Capital Investment Decisions and Stock Valuation of Quoted Food and Beverages Firms in Nigeria

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DOI: 10.56201/ijbfr.v9.no4.2023.pg187.206

Abstract
This study examined the relationship between capital investment and stock valuation of quoted food and beverage manufacturing firms in Nigeria. Secondary data obtained from 22 quoted food and beverage manufacturing firms from 2012 - 2021 obtained from the Nigerian Stock Exchange Fact book and annual reports of the quoted food and beverage manufacturing firms. The study modeled stock valuation as the dependent variables while capital investment on equipment, capital investment on plants, human capital expenditure, sustaining capital expenditure, capital investment on expansion projects. Panel data methodology is employed while the fixed effects model is used as estimation technique at 5% level of significance. Fixed effects, random effects and pooled estimates were tested while the Hausman test was used to determine the best fit. The study found that the independent variables explained 86.2 percent variation in the dependent variable which is stock value, the beta coefficient indicates that found that sustainable capital investment reduced stock value by 0.01 percent, capital investment on expansion increased stock value by 0.005 percent, capital investment on plant reduced stock value by 4 percent, capital investment on human capital added 0.09 percent while capital investment on equipment added stock value by 0.007 percent within the time periods of the study. The study conclude that capital investment have significant effect on valuation of the quoted food and beverage manufacturing firms. We recommend that capital investment policy should be integrated into corporate financing policy of the quoted firms.

Keywords: *Capital Investment Decisions, Stock Valuation, Quoted Food and Beverages*

INTRODUCTION

Capital investment decisions are backed by capital budgeting processes that involve detailed review of the strategically aligned investment opportunities available to an organisation. The objective is to select the most viable option that will provide the highest increase in value to an organisation. Management has a bevy of techniques which they use to evaluate the various investment opportunities that are often competing for limited firm resources. The capital budgeting process ensures that capital investment decisions are made to the investment options that will lead to an increase in the firm's profitability. In finance, a capital investment is added to an asset

account ("capitalized"), thus increasing the asset's basis (the cost or value of an asset adjusted for tax purposes) (Akbar, Ali and Saadi, 2008). In financial reporting, capital investment is classified as Property, Plant and Equipment. According to International Financial Reporting Standards (2012), property, plant and equipment are tangible items that are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes and are expected to be used during more than one period.

According to the Pecking Order Theorem companies usually go public after having exhausted internal sources of financing. Thus, listing in securities and stocks exchange allows companies to overcome borrowing constraints associated with debt financing. From this point of view, companies with higher investment needs are more likely to go public. Amadi, (2005) indicate that there is a need to approximate investment needs by capital expenditures on property plant and equipment (Capex) and sales growth. Listing on a stock exchange plays a role in creating public visibility of a company hence increasing its recognition among a larger set of investors. Lev and Thiagrajan (1993) stated that capital investments represent a fundamental signal claimed by analysts to be useful in predicting future profitability and stock returns. Gitau (2012) reported that due to the developing nature of the Nigeria and other developing financial markets, and the rapid population growth rate, firms are able to identify growth opportunities with relative ease. These opportunities require investment in capital investment in order for them to be realised.

One of a company's most critical decisions is how it manages its capital. Capital investment is a strategic decision made by management on how to spend a company's capital, whether on the acquisition of plant assets, equipment replacement, or research and development expenditures, which are expected to provide returns for the company. Capital investment affects firm growth and can have a significant impact on firm value, according to financial economists (Chan, Gau, & Wang, 1995; McConnell & Muscarella, 1985). Decisions on capital investment can determine a company's future performance. These important managerial decisions carry risks and rewards for stakeholders, including companies, managers, investors, creditors, and employees, in the subsequent years (Kim & Byunghwan, 2018). Capital investment decisions have a strategic focus as firms carefully select capital investment projects in order to generate commensurate returns (Kim, Saha, & Bose, 2021).

Despite the importance of capital expenditure, there are few empirical studies that discuss capital investment and value of quoted firms in emerging financial market like Nigeria. Most previous studies related to capital investment studies focused on capital investment of the government and how it relate to economic growth (Ghozali, 2020; Kuntari, Jatmiko, & Prabowo, 2019; Saud, Asterina, & Trisha, 2020; Ball, Sadka, &Sadka, 2009; Kim, 2001; Turner &Hesford, 2019). Existing studies on the effect of corporate capital investment focused on capital investment and company performance (Canace, Jackson, & Ma, 2018; Chen & Chang, 2020; Kothari, Laguerre, & Leone, 2002; Moser et al., 2021). This study will focus on capital investment and valuation of quoted food and beverage manufacturing firms in Nigeria.

LITERATURE REVIEW

Capital Expenditure

Capital Expenditures are long-term commitments of resource to realize future benefits. Budgeting capital expenditures is one of the most important managerial decision making functions. Facility improvements and expansions must be geared to a limited supply of funds from internal operations and external sources. The magnitude of funds involved in each expenditure and the length of time required recovering the investment call for careful analysis and judgment. Decisions about current operations can always be changed, but because substantial funds and long time periods are involved in a capital project, errors can be extremely costly (Carter, 2006). Capital investment is spending money for the long term results would obtain in the next few years. The expenditure includes expenditures money among others for the purchase of fixed assets, waste management costs, promotional costs, and research and development costs. Capital investment included in the policy area investment, and directed for development or expansion of business for the company to remain exist in the face of every competition. According to Brailsford and Yeoh (2004), typically new investment arises through either capital investment or business acquisitions. One view is that capital investment announcements provide information about a firm's future earnings prospects that is not provided by current earnings. In this sense, capital investment announcements convey a signal regarding the firm's available projects. Hence, a significant positive relation between investment information and stock returns is expected.

Equipment Expenditures

The estimates of equipment expenditures include such items of specialized industrial machinery as leather-working, metal-working, rubber-working, textile, and similar machinery, and general-purpose equipment such as electric motors, steam, Diesel, and other prime movers, cranes, trucks, office fixtures, business machines and other movable equipment. These estimates are based upon the value of production reported in every Census year from 1914 to 1939 for each of approximately 65 major groups of industrial machinery and related equipment used for manufacturing purposes.

Plant Expenditures

The estimates of plant expenditures include such items as buildings (together with elevators, heating, plumbing, and similar accessory equipment), blast furnaces, docks, boilers, pipe, stills, tanks and vats, and similar fixed structures. Factory building construction is approximately four-fifths of the total estimated plant expenditures in most years. From this examination, ratios were obtained of the relative expansion in the Southern States and in the Dodge reporting area. These ratios were used to estimate the volume of factory building contracts for the industries under question located in the South. Particular attention to the textile and petroleum refining industries was necessary, since they experienced a marked expansion in the Southern area during this period. Estimates of factory building in the Western States over the period from 1919 to 1940 were based upon the industrial building contracts reported by the Engineering News-Record. The statistics for industrial building contracts compiled by that publication included electric light and power

buildings, railroad buildings, and some other structures not built by manufacturing concerns. Consequently a special tabulation of the contracts awarded in the Western States in each of 12 manufacturing industries, showing the largest projects separately, was made for this period. These special tabulations yielded data which were used to calculate quarterly estimates of factory building in the Western States.

Expansion Capital investment

Expansion capital investment any Capital investment of the Borrower or any of its Subsidiaries which does not relate to the Big Red Project (a) made in connection with the Acquisition or construction of any Inn that is, or after giving effect to such expenditure will be, wholly-owned by the Borrower or a Guarantor or (b) which substantially alters, improves or expands any existing Inn, or (c) incurred in the ordinary course of business for property used in corporate overhead functions, or (d) consisting of land to be leased to franchisees, or (e) consisting of a contribution to, or Investment in, a Joint Venture, and which in any of the foregoing instances is not properly characterized as a Maintenance Capital Expenditure.

Maintenance Capital Expenditures

This means cash expenditures for acquisitions or capital improvements shall not include Maintenance Capital Expenditures or Investment Capital Expenditures. Expansion Capital Expenditures shall include interest payments (and related fees) on debt incurred and distributions on equity issued, in each case, to fund the construction of a Capital Improvement and paid in respect of the period beginning on the date that a Group Member enters into a binding obligation to commence construction of the Capital Improvement and ending on the earlier to occur of the date that such Capital Improvement Commences Commercial Service or the date that such Capital Improvement is abandoned or disposed of. Debt incurred or equity issued to fund any such construction period interest payments, or such construction period distributions on equity paid in respect of such period shall also be deemed to be debt incurred or equity issued, as the case may be, to fund the construction of a Capital Improvement, and the Incremental Incentive Distributions paid in respect of such newly issued equity shall be deemed to be distributions paid on equity issued to finance the construction of a Capital Improvement.

Human Capital Investment

Investment in human is seen as that part of a firm's spending that is dedicated to the employees. It involves the spending that relates to recruiting, training, compensation, retaining and pension incurred on the employees of a particular firm. Blundell, Dearden, Meghir and Sianesi (1999) describe human capital investment as having three components. This includes early ability (whether acquired or innate); qualifications and knowledge acquired through formal education; and skills, competencies and expertise acquired through training on the job. They went on to state that human capital investment involve an initial cost (tuition and training course fees) which the individual or firm hopes to gain a return on in the future (through increase earnings or higher firm productivity)

The Free Cash Flow

Theory Free cash flows are excess and uncommitted cash positions held by organisations after investing in all strategically aligned, positive NPV projects. This position often leads to an agency problem where management tends to engage in additional investment activities that may or may not be aligned to the firm's strategy and often in negative NPV projects. The free cash flow theory is more prevalent in mature firms that are prone to over-invest due to the fact that their operating cash flows surpass the available investment opportunities. This is compounded by a tendency by top management to empire build especially when their compensation is pegged to increase in firm size. Jensen (1989) notes that top managers with access to free cash flows tend to allocate these to negative NPV projects as opposed to distribution of the same to shareholders. This occurs mainly when management performance and remuneration is appraised based on the level of firm growth. Proponents of the free cash flow theory contend that free cash flows in firms with poor investments should be mopped up to avoid managers allocating this to negative NPV projects.

Neoclassical Theory of Investment

In this section, we derive the relationship between the neoclassical theory, accelerator principle and Tobin's Q theory of investment. All three theories assume optimization behavior on behalf of the decision maker (investor). The neoclassical and Tobin's theory of investment explicitly assumes profit/value maximization. The accelerator theory of investment assumes this implicitly, by assuming that investment is determined by an optimal capital stock. The starting point for Jorgenson's (1963, 1967 and 1971) neoclassical investment theory is the optimization problem of a firm. Maximizing profits in each period will yield an optimal capital stock, assuming that the production function can be written as a conventional Cobb-Douglas function.

$$Y(t)\ \ f\left(K(t), L(t)\right) = AK^{\alpha}\ \ L^{1-\alpha} \qquad (1)$$

Where Y(t) is firm output, K is capital and L denotes labour, all in period t. The profit function for a representative firm can then be expressed as follows:

$$\pi(t) = p(t)Y(t) - s(t)I(t) - w(t)L(t) \qquad (2)$$

$\pi(t)$ denotes profit, p (t) is the price of output, s (t) is the price of capital and w (t) is the wage. Assuming profit maximization, the current value of a firm, V(0), can be written as:

$$V(0) = \max\ E_{\phi_0} \int_0^{\infty} \pi(t) e^{-rt}\ dt =$$

$$E_{\phi_0}\ \left[p(t)Y(t) - s(t)I(t) - w(t)L(t)\right] e^{-rt}\ dt \qquad (3)$$

$$s.t..\ dK/dt = I(t) - \delta K(t) - K(t)$$

and K(0) is given.

The term E is an expectations operator conditional on the information set, Φ, available for the firm in each period. It leave this aside for now and return to the role of expectations and the

efficient market assumption in section 4.4. To avoid clutter and simplify, the time notations are dropped from now on.

To maximize V (0) the first step is to set up a Lagrangian.

$$L = V(0) + \int_0^{\infty} \lambda\left[\left(I - \delta K\right)\ K\ \right] e^{-rt}\ dt \qquad (4)$$

which gives:

$$L = \int_0^{\infty} \left[\left(pY - sI - wL + \lambda\ (I - \delta K) - \lambda K\ \right] e^{-rt}\ dt \qquad (5)$$

From this we obtain the familiar current value Hamiltonian.

$$H = pf\ (K, L) - sI - wL + \lambda\ (I - \delta K) \qquad (6)$$

Where, the Lagrangian multiplier λ(t) is our constant variable. It should be noted that λ (t) represents the shadow price of capital. Differentiating the Hamiltonian, we obtain the following first order conditions:

$$\frac{\partial H}{\partial I} = -s + \lambda = 0 \qquad (7)$$

This condition holds that the opportunity cost of capital shall be equal to the shadow price of capital.

$$\frac{\partial H}{\partial I} = sp_L^i - w = 0 \qquad (8)$$

This condition simply says that the labour should be employed until the marginal revenue of labour equates with the wage. Recalling the maximum principle (Intriligator, 1971) we get:

$$\frac{\partial H}{\partial \lambda} = \frac{\partial K}{\partial t} = I - \delta K = 0 \qquad (9)$$

Which says that in equilibrium, net investment should be zero and gross investment equal to the depreciation of K. finally, the marginal condition for capital is:

$$\frac{\partial H}{\partial K} = pf_K^i - \lambda\delta = 0 \qquad (10)$$

The canonical equation (Intrilligator, 1971) requires that $\dot{y} = -\partial K / \partial K$, where y is the control variable such that $y = \lambda e^{-rt}$ at time t. Thus:

$$-\frac{\partial H}{\partial I} = \frac{d}{dt}\left[e^{-rt}\ \lambda(t)\right] = \frac{\partial \lambda}{\partial t} - r\lambda \qquad (11)$$

This means that equation (11) can be written as:

$$-pf_K^i + \lambda\delta = \frac{\partial\lambda}{\partial t} - r\lambda \quad (12)$$

From equation (8) we know that s = λ, which implies that $\partial s/\partial t = \partial\lambda/\partial t$. This also means that $\partial H/\partial K$ can be stated in the following way:

$$pf_K^i + s\delta = \frac{\partial s}{\partial t} - rs \quad (13)$$

Rearranging this we obtain:

$$pf_K^i = s[\delta + r - (\partial s/\partial t)/s] \quad (14)$$

Since $-pf_K^i$ is the marginal rate of return on capital, mrr_k, equation (11) can be rewritten as the marginal product of capital:

$$f_K^1 s[\delta + -(\partial s/\partial t)/s]p \quad (15)$$

Note that $f_K^i = \partial Y/\partial K$. Johanson's (1963) user cost of capital, c is defined as: $s[\delta + r - (\partial s/\partial t)/s]$, which means that:

$$pf_K^i = c \quad (16)$$

This can now be used to derive the optimal capital stock, K^*, and the investment function. Using Cobb-Douglas technology the marginal product of capital becomes:

$$\frac{\partial\lambda}{\partial K} = \frac{\alpha Y}{K} \quad (17)$$

Multiplying by p, and recalling equation (17) we get:

$$\frac{\partial H}{\partial K} = p\frac{\alpha Y}{K} = c \quad (18)$$

Solving for k we obtain an expression for the optimal capital stock:

$$K^* = \frac{p\alpha Y}{c} \quad (19)$$

It is now easy to see that K^* depends on output, price of output and the user cost of capital, c. thus, investment becomes the change in capital between two periods:

$$I\ \frac{p\alpha Y}{c} - K^*\ (t-\tau) \quad (20)$$

Note, that this assumes that K (t) adjust instantaneously and fully to K^* (t). Assuming that the adjustment to the optimal capital stock is only partial each period this can be incorporated into equation (22) by introducing an adjustment parameter that depends on the difference between actual and desired capital, Mueller (2003). Since the neoclassical theory assumes that the capital adjusts immediately and completely to the desired capital stock the investment function is

essentially eliminated. It has therefore been suggested that Jorgenson's theory is in fact a capital theory and not an investment theory.

Corporate Valuation

The increase of company values the reflection of shareholders' funds optimization, which is frequently valued by Price to Book Value (PBV). This ratio shows the willingness of investors to buy shares with the price at above or below the nominal value. The higher the value ofa company the more prosperous the owners are. Thus, the value of company in investors' and creditors' view is very important that they become more selective in investing and providing credit for the company.

In contemporary business, value of the firm indicates the extent towards maximizing the investors' and stakeholders wealth. This is because they have interest in the return on their investment and this can be achieved if the resources of the organization are fully utilized properly (Bintara, 2018). This serves as the basis for upcoming investors and financial providers to invest more inthe business. Specifically, Kartikasari and Merianti (2016) came up with the notion that, firm value is of dynamic significance for economic development. In this regard, investors need high returns on their investment and well-organized managers that monitored firm performance could bring long-term profits for its stakeholders, shareholders and investors. Importantly, firm value signifies as economic measure of firm performance through which the worth of business and economic resources can be ascertained.

Price Book Value

The ratio of stock price to book value of the company, indicating the level of the company's ability to create value relative to the amount of capital invested. High Price Book Value reflect stock price higher than the book value per share, the higher the stock price, the more successful the company to create value for shareholders. Fully-diluted means that it includes in-the-money options, warrants and convertible securities aside from just the basic shares outstanding. If a company plans to acquire another company, it will need to pay that company's shareholders by paying at least the market capitalization value. This alone is not considered an accurate measure of a company's true value and for that reason; other items are added to it as seen in the enterprise valuation equation.

The success of the company creates value certainly gives hope to the shareholders in the form of larger profits as well (Sartono, 2001), simply states that the PBV is the ratio of the market (market ratio) which is used to measure the performance of the stock market price of the book value.

$$PBV: \quad \frac{\text{Market Price per share}}{\text{Book Value per share}} \qquad (2.21)$$

Price to book value ratio is a valuation ratio that is used by investment advisors, fund managers and investors to compare a company's market value (market capitalization) to its book value (shareholders' equity). The price to book value ratio which is expressed as a multiple (how many times a company's share is trading per share compared to the company's book value per share) is an indication of how much shareholders are paying for the net assets of a company. This study is underpinned by the dividend discount model (DDM) which is a method of valuing a company's share price based on the theory that its share is worth the sum of all of its future dividend payments

when they are discounted back to their present value. Dividend discount model is used to value shares based on the net present value of the future dividends.

Empirical Review

Taipiand Ballkoci (2019) investigated the link between the capital expenditures and firm performance of Albanian firms in the construction sector, based on the data collected from 30 firms between 2008 and 2015. The study took into consideration the fact that capital expenditures is not the only variable that influences the model and as a consequence other variables affecting financial performance were analyzed, which are: leverage ratio and firm size. The linear regression model was used to analyze this relationship. According to the survey the model was explained 63% by the chosen variables. The regression analysis indicated that capital expenditures and leverage ratio are statistically significant and positively correlated with the financial performance of the firm. On the other side, the size of the firm is not a statistically significant variable and it is also negatively correlated with firm performance.

Etim (2019) determined the extent to which capital investment decisions made by listed manufacturing companies in Nigeria relate with the value of the firms in the long term. The ex post facto and correlational research designs were adopted for the study. Secondary data were extracted from the Nigerian Stock Exchange Fact Books for the period, 2010 – 2016. The number of manufacturing companies listed in the Stock Exchange during this period was 83, and the sample size used was 69. With the aid of regression analyses, the findings revealed that capital investment decisions had a significant relationship with long term value of manufacturing firms. The study concluded that capital investment decisions have a significant relationship with the long term value of manufacturing firms in Nigeria. It was recommended that management of manufacturing companies should ensure the holistic use of all techniques, exploring risks, real and growth options analyses as well as portfolio management techniques involving capital assets, in appraising capital investments before taking decisions.

Temuhale and Ighoroje (2022) examined the effect of asset structure and capital structure on the performance of quoted industrial goods firms in Nigeria within 2011-2019. The study was structured into two models with property, plant, and equipment (PPE), other fixed assets (OFA), and current assets (CAS) as explanatory variables for the asset structure model; long term debt to total equity (LTDTEQ), long term debt to total asset (LTDTAS), long term debt to long term capital (lTDTLC) as explanatory variables for the capital structure model while performance was represented in each model by return on asset (ROA). Data were sourced from the companies' annual statements of financial position and statements of profit and loss. The study employed descriptive statistics, correlational and panel data as methods of data analysis. Findings showed that while all the asset structure variables had a positive but insignificant effect, capital structure variables viz; ratio of long term debt to total equity, ratio of long term debt to total asset each had positive and significant effect and ratio of long term debt to total long term capital had an inverse and significant effect on return on assets of industrial goods firms in Nigeria. The study therefore concluded that while asset structure does not meaningfully affect the performance of industrial

goods firms, capital structure has a positive effect. The study encouraged the firms to consider acquiring more long term debts to finance their operations and avoid investing too much on fixed assets.

Ukhriyawati, Ratnawati and Riyadi, (2017) conducted a study on Influence of Asset Structure and Capital Structure on performance of listed Banks in Indonesia within the scope 2012-2015. Return on Assets (ROA) and Return on Equity (ROE) were used as the dependent variables for the different models in the study. For the asset structure models, they used, Ratio of Current Assets to Total Assets, Ratio of Fixed Assets to Total Assets, Other Assets Ratio to Total Assets as independent variables while Debt to Asset Ratio (DAR), Debt to Equity Ratio (DER), and Capital Adequacy Ratio (CAR) were used to capture capital structure. Findings of the study showed that asset structure has a positive and significant influence to earnings, while capital structure has a negative and significant influence on earnings.

Turner and Hesford (2019) investigated the impact of renovation capital investment on multiple measures of hotel property performance. They conducted analyses of short-term and long-term impacts on performance following the renovation of the hotel. They discovered that while renovation capital expenditures have a significant short-term benefit in terms of increased revenue, profitability gains, higher customer satisfaction, and lower repair and maintenance costs, they have a significant long-term negative impact on revenue and profitability. In another example, Earnings persistence reflects the quality of a firm's profits and demonstrates that the firm can retain earnings over time rather than only in the event of a specific activity.

Literature Gap

Studies try to explain this perceived deviation from the theory and provide various explanations for the phenomenon. A large number of studies attribute the negative association to the free cash flow theory where managers with empire building tendencies over invest in capital projects regardless of their profitability, negative net present value projects. Both hypotheses have one thing in common, the investment decisions are made by management who act as agents for the shareholders. Tenets of the agency theory explain that there exists a natural divergence of interest between shareholders and managers, forcing shareholders, who are the owners of capital to incur agency costs. These costs are aimed at aligning management behavior to the inherent interests of shareholders. In summary, the existence of a conflict in the literature review regarding the relationship between capital investment and financial performance creates a research gap that calls for further study. This research gap is compounded more in the Nigeria context where there is lack of comprehensive information about the relationship between capital investment and valuation of quoted food and beverage firms in Nigeria.

METHODOLOGY

This study examined the relationship between macroeconomic variables and net present value of quoted food and beverage manufacturing firms, secondary data were used. Ex-post facto research design was employed in obtaining, analyzing and interpreting the relevant data for hypotheses testing. The rationale for the variety is that ex-facto research design allows the researcher the opportunity of observing one or more variables over a period of time (Uzoagulu, 1998).

The secondary data that were used in this study which will be sourced from the financial statement of the quoted food and beverage manufacturing firms, Stock Exchange Facts Book and Central Bank of Nigeria Statistical Bulletin. Firm annual statements and reports are deemed to be reliable because they are statutorily required to be audited by a recognized auditing firm before publication. The population of this study comprises 22 quoted food and beverage firms on the floor of Nigeria stock exchange. There are 22 quoted food and beverages firms in the Nigeria Stock Exchange. Due to the small nature of the population, the study adopted purposive sampling method; therefore, 20 quoted food and beverages firms form the accessible sample size.

Model Specification

These analytical techniques enabled the researcher attain justifiable and robust results.

$$Y = \beta_0 + \beta_{1Xit} + \mu \quad (22)$$

Where Y = Dependent Variable

β_{1Xit} = Independent variable

β_0 = Regression Intercept

μ = Error Term

Disaggregating Equation 3.1 to form the multiple regression models, we have, the model specified in this study was adopted from Babalola (2012).

$$SV = F(CEE, CEP, CEH, SCE, EXCE) \quad (23)$$

Where:

SV = Stock Valuation

CEE = Capital investment on equipment
CEP = Capital investment on plants
CEH = Human capital investment
SCE = Sustaining capital investment
EXCE = Capital investment on expansion projects
α_0 = Intercept
$\alpha_{1-}\alpha_7$ = coefficient of independent variables to the dependent variable.
et = error term

A-priori Expectation = β1, β2, β3, β4 and β5 > 0

Technique for Analysis

To obtain the observed values on the expectation of the impact of financial information on market value, panel data survey over a ten year period will be employed. Panel data structure allows us to take into account the unobservable and constant heterogeneity, that is, the specific features of each quoted firm. The researcher will employ pooled Ordinary Least Square (OLS), Fixed Effects and Random Effects regression models to test the various hypotheses. Pooled OLS regression

technique is popular in financial studies owing to its ease of application and precision in prediction (Alma, 2011).

Pooled Regression (OLS) Model (PRM*)*: is equally known as the constant coefficient model (CCM). It is the simplest among the three models in panel data analysis. However, it disregards the space and the time dimensions of the pooled data. In a situation where there is neither significant cross-section unit nor significant temporal effects, one could pool all of the data and run an ordinary least squares (OLS) regression model. Fixed Effects (FE) Model: in the FE technique, the slope coefficients, are constant but the intercept, varies across space i.e. the intercept in the regression model is allowed to vary across space (individuals). This is as a result of the fact that each cross-sectional unit may have some special characteristics. Random Effect (RE) Model: the RE technique which is equally known as the Error Components Model (ECM) is an alternative to FE technique.

ANALYSIS AND DISCUSSION OF FINDINGS

Table 1: Test of Hausman

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	82.170422	6	0.0000

Source: Computed by Researchers from E-view 9.0

Table 1 presents the result of the Hausman test. From model one the study validates the use of random effect model while in model two the study validates the adoption of fixed effect model.

Table 2: The Effect of Capital investment on Stock Value of Quoted Food and Beverage Manufacturing Firms in Nigeria

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Pooled Effect Regression Model				
SCE	-0.014649	0.002492	-5.879447	0.0000
EXCE	0.000969	0.000158	6.144309	0.0000
CEP	-8.26E-06	7.49E-05	-0.110377	0.9122
CEH	-0.007690	0.005071	-1.516456	0.1310
CEE	0.000279	0.004947	0.056351	0.9551
C	8.128415	0.135864	59.82777	0.0000
ECM(-1)	0.901251	0.032710	27.55318	0.0000
R-squared	0.814159	Mean dependent var		7.412464
Adjusted R-squared	0.808584	S.D. dependent var		0.670852
S.E. of regression	0.293506	Akaike info criterion		0.419392
Sum squared resid	17.22912	Schwarz criterion		0.532093
Log likelihood	-36.40708	Hannan-Quinn criter.		0.464967
F-statistic	146.0313	Durbin-Watson stat		1.839254
Prob(F-statistic)	0.000000			
Fixed Effect Regression Model				
SCE	-0.001327	0.002864	-0.463284	0.6437

EXCE	0.000789	0.000140	5.652552	0.0000
CEP	-4.21E-05	6.73E-05	-0.625332	0.5326
CEH	-0.000925	0.004586	-0.201661	0.8404
CEE	0.000516	0.004398	0.117349	0.9067
C	7.458153	0.148168	50.33574	0.0000
ECM(-1)	0.585933	0.058563	10.00523	0.0000
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.880934	Mean dependent var		7.412464
Adjusted R-squared	0.862205	S.D. dependent var		0.670852
S.E. of regression	0.249025	Akaike info criterion		0.186735
Sum squared resid	11.03843	Schwarz criterion		0.653637
Log likelihood	9.672971	Hannan-Quinn criter.		0.375546
F-statistic	47.03480	Durbin-Watson stat		1.821141
Prob(F-statistic)	0.000000			
Random Effect Regression Model				
SCE	-0.014458	0.002129	-6.790719	0.0000
EXCE	0.000966	0.000134	7.214646	0.0000
CEP	-9.19E-06	6.36E-05	-0.144460	0.8853
CEH	-0.007524	0.004311	-1.745404	0.0825
CEE	0.000249	0.004204	0.059313	0.9528
C	8.117313	0.116005	69.97363	0.0000
ECM(-1)	0.899306	0.028123	31.97756	0.0000
Effects Specification				
			S.D.	Rho
Cross-section random			0.015687	0.0040
Idiosyncratic random			0.249025	0.9960
Weighted Statistics				
R-squared	0.810022	Mean dependent var		7.283551
Adjusted R-squared	0.804323	S.D. dependent var		0.661527
S.E. of regression	0.292629	Sum squared resid		17.12634
F-statistic	142.1259	Durbin-Watson stat		1.839799
Prob(F-statistic)	0.000000			
Unweighted Statistics				
R-squared	0.814146	Mean dependent var		7.412464
Sum squared resid	17.23034	Durbin-Watson stat		1.828695

Source: Computed by Researchers from E-view 9.0

Table 2 presents the regression results for the two estimated models in the study. Model two found that the independent variables explained 86.2 percent variation in the dependent variable which is stock value, the f-statistic and probability indicates that the model is not significant, the Durbin Watson statistic indicate the absence of serial autocorrelations while the beta coefficient indicates that found that sustainable capital investment reduced stock value by 0.01 percent, capital

investment on expansion increased stock value by 0.005 percent, capital investment on plant reduced stock value by 4 percent, capital investment on human capital added 0.09 percent while capital investment on equipment added stock value by 0.007 percent within the time periods of the study.

Discussion of Findings

The study found capital investment on equipment has positive and significant effect on the market value and stock valuation of the quoted firms within the time scope of the study. The positive effect of the variable confirm the a-priori expectations of the study and in line with theory such investment theory. The study found capital investment on building has negative and no significant effect on stock valuation of the quoted firms within the time scope of the study. The negative effect of the variable contradict the a-priori expectations of the study and in theories such investment theory. The study found capital investment on human resources has negative and no significant effect on stock valuation of the quoted firms within the time scope of the study. The negative effect of the variable contradict the a-priori expectations of the study and in theories such investment theory. The negative effect confirm the findings of Fairfield, Whisenant and Yohn (2023) a negative association between growth in net long term operating assets and one year ahead future return on assets, Hendri and Juniarti (2022) that capital investment impacts long-term performance, with no evidence to the contrary. Additional testing utilizing the control variables generated additional interesting results with important implications. The study found sustained capital investment has negative and significant effect on stock valuation of the quoted firms within the time scope of the study. The negative effect of the variable contradict the a-priori expectations of the study and in theories such investment theory. The negative effect confirm the findings of Fairfield, Whisenant and Yohn (2023) a negative association between growth in net long term operating assets and one year ahead future return on assets, Hendri and Juniarti (2022) that capital investment impacts long-term performance, with no evidence to the contrary. Additional testing utilizing the control variables generated additional interesting results with important implications. The study found sustained capital investment has negative and no significant effect on stock valuation of the quoted firms within the time scope of the study. The negative effect of the variable contradict the a-priori expectations of the study and in theories such investment theory. The study found expansion capital investment has positive and no significant effect on the stock valuation of the quoted firms within the time scope of the study. The negative effect of the variable contradicts the a-priori expectations while the positive effect confirm our expectations of the study and in theories such investment theory. the negative effect contradict the findings of Fairfield, Whisenant and Yohn (2023) a negative association between growth in net long term operating assets and one year ahead future return on assets, Hendri and Juniarti (2022) that capital investment impacts long-term performance, with no evidence to the contrary. Additional testing utilizing the control variables generated additional interesting results with important implications; Richardson, Richard, Sloan and Irem (2023) find a similar association and attribute it to the lower reliability of long term asset accruals.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The relationship between capital investment and corporate value has been a point of departure among scholars. The study found that the independent variables explained 86.2 percent variation in the dependent variable which is stock value, the f-statistic and probability indicates that the model is not significant, the beta coefficient indicates that found that sustainable capital investment reduced stock value by 0.01 percent, capital investment on expansion increased stock value by 0.005 percent, capital investment on plant reduced stock value by 4 percent, capital investment on human capital added 0.09 percent while capital investment on equipment added stock value by 0.007 percent within the time periods of the study.

Equipment capital investment has significant effect on the stock value of quoted food and beverage manufacturing firms in Nigeria. Equipment capital investment has no significant effect on the market value of quoted food and beverage manufacturing firms in Nigeria. Plant capital investment has no significant effect on the market value of quoted food and beverage manufacturing firms in Nigeria. Equipment capital investment has no significant effect on the market value of quoted food and beverage manufacturing firms in Nigeria. Plant capital investment has no significant effect on the market value of quoted food and beverage manufacturing firms in Nigeria. Sustaining capital investment has no significant effect on the market value of quoted food and beverage manufacturing firms in Nigeria. Sustaining capital investment has no significant effect on the market value of quoted food and beverage manufacturing firms in Nigeria. Expansion capital investment has no significant effect on the market value of quoted food and beverage manufacturing firms in Nigeria. Expansion capital investment has no significant effect on the market value of quoted food and beverage manufacturing firms in Nigeria

Recommendations

From the findings, the study makes the following recommendations:

i. The study recommends that corporate managers should endeavor to manage capital investment of the firms. The management of the quoted manufacturing firms should appraise capital investment of the firms properly before investing on capital expenditure. There is need for the quoted manufacturing capital investment and other expenditures decision in line with increase in corporate value.
ii. The study found that capital structure have positive but significant relationship with value but negative relationship with market value of the quoted firms, we recommend that he firms should formulate capital investment that will reduce the use of capital expenditure. Management should consider revisiting the corporate capital investment of the firms.
iii. Management of the quoted manufacturing firms should endeavor to integrate internal and external factor that enhance capital investment as the study validated the capital investment affect corporate value.

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