cause Dividend Payout.	9.52	0.000	Exists	} Bi-directional causality exists
	(b) Dividend Payout does not Granger-cause Capital Investment.	5.17	0.000	Exists	
3.	(a) Finance does not Granger-cause Dividend payout.	10.88	0.000	Exists	} Bi-directional causality exists
	(b) Dividend Payout does not Granger-cause Finance.	6.73	0.000	Exists	

Source: Author’s Computation, 2021.

Explanatory notes: The p-value of 0.05 or below indicates the significance of each test statistic, hence, the significance of the causal relationship between the variables.

Discussion of the Findings

Based on the panel Granger causality test’s results presented in table 4.1, it can be deduced that the test rejects the null hypothesis that capital investment does not Granger-cause finance (that is, the mix of equity and debt). This hypothesis was rejected because the chi-squared test statistic value of 15.04 is statistically significant; since its p-value is 0.000 (which is lesser than the 5% critical value), meaning that a firm’s capital investment choice determines its funding decisions.



The other results of the causality tests similarly indicate that the test null hypothesis is rejected for each of the five remaining causality equation estimates. Specifically, concerning whether the associated finance Granger-causes capital investment, the causality test result shows that, that is the case, going by the χ^2 test statistic value of 5.20 and its p-value of 0.000, indicating that the test statistic is statistically significant and, hence, a firm's financial strength determines how far it can invest in capital acquisition. In short, when combined with the conclusion in the previous paragraph, the implication that emerges is that the decision to raise more funds affects the decision to undertake investment projects and vice-versa, meaning that both the investment and the finance decisions must be jointly considered.

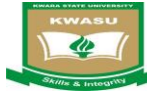
On the relationship between capital investment and dividend payout decisions, results from this test shows that the null hypothesis is rejected, going by the statistic value of 9.52 and its p-value of 0.000, indicating the statistical significance of the statistic value and hence, implying a causation running from capital investment to dividend payout. This therefore implies that a firm's decision to embark on capital investment affects its dividend payouts.

Regarding the test on the reverse causality from dividend payout decision to capital investment, the χ^2 test statistic value obtained is 5.17, with the corresponding p-value of 0.000. This indicates the existence of causal effect of dividend payout on firms' capital investment decision. In short, if combined with the conclusion in the previous paragraph, the implication that emerges is that the decision to increase dividend payout affects the decision to undertake investment projects and vice-versa, meaning that both dividend payout decisions and investment decisions are jointly made.

On the causal effect of finance and dividend payout decisions, the results of Grangers' causality test reject the null hypothesis that finance (i.e., mix of equity and debt) does not Granger-cause dividend payout. This is because the χ^2 test statistic value of 10.88 has a p-value of 0.000, which indicates its statistical significance. This means that how liquid a firm is has a bearing on its payout decisions.

Concerning the test for reverse causation from dividend payout decision to funding decision, the resulting test statistic value is 6.73, with the corresponding p-value of 0.000. This therefore signifies that the test statistic is statistically significant and implies that the need to pay dividend makes firms to consider their funding options. In short, if combined with the conclusion in the previous paragraph, the implication that emerges is that any decision to increase dividend payout reduces liquidity position of a firm and its finance decision, and vice-versa. This therefore means that both dividend payout decisions and funding decisions are jointly made. Thus, in all cases, results show that these three variables exhibit causal influences on each other, thereby requiring that all the three variables be treated as an endogenous variable in whichever equations they appear in further studies as right-hand-side variables.

As stated in sub-section 1.4, the objective of the study was to ascertain the existence of causality relationship do exists between the corporate long-term financing decisions, viz: capital investment, finance and dividend payout decisions. Preceding this objective is the corresponding research



question and what type of causal relationship exists between the trio of capital investment, finance and dividend payout decisions? To verify this was a corresponding research null hypothesis which states that no causal relationship(s) exist(s) between capital investment, finance and the dividend payout decisions.

Based on the evidence provided by this study regarding the objective, it has been found out that the coefficient of capital investment, finance and dividend payout decisions are statistically significant to justify the existing theoretical submissions regarding the dependence of these trio of corporate long-term financing decisions. Following this outcome, it can be simply said that capital investment, finance and dividend payout corporate long-term decisions causally relates on a bi-directional basis, meaning that they influence each other directly.

CONCLUSION AND RECOMMENDATION

Conclusion

Following the general and the specific objectives of this study, the study concluded that a firm's capital investment, its financing approach and its dividend payout business long-term decisions, causally relate on a bi-directional basis, meaning that they influence each other directly on a dual directional basis. The implication of this outcome is that each of the three corporate long-term financing decisions tested, have direct impact (either positive or negative) on one another, and will require careful consideration of their multiplier effect when deciding any of them.

Recommendation

Subject to the study's findings and the corresponding conclusion, it is therefore recommended to the concerned corporate and governmental decision makers that at all times, they should consider first, the multiplier implication of taking any of the three examined long-term financing decisions (i.e. capital investment, finance and dividend payout) on one another, and their joint effects on the firm's, sectoral and economic stability, especially when seeking competitive edge and growth.

Suggestion for Further Studies

Following the limitations of this study, viz: single country (Nigeria); single sector (manufacturing); 35 samples (firms listed on the Nigerian Stock Exchange, duration and class of the economy) The study suggests that future studies should consider the multiple country approach; multiple sectors; larger number of samples and a longer period of study if possible, for these approaches would allow a cross-sectional view of factors ignored in this study and a consideration of other decision making elements that the extant literature has not identified.

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