

Corporate Attributes and Value of Listed Manufacturing Firms in Nigeria: A Comparative Analysis

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Abstract

Firms are increasingly striving to improve their value through various corporate strategies as well as exploiting their unique attributes to stimulate value. The extent to which firms create value given their attributes remains a subject of discussion among scholars with mixed conclusions. This study therefore investigates the comparative effect of corporate attributes (Firm size, leverage, Institutional ownership, multi-nationality and Research and development) on the value (Tobin's Q and Market value of equity) of 24 listed Consumer and Industrial goods firms for a period of 14 years (2009-2022). The study utilized a positivist research philosophy and employed correlational research design. Data for the study were quantitatively retrieved from the annual reports and accounts of the firms. Variables were described using descriptive statistics and relationships were ascertained via correlation analysis. Both random effect (FE) and OLS robust regressions were used to analyze the data having carried out some robustness and diagnostic tests. Results from the study revealed firm size, multi-nationality and research and development have significant positive effects on firm value. However, while leverage has significant negative effect on firm value, institutional shareholding effect on firm value was found to be negative and insignificant. Also, consumer goods sub-sector firms have significant positive effect on value which indicates that the sub-sector strongly drives value better than the consumer goods firms through the use of corporate attributes

Keywords: Firm Size, Firm Value, Institutional Ownership, Leverage, Multi-nationality, Research and Development.

1.0 Introduction

The core objective of every corporate organization is to increase its volume of profit through sustainable provision of goods and services that meet and surpass customers' expectations Masripher et al. (2016). Firm's ability to maximize profit through its operations provides leeway for value creation through prompt dividend payment, securing higher earnings over asset replacement costs and spurring patronage on the shares of the firms (Korolo, 2023). This, therefore, implies that firms with increased profit complemented with other corporate factors, are more value maximizing than firms with deteriorating profit status.

Firm value generally, is the worth of the company either in shares or its assets. This suggests that the higher the price and asset worth of the company, the higher the value, and vice versa. In consonance with the foregoing submission, Ofuan et al. (2016), Salawu et al. (2017) and Orshi et al. (2023) contended that share prices, asset worth, prompt payment of robust dividends and returns are strong determinants

of investors' perception of the company which also guide investment decisions. Different techniques are often deployed by the management of companies to enhance their value. In this instance, firms that are desirous of improving their value may leverage on its attributes. The attributes that strengthen firms' ability to maximize value are the firm size, firm age, Institutional shareholding, leverage, corporate social responsibility and corporate multi-nationality. These attributes determine value in multiplicity of ways. Firm size therefore represents the asset size/worth of the firm and large firms have been argued to have a better asset base to enjoy economy of scale and also, take advantage of their political will to claim certain tax reliefs and allowances to maximize value than smaller firms (Seyram & Holly, 2014).

In the same vein, corporations are at liberty to choose their capital structure which defines the firms' leverage. Such latitude offers the firms the privilege of interest being a tax-deductible expense to employ more debt than equity in their capital structure (Chen et al., 2018). Also, Maryam et al. (2018) and Masripher et al. (2016) contended that Institutional ownership characterizes another corporate attribute that allows firms' activities to be closely monitored by institutional investors by ensuring that managers assuage the best interest of the shareholders through value-maximizing efforts.

Corporate multi-nationality simply refers to corporations with different operating outfits in more than one corporate tax territory/country. According to Dayday and Zaam (2017), multinational corporations are seen to be in a distinctive position to use their presence in different countries to maximize value particularly, by exploiting the loopholes in the various country's tax laws. Corporate attributes of firms can also be seen through their Research and Development (R&D) efforts. Research and Development expense, apart from offering the firms a unique opportunity to compete within the market, it has also been greatly used by corporations to reduce tax liability due to the tax incentive attached to it (Doraszelski et al., 2013). This reduction in tax liability allows firms to pay more dividend and consequently improve the value of the firm (Olanisebe, et al. 2023).

The foregoing explanations show that there is a relationship between corporate attributes and firm value. Though, the relationship between various corporate attributes and firm value has been examined by scholars but, not as collectively combined in this study. It is on this basis that this study examines the comparative effects of corporate attributes on the value of listed manufacturing companies (Consumer and Industrial goods firms) in Nigeria. This is necessary to determine the extent to which attributes are being exploited variously by both sub-sectors to maximize value. The basis for comparison stems from the fact that the two sub-sectors are within the same sector, have same regulator and also have similar reporting system.

2.0 Literature Review

This section of the study reviews relevant literature in relation to the subject matter of this study empirically and theoretically.

Conceptual Framework

The focus of this study is currently receiving renewed and overwhelming attention from both academics and practitioners. This is due to the continuous search for various factors that have the capacity to improve form value. The framework upon which the relationship between corporate attributes and firm value was established shown in figure 2.1.

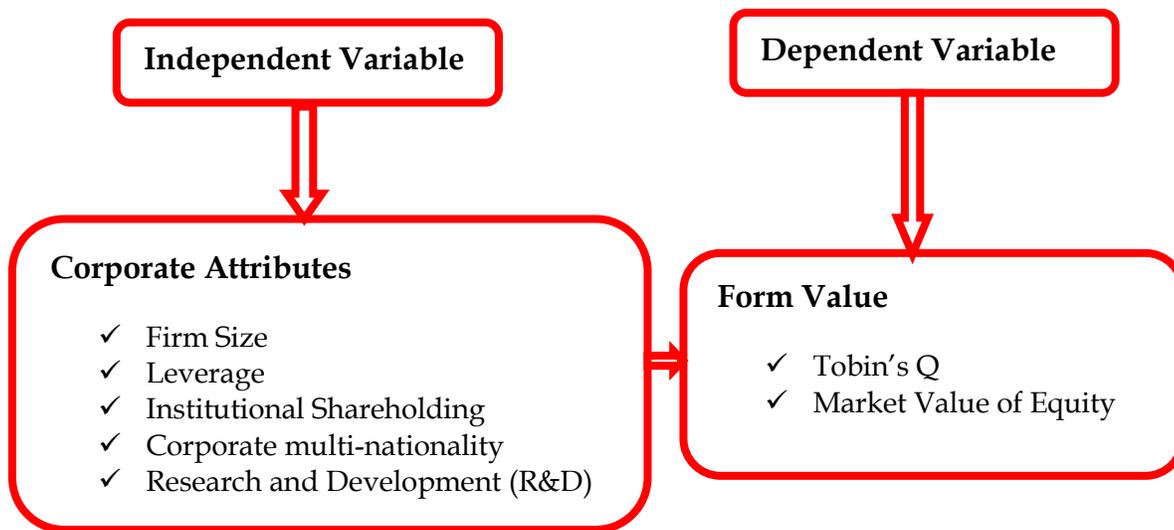


Fig. 2.1: Relationship between Corporate Attributes and Firm Value

Empirical Review

Sequel to the already established relationship between the dependent and the independent variables respectively as captured in the conceptual framework, the conclusions of scholars with regards to the variables are reviewed hereunder.

i. Firm Size and Firm Value

Christine (2014) examined the effect of tax avoidance on the financial performance of all companies listed on the Nairobi Stock Exchange between 2009 and 2013. The study used firm size among other variables as the explanatory variables while Tobin's Q was used as a measure of performance. The result of the regression analysis reveals that firm size has a positive and significant effect on firm performance. Moeljadi and Triningsih (2014) also documented similar findings on the impact of corporate social responsibility, Corporate Governance, Company Size and Corporate Profitability on Firm Value. Similarly, Divya and Purna (2017) examined the effect of capital structure and firm quality on the firm value of some selected BSE-listed Indian hospitality firms over a time frame of fifteen years (2001-2015) and found firm size to have a significant positive effect on the value of Indian hospitality sector. Similar finding was also documented by Hung et al. (2019) on the effect of growth, firm size (natural log of total assets), capital structure and profitability on enterprise value (EV) of companies listed on the Vietnamese stock market. This implies that an increase in firm size contributes greatly to the increase in firm value.

On the contrary, Mohd et al. (2018) carried out a study on the impact of tax planning on the value of firms listed in Bursa, Malaysia for a period of three years (2014-2016). The study used firm size as control variable while firm value was measured using Tobin's Q. The regression results show that firm size has an insignificant negative impact on firm value. This agrees with the finding of Chen et al. (2018) on the link between tax avoidance and firm value with corporate governance as the moderating variable.

ii. Leverage and Firm Value

Nurul (2014) examined the Effect of Company Characteristics on the value of companies listed on Indonesian stock exchange. It was found that leverage has an insignificant positive effect on the value of

the studied firms. This suggests that an increase in the size of debt in the firms' capital structure, increases value though, with very small worth. In contrast, Seyram and Holly (2014) investigated the effect of tax planning on the market performance of 22 non-financial companies listed on the Ghana stock exchange for a period of 12 years (2000-2011) and concluded that leverage has a negative effect on firm value. In agreement with this finding is the work of Nwaobia et al. (2016) on the effect of tax planning on firm value. Also, Seufiene et al. (2016) found in their study 'corporate tax optimization and firm's value in the Tunisian context over an 11 year period' a negative and insignificant relationship between leverage and firm value. This implies that an increase in the size of debt in the capital structure reduces firm value though, by very slight value.

On the other hand, Divya and Purna (2017) documented a significant positive relationship between leverage and firm value. Also, Salawu et al. (2017) acknowledged a positive and significant relationship between leverage and firm value. In consistence with the foregoing findings is the study of Ogbulu and Emeni (2012) on the impact of capital structure on the value of firms listed on the Nigerian stock exchange.

iii. Multi-nationality and Firm Value

With respect to the effect of multi-nationality of firm values, Cemil et al., (2014) examined the impact of multi-nationality and other financial indicators on firm value for the period of 1997–2011 using two popular machine learning technique (Decision tree and artificial neural intelligence). The result of the study revealed that multi-nationality has significant positive effect on the value of the studied firms. This conclusion is further confirmed by Sophocles et al. (2017) in their investigation on the joint impact of real options awareness (RO-AWN) and multi-nationality on firm value using an extensive sample of U.S.-listed international firms over a period of ten-years (1996–2005). The foregoing reviews underscore the relevance of corporate multi-nationality in driving the value of firms.

iv. Institutional Shareholding and Firm Value

Mohammed et al. (2015) examined the effects of institutional ownership on the value of some selected US-listed firms between 1998-2012. The study found that institutional ownership has a significant positive effect on firm value measured through market value of equity. Similarly, Jiakai (2016) evaluated the effect of institutional investors on firm value: Evidence from Chinese listed companies from 2008 to 2014 and reported that institutional shareholding has a positive and significant effect on firm value. On the contrary, Amiya (2015) carried out a study titled; 'Does Institutional Shareholding affect firm value: an empirical analysis of Indian market. The study found a negative and significant relationship between institutional investors and firm value.

v. Research and Development (R&D) and Firm Value

Musfiqur and Shuvo (2022) analyzed the impact of research and development (R&D) expenditure on firm performance and firm value in an emerging economy. The study utilized Tobin's Q as a measure of value. This study via multivariate analysis found a significant positive association between Research and Development (R&D) expenditure firm value. Similarly, Gupta et al. (2017) also found that research & development has a significant positive effect on firm value. On the contrary, Sri and Nuraini (2021) examined the effect of various corporate factors including Research and Development (R&D) on the value of firms listed in Indonesia Stock Exchange for the period of three years (2017-2019). The result of the multiple regression analysis showed that R&D has no significant effect on firm value.

Theoretical Framework

There is an overwhelming dominance of the choice of Resource-Based Theory (RBT) in explaining the relationship between corporate attributes and value. According to Barney et al. (2011), resource-based theory introduced by Barney in 1986, holds that firms' or organizational resources can influence growth or stunt development depending on the firms' resources acquisition pattern. Meshack et al. (2020) posited that the central concern of the resource-based theory is that firms continuously compete on the basis and strength of their resources. This agrees with the view of Porter who suggests that firms' internal factors such as resources, process as well as capabilities; and external factors like relationship with suppliers, demand and change in technology are core ingredients of profit determinants (Gerald & Theodore, 2021; Utami & Alamanos, 2022). From the foregoing explanation on the RBT, this study finds its postulation relevant in explaining the subject matter of this study and chooses the RBT as the theoretical perspective that underpins this study.

3.0 Methodology

This section of the study explains the general framework and methods used in carrying out the study. Specifically, herein are the philosophical assumption, research design, population and sample size of the study respectively. Also covered in the section are, the source and method of data collection, measurements of variables, method of data analysis as well as model specification.

Philosophical Assumption

This study adopts the positivist stance as it allowed the study to measure quantitative reality objectively, using measurable properties (data regarding corporate attributes and firm value) that are independent of the researchers. The results of the study are also interpreted using deductive approach as the researcher remains objective and unbiased all through the process.

Research Design

This study examines the quantitative relationship between corporate attributes and firm value and this requires the use of existing quantitative data. In line with (Creswell, 2018) the study found justifiable reasons to align the study with descriptive research design. This is to allow the strength of quantitative relationships between corporate attributes and firm value to be established. Hence, the research design for this study is descriptive research design which aligns with the studies of (S. M. Mohammed, 2017; Seyram & Holly, 2014).

Population and Sample Size of the Study

The population of the study consists of all the fifty (50) manufacturing firms cutting across 27 consumer goods companies and 23 industrial goods firms. It is believed that the companies, being listed are by default, expected to be more courteous and law-abiding in their quest to maximize value. From the population a sample of 24 companies was drawn using a filter criterion of companies that are listed on or before 2009 and remain listed up till December, 2022 and whose annual reports are also available. The twenty-four (24) companies that satisfied the filter criteria are shown in Table 3.1.

Source and Method of Data Collection

Given the research design, the study utilized secondary data quantitatively extracted from the published annual reports of the firms for a period of fourteen (14) years (2009-2022). This makes the data type for this study, ex-post facto. This method helps to quantitatively establish the comparative relationship between corporate attributes and value of both consumer and industrial goods firms respectively. To

achieve the objectives of this study, two categories of variables were employed as summarized in Table 1. Measurements for each of the mentioned variables are summarized in Table 1 as follows:

Table 1: Variable Measurements and A priori expectation

Dependent Variables	Measurements	Sources	A-priori Expectation
Tobin's Q	Book Value of Total Debt + Market Value of Equity/Book Value of Total Assets	Chen et al (2018) and Salawu et al (2017)	
MVE	Price per share at the end of each year	Kang (2018)	
Independent Variables			
Leverage	Total debt/ total assets	Amy et al (n.d.), Dayday and Zaam (2017)	- & Significant
Firm Size	Nlog of total asset	Amy et al (n.d.), Daniya et al (2016)	+ & Significant
Inst. Ownership	The proportion of total shares owned by institutional investors	Waluyo (2017) and Mahdi et al (n.d.)	+ & Significant
MNC	Foreign, 1 otherwise, 0	Amy et al (n.d.) and Nor (2016)	+ & Significant
R&D	Total R&D expenses / Total assets	Amy et al (n.d.) and Namryoung (2019)	+ & Significant
Industry Dummy	Consumer goods firms is assigned value 1 and value 0 for Industrial goods firms	Blaufus et al (2016)	+ & Significant + & Significant

MVE= Market Value of Equity, MNC= Multinational Corporation, R&D = Research and Development

Source: Generated by the Authors, 2023

Method of Data Analysis

Given the research design as well as the nature of data used in this study the study utilized descriptive statistics to describe the nature of data distribution as well as the variables. Also, correlation analysis was used to establish the relationship among the variables as well as checking for the existence of multi-collinearity. According to Gujarati (2004), the maximum healthy correlation coefficient for regression analysis is pegged at 0.8. Data for the study were analyzed through random effect GLS and robust OLS having carried out robustness and diagnostic tests such as Variance Inflation Factor (VIF), Normality test of data and residual, Heteroskedasticity test, Hausman specification test and Lagrange Multiplier (LM) test.

Model Specification

This study adapts the models of Emeka-Nwokeji and Agubata (2019) in their study on, board attributes and corporate performance. The modified model used in this study is as follows.

$$MVE_{it} = \beta_0 + \beta_1 FS_{it} + \beta_2 LEV_{it} + \beta_3 MNC_{it} + \beta_4 IS_{it} + \beta_5 RD_{it} + \beta_6 INDDUM_{it} + e_{it} \dots\dots\dots (1)$$

$$TQ_{it} = \beta_0 + \beta_1 FS_{it} + \beta_2 LEV_{it} + \beta_3 MNC_{it} + \beta_4 IS_{it} + \beta_5 RD_{it} + \beta_6 INDDUM_{it} + e_{it} \dots\dots\dots (2)$$

Where:

FV = Firm Value: MVE_{it} = Market Value of Equity of firm i at time t; TQ_{it} = Tobin's Q of firm i at time t
 FS_{it} = Firm Size of firm i at time t

LEV_{it} = Leverage of firm i at time t

MNC_{it} = Corporate Multi-nationality Status of firm i at time t

IS_{it} = Institutional Shareholding of firm i at time t

RD_{it} = Research and Development of firm i at time t

$INDDUM_{it}$ = Industry Dummy of firm i at time t (value 1 for consumer goods firms and value 0 for industrial goods firms)

4.0 Results and Discussion

This section of the study presents and discusses the results of the data analyzed for the study.

Descriptive Analysis

The results of the summary statistics (mean, standard deviation minimum and maximum values) for the variables are shown in Table 2. This helps to provide detailed understanding of the nature of the data upon which analysis was carried out.

Table 2: Summary Statistics of the Variables

Var.	Consumer Goods No. of Obs. 196				Industrial Goods No. of Obs. 140				Combined Sub-sector No. of Obs. 336			
	Mean	Std.	Min	Max	Mean	Std.	Min	Max	Mean	Std.	Min	Max
TQ	21.09	35.63	0.09	183.82	9.75	36.03	0.05	351.4	16.11	36.20	0.05	351.4
MVE	15.12	35.60	0.13	179	5.54	12.15	0.08	66.79	11.35	28.13	0.08	179
FS	56.78	107.58	0.06	648.72	32.98	115.77	0.21	673.76	46.06	111.63	0.06	673.76
LEV	0.28	0.41	0.01	2.44	0.13	0.11	0.01	0.47	0.22	0.33	0.01	2.44
IS	0.27	0.20	0	0.69	0.23	0.24	0.01	0.8	0.25	0.22	0	0.8
MNC	0.62	0.48	0	1	0.37	0.48	0	1	0.51	0.50	0	1
RD	0.64	1.45	0	9.36	0.11	0.15	0	0.69	0.40	1.12	0	9.36

Source: Generated from the annual reports of the studied firm through STATA, 2023

Table 2 presents the descriptive statistics of the studied sub-sector firms individually and collectively to allow for comparison. To ease description, all data in billions (TQ, FS, LEV and R&D) were scaled by 1 billion while the natural logarithm of the mentioned set of data was used for the purpose of correlation, diagnostic tests and regressions analysis. Consumer and industrial goods firms have 196 and 140 observations respectively and a combined sub-sector observation of 336 across all the variables. Tobin's Q (TQ) has a mean value of 16.11 which shows that the average worth of the combined sub-sector is 16.11 billion naira with minimum and maximum values of 0.05 (50 million) and 351.4 (351.4 billion naira) respectively. This implies that the firms, averagely have considerable value. However, the standard deviation of 36.20 shows that firms vary greatly in terms of value within the period. Though, the maximum value of 351.4 billion naira was recorded by the industrial goods companies, consumer goods firm has the highest Tobin' Q mean value. This suggests that consumer goods companies have better value and more efficient management of resources than industrial goods companies on the average.

Also, market value of equity has an overall mean value of 11.35 while the minimum and maximum values are 0.08 and 179 respectively. This indicates that the average market value of equity for the entire firms was 11.55 naira per share which suggests that the firms maintained a double-digit market value of equity on the average. However, the standard deviation of 28.13 reveals high dispersion in MVE among the firms. While consumer goods companies recorded the highest value of 179 naira per share as well as the

highest mean value of 15.12, it can be deduced that the shares of consumer goods companies were better priced in the market than those of the industrial goods companies.

Table 2 also revealed that, the combined sub-sector's firm size has a mean value of 46.06 (46 billion) with minimum and maximum values of 0.06 (60 million) and 673.76 (673 billion) respectively. This indicates that some firms have a relatively low size and this vary significantly among the firms considering the standard deviation of 111.63. Comparatively, consumer goods firms are bigger in size on the average (56 billion) than the industrial goods companies with a mean value of 32 billion. Similarly, the overall mean value for leverage is 0.22 (220 million) with a standard deviation of 0.33. Considering the minimum and maximum values of 0.01 and 2.44 respectively, the firms maintained relatively low size of debt in their capital structure and firms moderately vary in the capital structure choice. Consumer goods firms are more geared in both average (0.28) and maximum values (2.44) than the industrial goods firms. As indicated in Table 2, institutional shareholding has overall maximum and minimum values of 0.8 and 0 respectively. Given the mean of 0.25 maintained institutional shareholdings that below the industry average though, firms do not considerably vary in institutional ownership stake. Comparatively, industrial goods firms have highest institutional ownership (0.8) but on the average, consumer goods firms are higher (0.27) in institutional ownership stake.

With regards to corporate multi-nationality, the overall mean value of 0.51 shows that more than half of the companies are multinationals and this does not vary considerably among the firms comparatively, consumer goods firms are more multi-national on the average (0.62) than the industrial goods firms. Finally, while some companies spent as high as 9.3 billion naira in R & D, there are firms with 0 Naira R & D spending. Averagely, the firms spent about 690 million on R&D and this level of investment does not vary among the firms considering the standard deviation of 0.40. Consumer goods firms spend more in both average and total in R&D investment.

Correlation Analysis

The correlation results of the variables together with the Variance Inflation Factor (VIF) are shown in Table 3. This is necessary to establish the association between the explanatory and the dependent variables on one hand, and among the explanatory variables themselves on the other hand.

Table 3: Correlation Matrix of Dependent and Explanatory Variables

Var.	TQ	MVE	FS	LEV	MNC	IS	RD	INDDUM	VIF
TQ	1.000								
MVE	0.280	1.000							
FS	-0.086	0.058	1.000						1.29
LEV	0.222	0.340	-0.286	1.000					1.21
MNC	-0.138	0.203	-0.065	0.012	1.000				1.21
IS	0.508	0.197	-0.154	0.314	0.051	1.000			1.20
RD	0.191	0.064	0.083	0.077	0.154	0.237	1.000		1.16
INDDUM	-0.006	0.043	-0.122	0.136	0.104	0.209	0.048		1.12
								Mean VIF	1.20

Source: Generated from the annual reports of the studied firms using STATA 2023

The result of the correlation as shown in Table 3 reveals the correlation coefficients of the variables which range from -1 to 1 with indicative signs (positive and negative) that denote the pattern or direction of the relationship. The diagonal correlation coefficients of 1.0000 show that each variable is perfectly and positively linearly correlated with itself.

For the correlated variables, the results show that firm size, multi-nationality and industry dummy are negatively correlated with Tobin's Q: an indication that the variables move in opposite direction with Tobin's Q. The remaining independent variables are positively correlated with both measures of dependent variable. Generally, the correlation coefficients for each explanatory variable show absence of multi-collinearity as the highest correlation coefficient of 0.508 which is between institutional shareholding and Tobin's Q is less than 0.8 threshold. The result of the VIF test shows a mean value of 1.20 which is less than 10, further confirms the absence of multi-collinearity among the explanatory variables. Thus, the predictive ability of the explanatory variables is not adversely affected by the relationship.

Robustness and Diagnostic Results

The study conducted Shapiro-Wilk test for data normality and Kernel Density estimate for the residuals and found that the data set for the variables are not normally distributed except for firm size and institutional shareholding. Also, Kernel Density results reveal that the residuals are normally distributed as the curve showed a tolerably mild distribution of residuals which neither skewed to the right nor left. The results of the heteroskedasticity test for the models reveal chi-square probability values 0.002 and 0.051 for models 1 and 2: an indication of presence of heteroscedasticity.

Given the presence of heteroscedasticity, the study further conducted Hausman specification test to choose between Random Effect and Fixed Effect GLS. The chi-square probability values of 0.947, 0.927 were revealed for both models which implies that the results favoured Random Effect regression. The suitability of RE was further ascertained through the Lagrange Multiplier test. The study therefore carried out Breusch- Pagan Lagrange Multiplier (LM) test to choose between Random Effect and OLS Robust standard error which is used to obtain the unbiased standard error of OLS coefficients under heteroskedasticity problem. The results of the LM tests for models 1 and 2 revealed p-values of 0.082 and 0.828. This confirms the suitability of both RE and OLS robust standard error regressions for models 1 and 2 respectively as used in this study.

Table 4: RE and OLS Robust Regression Results

Var.	TQ	MVE
FS	0.21** (0.042)	0.32** (0.030)
LEV	-0.04** (0.021)	-48.25* (0.103)
MNC	0.37* (0.083)	4.18*** (0.002)
IS	-0.72 (0.280)	0.46 (0.116)
RD	0.11* (0.104)	3.68** (0.050)
INDDUM	1.30*** (0.010)	4.32* (0.093)
No. of Obs.	336	336
R ²	0.75	0.63
F-value	8.09	3.52
P-value	0.000	0.007

Source: Generated from the annual reports of the studied firms through STATA, 2023.

Note: The variables' coefficients are shown in italics while their respective p-values are in parenthesis. The different levels of significance are shown in asterisks with ***, **and * denoting significance at 1%, 5% and 10% respectively.

The regression results displayed in Table 4 have a total of 336 observations with R^2 of 0.75 and 0.63. This suggests that the study covers 24 companies for 14 years and that the 75% and 63% of the total variation in the dependent variable was accounted for by the explanatory variables. This implies that the models are fit as further confirmed by the values of F-statistics of 8.09 and 3.52 respectively and significant at $P < .001$.

Corporate Attributes and Firm Value

The relationship between corporate attributes and value as revealed by the results of the study in Table 4 are explained as follows. Firm Size (FS) revealed a significant positive effect on both measures of firm value with coefficients of 0.21 ($P = 0.042$) and 0.32 ($P = 0.030$) respectively for TQ and MVE. This suggests that an increase in the asset size of the led to a substantial leap in the value of the firms from the perspective of efficient management of recourses and the perception of the customers. The increased size helps firms to have better access to funds, exploit economy of scale, control price and make portfolio investment. This finding agrees with Christine (2014), and Divya and Purna (2017) but contradicts the conclusion of Mohd et al. (2018).

Also, leverage shows negative coefficients of -0.04 ($P = 0.021$) and -48.25 ($P = 0.103$) respectively for TQ and MVE. This indicates that an increase in debt in the capital structure of the firms contributed significantly to the drop in the value of the firms. This could be due to high interest rates tied to the debt which the firms have to pay whether profit is made or not thereby draining the further, the limited recourses of the firms. This conclusion aligns with the studies of Nwaobia et al. (2016) and Seufiene et al. (2016) but at variance with the works of Salawu et al. (2017) and Divya and Purna (2017).

Multi-national Corporations (MNC) has positive relationships of 0.37 ($P=0.08$) and 4.18 ($P<.001$) with proxies of firm value. This implies that there is a significant positive implication on value for firms that go international. This stems from the fact that MNCs have multi-tax jurisdictions to exploit in order to minimize tax liability and consequently increasing the firms' value. This finding is consistent with the studies of Cemil et al., (2014) and Sophocles et al. (2017).

Table 4 discloses mix relationship between institutional shareholding and firm value. However, that relationship is statistically insignificant which suggests that institutional shareholding has insignificant effect on firm value. Also, Research and Development (R&D) shows coefficient values of 0.11 ($P=0.104$) and 3.68 ($P=0.050$) for TQ and MVE respectively. This suggests that an increase in the firms' R&D spending significantly improved their value from both fronts (TQ and MVE). Plausible reason for this finding is that increased R&D investment helped the firms to be innovative in their activities which consequently led to improved value. This finding is in tandem with those of Gupta et al. (2017) and Musfiqur and Shuvo (2022) but, contradicts the conclusion of Sri and Nuraini (2021).

Table 4 also shows the results of industry effect on firm value through corporate attributes which provide basis for industry comparison. The result reveals that industry dummy (INDDUM) has a significant positive coefficient of 0.30 ($P = 0.010$) and 4.32 ($P=0.093$) in relation to Tobin's Q and MVE respectively. This is an indication that the consumer goods sub-sector firms strongly drive value better than the consumer goods firms through the use of corporate attributes. Plausible reasons for the significant

positive value enhancement by the consumer goods firms may have resulted from the fact that the firms maintain averagely higher asset size, institutional shareholding increased level of international presence and humongous and strategic investment in R&D.

5.0 Conclusion and Recommendations

Consequent upon the findings of this study, the following conclusions have been inferred. The firms (consumer and industrial goods) have demonstrated the transformation of their robust sizes into value possibly through economy of scale, increased access to funding and portfolio investment. Also, the firms have not been able to maximize value through increased leverage due to the financial risk associated with huge debt in the firms' capital. The size of corporate multi-nationality among the firms is substantial and yielding tremendous result in terms of value owing to possible exploitation of various markets and tax jurisdictions. The size of institutional investment has negligible effect of value. The firms have been able to real significantly from their investment in research and development through acquisition technology and skills to remain competitive and drive value. Finally, consumer goods firms drive value through their attributes better than industrial goods firms.

Sequel to the findings and conclusion of this study, the following recommendations have been put forward.

- i. The firms should continue to increase their asset worth in order to continue to significantly improve value. This can be achieved by being strategic in asset investment through portfolio investment.
- ii. The firms should reduce the size of debt in their capital structure as it currently reduces firm value. The firms can exploit other funding options such as issue of shares either through offer for subscription, right issue or private placement. This will reduce financial risks and consequently drives value.
- iii. Firms are hereby advised to exploit international environment to take advantage of the markets and tax avoidance opportunities that exist in other countries. This can be achieved by setting up business annexes as well as floating the shares of the companies in other countries and in their stock exchange markets respectively.
- iv. Finally, the firms particularly the consumer goods firms are hereby advised to remain innovative and competitive through increased investment in research and development, given the significant effect of R&D on value and industrial goods firms should strive to improve in the exploitation of their attributes to enhance value.

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