Employee Benefits and Firm Value of Listed Nigerian Consumer Goods Manufacturing Firms

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ABSTRACT

The practice of rejigging the firm value of manufacturing companies by considering employee benefits after the adverse effect of the global lockdown of COVID-19 formed the crux of this study. The study investigated the influence of employee benefits on the firm value of listed manufacturing firms in Nigeria. Specifically, it examined the influence of incentives, health, safety, life insurance, and retirement benefits on firm value. The study adopted ex-post facto and longitudinal research designs. 22 consumer goods manufacturing firms listed on the Nigeria Exchange (NGX) formed the study population as of December 31, 2021. A census sampling technique was used, automatically making the 22 listed firms the study’s sample size. Data were obtained from published annual reports of the firms covering ten years, starting from 2012 to 2021 financial year. The data were analysed using descriptive statistics and panel regression. Findings revealed that incentives, health, safety, life insurance, and retirement benefits negatively and significantly affect Tobin's list of consumer goods manufacturing firms in Nigeria. The study concluded that re-strategising incentives, health, safety, life insurance, and retirement benefits as policies would make firms perform better and increase their value. The study recommended that employee benefit policy and system be reviewed to reduce cost, staff population be cut down, and the firms adopt more non-monetary benefits to improve their wealth.

Keywords: Employee benefits, firm value, incentives, retirement benefits.

1. Introduction

In the business world, it is usual for most investors to examine the value of the prospective firm to which they may likely commit their resources. This value is reflected in the price of shares, market equity and book value of market equity (Endri & Fathony, 2020; Nguyen & Bui, 2020). Undoubtedly, the survival and sustainability of a business organisation are determined by its ability to manage resources provided by investors, especially the shareholders, to maximise profit and, in the long run, increase the firm value (Castrillón & Alfonso, 2021). Firm value is as important to the corporate organisation as finance because it shows how well the organisation performs over time. This could be reflected through the financial statement’s price-to-book value (PBV) of a business's stock. PBV is key to investors, as it signals a company’s growth opportunities (Sampurna & Romawati, 2020). However, investors over the years have been frequently unaware of fluctuations in the market worth of their business when confronted with circumstances like an acquisition, take-over, or merger (Adegbie & Onyeka-Iheme, 2023).

Statista Research Department (2023) presented the market volatility of the Nigeria stock market and the total value of the shares of listed domestic companies in Nigeria at the current market price between the 2010 and 2020 fiscal years, which had been subjected to serious fluctuations. These fluctuations have varying effects on the value of firms in Nigeria, resulting in great losses to investors, particularly corporate investors, who depend vigorously on capital development as a means of protection to meet their future commitments (Idris et al., 2019). Awodiran (2019) opined that business organisations such as Adelphia, Enron, WorldCom, Oceanic Bank and Diamond Bank Plc had suffered great losses and wound up, while the reduction in the market price of company stock made many investors trade their stakes in some companies, while many would-be investors lost interest in several others. Many businesses in Nigeria, which once enjoyed large-scale economies, now suffer from decreasing size and
productivity \cite{Orjiakor2022}. The fear caused by the market capitalisation reduction in investors adversely impacted the capital structure of many businesses \cite{Ekechukwu2022, Raifu2021}.

Also, in recent times, the outbreak of the COVID-19 pandemic has brought about global labour market distress whereby many nations of the world, including the giant ones like the United States, Canada, Australia, and European countries, are now being confronted with acute labour shortages \cite{UN2021}. This presented a great loss in the corporate value of listed firms in Nigeria \cite{CBN2021}. Businesses often rely on the expertise and dedication of their employee to effectively and efficiently mobilise other resources for the ultimate goal of achieving the organisational objectives. It suffices to say that no organisational strategic plans can be achieved without employee(s). Employees are key players in achieving the organisational goals of every business, yet managers consider anticipated future benefits of employees before investing in their benefits \cite{Orwa2022}. Investing in employees is expected to yield high economic returns for the organisation since training and development improve employee skills and knowledge \cite{Onyekwelu2021} while non-financial rewards enhance job satisfaction \cite{Zirra2019}, thus boosting productivity and increasing financial performance.

However, despite heavy investment in employee benefits, some companies still face a downward and continuously fluctuating trend in their firm value. This has necessitated various studies to unravel the effect of employee benefits on business performance. Few among many are Tonye and Christianah \cite{Tonye2022} and Onyekwelu and Akani \cite{Onyekwelu2021}, who argued that employee benefits have a significant effect on profitability. Kibet and Kalei \cite{Kibet2020}, Nnubia \cite{Nnubia2020}, and Zirra et al. \cite{Zirra2019} found that health protection benefits, retirement benefits and monetary incentives have a positive and significant impact on employee performance. Orwa et al. \cite{Orwa2022}, Cross \cite{Cross2019}, and Mahssouni et al. \cite{Mahssouni2022} found that employee compensation and training significantly influence a company's performance. Ndum and Oranefo \cite{Ndum2021} found that staff cost has a positive and significant effect on the net profit margin of quoted brewery firms in Nigeria, while staff cost has a positive and insignificant effect on the return on assets. Nansasira \cite{Nansasira2018} opined that employee insurance benefits negatively affect employee performance, and there was no significant relationship between retirement benefits and employee performance.

Evidence from past studies showed that previous research on the concept left contradictory results. The reasons for this contradiction could be owed to the fact that reviewed studies were conducted by different scholars in different countries, covering periods, and conducted on different forms of economic sector, with different measures of variables, data and analysis techniques. However, despite the relevance of numerous studies on employee benefits, little consideration has been made to the study of how firm value is being influenced by employee benefits. Against these backgrounds, this study shall empirically examine the effect of incentives, retirement benefits, and health and safety insurance of employees on Tobin's q and earning yield.

Having presented the introductory aspect of the study, related literature shall be reviewed and presented in the second section. In contrast, the third and fourth sections shall focus on data collection methods, analysis and interpretation. The last section will contain the study’s conclusion and the recommendations envisaged.

2. Literature Review & Hypotheses Development

2.1. Conceptual Review

Employee Benefit Research Institute (EBRI, 2015, as cited in Kibet & Kalei, 2020), argued that employee benefits are considerations paid to employees by their employers over and above salaries and wages as agreed by the organisation. These include varieties of non-wage remunerations given to employees notwithstanding their contractual wages or compensations. It is a part of the employee remuneration package based on company recruitment policy or contract. IAS 19 and IPSAS 39, in Craig et al. \cite{Craig2020}, stated that employee benefits include those provided to employees by payments or provision of certain goods or services and to their appointed dependants in certain cases. This might be in the form of non-contractual agreement benefits established by the organisation for the workers. This study defined employee benefit as the composition of remuneration given to employees other than contractual salary or wage pay. It includes cash and non-cash emolument packages that employees enjoy from an organisation from the hiring date till the termination date, even till death, where applicable. On the other hand, benefit comprises training and development programmes, promotion and reward system, health protection, savings, and retirement programmes, which does not only secure employee but also their dependants.

Benefit system can play a critical role in influencing employee performance, the financial performance of the business and determining the value of a business in the long run, which discloses employee benefits as crucial as the financial report itself \cite{Ram2020}. As employees wish to earn reasonable salaries and enjoy other benefits from the company, so does the company's desire to earn higher profit through efficient employee productivity. Tausif \cite{Tausif2012}, as cited in Zirra et al., \cite{Zirra2019} argued that employee benefits, other than salary, determine employee job satisfaction. Fubara \cite{Fubara2019} argued that the improved performance of a business is not solely a result of the well-programmed system but is dependent on the collaborative effort of workers who are well-motivated, compensated, and remunerated. Benefits such as training, development, and others improve business performance, increase employee efficiency, result in equitable workplace treatment and promote work-life quality \cite{Naba2020}. However, this study shall focus on incentives, health and safety insurance and retirement benefits.
2.1.2. Firm Value

Firm value has been subjected to different definitions by researchers over the years. Dian and Erni (2019) conceptualised firm value as the wealth of shareholders, obtainable through the information from the company's stock price, financing, and investment decisions. Jihadi et al. (2021) said firm value is a business concept that shows the value of an entity at the reporting date. It is the accounting value or amount that an investor needs to pay in exchange for the portion or the whole of a company. Firm value is the business reflected in the price of shares, market equity and book value of market equity (Endri & Fathony, 2020; Nguyen & Bui, 2020). The World Economic Forum regarded firm value as the forward-looking measure of business performance through profitability (Schwab & Zahidi, 2020). This concept is crucial for corporate organisations because it shows how well they perform over time, which could be reflected through the financial statement's price-to-book value (PBV). PBV reflects the relationship between the book value and share price as reflected by the financial market to measure the value of the company or the performance of the stock market price to the book value of a business's stock (Sampurna & Romawati, 2020). Instead, firm value is defined as the market value of a firm's shares as determined by the company's financial performance. The measurement of firm value in this study is proxied by Tobin's Q, which is measured as the financial market-based performance of a company (Mysaka & Derun, 2021).

2.1.3. Incentives and Firm Value

Incentives are rewards offered to employees in addition to the contractual wage or salary; these include commissions, bonuses, leave allowances, and scholarships (Nnubia, 2020). Merchant and Van de Steede (2018) conceptualised incentives as external financial and non-financial programs offered to workers. The most important resource any organisation has is its workforce. Therefore, an organisation needs to seek ways to encourage its employees' positive attitudes to improve productivity and firm value (Chukwuemeka, 2020). An understanding and appreciation of human nature is a prerequisite to effectively motivating employees. The fact remains that unmotivated employees affect the performance of the team, department, and organisation. The development of incentive policies plays a significant role in motivating employees to deliver a high level of performance (Kappel, 2018). This study, therefore, defined incentives as benefits received by employees either in cash or in kind or both, different from the wage or salary, but as a result of the employee's excellent performance over a certain period. Also stated the null hypothesis as:

\[ H_{01}: \text{Incentives have no significant effect on Tobin’s list of consumer goods manufacturing firms in Nigeria.} \]

2.1.4. Health, Safety and Life Insurance and Firm Value

Health, safety, and life insurance are social needs or securities benefit programmes established by the constitution to guide employees from suffering loss while in an organisation's employment (Kibet & Kalei, 2020). Health, safety, and life insurance is a form of financial benefit given to employees or dependants to subsidise the loss level an employee might suffer in case of accident, illness, or untimely death (Craig et al., 2020). Schwab and Zahidi (2020) opined that supporting employee health and well-being should be a leading concern for all labour employers. Organisations are expected to continuously improve operations to ensure safety, provide a conducive working environment and maintain a high standard of hygiene within their premises. Health, safety, and life insurance not only serve as motivating factors but also reduce labour turnover as employee loyalty is certain when it is sure that the organisation will be financially responsible and committed for any damage or loss suffered while serving the organisation (Bankole, 2020b). In the context of this study, health, safety, and life insurance is defined as a constitutionally established monetary benefit given to the employee to reduce the financial loss that the employee or family may suffer as a result of sickness, accident or premature death, in the course of rendering services to the organisation. The null hypothesis of the influence of health, safety and life insurance on firm value is, at this moment, stated as follows:

\[ H_{02}: \text{Health, safety, and life insurance have no significant influence on Tobin’s list of consumer goods manufacturing firms in Nigeria.} \]

2.1.5. Retirement Benefit and Firm Value

Retirement benefits, also known as post-employment benefits, were defined by International Accounting Standard 19 (IAS 19) as employee benefits, other than termination benefits, which are payable to employees after completing employment. Craig et al. (2020) defined retirement benefits as post-employment benefits enjoyable by employees due to contributions either by an employer or an employee or both to ensure that the employee is financially secure at retirement. Retirement benefits are monetary benefits designed by law to enable workers to get a regular source of income when they retire from active service. It is a form of arrangement that hopes that at retirement, retirees will not be stranded financially (Dugguh & Illiya, 2018). These include retirement savings in the form of a contributory plan for pension, gratuity, retirement investment by stock option, and retirement counselling. In separate studies, Ajibade et al. (2018) and Nansasira (2018) found that the joint contribution of employer and employee for post-retirement savings influences financial performance. This was supported by the findings of Bankole (2020a) that gratuity and other workers’ retirement costs significantly influence firm profitability. This study, therefore, states the null hypothesis of the effect of retirement benefits on the firm value of listed consumer goods manufacturing firms in Nigeria as:

\[ H_{03}: \text{Retirement benefits have no significant effect on Tobin’s list of consumer goods manufacturing firms in Nigeria.} \]

2.2. Theoretical Review

Social Exchange Theory has been considered as the fundamental theory for this study. George Homans pronounced this theory in his essay “Social Behaviour as Exchange” (Davlembayeva & Alamanos, 2022). The theory considers man as a social element who determines
by measuring the benefits and costs of relationships or interactions with people or a setting. This study assumed that people will first weigh the cost of a social interaction against the benefits of that social interaction. It is believed that people want more benefits from their social interactions. The theory assumes that people are motivated to retain some value when they have to give something up and pursue social exchanges where they receive more rewards than their costs. Scholars have not been so disposed to this theory, as the theory does not address the role of unselfishness in deciding relationship results. This implies that individuals do not necessarily, in all cases, act in self-centred manners (Davelmbayeva & Alamanos, 2022). Another flaw of the social exchange theory is that it could be misleading as it lacks a comprehensive conceptual model or hypothesis of the theory (Åström, 2021). However, Cropanzano et al. (2017) stated that people in a setting or an organisation interact positively and perform more productively when their existence and contributions are appreciated, valued, and rewarded.

This theory is therefore relevant to this study in that managers across the globe could understand that corporate value is influenced by employees’ perceptions of recognition, rewards, and benefits enjoyed from their job satisfaction (Anshari et al., 2019).

2.3. Empirical Review

Over the years, issues related to employee benefits and firm value have received attention from scholars across the globe. Tonye and Christianah (2022) considered the effect of employee benefits on the profitability of manufacturing firms in Nigeria. Secondary data was sourced from the yearly reports and accounts published by the 17 sampled firms from a study population involving the 164 firms listed with the Nigerian Exchange Group between 2010 and 2017. The study employed the OLS regression technique, and the results indicated that employee benefits significantly affect the profitability of listed manufacturing firms in Nigeria. This dispelled Nansasira’s (2018) finding, where he sought to establish the effects of employee benefits on employee performance at the National Enterprise Corporation (NEC) in Uganda. The study examined the relationship between short-term employee benefits, insurance benefits, retirement benefits and employee performance at NEC. The study findings showed that short-term employee benefits significantly positively affect employee performance. However, insurance benefits negatively affect employee performance, and there was no significant relationship between retirement benefits and employee performance.

Kibet and Kalei (2020) probed the impact of employee benefits on employee output at Kenya Tea Packers (KETEPA). The study adopted the Expectancy theory and descriptive research design. Findings indicated that a relationship exists between productivity and employee benefits. This finding corroborated the studies by Cross (2019) on the influence of employee rewards policy on organisational performance. The study employed primary data from three (3) hospitality firms in Abuja. Simple linear regression and Pearson product-moment correlation coefficient tests were performed on the data collected. It was found that employee benefits and compensation positively and significantly influenced organisational performance. Just as Zirra et al. (2019) findings showed, health protection benefits, retirement benefits, and recognition all positively and significantly impact employee performance in the Nasco group.

Nnubia (2020) investigated the relationship between monetary incentives and employee performance of manufacturing firms in Anambra State. The study adopted a survey research design. Primary and secondary data were used for the study. The study’s population consists of the 1,019 staff of selected manufacturing firms. Taru Yamane’s formula and Stratified sampling technique were used to determine the sample size of 287 from whom data were collected using a questionnaire. Pearson product-moment correlation was used to test study hypotheses, and findings revealed a significant positive relationship between salary and wages, fringe benefits, bonuses and workers’ performance. In contrast, Sousa et al. (2021) opined that firms that invest in workers safety have better financial performance: insights from a mapping review of 36 eligible research literature regarding firms’ investment in occupational safety and their financial performance, published between 1945 and 2018.

Onyekwelu and Akani (2021) empirically investigated the relationship between human resource costs and the financial performance of listed companies in Nigeria. The study used secondary data on different types of human resource costs and financial performance from 2016–2017, collected from financial reports and accounts of listed companies on the Nigerian Exchange Group and Federal Inland Revenue Service. OLS Multiple Regression was used in analysing the data, and the results indicated that human resource costs positively and significantly influence financial performance. The result contradicted Belgian researchers Mahsouni et al. (2022), whose study was based on 103 Belgian pharmaceutical firms whose financial statements were published in the Bureau Van Dijk database between 2012 and 2021 to study the relationship between employee compensation, training, and financial performance during the COVID-19 pandemic. The study used secondary data and panel data analysis, with the Generalized Method of Moments, to evaluate the robustness of the system and data collected. Results revealed that the COVID-19 pandemic substantially and negatively impacted financial performance. Also, employee compensation and training significantly influence the company’s performance.

In Kenya, Otwa et al. (2022) examined the effect of training and development costs on the financial performance of listed companies. The study hinged on human capital theory and was guided by positivism research philosophy. The study adopted a longitudinal research design, with fifty-six listed companies in Kenya as the study population. The study employed secondary data collected from published audited financial statements of the listed companies in Kenya from 2017 to 2021. Both descriptive and inferential statistics were deployed to analyse data. The analysis revealed that training and development costs had a significant positive effect on return on assets. This research supported the findings of Ndum and Oranefo (2021), who...
investigated the effect of human resource costs on the financial performance of listed brewery firms in Nigeria. The study adopted an ex-postacto research design with a study population made up of 5 breweries companies quoted on the floor of the Nigerian Exchange Group as of 2019. Secondary data extracted from these companies’ published annual reports and accounts from 2007 to 2019 were used. Data analysis showed that staff costs positively and significantly affect the net profit margin of quoted brewery firms in Nigeria. In contrast, staff cost has a positive and insignificant effect on the return on assets of quoted brewery firms in Nigeria.

Evidence from past studies showed that previous research on the concept left contradictory results. The reasons for this contradiction could be owed to the fact that reviewed studies were conducted by different scholars in different countries, covering periods, and conducted on different forms of economic sector, with different measures of variables, data and analytical techniques. However, little attention has been given to studying how firm value is influenced by employee benefits. This study focused on firm value, which was proxied by Tobin’s q, rooted in social exchange value theory, and employed secondary data, which involved the annual published financial reports of the consumer goods manufacturing firms listed on Nigeria Exchange Group from 2012 to 2021. Specifically, it examined the influences of incentives, retirement benefits, and health and safety insurance of employees on Tobin’s q and the earning yield of the firms.

3. Methodology

This study employed ex post facto and longitudinal research designs. The study population consisted of 22 consumer goods manufacturing entities quoted on the Nigeria Exchange Group (NGX) floor as of December 31, 2021. As a result of the small population size, a census sampling method was deployed, which made all 22 consumer goods manufacturing firms the sample for the study. Data was obtained from the annual published financial statements of the sampled firms, covering ten years from 2012–2021. This study has adopted the model in Alhassan and Mamuda (2020) on ownership structure and financial performance of listed financial firms in Nigeria. However, for this study, the model was modified to empirically analyse the effects of employee benefit on the value of listed consumer goods manufacturing firms in Nigeria. The reason for the modification is that this study’s theme and variables differ from the scope of Alhassan and Mamuda (2020). The econometric model was restated as follows:

\[ BPS_{it} = \alpha_0 + \beta_1 INSTOWN_{it} + \beta_2 MGOWN_{it} + \beta_3 OWNCON_{it} + \beta_4 GROWTH_{it} + \beta_5 SIZE_{it} + \mu_{it} \] (1)

Where:
- \( INSTOWN \) = Institutional Ownership,
- \( MGOWN \) = Managerial Ownership,
- \( OWNCON \) = Ownership Concentration,
- \( GROWTH \) = Firm Growth,
- \( SIZE \) = Firm Size,
- \( BPS \) = Book Value per share,
- \( \alpha_0 \) = Intercept,
- \( \beta_1 - \beta_5 \) = Coefficients of independent variables,
- \( \beta_6 - \beta_8 \) = Coefficients of control variables,
- \( \mu \) = Error term,
- \( \mu_{it} \) = Company I at Time t.

The model is hereby modified as follows:

\[ TQ_{it} = \beta_0 + \beta_1 IN_{it} + \beta_2 HSL_{it} + \beta_3 RB_{it} + \mu_{it} \] (2)

Where:
- \( TQ \) = Tobin’s Q,
- \( IN \) = Incentives,
- \( HSL \) = Health, Safety and Life Insurance,
- \( RB \) = Retirement Benefit,
- \( \beta_0 \) = Constant parameter/intercept,
- \( \beta_0 - \beta_5 \) = Coefficients of independent variables,
- \( \mu \) = Error term,
- \( \mu_{it} \) = Company I at Time t.

Our a priori expectation is that the coefficients of independent variables will be larger than zero (\( \beta_1 > 0; \beta_2 > 0; \beta_3 > 0 \)).

4. Data Analysis and Discussion of Findings

4.1. Descriptive Statistics

Table I provides the summary of outcome and predictor variables, their respective measurements as well as empirical sources for such measurements.

Table II shows that TQ with a mean of 0.066 indicates a relatively low average ratio. A maximum of 1.052 represents the highest observed ratio. A minimum of 0.000 indicates that some firms have a market value equal to their replacement cost. The standard deviation of 0.176 reflects a moderate dispersion of values around the mean. A skewness value of 3.664 indicates a highly positively skewed distribution. A kurtosis value of 16.128 shows a high degree of peak and heavy tails, deviating significantly from normality. A Jarque-Bera value of 134.699 indicates a departure from normality, as the probability associated with it is 0.000. IN has an average value of 0.811, indicating a high level of incentives on average. The minimum value is 0.000, indicating the presence of incentives in the sample. The maximum value is 1.000, indicating the absence of incentives in some observations. The standard deviation is 0.392, which shows a moderate degree of variability in the incentive values. The skewness value of −1.590 suggests a significant negative skewness, indicating a long tail on the left side of the distribution. The kurtosis value of 3.529 indicates a high peak or heaviness in the distribution tails. At the same time, the Jarque-Bera test statistic of 61.943 and associated p-value below 0.001 suggests that the distribution of incentives is significantly different from a normal distribution.

HSL has an average value of 0.622, indicating an average health, safety, and life insurance level. The maximum value is 1.000, indicating the presence of health, safety, and life insurance in the sample, while the minimum value is 0.000, indicating the absence of health, safety, and life insurance in some observations. The standard deviation
is 0.486, indicating a moderate degree of dispersion. The skewness value of −0.504 suggests a slight negative skewness, indicating a slightly longer tail on the left side of the distribution. The kurtosis value of 1.254 indicates a moderate peak. At the same time, the Jarque-Bera test statistic of 24.220 and associated p-value of 0.000 suggests that the distribution of retirement benefits is significantly different from a normal distribution.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Measurement</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobin’s Q</td>
<td>Tobin’s Q is a measurement of business value.</td>
<td>The ratio of market value to replacement cost of an asset.</td>
<td>Ishaq et al. (2021), Joshua (2020), Mysiaka and Derun (2021), Najafi et al. (2020)</td>
</tr>
<tr>
<td>Incentives</td>
<td>This involves the presentation of employee incentives (cost) report in the annual report.</td>
<td>If the policy item or amount incurred on incentives is stated in the director report or other reports in the annual report, it is captured as 1 if not 0.</td>
<td>Kappel (2018), Bankole (2020a)</td>
</tr>
<tr>
<td>Health, safety and life insurance</td>
<td>This represents the health, safety and life insurance expenditure report in the annual report.</td>
<td>If the policy item or expenses incurred on health, safety and life insurance expenditure is included in the director report or other reports in the annual report, it is captured as 1 if not 0.</td>
<td>Craig et al. (2020), Bankole (2020a)</td>
</tr>
<tr>
<td>Retirement benefit</td>
<td>This is the inclusion and presentation of the retirement benefit report in the annual report.</td>
<td>If the policy item or cost incurred on Retirement benefit is mentioned in the director report or other reports in the annual report, it is captured as 1 if not 0.</td>
<td>Craig et al. (2020), Bankole (2020a)</td>
</tr>
</tbody>
</table>

4.2. Correlation Analysis

The result of the analysis in Table III shows that HSL has a very low positive correlation with IN (0.035). Similarly, there is a very low positive correlation between RB and IN with (0.166). The correlations between these variables are generally low, indicating a limited linear relationship between them.

4.3. Panel Unit Root Test

In Table IV, HSL, RB, and TQ have Levin, Lin & Chu test statistics with large negative values, indicating strong evidence against the null hypothesis of a unit root. The p-values for all variables are extremely small (close to zero), suggesting strong statistical significance. Thus, we reject the null hypothesis of non-stationarity for all variables. Also, Im-Pesaran and Shin W-stat test results show that HSL, RB, and TQ all have test statistics with large negative values, providing strong evidence against the null hypothesis of a unit root. The p-values for all variables are extremely small (close to zero), indicating strong statistical significance. Therefore, we reject the null hypothesis of non-stationarity for all variables.

4.4. Variance Inflation Factors (VIF)

From the result of the VIF in Table V, HSL, IN, and RB have VIF values below 2, indicating low to moderate multicollinearity. It implies that the model will not be significantly affected by the collinearity problem.
TABLE V: VARIANCE INFLATION FACTORS

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Centred</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSL</td>
<td>0.001</td>
<td>1.173</td>
</tr>
<tr>
<td>IN</td>
<td>0.001</td>
<td>1.214</td>
</tr>
<tr>
<td>RB</td>
<td>0.002</td>
<td>1.048</td>
</tr>
<tr>
<td>C</td>
<td>0.003</td>
<td>18.797</td>
</tr>
</tbody>
</table>

4.5. Model Diagnostics

The modified Wald test for heteroskedasticity resulted in a chi-square statistic of 13393.88, with a p-value below 0.001 (see Table VI). This indicates strong evidence of heteroskedasticity in the TQ model. The Wooldridge test for autocorrelation in panel data yielded an F-statistic of 116.290, with a p-value below 0.001. This suggests the presence of autocorrelation in the TQ model.


From Table VII, an IN coefficient of \(-0.0169\) suggests an inverse relationship between IN and TQ, which represents firm value. The coefficient is statistically significant at the 0.001 significance level, indicating a strong relationship between IN and TQ. Similarly, HSL, with a coefficient of \(-0.0088\), indicate an inverse relationship with TQ. The coefficient is statistically significant at the 0.001 significance level, implying that these benefits have a negative impact on firm value. Also, RB has a coefficient of \(-0.0175\), suggesting that an increase in retirement benefits is associated with a decrease in TQ. The coefficient is statistically significant at the 0.001 significance level, indicating an inverse relationship between retirement benefits and firm value. The Constant Term (_cons) coefficient of 0.0704 represents the expected value of TQ when all independent variables are zero. It is statistically significant at the 0.001 significance level, indicating the presence of other factors not included in the model that contribute to TQ.

TQ. The findings revealed that employee benefits statistically significantly influenced the firm value of consumer goods manufacturing companies quoted on the NGX, Nigeria. These results are aligned with the research works of Craig et al. (2020), Nansasira (2018), Frick (2019) and others. Contradictorily, the results negated the studies of Tonye and Christianah (2022), Kibet and Kalei (2020), Nnubia (2020), Cross (2019), Zirra et al. (2019), Nansasira (2018), Sastera and Mauludin (2018), Akomolafe et al. (2018) and others. The findings indicated that practising all-encompassing employee benefits would not only bring about increased productivity but also enhance firm value. The results implied that business performance would increase through increased employee performance and labour turnover reduction. Also, increased remuneration, rewards, compensation, and safe, conducive work facilities and environment would foster retention of workers and avoid employee agitation and unrest, thereby promoting the firm’s value.

6. Conclusion and Recommendations

The study examined the effect of various elements of employee benefits, such as incentives, health, safety and life insurance, and retirement benefits, on the firm value of consumer goods manufacturing firms listed on the Nigeria Exchange Group (NGX). The study found that employee benefits have a significant inverse relationship with firm value. Collective findings showed that incentives, health, safety and life insurance, and retirement benefits negatively and significantly affect the firm value of consumer goods manufacturing firms. The study concluded that employee benefits can influence the value of consumer goods manufacturing firms in Nigeria. Therefore, the study recommends that employee benefit policy and system be reviewed to reduce costs, reduce staff population, reduce the staff population, and firms adopt more non-monetary benefits.

REFERENCES


