

**Corporate Governance, Firm-Specific Factors and Sustainability of Fast-Moving  
Consumer Goods Manufacturing Companies in Nigeria**

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## Certification

This is to certify that Mustapha Aikins Suleiman with matriculation number LCU/PG/001997 carried out a thesis entitled “Corporate Governance, Firm-specific Factors and Sustainability of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria” in the Department of Management and Accounting, Faculty of Management and Social Sciences, Lead City University Ibadan, Nigeria under my supervision and that this work has not been previously submitted.

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## **Dedication**

This research work is heartily and proudly dedicated to all those who served as an inspiration, starting with my family, supervisor, lecturers, and circle of friends who extended their help amid problems encountered while conducting this study.

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Even though the above-mentioned institutions and persons have assisted in the process of this research work, I alone stand responsible for the errors, if any, found in the work.

## Abstract

The turbulent nature of the environment within which the manufacturing sector operates in Nigeria has led to the closure of several manufacturing companies over the years. Noticeably, to sustain their operations in the face of the dynamic environment, corporate strategies have been inclined towards shrinking firm sizes and moving to a cost-advantaged location outside Nigeria. The development raises the question of what relevance is corporate governance (measured by accountability, agile leadership, and stakeholder management) and firm-specific factors (measured by firm size and operational efficiency) in addressing the issues affecting the sustainability of the fast-moving consumer goods manufacturing companies in Nigeria. Thus, the study examined the effect of corporate governance and firm-specific factors on the sustainability of fast-moving consumer goods manufacturing companies in Nigeria and further interrogated the intervening effects of environmental dynamism on the interaction between corporate governance, firm-specific factors, and sustainability of fast-moving consumer goods manufacturing companies in Nigeria. The study is anchored on the stakeholder theory and dynamic capabilities theory. The population of the study constitutes 5,710 regular staff of 6 selected fast-moving consumer goods manufacturing companies in Nigeria with their head office in Lagos State; the selected companies represent 85% of the consumer goods industry in Nigeria. The study adopted the cross-sectional survey design to study the subset of the population. The Raosoft online sample size calculator for finite population was employed in calculating the sample size of the study at 5% significant level. The research instrument used was an adapted 6-point Likert scale structured questionnaire which was administered by employing the proportionate percentage, stratified random sampling and simple random sampling technique. Out of the 432 questionnaires distributed, 406 were retrieved. 383 of the retrieved questionnaires were deemed usable, indicating a response rate of 88.65%. Data collected were analysed using Partial least-square-structural equation model to examine the three-way direct, mediation, and moderation null hypotheses. The study findings show that: corporate governance exerted a significant effect on sustainability ( $Adj R^2 = 0.710$ ,  $p = 0.000$ ,  $Q^2 = 0.391$ ); firm-specific factors exerted a significant effect on sustainability ( $Adj R^2 = 0.428$ ,  $p = 0.000$ ,  $Q^2 = 0.234$ ); corporate governance and firm-specific factors jointly exerted a positive and significant effect on sustainability ( $Adj R^2 = 0.698$ ,  $p = 0.000$ ,  $Q^2 = 0.188$ ); environmental dynamism exerted a positive and significant moderating effect on the interaction between Corporate Governance and sustainability ( $\beta = 0.386$ ;  $p < 0.006$ ,  $Q^2 = 0.290$ ); environmental dynamism was also found to exert a positive and significant mediating effect on the interaction between firm specific factors and sustainability of the selected fast moving consumer goods manufacturing companies ( $\beta = 0.396$ ,  $t = 2.919$ ,  $p = 0.004$ ). The study recommended that fast-moving consumer goods manufacturing companies should: pay particular attention to improving their level of accountability and focus more on the agility of leadership and stakeholder management strategies; Understand the appropriate configuration of firm-specific factors required to mitigate the negative external threats in the dynamic environment to take advantage of available opportunities; and continuously evaluate the external environment and align performance with set goals in the face of the turbulent business environment to aid their sustainability.

**Keywords:** Sustainability, Environmental dynamism, Firm-Specific-Factors, Manufacturing companies, Dynamic Capability theory, Stakeholder Theory.

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## List of Acronyms

<b>Abbreviation</b>	<b>Meaning</b>
ARDL	Autoregressive Distribution Lag
CAMA	Company and Allied Matters Act
CCS	Carbon Capture and Storage technologies
CEO	Chief Executive Officer
CG	Cooperate Governance
CGMCs	Consumer Goods Manufacturing Companies
CSR	Corporate Social Responsibility
ECOSOC	Economic and Social Council
EIA	Environmental Impact Assessment
ENV	Environmental Performance
EPI	Environmental Performance Index
ET	Environmental Turbulence
FMCGs	Fast Moving Consumer Goods
FSF	Firm-Specific Factors
GCG	Good Corporate Governance
GDP	Gross Domestic Product
GRI	Global Reporting Initiative
IAASB	International Audit Assurance Standard Board
NBS	National Bureau of Statistics
OECD	Organization for Economic Cooperation and Development
PLS-SEM	Partial Least Squares Structural Equation Modelling
PMI	Purchasing Managers' Index
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-analysis

ROA	Return on Assets
SCA	Sustainable Competitive Advantage
SDGs	Sustainability Development Goals
SMEs	Small Medium Enterprises
SRDR	Systematic Data Repository
TASI	Tadawul All Share Index
TCE	Transaction Cost Economics
UK	United Kingdom
UN	United Nations
USA	United States of America

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## **Chapter One**

### **Introduction**

#### **1.1 Background to the Study**

Nestle Nigeria Plc., Procter & Gamble, PZ Cussons, Unilever Nigeria Plc., Cadbury, and Friesland Campina WAMCO Nigeria Plc. are prominent Fast Moving Consumer Goods (FMCGs) manufacturing businesses registered in Nigeria, accounting for over 85% of the market share in the country's consumer goods industry<sup>1</sup>. The performance of these businesses is critical in view of their socio-economic importance to Nigerian residents, society, government, and the businesses themselves. As a result, it becomes critical that these organizations operate at peak efficiency in order to ensure their long-term viability.

Sustainability underscores the need for these manufacturing companies to look beyond their profit motives to maintain their going concern. Given that a firm's goodwill should not only be based on fulfilling the wealth goals of shareholders; rather, how society perceives the firm in terms of social responsibility performance as well as environmental performance becomes a critical goodwill and success factor which could guarantee the firm's going concern and by extension its sustainability. Sustainability requires firms to maintain a certain rate or level of activity over time. In a broader term, it emphasizes the ability to continuously meet or achieve current needs or goals without jeopardising the ability of future generations to meet theirs<sup>2</sup>. Sustainability, as it relates to the corporate world, is balanced on three basic pillars, with the understanding that if any of these pillars is missing, then the sustainability of the entity concerned is threatened. These three pillars or dimensions of corporate sustainability are the economic pillar, social pillar, and environmental pillar. Respectively, the economic pillar emphasizes the need for businesses to operate profitably. The social pillar emphasizes the need for an enterprise to maintain a harmonious relationship with those who have a stake

in its existence; this includes its employees and the community within which it operates among others. The environmental pillar focuses on the impact of firm activities on the environment, it emphasizes the need for firms to conduct their production activities in such a way that their operations do not negatively impact environmental assets and to ensure that adequate steps are taken to mitigate such negative impacts if it occurs<sup>3</sup>.

The environment whence manufacturing companies tap their resources needs to be protected, in view that manufacturing activities depend on various environmental assets for raw materials that come to the firm as inputs. Some of these raw materials are finite in nature, and their continuous usage means that such environmental assets may not be available for future generations. Further to this, environmental assets that are infinite (i.e., can be regenerated) can also become overly depleted if the rate of regeneration falls below the rate of consumption. The outputs resulting from manufacturing activities are also of concern. Machinery used for energy-related manufacturing activities by companies emits gases such as carbon dioxide into the atmosphere with various degrees of adverse effect on the environment, planet, and its inhabitants. By-products of production if not well disposed of can also impair natural assets and in some cases lead to health hazards. Therefore, as an integral part of a wider social and economic system, firms need to be mindful of the impact of their activities on the present and the future of both the society and the firm itself<sup>4</sup>.

Globally, sustainability issues appear to be more centred around the environmental dimension of sustainability. The 2020 global Environmental Performance Index (EPI) ranks Denmark as the number one most environmentally sustainable country in the world, with Luxembourg, Switzerland, and United Kingdom following at 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> position respectively. The United States of America ranks 21 after Malta, Italy, and Canada, with Malta occupying the 20<sup>th</sup> rank, while Italy and Canada tie-up at the 18<sup>th</sup> position. Seychelles tops the list of the

most environmentally sustainable sub-Saharan African countries, ranking 38 globally, followed by Gabon, Morocco, and South Africa at the 76, 82, and 95 world rank positions. In West Africa, Burkina Faso with 38.3 points tops the West African list of the Global EPI, ranking 112 at the global position, Nigeria stands at the 151 positions (out of 180 countries around the world) with 31.0 points<sup>5</sup>. This statistic creates a concern for manufacturing activities in Nigeria and thus requires urgent attention.

Sustainability is indeed a complex issue, and the complexity varies across jurisdictions. In recent years, due to the emerging uncertainty of the global economy, there is a noticeable shift to resource-efficient goods, with Europe being the nucleus of such sustainable movement. Noticeably, the United States of America provides the leading role in sustainable energy technologies. While China which is known for its harsh environmental state is currently engaging in various research to achieve a relative cut back in carbon emission intensity per person. Due to its limited resources and frequent natural disasters, Japan is also seen to produce a significant number of eminent companies in pursuit of sustainability. Africa on the other hand (except for South Africa), with the majority of its population barely able to afford the necessity of life, is however seen to be many years behind in the pursuit of sustainable development<sup>6</sup>.

However, the sustainability challenges of manufacturing companies in Nigeria extends beyond the environmental sustainability dimension. In the year 2020, the manufacturing companies in Nigeria contributed 13 percent to the country's Gross Domestic Product (GDP), with the largest contribution emanating from the food, beverage, and tobacco sector, which accounted for 4.75 percent of the total 15.232 trillion Naira GDP<sup>7</sup>. Also, the National Bureau of Statistics (NBS) data shows that in terms of real GDP, the sector further contributed an average 6.42 trillion naira to the national GDP for the years 2019, 2020, and 2021<sup>8</sup>. Despite

the significant potential of this sector to grow the economy through wealth creation, job creation, and further provide for the needs of citizens through various production activities, the sector has been struggling to survive over the years due to various challenges. These challenges which are aided by various dimensions of environmental dynamism have been noted to include difficulty in accessing foreign exchange to procure raw materials; high electricity cost; high cost of transportation; low demand for commodities; difficulty in accessing funds; regulatory issues from numerous agencies; poor port administration; unavailability of raw materials; policy summersault<sup>9</sup>; corruption<sup>10</sup>; and global disruptions to supply-chain induced by coronavirus pandemic and Russia-Ukraine war. All of these events in the macro environment in Nigeria have been recorded in existing literature to have negative consequences on the organisational performance of manufacturing companies in Nigeria<sup>11</sup>.

To buttress this submission, the National Bureau of Statistics data on the nominal growth of the sector showed that despite reported growth, the nominal GDP growth of the sector fell from 32.10% recorded in the first quarter of 2021 to 11.72% in the first quarter of 2022 (a 20.83% decline)<sup>12</sup>. Also, Central Bank of Nigeria 2020 data on the Purchasing Managers' Index (PMI) further disclosed a decline in PMI from 60.8 points in December 2019 to 49.6 points in December 2020. The production level index of the sector as well dropped from 61.8% in December 2019 to 51.6% in December 2020. Furthermore, employment level generation was also seen to have dropped from 58 points to 46.3 points between the period December 2019 to December 2020<sup>13</sup>. Research has further shown a drastic drop in the Manufacturers CEO's Confidence Index from 44.4 points in the first quarter of 2020 to 42.06 points in the fourth quarter of the same year<sup>9</sup>.

As a result, hundreds of Nigerian manufacturing companies have been reported to have either folded up over the years or relocated to nearby African countries which are perceived to possess a more business-friendly climate. In line with this, the World Bank Enterprise survey report further provided that 322 private firms closed business in Nigeria between 2009 and 2014 due to the harsh business climate, corruption, and the political environment in the Country<sup>10</sup>. Also, between 2015 and 2017, 196 manufacturing companies were noted to have shut down their operations in Nigeria. These companies include Berek Batteries; Exide Batteries; Okin Biscuits; Oshogbo Steel Rolling Mills; Nigeria Sugar Company; Lyle Sugar Company; Matches Manufacturing Company etc. Some existing companies are also reducing their firm size by shutting down some of their factories<sup>14</sup>; for instance, GlaxoSmithKline Consumer Nigeria Plc. made known its plans to close its Agbara production facility in the third quarter of 2021<sup>15</sup>. Similarly, a year later after investing US\$300 million in its Agbara, Ogun State production plant in 2017, P & G announced plans to shut down the new plant due to high cost of importing raw materials and unfriendly government regulations and policies<sup>16</sup>. The plant was eventually shut down in July 2018<sup>17</sup>, the company further divested from its Vicks lemon plus plant in Ibadan, Oyo State<sup>14</sup>.

The above emphasizes the need for a conscientious effort on the part of the manufacturing companies at the corporate level to ensure sustainability through corporate governance. Furthermore, given the evidence that existing firms are shrinking their firm size to cope with the turbulence in the external environment; the contributions of certain firm-specific factors would require investigation and understanding, in a bid to ensure the sustainability of manufacturing companies in Nigeria, in the face of diverse dynamic environmental factors.

The importance of the mannerism by which a firm is controlled in an effort to address or meet the interest of the firm and its stakeholders underscores the need for effective corporate

governance<sup>4</sup>. The relevance of corporate governance to firm sustainability is derived from how different leaders across the globe meet at the global level to engage in discussions bordering on corporate sustainability issues and is further strengthened by the stakeholder theory. Also, given that firm-specific factors are internal organizational factors that can enhance the performance of firms, in line with the proposition of the resource-based View theory (RBV); both corporate governance and firm-specific factors, therefore could be seen to be pivotal to the sustainability of manufacturing companies in Nigeria in the face of the current challenges. It is also important to note the part played by the external environmental factors on the sustainability of these firms, this is especially important given the dynamic nature of the external environment in Nigeria as in other parts of the world; this submission is further reinforced by the dynamic capability theory and re-emphasizes the need for firms to build their internal capabilities to maintain a sustainable competitive edge. This follows the understanding that environmental dynamism accentuates the rate at which changes in external environmental factors such as markets, technologies, customers, suppliers, and competitors may affect a firm's ability to adapt<sup>18</sup>. Against this background, this study is undertaken to explore the effect of Corporate Governance and Firm-Specific Factors on the sustainability of fast-moving consumer goods (FMCGs) manufacturing companies in Nigeria, employing environmental dynamism as an intervening variable.

## **1.2 Statement of the Problem**

The sustainability of the manufacturing companies in Nigeria has been a source of concern over the years due to the impact of various complex external forces which continue to exert negative effects on the ease and cost of conducting manufacturing business in the country, and have been subsequently reported to have led to the closure of numerous manufacturing companies in the country<sup>14</sup>. The importance and the need for manufacturing companies to operate sustainably cannot be overemphasised, given that an unsustainable company can

neither meet its going concern nor compete favourably with its counterparts within and outside its jurisdiction; Neither can such a company enhance economic growth and development through job creation, income generation for the government, and offering sustainable product to the citizens. Sustainable operation ensures that manufacturing companies stay ahead of competition while maintaining a harmonious relationship with diverse stakeholders<sup>19</sup>. Various studies have been conducted on the sustainability of Nigerian manufacturing firms. For instance, financial decisions and sustainability of cash flow in Nigerian manufacturing companies have been studied, which found assets turnover to be relevant in attaining a sustainable cashflow<sup>20</sup>. Assessment of the effective Factors of Social Responsibility Disclosure of Listed Consumer Goods Firms on the Nigerian Stock Exchange has also been researched, the findings suggested a relationship between firm size, profitability, leverage and CSR disclosure<sup>21</sup>. The interaction between firm characteristics and sustainability reporting of Listed Manufacturing Companies in Nigeria has been investigated, the study found that corporate governance (proxied by board size and board independence) exerted a negative effect on the sustainability reporting of listed manufacturing firms in Nigeria<sup>22</sup>. Furthermore, the implication of corporate social cost on the profitability of oil marketing companies in Nigeria has been looked into<sup>23</sup>. However, the interaction between corporate governance with particular emphasis on accountability, agile leadership, and stakeholder management, as well as firm-specific factors such as firm size and operational efficiency, and sustainability of fast-moving consumer goods (FMCGs) manufacturing companies with consideration given to environmental dynamism in Nigeria require scholarly attention. This gap in existing literature suggests that nothing concrete is known within empiricism of how corporate governance and firm-specific factors interact to address sustainability concerns for FMCGs manufacturers in Lagos State, Nigeria. It is therefore against this background that this study sought to investigate Corporate Governance, firm-specific factors, and the

Sustainability of FMCGs Companies in Nigeria, and raised the question of what relevance are these dimensions to the sustainability of FMCGs Companies in Nigeria?

### **1.3 Aim and Objectives of the Study**

The aim of this study is to investigate the impact of Corporate Governance measures and Firm-Specific Factors measures on the sustainability of Fast-Moving Consumer Goods (FMCGs) manufacturing companies in Nigeria. The specific objectives of this study seek to:

1. examine the effect of accountability, agile leadership and stakeholder management (corporate governance) on the sustainability of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.
2. assess how firm size and operational efficiency (firm-specific factors) affect the sustainability of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.
3. evaluate the joint effect of accountability, agile leadership, stakeholder management (corporate governance); firm size and operational efficiency (firm-specific factors) on the sustainability performance of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.
4. determine the moderating effect of environmental dynamism on the effect of accountability, agile leadership and stakeholder management (corporate governance) on the sustainability performance of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.
5. determine the mediating effect of environmental dynamism on the effect of firm size and operational efficiency (firm-specific factors) on the sustainability performance of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.

### **1.4 Research Questions**

The following research questions will be examined to meet the research objectives.

1. how does accountability, agile leadership, and stakeholder management (corporate governance) affect the sustainability of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria?
2. what is the effect of firm size and operational efficiency (firm-specific factors) on the sustainability of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria?
3. what is the joint effect of accountability, agile leadership, stakeholder management (corporate governance); firm size and operational efficiency (firm-specific factors) on the sustainability performance of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria?
4. what is the moderating effect of environmental dynamism on the effect of accountability, agile leadership, and stakeholder management (corporate governance) on the sustainability performance of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria?
5. what is the mediating effect of environmental dynamism on the effect of firm size and operational efficiency (firm-specific factors) on the sustainability performance of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria?

## 1.5 Hypotheses

The following hypothesis will be tested in this study.

**H<sub>01</sub>:** Accountability, agile leadership and stakeholder management (corporate governance) will have no significant effect on the sustainability of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.

- H<sub>02</sub>:** Firm size and operational efficiency (firm-specific factor) will have no significant effect on the sustainability of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.
- H<sub>03</sub>:** Accountability, agile leadership, stakeholder management (corporate governance); firm size and operational efficiency (firm-specific factors) will have no significant effect on the sustainability performance of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.
- H<sub>04</sub>:** Environmental dynamism will have no significant moderating effect on the effect of accountability, agile leadership and stakeholder management (corporate governance) on the sustainability performance of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.
- H<sub>05</sub>:** Environmental dynamism will have no significant mediating effect on the effect of firm size and operational efficiency (firm-specific factors) on the sustainability performance of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.

## **1.6 Significance of the Study**

This study is significant to diverse stakeholders, which include manufacturers of fast-moving consumer goods, government, the body of academia, and the society in the following ways:

This study provides strategic information to the selected FMCGs manufacturing companies on corporate governance and firm-specific factors to develop or drive various measures of organizational sustainability such as profitability, social, and environmental performance.

Furthermore, this study recognizes the macro environment with the understanding that Government plays a significant role in providing the framework within which business

operates through economic policies. This study provides the Government with empirical information to substantiate the effect of the macro environment on the sustainability of FMCGs companies in the country with the hope that policies that will favour the polity will be formed and implemented.

Also, to the body of academia, this study addressed some gaps in the existing literature on determinants of sustainability. More specifically, it tested the conceptual model that evaluated the effect of corporate governance (proxied by accountability, agile leadership, and stakeholder management); and firm-specific factors (proxied by firm-size and operational efficiency) on the dimensions of sustainable development of FMCGs manufacturing companies in the Nigeria context. Hence, contributing to recent research in this regard and adding to the scanty empirical literature on the interaction between corporate governance, firm-specific factors, and sustainability with consideration given to the moderating impact of environmental dynamism. It also serves as reference material for students to learn and further create a platform in the field of sustainable strategic management for further studies, thus pushing the frontier of knowledge.

Finally, this study would be beneficial to the society at large, considering that when firms attain sustainable performance, there comes a ripple effect of expansion, job opportunity and income generation.

### **1.7 Scope of the Study**

This study explores the impact of corporate governance and firm-specific factors on the sustainability of Fast-Moving Consumer Goods (FMCGs) Manufacturing Companies in Nigeria. To this end, six registered FMCGs manufacturing companies with head offices in

Lagos State Nigeria were selected. The selected FMCG companies are all registered companies with their total market share constituting 85% of the share of the consumer goods industry in Nigeria<sup>1</sup>. The study examined how Corporate Governance (proxied by accountability, leadership, and stakeholder management) and Firm-specific factor (proxied by Firm size and Operational Efficiency) affect the three dimensions of organizational sustainability (Social, Environmental and Economic performance (profitability)). To provide a robust explanation for the intended functional relationship between the independent and dependent variables, a third variable (Environmental dynamism) was introduced as a moderator in the interaction between corporate governance and sustainability, and as a mediator in the interaction between firm-specific factors and sustainability.

The study covered 5,710 regular employees of six selected fast-moving consumer goods manufacturing companies in Lagos State across the three levels of management. The choice of conducting the research in Lagos State was because more than 70% of the manufacturers of FMCGs have their head office in the state. Also, Lagos State is considered the hub of manufacturing activities in Nigeria<sup>24</sup>.

### **1.8 Limitation to the Study**

Just like most research, this study has limitations that must be acknowledged to provide opportunities for future studies.

Precisely, the study was focused mainly on six manufacturers of fast-moving consumer goods in Lagos State, Nigeria given their presence in the State. As with any single industry research, the finding of this study is limited to the managers in this line of business. The adoption of a cross-sectional survey design equally suggests that the study was unable to provide explanations of the changes in the dependent variable (sustainability) attributable to the independent variables (corporate governance, firm-specific factors dimensions) and

moderating/mediating variable (environmental dynamism) over a long period. Nonetheless, this study was not affected by this weakness because its broad objective was to evaluate the effect of corporate governance and firm-specific factor dimensions on organisational sustainability of selected fast-moving consumer goods manufacturers in Lagos State, Nigeria, involved the collection of data at a point in time. Thereby playing to the strength of the design.

The unit of analysis considered in this study involved management-level regular employees of the selected companies. Although the researcher included the three management levels as the unit of analysis, the fear was that not every respondent (particularly new and operational level employees) was able to provide accurate feedback on the questionnaire items. To address the quality of response expected for this study, the research included a question in the bio-data section, which requested respondents to rate their knowledge of the overall organisational activities and performance of their company on a scale of 1-10. Respondents who selected six above on the scale were considered appropriate because they show the adequacy of knowledge of the overall organisational activities and performance. This procedure has been used by scholars to improve the quality of response, which invariably affected the result of their studies<sup>25</sup>.

In addition, this study is mindful of the fact that several other factors can equally influence the sustainability of the selected fast-moving consumer goods manufacturer in Lagos State, Nigeria. To relate these variables (accountability, agile leadership, stakeholder management, firm size and operational efficiency) together; this study held other factors as being constant. It is imperative to note that the variable considered in this study are context-specific and the inability to consider all other factors that can influence sustainability of fast-moving consumer goods manufacturer in Lagos State, Nigeria cannot jeopardise the findings of this

study. Despite these limitations, this study provides important conceptual, empirical, theoretical and practical implications for managers regarding the corporate governance strategies and firm-specific factors needed to improve sustainability in a dynamic environment. In all, the identified limitation of this study presents potential areas for further research.

## 1.9 Operationalisation of the Research Variables

The variables of this study are classified into three – independent, dependent, and intervening variables. The Independent Variables are classified into two groups viz, Corporate Governance ( $X_i$ ) which is measured as accountability, agile leadership, and stakeholder management; and Firm-Specific Factors ( $W_i$ ) measured as firm size and operational efficiency. The dependent variable ( $Y_i$ ) sustainability is measured by the three dimensions of sustainability (social performance, environmental performance, and economic performance (profitability)). The intervening variable ( $Z$ ) is environmental dynamism. The measurement of the dependent and independent variables and their acronyms are presented in Table 1 in the appendix.

Therefore, Sustainability as a dependent variable is operationalised with the following measures:

$$Y = y_1, y_2, y_3$$

Where

$Y$  = Sustainability

$y_1$  = Corporate social responsibility (CSR),

$y_2$  = Environment (EVT).

$y_3 =$  Profitability (PRT)

Similarly, the first independent variable Corporate Governance (CG) is operationalised with the following indicators:

$X = x_1, x_2, x_3$

Where

$X =$  Corporate Governance (CG)

$x_1 =$  Accountability (ACT),

$x_2 =$  Agile Leadership (AGL),

$x_3 =$  Stakeholder management (SMG)

Also, the second independent variable Firm-specific factor (FSF) is operationalised as:

$W = w_1, w_2$

Where

$W =$  Firm-specific factor (FSF)

$w_1 =$  Firm size (FS),

$w_2 =$  Operational efficiency (OE),

This study incorporates one intervening variable ( $Z$ ) – Environmental dynamism (EVD).

### 1.10 Operational Definition of Terms

**Accountability:** defines the acceptance of responsibility and rendition of stewardship to stakeholders.

**Sustainability:** defines the ability of a firm to operate profitably while maintaining a harmonious relationship with diverse stakeholders, without degrading or destroying the environment or environmental assets as a result.

**Corporate Governance:** refers to the mannerism by which a firm regulated in an effort to address or meet the interest of the firm and its stakeholders.

**Efficiency:** deploying resources in a manner that minimizes resources consumed to achieve the same or better output level without compromising quality.

**Environmental Dynamism:** refers to those turbulent forces which are external to the firm with the ability to shape or influence the organization's plan and strategy and/or its outcome.

**Firm-specific Factors:** defines the resources and capabilities of an organization identified to be of relevant impact in deciding a course of action.

**Firm size:** defines the quantification of the magnitude of a firm using relevant financial and non-financial information.

**Leadership:** defines channelling the organization's available resources towards achieving set goals and objectives.

**Stakeholder Management:** defines controlling the outcome of relationships with those who can either be affected by the organization's activities or/and can affect the organization's activities.

## Endnotes

- <sup>1</sup> National Bureau of Statistics, “*Nigeria Manufacturing Sector Report*,” National Bureau of Statistics, <https://nigerianstat.gov.ng/elibrary?queries=manufacturing> (accessed August 16, 2021).
- <sup>2</sup> United Nations, *Sustainability*, United Nations, <https://www.un.org/en/academic-impact/sustainability> (accessed August 16, 2021).
- <sup>3</sup> A. Beattie, *The 3 Pillars of Corporate Sustainability*, Investopedia, 3 Pillars of Corporate Sustainability Explained (investopedia.com) (accessed August 16, 2021).
- <sup>4</sup> G. E. Oyedokun, *Business Policy: Strategy, Governance, Risk and Ethics*. Lagos: Aaron & Hur Publishing, 2019, 208-209.
- <sup>5</sup> Z. A. Wendling, J. W. Emerson, A. de Sherbinin, & D. C. Esty, *Environmental Performance Index 2020*. Centre for Environmental Law and Policy. Available Online: <https://epi.yale.edu/downloads/epi2020report20210112.pdf>.
- <sup>6</sup> B. Frank-Martin & K. Peattie, *Sustainability Around the Globe*. Global Sustainability Strategy. Available Online: <https://globalsustainabilitystrategy.wordpress.com/2014/10/21/sustainability-around-the-globe/>.
- <sup>7</sup> D. D. Sasu, *Share of GDP from Manufacturing Sector in Nigeria 2021*. Statista. Available Online: <https://www.statista.com/statistics/1207933/share-of-gdp-from-manufacturing-sector-in-nigeria/> 2022.
- <sup>8</sup> Y. Kolawole, *Contribution to Economy: Manufacturing Sector Stagnates*. Vanguard. Available Online: <https://www.vanguardngr.com/2022/05/gdp-contribution-to-economy-manufacturing-sector-stagnates/#:~:text=A%20breakdown%20of%20the%20NBS,percent%20and%208.98%20percent%2C%20respectively>
- <sup>9</sup> F. Adekoya, *Nigeria’s Manufacturing Sector Still Struggling to Survive*. The Guardian Newspaper. Available Online: <https://guardian.ng/business-services/nigerias-manufacturing-sector-still-struggling-to-survive/> 2021.
- <sup>10</sup> O. Atoyebi, *322 Nigerian Firms Shut down in Five year – World Bank*. Punch, <https://punchng.com/322-nigerian-firms-shut-down-in-five-years-wbank/>, 2019.
- <sup>11</sup> Deloitte, *2022 Manufacturing Industry Outlook*. Deloitte, Available Online: <https://www2.deloitte.com/us/en/pages/energy-and-resources/articles/manufacturing-industry-outlook.html>.
- <sup>12</sup> C. Anyalewechi, *Nigeria’s Manufacturing Sector Records Growth of 5.89% in Q1 2022*. Available Online: <https://nairametrics.com/2022/05/23/nigerias-manufacturing-sector-records-growth-of-5-89-in-q1-2022/>.

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<sup>13</sup> Central Bank of Nigeria, *Purchasing Managers' Index*. Central Bank of Nigeria. Available Online: <https://www.cbn.gov.ng/documents/purchmanindex.asp?beginrec=1&endrec=20&keyword=&from=&tod=>

<sup>14</sup> B. Babalobi, *Of Nigeria Dying Factories and Exodus to Ghana*. Punch Newspaper on line. Available Online: <https://punchng.com/of-nigerias-dying-factories-and-exodus-to-ghana/>.

<sup>15</sup> D. Olowookere, *GlaxoSmithKline to Shut Down Agbara Factory After Restructuring*. Business Post. Available Online: <https://businesspost.ng/economy/glaxosmithkline-to-shut-down-agbara-factory-after-restructuring/> 2021.

<sup>16</sup> O. Olawoyin, *Exclusive: P&G to shut down \$300 million Nigeria Production Plant, One year after Launch*. Premium Time on line. Available Online: <https://www.premiumtimesng.com/news/headlines/274899-exclusive-pg-to-shut-down-300-million-nigeria-production-plant-one-year-after-launch.html> 2018.

<sup>17</sup> O. Anudu & G. Faminu, *Closure of P&G 300m Agbara Plant Mirrors Challenges of Manufacturers in 2018*. Business Day, Available Online: <https://businessday.ng/exclusives/article/closure-of-pg-300m-agbara-plant-mirrors-challenges-of-manufacturers-in-2018/> 2018.

<sup>18</sup> E. H. Seo, C. Y. Kim & K. Kim, *A Study on the Mechanisms Linking Environmental Dynamism to Innovation Performance*, **MDPI**, 12(23), 2020. <https://www.mdpi.com/2071-1050/12/23/9999>. 3.

<sup>19</sup> Stakeholder Theory, "About the Stakeholder Theory," Available Online: <http://stakeholdertheory.org/about/>.

<sup>20</sup> J. Imhanzenube & S. Adeyemi, *Financial Decisions and Sustainable Cash Flows in Nigerian Manufacturing Companies*, **International Journal of Management, Economic and Social Sciences**, 9(2), 2020, 90-112.

<sup>21</sup> C. I. Onyali, C. U. Okerekeoti & C. U. Uchegbu, *Assessment of the Effective Factors of Social Responsibility Disclosure of Listed Consumer Goods Firms on Nigeria Stock Exchange*, **International Journal of Innovative Finance and Economic Research**, 8(2), 2020, 126-133.

<sup>22</sup> A. M. Tiamiyu, G. E. Oyedokun & A. Ademola, *Firm Characteristics and Sustainability Reporting of Listed Manufacturing Companies in Nigeria*, **Journal of Management Sciences (MJMS)**, 3(1), 2021, 1-18.

<sup>23</sup> A. N. Kaoje, A. B. Sani, G. L. Tank, M. A. Babangida, & A. Sabo. *The Implication of Corporate Social Cost on the Profitability of Oil Marketing Companies in Nigeria*, **IOSR Journal of Business and Management (IOSR-JBM)**, 22(1), 2020, 51-56.

<sup>24</sup> Euromonitor International, *Lagos in Nigeria*. Euromonitor International. Available Online: <https://www.euromonitor.com/lagos-in-nigeria/report> 2022.

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<sup>25</sup> D. Skarmas, A. Zeriti P. Argouslidis, *Importer and Exporter Capabilities, Governance Mechanisms, and Environmental Factors Determining Customer-Perceived Relationship Value*, **Industrial Marketing Management**, 78(4), 2019, 158-168.

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## **Chapter Two**

### **Literature Review**

#### **2.0 Preamble**

The review of related literature of this study captures the conceptual, empirical, and theoretical framework of relevance to this study. This is important to provide a good understanding to the researcher and readers of the works done in existing studies with respect to the variables under study and help their examination. The conceptual review looks at definitions and other features of each of the variables bearing cognisance as established by previous studies. The empirical review examined different methodologies employed by several studies and their findings. Finally, the theoretical framework covers a review of those theories that provided theoretical explanations and justification for the independent and dependent variables of this study and the conceptual framework of the study; it also established the theory upon which the study is anchored. Conceptual, as well as the mathematical model of this study, was also presented.

#### **2.1 Conceptual Review**

##### **2.1.1 Sustainability**

In general terms, sustainability refers to the ability to maintain a certain rate or level of an activity, object, or subject over time. It is defined as the ability to continuously meet or achieve current needs or goals without jeopardizing the ability of future generations to meet theirs<sup>1</sup>. This definition follows the concept of sustainable development as proposed by the world commission on environment and development, which is an initiative of the United Nations introduced in 1987. In line with this, firms are required to pursue their wealth creation agenda while contributing to the reduction of poverty without impairing the natural environment<sup>2</sup>.

Sustainability depicts the ability to continue an endeavour indefinitely through resource regeneration at a rate equal to or better still higher than the rate at which such resources are consumed, in such a manner that the integrity of natural biotic systems is not impaired<sup>3</sup>. Sustainability, therefore, portrays conducting a current action to meet a present need while giving due consideration to the impact that action may have on future generations' ability to meet their own needs<sup>1</sup>. Sustainability or sustainable development as initially proposed in 1979 by Rene Passet is built on three pillars viz the economy, the society, and the environment. These pillars are also respectively referred to as the economic pillar, social pillar, and environmental pillar. A fourth pillar, the cultural pillar is also included by some authors<sup>3</sup>.

Corporate sustainability is a unified concept of both top-down and bottom-up approaches. It views a firm responsibility to be beyond profit-making. Strong corporate sustainability recognizes the rights and social needs of the people. Two social activities define corporate sustainability, viz: (i) global environmental activity with emphasis on sustaining the global environment and sustainable development; and (ii) business activity with a focus on a specialized area of a broader market that the firm can serve to differentiate itself while factoring in societal concerns (corporate environmentalism). Corporate Sustainability, therefore, could be said to be a stakeholder's right recognition concept<sup>4</sup>. Thus, Corporate Sustainability can be further defined as a business approach that maximizes stockholder's wealth, while contributing to societal development in a manner that the firm's activity does not destroy environmental assets.

The above definition captures the primary ingredients of sustainability (Economic, Social, and Environment) as initially proposed in 1979 by Rene Passet. Furthermore, as a topmost priority of the international community, and the main agenda of the post-2015 development agenda; the United Nations (UN) systems currently dwell on all these three pillars. The

Economic and Social Council (ECOSOC) operates at the centre of this system as the platform that unites, follow-up, and review all effort on sustainable development. The United Nations (UN) 2030 Sustainability Development Goals (SDGs), with 195 nations around the world in agreement proposes 17 SDGs targeted to be achieved by the year 2030. These goals include eradication of poverty; Zero hunger; Good health and well-being; Quality Education; Gender Equality; Clean water Sanitation; Decent work, and Economic Growth etc. To accomplish these goals the UN intends to engage governments, businesses, media, and other <sup>5</sup>.

The interconnection between the three dimensions of sustainability provides an understanding of how the economic pillar, social pillar, and environmental pillar relate to ensuring sustainable development. From the figure below, it could be argued that entities activities on earth do bear implications on these three pillars <sup>6</sup>.

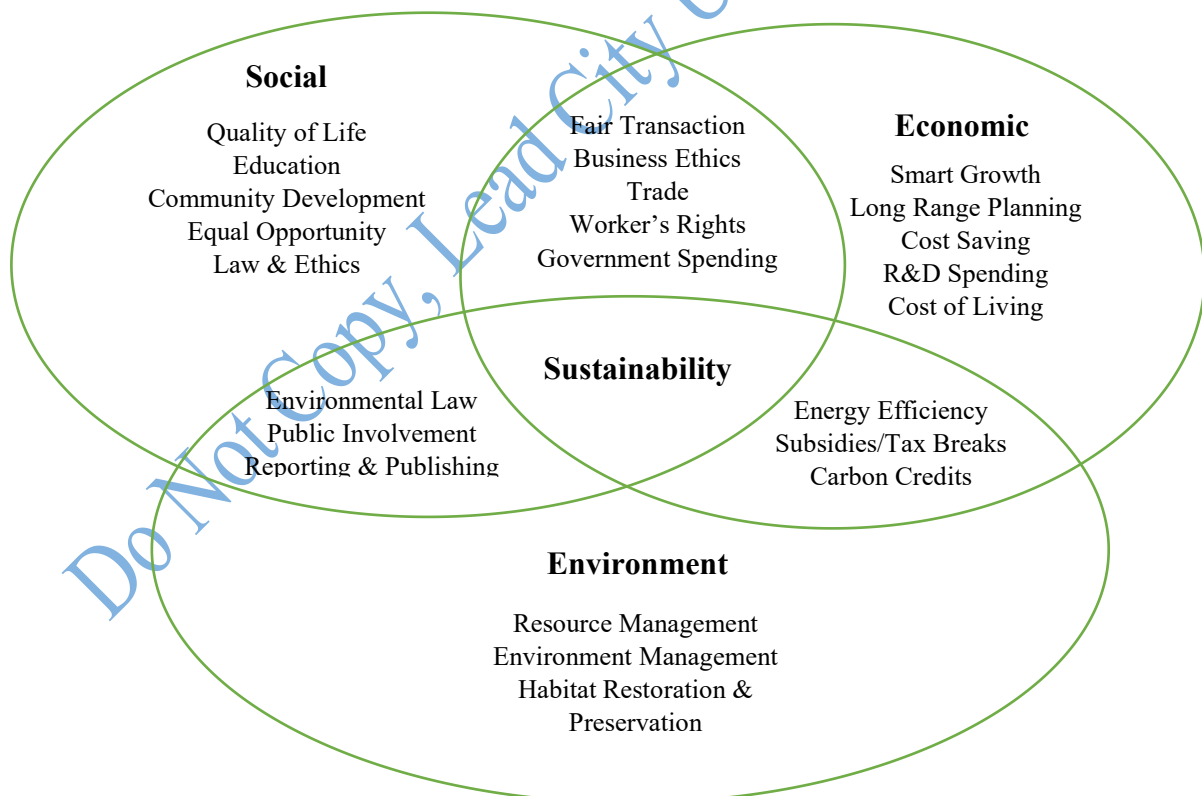


Figure 2.1: Relationship between Social, Environmental, and Economic Sustainability

Source: Wanamaker, 2018

The dimensions of sustainability considered in this study in line with the post-2015 sustainability agenda of the UN are the social, environmental, and economic dimensions.

### **2.1.1.1 Social Sustainability**

Social sustainability is a critical aspect of sustainable development which have suffered neglect over time. Often, structures are put in place to address social sustainability performance but in reality, structures alone cannot create a sustainable society, although they can act as a catalyst for achieving its goals as well as hindering same<sup>7</sup>. There are various dimensions to social sustainability, an organization can impact four of these dimensions viz, employees of the company; the local community; stakeholder participation with regards to sharing of information and participation in decision making; and socio-economic issues, like taxation, corruption, and property right. Unlike the economic dimension of sustainability which views cost and profit as an end, the socio-economic dimension views cost and profit as a means to an end. The social aspect of firms is often referred to as Corporate Social Responsibility (CSR)<sup>8</sup>.

The term “corporate Social Responsibility” gained popularity in the late 1960s and early 1970s following the wide recognition of stakeholder-ship among various organizations. The concept aims to promote ethical behaviours amongst firms while conducting their economic activities to mitigate the negative effects of such activities on stakeholders, consumers, employees, etc.<sup>9</sup>. Corporate Social Responsibility (CSR) are various activities conducted by a firm that shows that the firm’s concern is not only on the economic benefit it derives from its activities, but also extends to the social and environmental performance<sup>10</sup>. Due to the various production activities of companies, which generate both negative and positive impacts economically and socially, companies play a vital role in contributing to sustainability through various strategies. CSR performance has in recent times become an effective tool used in minimizing the negative impacts of firm activities to the benefit of both the firm and

stakeholders. More companies around the globe are now becoming more conscious of their CSR performance with the realization of the contribution of such performance to the ability of the company to generate more sustainable profit, corporate growth, and value for all stakeholders<sup>11</sup>. CSR enhances a firm's relationship with its customers, which in turn improves the competitive advantage of the firm, thereby contributing positively to the firm's social legitimacy, and in recent times has become a tool employed by companies to improve their profitability<sup>12</sup>. Companies' sustainability performance is influenced either by voluntary action or out of legal obligation imposed by authorities<sup>10</sup>. The Company and Allied Matters Act (CAMA) 1990 provides the conception of CSR as practiced in Nigeria. While CSR may be viewed by some as a philanthropic act by companies, in an actual sense is not necessarily so. Companies are mostly allowed to engage in philanthropic acts only if such contributions are of benefit to the company as well as interest and success of stockholders in the long run. CSR on the other hand is a voluntary act or an act required by an authority, which obligates companies to contribute to society and stakeholders with the view of establishing and maintaining a harmonious relationship with all stakeholders<sup>13</sup>. The benefit of such accrues to the company and the society at large.

#### **2.1.1.2 Environmental Sustainability**

The historical concept of sustainability as it relates to the adequacy of environmental assets to continue to support the earth's ever-increasing population became popular with the Malthusian population theory in the early 1800s. Arguments were however offered that technology could be used to bridge the threat of environmental resource depletion due to the astronomical increase in population. Nevertheless, given that some of these natural resources are finite in nature and could in the real sense be depleted to the point of extinction, the postulation of Malthus began to sink into consciousness<sup>6</sup>.

Environmental sustainability is concerned with the natural environment and the impact of human activities on environmental assets. In this regard, to sustain the environment, its assets should be utilized in a way that does not destroy or deplete the environmental asset in a quantum that renders such assets unavailable for the future generation. This requires society to model its activities in a manner that meets human needs while preserving the life support system of the planet. Resource consumption has various impacts on sustainability, when resources are consumed beyond nature's ability to regenerate such resources, it results in environmental degradation. In the long run, environmental degradation leads to unsustainable human life, which on a global level implies a higher death rate until the population falls to a level that the degraded environment can support. A steady economy can be achieved when the rate of consumption of environmental assets equals the rate of regeneration of such assets. However, the ideal sustainable level – environmental sustainability, is the level at which the rate of nature's ability to regenerate consumed assets is higher than the rate at which such assets are consumed<sup>3</sup>. Thus, the success of an entity does not only rely on its financial performance but also the impact of the organization's activities on both the natural and social environment<sup>4</sup>.

Manufacturing activities contribute significantly to issues surrounding environmental sustainability. This can be traced to the various stages of the life cycle of the product, ranging from the extraction of raw materials, production of finished goods, use of finished goods, and disposal of used goods<sup>14</sup>. Strategies such as reduction of waste and energy consumption as well as the use of clean energy are common approaches employed by companies in recent times to reduce the impact of their activities on the environment. This practice has also led to creating awareness amongst customers who now use this as a criterion in selecting their vendors. Furthermore, this practice has also contributed to the shift to adopting environmentally friendly approaches to manufacturing activities<sup>12</sup>.

The burning of fossil fuels, and the conversion of forests to agricultural lands have been identified as major contributors to climate change over the years. The burning of fossil fuels produces carbon dioxide, which is also a form of greenhouse gas, the resultant effect being global warming<sup>15</sup>. Human activities, therefore, have been identified as the major contributor to global greenhouse gas emissions. Looking at this from a sector perspective, the electricity and heat production sector contributed 25% of the 2010 global greenhouse gas emissions through the burning of coal, natural gas, and oil for electricity and heat. This was followed by industries activities for energy generation with the exclusion of associated emissions which contributed 21%; other sectors such as Agricultural, forestry, and other land use; Transportation; Building; and other Energy; respectively contribute 24%, 14% 6% and 10%<sup>16</sup>. In all the various forms of greenhouse gases, for the year 2015, carbon dioxide was the most emitted, contributing 76%; followed by methane 16%, nitrous oxide 6%, and HFC (hydrofluorocarbon), PFC (perfluorocarbon), SF<sub>6</sub> 2%. China, the United States of America, India, Russia, and Japan are noted to be the five countries that produce the most carbon dioxide globally at an emission rate of 28%, 15%, 7%, and 3% respectively as of August 2021<sup>17</sup>.

The impact of climate change has been felt globally, even more in recent times which may be associated with the depletion of the ozone layer due to various human activities. Reports have shown that unless corrective measures are taken, in the next 100 years, global temperatures might rise to a point never experienced in history, the adverse effect of which can only be imagined<sup>18</sup>.

The Nigerian Government has enacted various laws and regulations to ensure the environment is duly protected. Such laws include the National Environmental Protection Act of 1988, the Harmful Wastes Act of 1988, and the Environmental Impact Assessment (EIA)

Act of 1992. The Federal Ministry of Environment is saddled with the responsibility of administering and enforcing these laws in Nigeria<sup>19</sup>.

### **2.1.1.3 Economic Sustainability**

Economic sustainability is the incorporation of cost and profits. Thus, most firms find comfort in the economic pillar of sustainability<sup>20</sup>. Economic sustainability depicts attaining economic growth in a manner that is characterized by a positive impact on the society, environment, and culture of the people. A sustainable establishment must be able to generate profit from its operations. However, the emphasis of the economic pillar is not about generating a profit by all means. Rather, this pillar proposes the generation of profit in a way that does not negatively impact the interest of diverse stakeholders and in ambience with the other two (2) pillars of social and environmental. The economic pillar is about firm compliance, risk management, and good governance. While performance under this pillar may not be an issue in some jurisdictions, it could be seen to be an issue in other parts of the world. As a governance pillar, the economic pillar advocates for an alignment between the interest of both internal and external stakeholders. It emphasizes accurate and transparent accounting methods, shareholder involvement in critical decision-making, and avoidance of illegalities in pursuance of economic goals<sup>20</sup>.

At the global level, economic sustainability can be described as an interminable success of an economy attained by maintaining the integrity of both the social and environmental pillars of sustainability. It is also proposed as the ability to maintain a steady level of the growth rate of national GDP continuously without impacting negatively on both the social, environmental, and cultural elements of the community<sup>21</sup>. Sustainability is also defined as practices that support long-term economic growth without negatively impacting the social, environmental, and cultural aspects of the community<sup>22</sup>.

### 2.1.2 Corporate Governance

Corporate governance in general terms refers to the way organizations are directed and controlled, in alignment with the interest of various stakeholders<sup>23</sup>. It is defined as “the process and structure used to direct and manage business affairs of the company towards promoting business prosperity and corporate accountability with the ultimate objective of realising long-term shareholder value while (considering) the interest of other stakeholders.” It offers a context within which firm conduct their activities harmoniously through the identification and distribution of rights and responsibilities of diverse stakeholders<sup>24</sup>. Corporate governance factors the rights and obligations of diverse stakeholders and provides the rules governing how they relate to one another. It provides assurance to investors on the efficiency of the firm leadership in running the affairs of the firm<sup>25</sup>. Corporate Governance is based on the principles of accountability, transparency, responsibility, and fairness<sup>26</sup>. It specifies those given power, charged with accountability, and decision-making responsibilities in an organization. It also relates to the mannerism by which firms are governed and the objective it intends to achieve<sup>27</sup> and stipulates how responsibilities and rights are distributed amongst various stakeholders which include its stockholders, board of directors, managers<sup>28</sup>, employees, creditors, customers, and the community<sup>23</sup>. The board of directors is pivotal to corporate governance, given that they have the power to take such vital decisions that could affect all the other stakeholders<sup>29</sup>. Likewise, the inclination of the organization toward sustainable practices depends on the seriousness of its corporate governance<sup>30</sup>.

The framework of corporate governance as provided by the Organization for Economic Cooperation and Development (OECD) was initially issued in 1999<sup>28</sup>; The 2015 edition which is also referred to as the G20/OECD covers the financial and corporate aspects of practices and policies that could impact how relevant and efficient a firm could be<sup>31</sup>. The

principles of corporate governance focused on listed firms, though it is also adaptable by non-listed firms for the formulation of corporate policies. These principles are not mandated or mandatory upon entities, rather they seek to provide a benchmark that could be followed to achieve good corporate governance. As a dynamic concept, corporate governance is updated overtime to reflect current realities thereby enhancing its significance and usefulness in corporate policy formulation. The principle covers six key areas of corporate governance, viz (i) provides the basis for an effective corporate governance framework; (ii) design of the legal regulatory requirement; (iii) apportionment of duties amongst those charged with authority; (iv) The role of stock market regulation in corporate governance; (v) The capacity of respective authorities to carry out their duties efficiently; and (vi) Enhancement of cross-border co-operation<sup>31</sup>.

The governance of an organization can be viewed from two perspectives. The internal perspective which focuses on how leadership runs the organization in line with the principle of Good Corporate Governance (GCG), and the external perspective which focuses on how the organization interacts with external stakeholders harmoniously while meeting the goals of the organization<sup>25</sup>. Recent events in the corporate world such as corporate fraudulent practices and economic downturns have contributed to the emphasis on corporate governance over time<sup>32</sup>. Good corporate governance is beneficial to the company, its shareholders, and the Nation's economy at large. To the company, corporate governance defines access to capital and financial markets; it enhances the survival of the company in the face of competition and aid to mitigate conflicts of interest between various stakeholders. Also, good corporate governance enhances supervision and encourages the Board and Management to act in the best interest of the company. To the national economy, well-directed and controlled firms have been seen to attract more premium for their shares than those firms that at poorly governed<sup>23</sup>. In addition, good corporate governance aids the process of decision, improves

environmental performance, enhances due process, curbs internal corruption, improves the confidence of stakeholders, and attracts FDI into the country<sup>33</sup>.

The pioneering Code of Best Practice on Corporate Governance in Nigeria was issued under the Security and Exchange Commission Code 2003; Although, several laws contribute to the practice of corporate governance as it exists in Nigeria. The major regulation is however provided under the Companies and Allied Matters Act Cap c20. These laws aim to ensure that firms in the country are managed in a way that promotes accountability, responsibility, and due consideration to relevant stakeholders<sup>34</sup>. The theoretical frame of corporate governance concern is also referred to as the “4 p’s” of corporate governance. The 4 p’s stand for people (hiring the right people for the job); performance (hiring competent hands with required skills); Process and policies (formulating and installing the right policy and process that enhances monitoring and feedback)<sup>33</sup>.

This study considers the accountability, leadership (agile), and stakeholder measures of corporate governance.

#### **2.1.2.1 Accountability**

Accountability is a key aspect of corporate governance as those charged with the responsibility of managing shareholder’s funds need to give an account of their stewardship<sup>35</sup>; It thus becomes paramount in situations where the actions of one entity affect other entities<sup>36</sup>. The definition of accountability varies, depending on what is considered as the rendition of account in a particular situation which ultimately defines what accountability should be under the circumstance<sup>37</sup>. Generally, accountability depicts accepting responsibility for actions taken. It means acceptance to act ethically and honestly in one’s dealings. In other realms, accountability depicts an accurate rendition of the financial records<sup>38</sup>. In the corporate world, accountability goes beyond financial accountability; it extends to the firm’s performance

from a social and environmental perspective. By this, firms are to be responsible for the impact of their activities on society and the environment. They are also to be accountable to their workforce and member of the society within which they operate<sup>39</sup>. Accountability as a regulatory requirement is one of the tools used to address issues of interest conflict among stakeholders in a firm<sup>40</sup>. Corporate accountability therefore can be defined as a practice where firms are held responsible for their activities by stakeholders<sup>35</sup>. Firm failure has its impact on all stakeholders including the larger society, this has led to the higher demand for corporate accountability<sup>41</sup>.

International organizations such as the International Audit Assurance Standard Board (IAASB) also play a role in corporate accountability by ensuring a sustainable assurance process. By this, the AA1000 standard addresses how the principle of accountability is applied by assurance providers with the aim of assuring stakeholders of the manner in which sustainability performance is managed and communicated by the firm in its sustainability reporting<sup>42</sup>.

### **2.1.2.2 Agile Leadership**

Leadership depicts harnessing the resources of an organization to achieve the goals and aspirations of that organization<sup>43</sup>. Effective leadership is a product of good governance<sup>44</sup>. To be effective, the focus of leadership should not only be on financial benefits as a guide to decision-making. Rather it should extend to the understanding of the interaction between the financial and the non-financial aspect of the business, given the complex nature of the business world. To achieve performance in the three dimensions of sustainability requires firm consciousness. However, as an artificial being, firm consciousness can only be demonstrated by the conscious performance of the Board in the various sustainability dimensions<sup>44</sup>. The Board of Directors occupy the peak level of the leadership chain, they play

a significant and central role in strategic leadership in an organization. Various definition of the function of the Board indicates the significant role played by the Board in the strategic process of a firm. This function as forwarded by various scholars includes management function (delegation of the day to day management of the firm to senior managers), oversight function, monitoring function, providing strategic direction and values, ensuring organizational capability, awareness, and compliance with legal responsibility, achieving an adequate financial return for shareholders, effective management oversight, governance, risk management and prevention of conflict of interest, the establishment of mission, vision and institutional values, etc<sup>45</sup>.

To be effective, corporate leaders need to keep employees motivated to achieve better performance. Also, senior management leadership need to key into motivating the workforce to ensure that even in the absence of direct supervision, employees are willing and able to without supervision put in their best efforts to enhance productivity. Such motivation is also essential to maintain employee productivity and efficiency in the face of dynamic competitive business environment. Furthermore, considering the diverse character embedded in the workforce, an innovative and strategic approach is necessary from both corporate leadership and governance to channel these differential characteristics of employees toward achieving the overall objective of the firm. This is further underscored by the understanding that, employees play a central role in corporate governance, as such without adequate motivation it could be difficult to get the best out of them<sup>46</sup>.

To lead depicts to guide, and the person or group offering such guidance is referred to as the leaders. Leadership at the corporate level, therefore, signifies the process whereby the leaders communicate effectively to the workforce with a view to encouraging best performance in order to achieve firm objectives<sup>47</sup>. Leadership is about making decisions and implementing of same. Various approaches to decision-making and characteristics (such as demographic or

psychological) of the decision-maker define the success or otherwise of the firm<sup>36</sup>. One of the vices befalling organizations such as corporate fraud can also be deterred by good leadership backed by regulators. To the extent that a strong leader can exert significant influence on the workforce to shone fraudulent practices in an organization. The culture practiced within an organization has its impact on good corporate governance as it does on the leadership of the firm, thus it is important for leaders to promote a decent corporate culture in the organization<sup>43</sup>. In like manner, the success of an organization lies in the core value of its leadership and the ability of leadership to be result-oriented. The inability of leadership to produce the desired result in the organization could lead to crises within the organization. Good Corporate Governance, therefore, provides assurance to stakeholders of the ability of leadership to steer the wheels of the organization to a profitable end; just as it seeks to protect the organization's resources against misuse while maintaining harmony within the various systems put installed in the organization<sup>25</sup>.

There are various styles of leadership, which include: The autocratic leadership (where the leader takes decision and issues orders to followers to be followed, with little input from followers); The visionary leadership (where the leader bring forth the organization's vision to be pursued, explains how to they think the organization goals could be achieved while soliciting for the opinion of the followers, thus motivate followers to meet expectations); The pacesetting leadership (where the leader being highly driven by result sets high target and pushes followers to ensure such target are achieved); The democratic leadership (where the leader involves the employees in the decision-making process, seeks for their opinion and keeps employees informed of matters relating to and that could impact their responsibility before deciding on the cause of action to be taken); The coaching leadership (This style of leadership view the employees as resources to be developed and deployed, with the understanding that the employee has talents that could be tapped for the benefit of the

organization, if the full potential of such talent is unleashed); The affiliative leadership (a style that put the employee first with consideration given to the emotional state of employees, thereby fostering a personal connection with the employees and instilling harmony among the team); The laissez-faire Leadership (a leadership style most applicable when leading professionals and experienced employees. It gives a free hand to followers to operate and take decisions on their own, trusting their judgement with little supervision)<sup>48</sup>.

In contemporary times, the demand on the 21<sup>st</sup>-century leaders has given birth to new leadership styles that are informed by the dynamic nature of the business environment. Such leadership styles include “agile leadership”. Agile leadership is a style of leadership that depicts leaders exhibiting calmness while under pressure, embracing innovative thinking, being proactive, and giving right guidance and inspiration to employees. The survival, growth, and sustainability of firms with well-defined mission that encourages employees to think and take action spontaneously to satisfy the organization’s customers, feeds perfectly into the concept of Agile leadership<sup>49</sup>. The need for agile leadership and self-organized employees is further informed by the conditions requiring organizations to be more flexible, and the increase in the swiftness of changes in market conditions<sup>50</sup>. The orientation of this study would be tilted towards agile leadership, given the need for flexible and proactive leadership to maintain the sustainability of the FMCGs manufacturers in Nigeria, in the face of the dynamic environment within which the companies operate.

### **2.1.2.3 Stakeholder Management**

Stakeholders are referred to as those whose influence could impact the existence or otherwise of an organization<sup>51</sup>. A stakeholder is also referred to as any entity that can either affect or can be affected by the firm’s activities, such as vendors, customers, employees, etc.<sup>52</sup> stakeholders in an organization can be categorised according to their degree of influence as

primary stakeholders or secondary stakeholder. The primary stakeholders are direct interest holders in the organization without which the organization may cease to exist (such as shareholders, employees, suppliers, etc.). Though they do not hold a direct interest in the business, secondary stakeholders are those that could exert some level of impact on the organization, even though their non-existence does not lead to the closure of the business (such as trade unions, business competitors, etc.)<sup>53</sup>.

Business is about value creation through interactions between diverse stakeholders, the management of these diverse degrees of interactions is termed stakeholder management. Stakeholders are referred to as primary stakeholders if their interaction with the organization concerned defines the survival of the organization. Such stakeholder includes those that provide finance for the business, the community within which the business operates, customers as well as suppliers of the firm, and the staff of the organization. The support of these classes of stakeholders is paramount to the success of the organization and as such must be well managed. Broader perspective stakeholders are the secondary stakeholders, these groups include the government, business rivals, the media, activists, critics and other interest groups, environmentalists, etc., with the tendency to influence the primary stakeholders.<sup>54</sup>

In line with the stakeholder theory, maintaining a robust relationship with diverse stakeholders is significant to the ability of a firm to create value which also improves the ability of the organization to be successful<sup>55</sup>. The practice where the views and interests of such groups are factored into the firm's plan is referred to as stakeholder management. Events of recent times have shown the importance of stakeholder management to firm performance. It de-emphasizes the profit maximization motives of firms and highlights the need for firms to put into consideration the need for a harmonious relationship between the firm and those who have a stake in the firm as an approach to ensuring the firm's continuous existence<sup>51</sup>.

Stakeholder management is a process of organizing, monitoring, and improving relationships between an organization and those with a stake in the organization in view of diverse risks faced by the stakeholders as a result of the organization's activities. Stakeholder management involves conducting an analytical view and understanding of those affected by the firm's activities and those whose activities affect the firm and using findings to formulate policies aimed at mitigating the risk associated with such interdependence. All organizations have stakeholders who either place a demand on the organization or which the organization places a demand on; however, just as the organization does not impact all these diverse stakeholders, not all the stakeholders have an effect on the organization. Thus, it is paramount for organizations to identify and act on those few stakeholders that it can impact or that can impact it. Management, therefore, has a role in managing these stakeholders to reconcile the goals of the organization with the differing needs of these stakeholders<sup>52</sup>. From the economist perspective, stakeholder management is a tool that aids qualitative decision making, improves firm accountability, contributes to good firm reputation, and trust and diverse stakeholders. From the normative angle, however, it is viewed to be prompted by the view of the firm and its moral predisposition<sup>51</sup>.

The concept of stakeholder management underscores the need for ethical consideration by firms while pursuing their profit motives by factoring in the social as well as the environmental implication of the approaches adopted by the firm<sup>56</sup>. Stakeholder management plays a significant role in several aspects of the global sustainability drive, such as in the management of projects<sup>57</sup>, as well as ecotourism beyond the field of management and business<sup>53</sup>. It also aids to create awareness of current developments as regards ways to capture and recycle carbon dioxide to provide social, economic, and environmental gains through technologies such as Carbon Capture and Storage technologies (CCS)<sup>58</sup>. Stakeholder management is also about effective communication and the inclusion of the firm's

sustainability commitments efforts in communications with stakeholders, this breeds sustainable conduct amongst stakeholders. It also enables the establishment of a balance of indifference in access to information between the various classes of stakeholders, especially when the external stakeholders have limited information to evaluate the performance and conduct of the management team<sup>59</sup>.

Stakeholder management is also an important aspect of an organization's supply chain, where firms engage various stakeholders such as regulators, communities, etc. This is also important in the process of sustainable supply chain innovation by using information collected while interacting with diverse stakeholders to seek improved production and delivery system<sup>60</sup>. Stakeholder management has also gained popularity in the successful delivery of projects. As a social activity, projects execution requires decent communication amongst the diverse interest groups to establish trust and understanding, which aids in solving problems between stakeholders that may ensue in the cause of the project due to diverse interests. In this regard, stakeholder management can be viewed as a process where the interest of diverse stakeholders is identified, collected, analysed, and considered in a way that ensures the project is achieved. This approach addresses challenges relating to the social and environmental pillar of sustainability which management need to factor into their plans to ensure the successful implementation of their project<sup>61</sup>.

Firms are expected to report on not just their economic performance (profitability) but also on their social and environmental performance. However, while some firms report on their social and environmental performance to legitimize their activities to stakeholders, other firms do not. Various reasons have been ascribed to this reluctance in disclosure. Some firms avoid social performance reporting to avoid being looked upon as using social performance to hide some illicit acts conducted by the firm. Also, studies have shown that firms that perform less with their primary stakeholders do evade publicising social performance to avoid backlash

from the ill-treated primary stakeholders<sup>62</sup>. It is however important to maintain a cordial association with stakeholders given that such association exerts an impact on firm financial performance and also exerts a moderating effect on corporate social responsibility and corporate financial performance - primary stakeholders like employees can be pressured by other stakeholders of impact to shift their loyalty to them<sup>63</sup>. Furthermore, simply reporting on social and environmental performance may not be a true indication that the reporting firm is actually conducting its activities in line with the sustainable development goals agenda. Especially where no significant change is affected by the firm in the way it conducts its activities, such practice by firms is referred to as “greenwashing” or “SDG washing”. Sustainability practices to be proven to be observed must be seen to engage the principle of stakeholder management which requires that firms view their activities and how it impacts their stakeholders from a strategic viewpoint. Significantly, firm sustainability endeavours contribute to sustainable development goals when such endeavours seek to address demand from those groups of stakeholders with the ability to influence the outcome of firm’s activities. These group of stakeholders are also referred to as “powerful stakeholders”<sup>64</sup>.

Stakeholder management promotes better capital market operation as it improves the value of firms from an ethical and sustainability perspective. Firms that consider stakeholder management as a key component of corporate governance as against shareholder management, tend to factor more variables into their corporate governance/decision-making process. This is given that stakeholder management includes both the shareholders and others with a stake in the organization’s existence which if ignored could eventually impact the value of the firm on the stock market<sup>65</sup>. Stakeholder management, therefore, requires good leadership skills with the ability to communicate, plan, resolve conflicts etc. and get stakeholders’ buy-in into the organization’s project<sup>66</sup>.

Those at the helm of managing and directing the affairs of organizations view sustainability as an on-going process which involves establishing a balance between the management of various classes of the organization's stakeholders. Two major approaches to stakeholder management can be coined out of the combined interest of these stakeholders viz, (i) Management of Stakeholders and; (ii) management for stakeholders. The former approach views stakeholders as resources to be managed to achieve the project at hand, while the latter aims at creating value for stakeholders through available resources. Thus, infusing sustainability into the interactions between various levels of stakeholders and the objective to be achieved<sup>67</sup>. Therefore, the multiplicity of stakeholders that a firm needs to deal with requires the need for an effective strategy to enable the management as well as leadership to understand and manage relationships with these diverse stakeholders. Effective corporate governance is dependent on the quality of the Board of Directors vis-a-vis their human and social capital. It also defines the firm's sustainability performance as well as the ability to direct firm activities in line with the interest of holders of diverse stakes in the firm<sup>68</sup>.

### **2.1.3 Firm-Specific Factors**

This study considers those internal factors that have been seen to be of focus by firms in Nigeria in their effort to remain operational in the face of the diverse external forces impacting their sustainability. Therefore, the firm-specific factors considered in this study are the firm size and level of efficiency of the firm.

#### **2.1.3.1 Firm Size**

An Industry is typically made up of firms, and these firms come in different sizes with varying production costs. The ideal firm size from the angle of the economist is that size that promotes efficiency (i.e., the lowest production cost per unit). Also, the firm is made up of plants or factories, etc. where goods and services are produced and supplied. The plant

contains both pieces of machinery, equipment, workers, land, etc., and the firm may own one or various plants either geared towards producing particular goods/services or multiple goods/services. Thus, a firm is an entity that owns, controls, and manages a plant alongside other productive resources with the view of making a profit. Hence, the quantum of plants and productive resources owned, managed, and controlled by the firm determines the size of the firm. A firm is said to be at optimum (optimum firm) when after considering all existing conditions (both internal capacity and external dynamism) has the lowest average cost per unit produced in the long run. The optimum firm size, therefore, is the size of the firm which best supports its optimum position, any further increase in the firm size beyond such point produces a diminishing return<sup>69</sup>.

There are various methodologies for determining firm size, these include the firm's total revenue, total assets, the market value of equity, number of employees, etc. Every method has its advantage and shortcomings. The use of revenue generated to measure firm size is a backwards-looking approach though indicates the firm's market competition. The total assets approach indicates resources utilized by the firm to meet its objective. The market value of equity approach provides an indication of the firm's equity market condition as well as its growth prospects<sup>70</sup>.

Firm size serves as a tool used by firms to gain a competitive advantage over their counterparts in an industry. Larger firms have been observed to have better financial performance and pay better wages to their employees<sup>71</sup>, and further serve as a common determinant of the disclosure requirement of companies. Bigger companies are often required to disclose more information in their financial reports, which is also associated with the political pressure on CSR performance<sup>72</sup>.

Firm size has been identified as a significant factor in the determination of a firm's profitability<sup>73</sup>. Larger firms are more prone to potential losses due to the quantum of assets employed in their operations. Also, large firms tend to be more cautious in their dealings especially if the assets and liabilities increase alongside the size of the firm<sup>74</sup>.

### **2.1.3.2 Efficiency**

Efficiency connotes the highest level of performance attainable using available resources to achieve a maximum level of output. It is characterized by doing away with those resources that are not required by the firm to achieve its outputs, thereby cutting the cost associated with meeting set goals<sup>75</sup>. Companies employ different strategies to improve their efficiency. For instance, Internal efficiency and effective use of machinery could be attained by structuring operational strategies in line with the competitive strategy of the firm. Also, lean manufacturing practices are another tool used by manufacturing firms to curb wastage and improve efficiency. Furthermore, with the advent of globalization, manufacturing firms also capitalize on the jurisdictional difference in the cost of labour and raw materials supplies to improve their efficiency<sup>76</sup>. The concept of industry 4.0 is also another efficiency tool used by manufacturing companies in recent years. This is also referred to as the fourth industrial revolution and it seeks to proffer efficient solutions through the lens of technological advancements such as industrial smart devices and applications to enhance production processes, customer relationships, and competitiveness in the manufacturing sector. This system ensures that production meets the required quality, quantity, and timely delivery system is achieved to the right customer and at the right location, in an environmentally friendly manner<sup>77</sup>.

An entity's level of efficiency is measured using a ratio called efficiency ratio. This ratio indicates how well the firm utilizes the resources put at its disposal. Generally, this ratio

measures the period taken for the firm to meet segments of its operation or the number of times the firm accomplishes a measure within a given period. The efficiency ratio is made up of various turnover ratios, viz: Accounts Receivable Ratio; Accounts Receivable days; Assets Turnover Ratio; Inventory Turnover Ratio; and Inventory Turnover Days<sup>78</sup>. The efficiency of a firm's management can also be ascertained by comparing the operational expenses of the firm to its net sales<sup>79</sup>.

#### **2.1.4 Environmental Dynamism**

A firm's environment refers to those components which include social, as well as other resources which form the basis of decision-making within the firm at a given point in time. A dynamic environment is one that is characterised by frequent changes in the level of technology, product preference or consumer taste, competition, etc.<sup>80</sup>, as well as the rate at which each of these components of the environment changes<sup>81</sup>. Such changes are often not predictable nor stable as they occur in an environment outside the organization<sup>82</sup>. Environmental dynamism describes the degree and unprecedented alterations in the environment, devoid of a level of certainty that could be used to generate a reliable prediction<sup>83</sup>. Furthermore, a highly dynamic environment requires a higher level of innovative actions. Environmental Dynamism portrays a business environment that is prone to constant and erratic changes<sup>84</sup>. It also depicts an unstable and uncertain business environment that weakens the ability of management to ascertain possible future occurrences and how such occurrences could affect the firm. It also concerns a possible shift in consumer preference or taste and how products easily become outdated, the frequency of industry technological advancement and the predictability of changes in consumption patterns, and the corresponding reaction of competing firms within the industry<sup>85</sup>. Environmental dynamism defines the volatile nature of an organization's economic, competitive, legal, social, technological, and global environment<sup>86</sup>. With the global environment comes significant

features such as increased competition, industry expansion, and various innovations in technology<sup>81</sup>. Furthermore, factors such as weak legal system within jurisdictions, and government interest also contributes to the volatility in a business environment<sup>82</sup>.

The rate at which changes occur in environmental factors (such as suppliers, customers, market, competitors, technologies, etc.) over time is referred to as environmental dynamism. The environment is said to be more dynamic if the frequency of changes in this factor is high. To be able to compete favourably, firms must adapt to these changes as they occur<sup>87</sup>. Adapting to the dynamic nature of the external environment requires the formulation long term plans (strategies) to meet the firm's objective. However, to achieve and maintain a competitive advantage over their peers, in formulating these strategies, organizations must give adequate consideration to those factors embedded in the external environment within which it operates; this is important as these external factors define the success of the employed strategies<sup>88</sup>.

This dynamic external environment presents both threats and opportunities. In an effort to take advantage of these opportunities and tackle the emerging threat, firms engage in constant re-strategizing of their business models. Thus, as a result of these environmental dynamics, there is a constant adaptation of both products and technology employed by firms to re-jig corporate strategies in the face of distorted projected profits, to ensure that the business is sustained<sup>80</sup>. The opportunities presented by the dynamic environment provides an incentive for business to strive<sup>89</sup>, improve and to become more flexible to adapt to change<sup>90</sup>. Nevertheless, it comes at a high cost given that it requires constant reconfiguration of business approach as well as resources<sup>91</sup>. Strategies employed to address this high level of changes to improve firm competition and viability include innovations that are both exploratory (to address emerging opportunities) and exploitative (to continue to service existing opportunities)<sup>91</sup>.

The dynamic nature of the external environment dictates the approach used by firms in their exploratory and exploitative approach to innovation, as well as the approach to competition, technology reconfiguration and customer satisfaction. Also, the exploitative and exploratory innovation approach could be considered under different external environmental conditions. When there is relative stability in the external environment, the former is considered, while the latter is used to address a relatively high unstable external environment<sup>92</sup>. In measuring environmental dynamism, the two dimensions of interest are the changes in customer demand and changes in technology. Other scholars however consider it necessary to factor into consideration changes in the size of the industry as well as the rate of change in competition within the industry. These measures are carried out either subjectively (via the experience of players) or objectively (reliance on facts and figures)<sup>81</sup>.

The flexibility of firms plays a vital role in their ability to adapt to changes in the external environment and to come up with required innovations. Such innovative steps need to be carried out in time and in alignment with the firm's objective to ensure that such objectives are achieved even in the face of the volatile nature of the environment<sup>93</sup>. By influencing a flexible approach to business activities, environmental dynamism plays a significant role in a firm's strategy formulation, thus pivotal to firm performance<sup>89</sup>.

Environmental dynamism is characterized by various degrees of environmental turbulence (ET)<sup>94</sup>. The dimensions of ET considered in this study are dynamism, munificence, and complexity. Dynamism reflects the frequency of changes in the task environment. Munificence reflects the degree of availability of a resource or lack of it in the macro-environment, while complexity reflects the degree of related or unrelated events in the macro-environment which confront the business organization<sup>95</sup>.

## 2.2 Theoretical Framework

This section explains selected theories on corporate governance, firm-specific factors, environmental dynamism, and sustainability. The theories reviewed include the Stakeholder theory, Resource-based view (RBV), and Dynamic capabilities theory. The theories are discussed taking cognisance of the proponent(s), assumptions(s), and the main issues(s) addressed by each theory, their critics, and the significance of the theory to the study.

### 2.2.1 Stakeholder Theory

The stakeholder theory was originally proposed by R. Edward Freeman in 1984. The theory provides that there is a reciprocal relationship between a firm and its stakeholders which include customers, suppliers, employees, investors, communities, etc. The theory emphasizes the need for firms to protect the right of those who have a stake in their existence, and by so doing enjoy a harmonious and more sustainable success. This theory has since become a key concept in the debate of business ethics and questions the shareholder's theory which is mainly focused on shareholder wealth maximization as a primary objective of a firm<sup>96</sup>. The stakeholder theory views the organization as an integral part of society. In line with this theory, anyone who is affected by the firm or who can in one way or the other effect the firm is considered a stakeholder.

One of the proponents of the stakeholder theory is Milton Friedman an economist, statistician, and American Nobel Memorial Prize winner in Economic science in 1976. Friedman further proposed six (6) governing principles that provide further guidance in observing the stakeholder's theory, viz: (i) the principle of entry and exit; (ii) the principle of governance; (iii) the principle of externalities; (iv) the principle of contract cost; (v) agency principle; and (vi) the principle of limited immortality. The principle of entry and exit provides that the basis of hiring and terminating employees should be well-defined and transparent. The

principle of governance addresses the relationship between the firm and its stakeholders and the rules governing this relationship. It also dictates how this relationship should be consensually amended. The principles of externalities define the firm's stakeholders to include anyone who is affected by the firm's actions or suffers a loss due to other stakeholders. The principle of contract cost provides that contractual costs should be shared based on the proportionate benefits of the contractual parties in the firm. The agency principle classifies the firm's manager as the firm's agent and as such should assume responsibility for both the firm's shareholders and stakeholders. The principle of limited immortality, while recognizing the fact that the firm may not exist forever, advocates long-term corporate existence to ensure that the interest of all stakeholders is addressed by the firm in the long run<sup>97</sup>. Other proponents of the Stakeholders theory are Thomas Donald and Lee E. Preston. The duo argues that the stakeholder theory is based on three dimensions, viz descriptive; instrumental, and normative. The descriptive approach through facts collected provides a description and explanation as regards what that firm and its managers do, management style, and organizational type. The instrumental approach via research and empirical data collected seeks to establish the link between management behaviour and the resultant outcome. While the normative approach tells what the management or the firm should do<sup>98</sup>.

Despite the popularity enjoyed by the stakeholder theory, some scholars have offered various arguments against the practicality of its adoption. Susan Key argues that, while the stakeholder's theory may do well to relate the firm's behaviour and replace current models, the stakeholder theory in its current form lacks theoretical content, due to its lack of scientific logic that could explain the relationship between the firm and stakeholders<sup>99</sup>. Thus, cannot be observed in a way that enables scientific appraisal<sup>100</sup>. Other scholars that follow a similar line of argument posit that, while acknowledging the usefulness of the theory, there is a need for

more scientific rigorous work to be done with regard to the ideological assumptions as it relates to the nature of the relationship and interaction between stakeholders, thus suggesting that future research should be focused on same<sup>101</sup>.

The stakeholder theory does relate to the concept of sustainability/sustainable development. The general proposal of the concept of sustainability is to ensure that while entities engage in the pursuance of their individual or collective goals, the rights of those who could be affected by their activities are duly protected. Sustainability, in the long run, is a win-win for all concerns as it goes to ensure that, the achievement of an entity's goal in the current time does not hinder future entities from archiving their own goals as well. Therefore, in line with the submissions of the stakeholder theory, sustainability is as well a stakeholder-right recognition concept<sup>4</sup>.

### **2.2.2 Resource Based-View (RBV)**

The origin of the RBV can be traced to the work of Edith Penrose – “The Theory of the Growth of the Firm” in 1959. The theory provides that an organization is made up of various resources which are both tangible and intangible (such as Knowledge, skills, experience, technology, information, and data), the combination of these resources gives birth to other specialised resources (Capabilities) which either individually or collectively create strategic capabilities that provide a sustainable competitive advantage to the organization<sup>102</sup>. The tangible resources are physical items that can easily be acquired in the market, thus conferring little advantage to the firm in the long run, given that the same resources can eventually be acquired by others. Intangible resources on the other hand are assets that other firms cannot buy from the market, these resources are peculiar to the firm and provide the main source for attaining a sustainable competitive advantage (SCA). RBV views the resources of an organization as vital to the organization’s superior performance. The key proposition of RBV is that firms can attain sustainable competitive advantage when the

resources and capabilities applied by the firm are valuable (V), rare (R), Costly to imitate (I), and non-substitutable (N), furthermore, when there is an appropriate organization in place to capture value imbedded in those resources (O)- VRIN/O<sup>103</sup>.

The thought around the concept of RBV as a way of attaining sustained competitive advantage surfaced in the 1980s and 1990s as a result of the publication of proponents of the theory such as Birger Wernfelt, Jay Baney, C.K. Prahalad and Gary Hemel. RBV rests on two important assumptions, the assumption of heterogeneity and immobility. The heterogeneous assumption holds that firms possess different resources, skills, capabilities etc., which enables them to adopt different strategies to outdo each other; while the assumption of Immobility depicts those resources cannot in the short run be moved from one firm to the other, thus the resources and strategies of one firm cannot be copied by a rival firm. The resource-based view aids organizations to achieve an efficient allocation of resources, cross-functional use of resources, and a competitive advantage that can be preserved<sup>104</sup>.

Like most theories, the RBV has its critics. The line of argument of these critics could be categorized into eight broad groups<sup>105</sup>. The first group includes Thomas C. Powell, Tom Connor, Tony McGuniees, and Robert E. Morgan. This group argues that the RBV theory lacks substantive managerial implication<sup>106</sup>, and appears to advocate for firms to obtain resources that satisfy the VRIN (valuable (V), rare (R), Costly to imitate (I), and non-substitutable (N)) provision but fails to advise on how this could be achieved<sup>107</sup>. Furthermore, it trivializes the property-rights issues and exaggerates the ability of managers to forecast events and exercise control over resources<sup>108</sup>. Proponents of the theory however debunked this line of criticism and explained that the RBV is but a theory aimed at offering an explanation for sustainable competitive advantage achieved by some firms over others<sup>109</sup>, thus it is not meant to offer prescriptions to management<sup>110</sup>.

The second group of critics like David J. Collis also argued that the RBV would mean a situation of infinite regress, given that a firm that is seen to be at a competitive advantage today, could be surpassed sooner or later by another firm that has the superior capability to develop better innovative products.<sup>111</sup> Again to counter this point of criticism, some scholars argued that management or economics is not a movement for positive certainty, it is an open-ended practical approach, thus this line of criticism cannot hold<sup>105</sup>.

We find Michael Gilbert in the third group of critics. The group argues that the application of the Resource-Based view theory is overly limited and further point out that the understanding of the unique nature of resources, meddles with heterogeneity and immobility thus rubs the theory of capacity to generalise<sup>112</sup>. This line of argument has however been described as too academic to be applicable<sup>113</sup>.

The fourth group of critics argues that sustainable competitive advantage cannot be achieved, given that RBV requires a continuous rejig of the firm's resources; with the implication that advantages created as a result would only be temporal and ever-changing<sup>114</sup>. To correct the perception behind this line of criticism, some scholars have argued that the logic behind the RBV applies to the resources of the firm just as much as it does to the firm's dynamic capabilities<sup>115</sup>.

The fifth group criticizes the RBV to have failed in its attempt as a theory of the firm. This group of critics includes Kathleen Conner<sup>116</sup>, Bruce Kogut and Udo Zander<sup>117</sup>. Their main point of argument was that the effort of the RBV to be a theory of the firm is materially different from other theories of Transaction Cost Economics (TCE)<sup>118</sup>. To this, proponents of the RBV argue that the RBV does not intend to explain the boundaries of firms, given that TCE already explains such boundaries, thus there is no reason to require the RBV to meet such criteria<sup>105</sup>.

The sixth group of critics argues about the necessity and sufficiency of the theory. Among these critics are Craig Armstrong and Katsuhiko Shimizu, who supports that the RBV lacks empirical support<sup>119</sup>. The seventh group of critics argues that the RBV is overly imprecise and tautological to qualify for a true theory<sup>120</sup>. Finally, the eighth criticism forward that the definition of resources is not practical, given that the concept of resources is too inclusive and suggests that there is no limit to what the firm could categorise as a resource and how such resource could be categorised into basic resources and capabilities required to efficiently use the resources, as well as how the various resources of the firm can contribute to sustainable competitive advantage. Thus, there is a need for RBV to reconsider these three fundamental issues to enable it to gain the position of a central theory of sustainable competitive advantage<sup>105</sup>.

Overall, based on the objective of this research, and considering the points forwarded by various proponents of the RBV to correct some of the criticisms, this study gives further support to the RBV given that the capacity of a firm to perform sustainably is dependent on the resources it acquires and the characteristics of these resources (which in this case has VIRN/O features). Thus, RBV provides the theoretical explanations for the functional association between the second group of the independent variable (firm-specific factors) and the dependent variable (Sustainability performance) investigated in this study.

### **2.2.3 Dynamic Capabilities Theory (DCT)**

Following criticisms trailing the RBV for failing to define how resources could be channelled to provide a sustainable competitive advantage in an ever-changing environment, various theories had evolved to bridge this gap. Among such theories is the DCT – an organizational theory proposed by David J. Teece, Gary Pisano, and Amy Sheun in their paper published in 1997 titled “Dynamic Capability and Strategic Management”, which defines the DCT as the

integration of both internal and external resources of the firm to meet the challenges posed by the rapid changes in the environment<sup>121</sup>.

The DCT is built on three assumptions viz, adaptive, absorptive, and innovative capabilities which are considered to be essential industry-level dynamic capabilities. The adaptive assumption considers the need for a firm to be able to swiftly organize its resources to address unprecedented environmental changes without distorting organizational performance level. The innovative capability addresses the need for the firm to be able to bring in new ideas that translate to new products and processes. The absorptive capability centres on the ability of the firm to identify, acquire and utilize external knowledge to its favour<sup>122</sup>.

Though researchers recognise that the dynamic capabilities of the firm could impact firm performance positively, there is a lack of strong empirical evidence in research literature to support this idea<sup>123</sup>. Critics of the DCT argue that the definition of the theory as proposed by the proponents is broad, thus giving room for different interpretations. It thereby gives further questioning as regards the make-up of the required ability and capabilities of the firms, where they come from and how they can be recognized. Another line of criticism also lies in the type of impact dynamic capabilities exert especially with respect to market advantage and performances of the firm<sup>124</sup>. Moreso, the theory has been also argued to have failed to incorporate dynamic capabilities into the internal processes within the firm<sup>125</sup>.

Despite these criticisms, there is a general belief amongst scholars that dynamic capabilities remain the key to competitive advantage particularly in changing environments<sup>126</sup>. Moreso, the DCT provides a theoretical explanation of the need for firms to continuously improve their firm-level capability such as marketing capability, ability to engage customers, and innovation capabilities that drives competitive advantage. Furthermore, the relevance of DCT

to this study stemmed from its relevance in explaining how a firm can cope with a dynamic environment and sustain superior performance.

This study is anchored on the Stakeholder theory and the Dynamic capability theory. This is because the stakeholder theory provides the base for treating the research problem from the angle of cooperate governance, while the dynamic capabilities theory gives strength to the adoption of firm-specific factors as a further treatment and provides support to the consideration of environmental dynamism as a moderating/mediating variable of this study. The resource-based view was considered inadequate given its static nature which gave a theoretical gap that was addressed by the dynamic capabilities theory by considering how firms could attain a sustainable competitive edge in the face of the turbulent nature of the macro environment within which the firm operates. Therefore, the stakeholder theory and the dynamic capability theory complement one another to provide the theoretical explanation for the aim of this study, which is to examine the effect of corporate governance and firm-specific factors on sustainability of fast moving consumer goods manufacturers in Lagos State, Nigeria.

### **2.3 Review of Empirical Studies**

This section centres on the position of previous studies carried out in other contexts, which relates to the objective of this study. The findings review is done to follow an objective-by-objective approach to the report findings.

#### **2.3.1 Corporate Governance and Sustainability**

Various dimensions of corporate governance and their interaction with sustainable development have been investigated in different parts of the world. In a systematic literature review carried out to investigate the integration of corporate governance with sustainability, the findings were that the interaction between corporate governance and sustainability is

interpreted differently in different jurisdictions. Notably, the study also established that leadership, vision, and mission are the most significant drivers of sustainability framework in corporate governance. Also, the sustainability framework provides diverse options that aid in improving organizational efficiency<sup>30</sup>.

For instance, in an attempt to investigate the transformation of firms as a determinant of corporate hospitality and how such interaction impacts Corporate Governance, a study conducted in Indonesia found that Corporate Governance alongside increased strategic leadership, corporate culture, business infrastructure, and corporate alignment through corporate hospitality ensures a greater level of Corporate Sustainability. The research employed a quantitative approach by collecting primary data used for analysis through questionnaires distributed to selected respondents. Data collected was analysed using inferential statistics through WarpPLS package computer program to test the proposed research hypothesis with Structural Equation Modelling<sup>127</sup>.

A similar finding was derived in another study conducted in the United Kingdom using a sample of 300 firms with data collected over the period 2005 - 2017. The study also employed structural equation models to provide both direct and indirect links between corporate governance and sustainability performance. The result of the study indicated that Corporate Governance exerts a positive effect on sustainability performance. In addition, the study found that CSR wholly provides a mediating effect between the interaction between corporate governance and sustainability performance in UK firms<sup>128</sup>.

In further support of the above findings, the result of an empirical review conducted based on the review of literature from America and Europe on the linkage between Corporate Governance and Sustainability, based on the Global Sustainability Index and sustainable

goals for United Nation's sustainability agenda 2030 found that corporate governance practices and process do aid the sustainable performance of entities<sup>56</sup>.

Furthermore, the result of another systematic literature review conducted to establish coherence between sustainability management and performance in Urban Corporate Economy also concluded that sound corporate governance promotes both sustainability and financial performance. To arrive at the research findings, the study reviewed 388 pieces of first-rate literature on sustainability management and performance in urban corporate economy by adopting Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) guidelines. Literature included in the review were those whose publications have been indexed in ProQuest, Scopus, and Web of Science DataBase and published between the periods 2019 and 2020. The Systematic Data Repository (SRDR) was employed to collect and analyse the data extracted from the reviewed literature<sup>129</sup>.

Also, in another attempt to investigate the effect of Environmental, Social, and Governance disclosure on corporate sustainability performance, a study was conducted on public companies in Asia. The Secondary data for the study was obtained from the Thoma Reuters database for the years 2005 to 2017. 20 countries out of the 48 Asian countries found on the database provided the sample of the study. After excluding those firms with missing data, 1,244 firms were finally used as the sample size. To establish the interaction between the variables of the study, descriptive statistics, correlation analysis, and panel regression analysis were employed. The study found that Environmental, Social, and Governance information disclosure to stakeholders are factors that contribute significantly to corporate sustainability performance<sup>130</sup>.

However, the result of a study conducted in Indonesia with a focus on the effect of good corporate governance on corporate sustainability performance shows that corporate

governance proxied by Board Education has a negative impact on both the economic and environmental dimension of sustainability, while no impact was found to be exerted on social sustainability performance. Notably, the size of the Board was found to exert a positive impact on economic sustainability, while exerting a negative impact on social sustainability with no impact detected on environmental sustainability performance. The study also investigated the impact of CEO's education on sustainability performance and concluded that this proxy much like the Board education exerts a negative impact on the economic dimension but has no impact on both the social and environmental dimensions. Finally, the study further found that the size of the management team, unlike the size of the Board exerts a negative impact on the economic and environmental dimension, with no effect on the social sustainability dimension. The study obtained its data from the financial statements, annual reports and sustainability reports of non-financial firms listed on the Indonesia Stock Exchange for the period 2013-2017. Data collected from 117 sampled firms were analysed with multiple regression analysis to test the proposed research hypothesis<sup>131</sup>.

The negative impact of Board size found by the above study was also collaborated by an earlier study conducted in Istanbul. The study attempted to investigate the effect of Corporate Governance on sustainability disclosure in Turkey by sampling firms listed on the Istanbul stock exchange. The study made use of the reports on the firm's sustainability in line with the Global Reporting Initiative (GRI). Using 68 fiscal year data of 17 firms with published sustainability reports during the periods 2013-2016, the study found that Board size, independent Board members' presence and committee in charge of corporate social responsibility negatively impacted the sustainability disclosure of companies. To address this finding, the study recommended the inclusion of community members with influence on the Board of organizations<sup>132</sup>.

Similarly, a study conducted in Nigeria which also collaborated with the above finding attempted to interrogate firm characteristics and sustainability of listed manufacturing firms in Nigeria. The study employed the ex-post facto research design with a sample size of 26 manufacturing firms listed on the Nigerian Stock Exchange as of December 2019. The sampled firms were purposefully selected, and the data were obtained from the company's annual reports, environmental reports, and corporate website and further analysed using static panel estimators based on pooled fixed and random effect estimators. The research found that corporate governance (proxied by Board size and Board independence) exerts a negative impact on the listed Manufacturing Companies in Nigeria. However, the study found a positive interaction between sustainability reporting and the growth of the firms; but found none between the size of the firms and sustainability reporting<sup>22</sup>.

Another study conducted in Malaysia to investigate the effect of corporate governance structure on sustainability reporting found that training attendance rate on sustainable development by Board of Directors as well as the number of directors with sustainability-related experience do have a significant impact on the quality of sustainability reporting. The study arrived at this conclusion following the multiple regression analysis of data collected from the annual reports of 126 companies for the years ended 2020 and 2014, which covered the period before the introduction of MCCG 2012 (year ended 2014) and after (year ended 2020)<sup>133</sup>.

To find out the effect of stakeholder engagement on corporate governance and business sustainability, research was conducted in the United States of America. The study sample comprises 278 United States Companies listed on the S & P 500 stock exchange. Data were collected for the period 2002 to 2017 and analysed using descriptive statistics and Pearson's Correlation. The study found that the functions and structure of the Board do have a positive impact on the social, environmental, and economic dimensions of sustainability<sup>134</sup>.

Again, in Indonesia, another research was conducted to determine the interaction between Corporate Governance and Sustainability. The study sought to review the concepts of the relationship between the two variables as observed in Indonesia by studying the mechanisms and guidelines for the implementation of good corporate governance through a review of related literature to explore some principles of corporate governance which included transparency and accountability, to ensure the sustainability of businesses in the country. The study found that while good corporate governance in Indonesia has experienced some improvement, there exists a matter of enforcement to ensure a positive impact<sup>135</sup>.

The mixed findings in research as regards the interaction between corporate governance and corporate sustainability was highlighted in a study conducted in France. The study laid emphasis on two elements of corporate governance structure vis, the Board of Directors, and Investor Relations Officers. Based on the provision of Article 225 of Grenelle II which requires firms with staff strength above 500 to include non-financial reports in their annual financials with effect from 2012, the study concentrated on the 120 most capitalized firms in France in the years 2013. The research found that Corporate Governance exerts an uncertain effect on corporate sustainability due to both internal, external, and intermediate forces. The summary of the findings relates that a higher number of inside directors (representing internal forces) positively impacts corporate sustainability, while a higher number of general expert directors and investor representatives (representing external forces) negatively impact corporate sustainability performance<sup>136</sup>.

Some studies have also been conducted in some other contexts on the interaction between CSR and corporate governance. This includes the study conducted to establish the effect of Corporate Governance practices on CSR reporting in Bangladesh. The study which was anchored on the legitimacy theory was carried out on a sample of 101 non-financial firms listed on the Dhaka Stock Exchange for the period 2006 to 2012. The total sampled firms

represented 35.94 percent of the total listed firms as well as 54.89 percent of total listed non-financial firms in the country as of 31 December 2012. The 7 years panel data used for the study were various reports on social and environmental reports which were used to construct a disclosure index. The regression coefficients of the relationship between the Corporate Governance practices index and CSR reporting index showed that Corporate Governance practices do not have an impact on CSR disclosure of the firms<sup>137</sup>.

The interaction between corporate governance and CSR practices however yielded a contrary result following a study carried out in New Zealand to investigate the interaction between corporate governance and corporate social responsibility. The study result shows that a comprehensive corporate governance framework would give positive support to more sustainable CSR practices<sup>138</sup>.

From the angle of compliance and reporting, a study was also carried out in Malaysia to establish the influence of Corporate Governance on Corporate Social Responsibility disclosure from the lens of accountability. The study drew its data from the annual report of 100 public listed companies in Malaysia for the 2 years period 2015 to 2016 which were analysed using content analysis methodology. The study found that Accountability related Corporate Social Responsibility Disclosure among Malaysian companies is low. The study also provides evidence that only Board Size has a significant relationship with accountability related Corporate Social Responsibility Disclosure<sup>139</sup>.

Few studies have also been conducted on Corporate Governance and Environmental Sustainability mostly in the China context. Environmental performance is a product of interconnected initiatives of diverse stakeholders which spin innovations from firms to be environmentally responsible. In this regard, research carried out in China confirmed that while institutional development guides corporate governance initiatives, corporate

governance initiatives exert a moderating impact on the interaction between environmental initiatives and innovative performance. To arrive at this conclusion, the study sampled 433 firms listed on the Shanghai and Shenzhen stock exchanges in China for the period 2007 to 2017. The empirical results were analysed using hierarchical regression analysis<sup>140</sup>.

A dynamic model analysis of Chinese firms was also carried out to establish the interaction between Board composition, Social and Environmental performance. 4,132 non-financial firms listed on the Shanghai and Shenzhen stock exchange were sampled. Data collected for the study was obtained from the China Stock Market & Accounting Research (CSMAR) for the periods 2010 to 2019 and analysed using a dynamic model of the SysGMM regression Model. The study found that Board Size, Independence, and Gender Diversity in Board and CEO duality contribute positively to the environmental performance of Chinese firms for the 10 years period investigated<sup>141</sup>.

Much like the above finding, another study conducted in China to explore the impact of governance structure on the environmental performance of high polluting Chinese firms also found a positive association between Board size, Governing Board Meetings, and Chinese firms' environmental performance<sup>142</sup>.

Still, On the interaction between corporate governance and the environmental dimension of sustainability, another study was conducted to investigate the impact of shareholder governance on environmental sustainability by moderating the impact of some cultural factors. The study collected data on the sustainable development of 140 countries and analysed 21 sustainability indicators. The result of the analysis shows that shareholder governance has a positive impact on environmental sustainability, in addition, the finding of the study shows that gender equality is a significant cultural factor to be considered when it comes to corporate governance and environmental sustainability<sup>143</sup>.

Some levels of studies have also been conducted concerning the interaction between Corporate Governance and the Economic dimension of Sustainability. Among relevant empirical on this interaction is the study conducted in the United States of America (USA) to substantiate the moderating effect of corporate governance on the relationship between corporate sustainability performance and corporate financial performance. The panel data used for the study was generated from a sample of 456 top largest United States public companies covering 5 years from 2007 to 2011 and analysed using multiple regression analysis. The study found that corporate sustainability and financial performance could be aided by a sound corporate governance system. Furthermore, the study established that the impact of corporate social performance on corporate financial performance is greater when mediated by well-established corporate governance<sup>144</sup>.

Similarly, the result of a systematic literature review conducted to investigate the interaction between sustainability management and performance in the urban corporate economy also shows that strong corporate governance aid in attaining financial performance and sustainable development. The study further established that sustainability is an important factor in the manufacturing sector to enhance the process of production, while strategy also plays a significant role in the sustainable development of firms<sup>129</sup>.

Another study was also conducted to research the impact of corporate Boards on Corporate Social Performance and Financial Performance in Pakistan. Specifically, the study sought to look into how Women Directors, Independent Directors, Board Size, and Sustainability Committee impact firm financial performance with corporate sustainability practices and as a mediator. A sample of 255 listed non-financial companies in Pakistan was used for the research, data secondary collected covered the period of 2012 to 2016 which were analysed using Ordinary Least Square, with Panel Corrected Standard Errors. The research findings show that Independent Directors and Large Board Sizes significantly positively impact

Corporate Social Performance; though this impact was seen to decline slightly when it exceeds a certain limit in relation to Corporate Social Performance and Financial Performance. Also, the findings indicated a positive association between Corporate Social Performance and Firm Financial Performance, while Corporate Social Performance was found to exert a positive mediating effect between Independent Directors of the Board and Board Size<sup>145</sup>.

Of contextual relevance is a study conducted in the Nigerian context to investigate the interaction between environmental responsibility and firm financial performance with a focus on international oil companies operating in the Niger Delta. The study sampled 12 international oil firms and obtained the secondary data used for the study from the audited financial reports of the selected companies and the Federal Ministry of Environment for the period 2009 to 2018. The collected data were analysed employing descriptive statistics, correlation analysis, and panel causality test with fixed effect selected as the appropriate strategy after using Hausman test. The research concluded that when environmental responsibility interacts with corporate governance, the impact is found to have a significant positive relationship with firms' financial performance<sup>146</sup>.

Furthermore, earlier research conducted in Nigeria with focus on sustainability initiatives, corporate governance and performance of medium-sized firms in Nigeria also found that; corporate governance exerts a positive impact on both financial and non-financial performance, as well as sustainability initiatives of the sampled firms. The study also found that sustainability initiative exerts a mixed impact on firm performance – the impact on non-financial performance was found to be significantly positive, while the impact on financial performance was found to be insignificantly negative. Finally, the research found that sustainability initiative fully mediates the interaction between corporate governance and non-financial performance but does not mediate corporate governance and financial performance.

The primary data used for the research was collected through convenient sampling using a structured questionnaire distributed to the sampled 300 firms. The research hypothesis was tested using a covariance-based structural equation<sup>147</sup>.

On the interaction between Accountability and Sustainability, a theoretical and conceptual study was conducted to investigate the impact of accountability on accounting development as the essence of sustainability accounting. The study relied on theoretical and methodological triangulation using inductive reasoning as well as descriptive and comparative analysis. The study carried out a bibliometric analysis of literature collected from the web of science database through which the trend in the research subject was established for the periods 1945 to 2018 by various scholars around the globe, a total of 939 publication was analysed. The study found that accounting system could aid in corporate responsibility performance particularly in managerial control, reporting, social performance as well as environmental audit. The study also found that sustainability accounting is still in the development stage, thus it lacks consistent rules and principles that could offer a systematic guide to aid firm sustainability efforts<sup>148</sup>.

In another attempt to investigate the effect of sustainability disclosure on firm financial performance, a study was conducted in Indonesia on the impact of disclosure practices with respect to the three dimensions of sustainability on the financial performance of selected firms (given that reporting indicates a firm's internal and external accountability). The study was focused on the 40 firms that have consistently been adjudged the most sustainable companies in Indonesia for the period 2016 - 2017. The study measured sustainability by the Global Reporting Initiative (GRI) provision, while economic performance was measured by the return on assets of the sampled firms. Data collected were analysed using Multiple Regression analysis. Among other findings, the study concluded that the disclosure of the economic dimension in sustainability reporting influences the financial performance of the

firms, though the environmental and social dimensions were found by the study to have no effect<sup>149</sup>.

A further investigation was conducted in Indonesia to evaluate the impact of sustainable reporting disclosure on how firms perform. The study sample was 40 companies listed on the Indonesia Stock Exchange that regularly make the Indonesia Sustainability Reporting award nomination within the period 2016 - 2017. The study measured sustainability reporting by the Global Reporting Initiative (GRI), continuous reporting guideline – G4 with 91 indicators, and financial performance with Return on Assets (ROA). Multiple linear regression was employed to analyse the collected data. The study found that reporting on the economic dimension has an impact on the financial performance of the companies while reporting on the environmental and social performance was seen to have no impact. The study however concludes that sustainability reporting in the short-term has no impact on financial performance<sup>149</sup>.

Also, to fill the gap noticed in previous research, a study was conducted to investigate those factors associated with the adoption of sustainability assurance. The research population was made up of those companies listed on the sustainability database, attention was given to large companies that produced GRI-based reports in the year 2017. The sample size constituted 196 companies selected across 41 countries. The secondary data obtained were analysed using the linear regression model. The study found that firms are more likely to show good performance in sustainability assurance when they operate in countries where investor protection is weak, significant rule of law, accountability, and greater voice<sup>150</sup>.

The interaction between accountability and social sustainability has also attracted minimal attention. Relevant studies in this regard include that conducted in Iran to provide a model that could be adopted for sustainable development strategies based on CSR and Green

management by executive bodies. The study adopted developmental-applied research with a comparative inductive logic for data collection and description. The primary data used by the research to arrive at the research findings were obtained through answers to questionnaires distributed to two (2) groups of experts in the relevant field constituting 32 managers/deputies, and 360 others to enable the establishment of developmental-applied research with a comparative inductive logic to be established from the two (2) groups of responses gathered. Furthermore, confirmatory factor analysis was used to analyse the collected data, while SPSS and AMOS were both employed to model the research structural equation. Also, a reliability test of the research was carried out via a survey filled by university professors and Cronbach's alpha coefficient. The research established that Corporate Social Responsibility has a positive and significant link with green management and accountability<sup>151</sup>.

Also, another study was conducted to establish the nature of CSR to address the matter of inconsistent CSR laws globally. The study establishes boundaries for what CSR means and opines that CSR is made up of business, impact dimensions, as well as legal requirements. In conclusion to its findings, the study established that CSR is an obligatory action that is also associated with firm accountability<sup>152</sup>.

On accountability and environmental sustainability, a study conducted in Sri Lanka to investigate the impact of accountability mechanisms on public sector environmental sustainability performance found that, despite the sustainability guideline observed in the country, environmental degradation continues to be a huge challenge in the country<sup>153</sup>.

Another study carried out in Indonesia under a similar scope however shows a more positive result. The study attempted to investigate the impact of budget for environmental development, accountability mechanisms of government, and renewable energy consumption on environmentally sustainable development in Indonesia. Through secondary data collected

from the World Bank as well as the Ministry of Finance in Indonesia for the periods 1985 to 2017 which were analysed using the Autoregressive Distribution Lag (ARDL) approach, the study found a positive connection between the budget approved for the development of the Indonesian environment, accountability mechanisms of the government, renewable energy consumption and environmental development in the country<sup>154</sup>.

From the corporate angle, research was conducted to study how accountability impacts the development of accounting as the essence of sustainability accounting. The theoretical and conceptual-based research was carried out using theoretical and methodological triangulation via inductive and deductive reasoning, descriptive analysis, and comparative analysis. The research process was further validated using bibliometric analysis based on data collected from the web of science database (covering the period 1945-2018) from 690 publications made on accounting and accountability by various authors around the globe as well as 249 publications following similar scope on sustainability accounting. Analysis of the first group of data enabled the research to obtain the trend on the research topic which covers accountability and accounting studies; the second group gave an indication of the current and future growth of sustainability accounting. The research concluded that accounting system tends to aid corporate responsibility in areas such as reporting, management controls, as well as environmental and social audits. The paper, however, points out that sustainability accounting is still at the infant stage and will require in-depth normative and positive research; It further highlights the need to establish uniform rules and principles to guide sustainability reporting in firms<sup>148</sup>.

The view of stakeholders as regards the role of leadership for better environmental performance has also attracted the attention of scholars in Saudi Arabia. In research geared towards establishing the role of Independent Directors in ascertaining if corporate environmental sustainability practices influence firm value; It was established that

Stakeholders in Saudi Arabia view leadership accountability to include leadership responsibility for better environmental performance. The study sample includes firms on the Tadawul All Share Index (TASI) (Saudi Stock Exchange) over the period 2015-2019. The study data included the sample firm's financial data as well as disclosures made by the firms on environmental sustainability<sup>155</sup>.

Some scholarly attention has also been given to the interface between accountability and economic sustainability. Of some relevance is the study conducted to investigate the impact of a set of economic and financial variables related to the disclosure of profitability and company market value of European listed companies in the agri-food sector. The study adopted the use of scores developed by Bloomberg as a proxy for measuring environmental, social, and governance disclosure. The research employed secondary data with panel data covering the period 2010 – 2018 which was analysed using multivariate regressions. The study suggested that greater transparency and accountability help improve business profitability<sup>156</sup>.

Similarly, the result of another study conducted in Saudi Arabia to establish the role of Independent Directors in determining the impact of environmental sustainability on Firm value found that accountability (transparency) in environmental information can increase financial performance. The study data were obtained from records of sampled firms listed on the Saudi Stock Exchange for the period 2015 to 2019 (both financial data and disclosures on environmental sustainability). The data collected were analysed using Pearson's correlation coefficient and regression analysis<sup>155</sup>.

The above result collaborates the findings of a much earlier study conducted in India. The study was carried out to evaluate the impact of sustainability reporting on the financial performance of 103 selected firms listed on the National Stock Exchange of India by

collecting data for the periods 2009 to 2015. The collected data were analysed using multiple regression analysis. The research concluded that sustainability reporting by the investigated firms does have a positive impact on the firm's profitability "to some extent"<sup>157</sup>.

Also, in Indonesia, an earlier study to investigate the effect of sustainability disclosure on firm financial performance found that the disclosure of the economic dimension in sustainability reporting influences the financial performance of firms, in addition to this finding, the study also established that the environmental and social dimensions disclosure do not have any effect on financial performance. Notably, this study was focused on the forty (40) firms that have consistently been adjudged the most sustainable companies in Indonesia through the period 2016 to 2017. The study measured sustainability by the Global Reporting Initiative (GRI) provision, while economic performance was measured by the return on assets of the sampled firms. Data collected were analysed using Multiple Regression analysis<sup>149</sup>.

The impact of Leadership on Sustainability has also been studied in a few contexts. These include the study conducted on the performance of Norwegian Companies as influenced by leaders' motivation, intellectual leadership, and sustainability strategy. The study adopted the quantitative research approach, first questionnaires were distributed to 2466 sampled manufacturing companies through online questionnaires (relating to their sustainability strategies and leadership). 352 questionnaires were fully completed and returned making a response rate of 14.3%. secondly, the company's financial data were also collected from the business information service - Proff Forvalt (forvalt.no), which holds reliable financial accounts of all firms in the population. The sample predominantly consists of SMEs, with an average of 80 employees and an annual turnover of approximately 33 million euros. Over 90 percent of the response received were completed by the top-level management. The study found that leaders who are motivated personally on sustainability have a better tendency to

lead firms with sustainability strategies. The study also found a positive relationship between the adoption of sustainability strategies and firm performance<sup>158</sup>.

In another research was carried out in Malaysia to investigate the impact of leadership and management on sustainability performance, using green and lean practices as well as guanxi as dual mediators. Questionnaires were sent to 750 employees (executive, top, and middle-level management) of the sampled manufacturing firms registered on the Suruhanjaya Syarikat Malaysia directory located at Klang Valley. 160 questionnaires were completed and returned. The data obtained were analysed using partial least squares-structural modelling (PLS-SEM). The study found that leadership exerts a positive influence on green and lean practices, while green and lean practices were found to influence sustainability performance positively. Also, leadership and management were found to positively influence guanxi (a system of social network and influential relationships which facilitates business and other dealings). However, leadership and management, and guanxi were found not to exert a significant direct influence on sustainability performance<sup>159</sup>.

In collaboration with the above finding, to investigate the moderating role of the impact of authoritative and laissez-faire leadership on thriving at work, a study was conducted in Pakistan. The study obtained its data from the head offices of major schools situated in Lahore and Islamabad by distributing 400 questionnaires out of which 312 were retrieved. The regression analysis was used to ascertain the direct relationship among the study variables. The study found that the style of leadership and consciousness does have an impact on thriving at work, therefore impacting the growth and sustainability of the organization.<sup>160</sup>

Similarly, a study conducted in India found that type or conceptualization of leadership could affect firm performance differently. The study reveals that transformational leadership has more influence on firm productivity than transactional leadership. While transactional

leadership was seen to correlate positively with performances that are focused on business creation and improvement of business sustainability and productivity<sup>161</sup>. In line with this finding, the result of an investigation conducted in Thailand to study the influence of transformational leadership on corporate sustainability capabilities and sustainable supply chain management also found that transformational leadership has a positive impact on developing organizational sustainability capabilities. The study sampled a total of 653 managers of Thai SMEs and obtained the research data via the use of questionnaires, the primary data obtained were analysed using partial least square structural equation modelling to assess the causal relationship among the constructs<sup>162</sup>.

Likewise, another research conducted in Indonesia to examine the mediating role of knowledge management on the sustainability performance of organizations also concluded that transformational leadership exerts a positive impact on performance sustainability<sup>163</sup>. Again, the result of a study conducted in a manufacturing firm in Indonesia to test the mediating role of psychological empowerment on the link between transformational leadership and organizational sustainability found that transformational leadership had a direct effect on organizational sustainability. The study also revealed that psychological empowerment exerted a partial mediative impact on the relationship between transformational leadership and organizational sustainability<sup>164</sup>.

The impact of the seven strategies designed to facilitate long-term leadership viz embracing organizational diversity, encouraging positive change, displaying emotional intelligence, possessing a long-term orientation, casting a strategic vision, developing a strong corporate culture, and emphasizing ethical decision making on firm sustainability had also attracted scholarly attention in the United States of America (USA). The hybrid literature review and case study examined previous studies on long-term organizational effectiveness as well as contemporary leadership and found that the long-term sustainability of a firm determines the

effectiveness of leadership; such that the achieved success of an “indelible” leader endures even after the exit of the leader<sup>165</sup>.

The interaction between agile leadership and sustainability likewise has little or no relevant empirical study. Among literature of partial relevance is the study conducted to investigate the role of agile women leadership in achieving team management with interpersonal skills as a mediator. The quantitative study collected the primary data used for the research from 269 employees of the business enterprise sector from Poland (128 employees) and Turkey (141 employees) using convenience sampling technique. The sampled companies were companies whose leaders/managers were females within the 6-month period from January to July 2021. The Partial Least Squares Structural Equation Modelling (PLS-SEM) was used to evaluate the research hypothesis. The study found that interpersonal skills play a fully mediating role in the interaction between agile women leadership and team management to shape team effectiveness<sup>166</sup>.

The dynamic capabilities of SMEs as a result of the interaction between the readiness of a firm to change and the agility of its leadership was also looked into in Indonesia. Structured questionnaires were used to collect the primary data used for the study by adopting both random and purposive sampling techniques. The sampled firms were SMEs with a staff strength of 10 and above. Data were obtained from a total of 250 SMEs and analysed using structured equation model. The study found that the dynamic capability of SMEs can be improved by agile leadership and readiness to change<sup>50</sup>.

In another research conducted to investigate the impact of agile project management on the three pillars of sustainability by developing a network diagram that reproduces the link between existing literature, it was revealed that agile project management favourably impacts the three dimensions of sustainability viz social, economic, and environment<sup>167</sup>. Moreso, agile

leadership and work environment have been found to exert a significant positive influence on millennial employee performance. This follows the result of a study conducted in Indonesia to investigate the effect of agile leadership and work environment on employee performance in a Volatile, Uncertain, Complex, and Ambiguous (VUCA) world. The primary data used for the study was obtained from 60 employees from Jabodetabek and analysed using the partial least square method<sup>168</sup>.

With regards to the influence of stakeholder management on sustainability, a single case study was conducted on “Eni” Company (the sixth-largest integrated energy company in the world) to gain a deeper understanding of the impact of stakeholder engagement on sustainability culture. The company conducts its operations in 41 countries including the United States of America, the United Kingdom, Italy, Egypt, and Nigeria. The study employed analytical generalization with a focus on the sustainable reports and other relevant information of the company for the period 2015 - 2019 including the interviews of selected employees. The final analysis of the study revealed that the engagement of stakeholders can contribute to the transformation of corporate culture to achieve the three dimensions of sustainability<sup>169</sup>.

Bearing a similar result is another study carried out in Canada to investigate the contribution of awareness, external pressures, and stakeholder consultation to the implementation of sustainability management tools. The study found that stakeholder consultation plays a significant role in the implementation of sustainable management tools in firms. To arrive at the findings, the study sampled 1,697 firms that were randomly selected using the stratified method. 60.4% response rate was achieved by the study, while data collected was analysed using the Mplus structural equation model to simultaneously test the relationship between the variables<sup>170</sup>.

The normative and instrumental stakeholder approaches have also been employed to investigate the impact of motivation on sustainability reporting in the Indo-Pacific region. The research employed the survey method to collect the study data from five countries in the region (Indonesia, Bangladesh, The Philippines, Vietnam, and Sri Lanka). The research focused on the 223 companies that reported on their social and environmental performance out of a total of 496 companies in the region. The response rate to the distributed questionnaires was 79% (176 companies). The thematic analysis was used to analyse the collected data. Among other findings, the study concluded that for large firms with more oversea presence, reporting on corporate sustainability is more influenced by normative and regulatory pressure than economic benefit<sup>171</sup>.

Moreso, few studies have been conducted on the interaction between stakeholder management and the individual dimension of sustainability. With respect to the environmental dimension, an investigation has been carried out in Pakistan to study the impact of environmental collaboration among supply chain stakeholders on firm sustainability. The study collected data from 126 green supply chain professionals at various manufacturing firms operating in Pakistan through survey questionnaires. The structural equation was employed to analyse the data collected. The research found that institution pressure and customer monitoring have a significant positive impact on the adoption of green supply chain management<sup>172</sup>.

Also on the economic dimension, the result of the research conducted on food, beverages, household, and personal products industries in Europe to find out if stakeholder orientation and environmental proactivity have an impact on firm profitability found a negative link between stakeholder orientation and profitability in companies with higher stakeholder orientation<sup>173</sup>. This finding disagrees with the result of another study conducted to find out if stakeholder management plays a significant role in corporate governance pillars and business

sustainability which found that a low stakeholder engagement adversely affects the bottom-line performance of firms<sup>134</sup>.

Notably, the result of an earlier quantitative study conducted on the Norwegian mineral industry to link stakeholder engagement to profitability through sustainability orientation established that, financial benefits as far as stakeholder engagement is concerned only begin to emerge when the knowledge gathered on external stakeholders is used to produce innovative outputs<sup>174</sup>.

### **2.3.2 Firm-Specific Factors and Sustainability**

Few studies were as well found with relevance to the above theme. One of such study attempted to investigate the influence of corporate governance on corporate sustainability by sampling 99 non-financial firms in the Iberian Peninsula (i.e., 32 firms listed on the Euronext Lisbon and 67 firms listed on the Madrid stock exchange made up the sampled firms). Data were collected on the environmental, social, and economic performance of the firms for the period 2013 – 2017 (these periods mark the period both countries emerged out of the global economic crises). The collected data were analysed using the Generalised Method of Moments Estimation. The study found that Public Debt, Board Size, and Audit Committee determine the Economic Dimension of Sustainability. The environmental dimension on the other hand was found to be influenced by only the Board size, CSR committee, and Audit committee presence. While the Social dimension was found to be impacted by both Board size and audit committee, and the control variable – Capital structure (indicating sources of finance) employed by the firm<sup>175</sup>.

In a different context, another study was conducted in Nigeria to investigate the controlling effect of company size and age of selected listed companies on the interaction between corporate governance and sustainability reporting. The study adopted the ex-post facto

research design and sampled 42 listed companies out of a total population of 169 companies listed on the Nigeria Stock Exchange as of December 31, 2019. Data extracted from the listed companies annual accounts cover a period of 10 years from 2010 to 2019. The collected data were analysed using descriptive and multiple regression analysis. The study result shows that firm size, and age has control over how corporate governance impact sustainability reporting in Nigeria. The study also found that board size, board independence, female director, board ownership, firm size, and company age have a significant relationship with sustainability reporting in Nigeria. CEO of companies serving as chairman of the board of directors (CEO duality) was however discovered to have no significant influence over sustainability reporting<sup>176</sup>.

Some studies have also been conducted on the interaction between the selected individual proxies of firm-specific factors and individual dimensions of sustainable development. In this regard, the effect of firm size on the social dimension of sustainability has been studied. For instance, in an effort to gather empirical evidence on the impact of profitability, firm size, and foreign ownership on CSR disclosure, a study conducted in Indonesia by analysing data obtained from a sample of 84 Indonesian firms (2016-2018) using Regression and Classic assumption Test found that firm size, as well as profitability, have a significant effect on CSR disclosure<sup>177</sup>. Again, on CSR reporting and in support of this finding, research conducted in Kazakhstan on the determinants of Global Reporting Initiative (GRI) based sustainability reporting with a focus on the emerging economy found that; firm size impacts the extant nature as well as the quality of sustainability reporting of Kazakhstani firms. The study obtained its data from sampled listed firms in the Kazakhstani Stock exchange for the period 2013-2015 by measuring and analysing their three sustainability dimensions as suggested in the GRI guidelines<sup>178</sup>.

Offering further support to the above findings is the result of another investigation conducted in Indonesia to study how firm size, leverage, and liquidity influences sustainability reporting using profitability as moderating variable. The study found that bigger size firms perform better in sustainability disclosures. The study sampled 56 firms (using purposive sampling) listed on the Indonesian Sri-Kehati Index for the period 2016-2019, the moderated regression analysis was employed in analysing the collected data<sup>179</sup>.

However, the result of another investigation carried out in a similar context to establish the effect of firm size, leverage, firm age, media visibility, and profitability on sustainable report disclosure disagree with the above findings. The study population was LQ 45 listed Indonesian companies out of which a sample of 18 firms (Those that issued annual sustainability reports) was purposively selected. The secondary data used for the study were obtained from the annual reports of the selected firms and analysed using multiple linear regression. The study established that Firm size exerted no significant impact on the sustainability reports of the sampled firms<sup>180</sup>.

The result of the finding of a study conducted to investigate the interaction between firm characteristics and sustainability reporting of listed manufacturing companies in Nigeria collaborate with the above finding. The study adopted the ex-post facto research design and extracted the research data from the annual reports and accounts of 26 sampled firms (i.e., firms whose reports contained the required data to analyse the interaction between the study variables) to represent the population of listed manufacturing firms on the Nigeria Stock Exchange. The collected data were analysed using the static panel estimators based on pooled, fixed, and random effect estimators. The result of the analysis showed that there was no statistical association between firm size and sustainability reporting<sup>22</sup>.

The above finding however contradicts the finding of another contextual study conducted in Nigeria which investigated the moderating effect of environmental agencies on firm sustainability reporting in Nigeria. The study focused on the population of all the 218 firms (consisting of 13 industrial sectors) listed on the Nigeria Stock Exchange as of December 2018. The stratified sampling technique was used to group the total population based on their respective sector to arrive at 13 strata. Samples were selected at random from each stratum to give a total of 141 sample size which marks 64.68% of the total population. Both primary and secondary data were obtained from the sampled firms. Data collected were analysed using regression analysis to derive the relationship between sustainability disclosure and the firms' attributes and the significance of such relationship. The study found that an increase in firm size (or the market-to-book value ratio) resulted in a decrease in sustainability reporting and *vies versa*<sup>181</sup>.

Away from reporting to performance, a study conducted in Indonesia to research the effect of Firm size, Board gender diversity, and Industry type on CSR using data for the period 2017-2018 obtained from listed Indonesian firms found that firm size does not have a significant impact on CSR performance<sup>182</sup>. Unlike this study, the findings of another research conducted in Indonesia to find empirical evidence of the impact of firm size, leverage, growth, and liquidity on firm performance established that firm size exerts a significant and positive influence on firm performance. This result was arrived at through an analysis of the secondary data collected on 44 sampled listed Indonesian manufacturing firms for the period 2017-2019 using EViews 11<sup>183</sup>.

Likewise, the result of another study conducted in Nigeria to investigate the interaction between firm-specific factors and sustainability of listed consumer goods manufacturing firms in Nigeria found that firm size exerts a positive and significant effect on CSR performance. The study employed the *ex-post facto* research design and used data obtained

from 60% of listed CGMCs listed on the Nigeria Stock exchange as of March 2021. Collected data for the study were analysed using the fixed and random effect model, the Hausman test was used to guide the choice of the best model<sup>184</sup>.

As regards firm Size and the environmental dimension of sustainability, the role played by independent directors in ascertaining the impact of environmental sustainability practices on firm values was researched in Saudi Arabia. The study focused on listed firms on the TASI index over the period 2015 to 2019 to gather the two categories of data (i.e., financial data and disclosure on environmental sustainability disclosures) used for the research. Pearson's correlation coefficients and regression analysis were used to Analyse the data collected. The study found a strong positive correlation between environmental performance and firm size which indicates that large companies are inclined to engage in good environmental practices<sup>155</sup>.

This result corroborated the findings of another study conducted to establish the impact of firm characteristics on environmental sustainability. The study reviewed related research conducted in the last 25 years (1996-2020) to develop a comprehensive understanding of organizational characteristics and their implication on environmental sustainability by analysing the content of 68 relevant articles conducted in 25 countries across America, Europe, Asia, and Africa. The study concluded that larger firms perform better in environmental practices than small firms<sup>185</sup>.

Giving a similar result is the finding of another attempt made in Indonesia to examine the impact of environmental performance, firm size, and profitability on environmental disclosure. The study was conducted on mining companies listed on the Indonesia Stock Exchange for the period 2012-2015. Both primary and secondary data were employed for the explanatory study using a quantitative approach. The sample consist of 13 companies with 52

respondents out of which 48 were finally selected using the purposive sampling technique. Data collected were analysed using the classical assumption test and multiple regression analysis. The study found that firm size and environmental performance have a positive effect on environmental disclosure while profitability does not affect environmental disclosure practices<sup>186</sup>.

Also, in an attempt to investigate the interaction between managerial ownership, firm size, financial performance, and corporate environmental disclosure in Indonesia, a study found that managerial ownership and firm size (measured by total assets) exert a positive impact on corporate environmental disclosure. However, financial performance (measured by Return on Assets) was found to exert a negative impact on corporate environmental disclosure. To arrive at this conclusion, the study sampled 41 listed companies in Indonesia and collected data for the periods 2011-2013 to obtain a total of 123 observations which were analysed using regression analysis<sup>187</sup>. This result also collaborates with the result of another research conducted in Indonesia to examine the effect of environmental performance, independent board of commissioners, and firm size on environmental disclosure which showed among other findings that firm size exerts a positive effect on environmental disclosure<sup>188</sup>.

To highlight the impact of boundary conditions in the interaction between firm size and environmental performance, a study was conducted in Belgium. 4,901 Flemish firms (both private and listed) were sampled (stratified by sector and size) with respect to environmental innovation developed by the firms between the period 2006-2008 which was obtained from the record of the European Union Community Innovation Survey, with additional primary data collected for the study using questionnaires. 2,202 firms responded to the questionnaires marking a 45% response rate. The survey data was then merged with the financial information of the firms to obtain a final 1,761 sample size which was finally used for the study after grouping into large and small firms. The result of the regression analysis

employed to analyse the final data shows that the larger firms benefit from environmental performance when driven by regulation or industry code of conduct, while environmental performance relates positively with the smaller firms when it is performed as a result of demand from customers<sup>189</sup>.

Also, the predicative effect of firm size on the economic dimension of sustainability has been given some attention. In a study conducted in Europe to investigate the influence of direct environmental, social, and governance reporting with a focus on European listed companies in the agricultural food sector, it was established that larger firms generate lower profitability (Return on Assets)<sup>156</sup>. To further substantiate the impact of Firm size on the economic sustainability of firms, another attempt was made in Sri Lanka to investigate the impact of sustainability reporting on firms' financial performance. 102 companies out of the 138 listed companies formed the sample of the study. The study used the secondary data collected from the annual reports of the sampled companies which were analysed using descriptive analysis, correlation test, and regression analysis. The result of the analysis showed that when treated jointly, disclosure of the three dimensions of sustainability impacts the performance of firms when measured by Return on Assets, but does not have any impact when measured in terms of Return on Equity. However, when the disclosure of the individual dimensions of sustainability are treated separately, the study found no impact on performance with respect to both Return on Assets and Return on Equity. Finally, the research showed that, when the age of the company and size are treated as control variables with sustainability reporting, there is an observed impact on the performance of the firms<sup>190</sup>.

More specifically, the findings of another research conducted in France to analyse the factors impacting profitability and growth of France-listed firms concluded that firm size plays a significant part in the financial performance, growth, and dynamism of a firm<sup>191</sup>. This collaborates with the findings of another study in Indonesia conducted to examine the impact

of environmental performance, independent board, and firm size on the financial performance of non-financial firms listed on the Indonesia Stock Exchange. The multiple regression analysis of the data obtained from the 117 samples collected from the annual report of the firms over the period 2017 to 2019 shows that firm size (as well as environmental performance) exerts a positive impact on financial performance<sup>188</sup>.

The above result however contradicts the result of the findings arrived at in another study conducted in Indonesia to analyse the impact of intellectual capital, sustainability report disclosure, and firm size on the financial performance of non-financial companies listed on the Indonesia Stock Exchange. Data obtained for the study covered the period 2017 to 2020, the purposive sampling method was used to collect 66 responses from 18 companies, the collected data were analysed using linear regression. Among other findings, the study found that firm size has no significant effect on financial performance<sup>192</sup>.

A study was also conducted in Nigeria to investigate the influence of firm-specific factors on the sustainability of consumer goods manufacturing firms in Nigeria. The study adopted the ex-post facto research design and sampled 20 consumer goods manufacturing companies listed on the Nigeria Stock Exchange as of March 2021. The panel data collected covered 10 years from 2010 to 2019. Out of the 20 sampled firms 12 were found to have the required data for the research present in the annual financials. The fixed and random effect model was used to analyse the data collected. The study found in part that firm size (as well as operational efficiency) of the investigated firms has a significant negative impact on the economic dimension of sustainability (profitability)<sup>184</sup>.

In contrast to the above findings, the result of another study conducted in Nigeria to investigate the influence of environmental responsibility on firm financial performance with a focus on international oil companies in the Niger Delta found that growth opportunity and

firm size are significantly positively related to firms' financial performance. The study sampled 12 international oil firms and obtained data used for the study from the audited annual financials of the firms and from the Federal Ministry of environmental for the periods 2009 to 2018. The data obtained were analysed using descriptive statistics, correlation analysis, panel causality test, the fixed effect was selected as the required strategy using the Hausman test<sup>146</sup>.

Again, not much investigation has been conducted on the interaction between operational efficiency and the economic dimension of sustainability. Relevant among the few studies conducted in the Nigerian context is the study carried out to investigate the impact of operational efficiency and financial sustainability of listed manufacturing companies in Nigeria. The study analysed relevant data of manufacturing companies for the period 2009 – 2016. The data collected were analysed using the least square method. The study concluded that not all efficiency ratios are rewarded with profit. Also, the study found that while an increase in inventory turnover and increase in assets was observed to be significant determinants of financial sustainability, employee growth rate and account receivable turnover were seen not to improve financial performance and sustainability<sup>193</sup>. Another study in a similar context was conducted on some specific firm factors to investigate the interaction of those factors with the sustainability of listed Consumer Goods Manufacturing Companies (CGMCs) in Nigeria. The ex-post facto research sampled 12 companies out of the total of 20 consumer goods manufacturing companies listed on the Nigerian Stock Exchange as of March 2021. Research data were obtained from the financial reports of the sampled companies for the period 2010 - 2019. The result of the fixed and random effect model used in analysing the data as selected by the Hausman test indicated that operational efficiency (operating expense/sales) exert a significant negative impact on the economic sustainability and no impact on the social performance of the listed CGMCs<sup>184</sup>.

### **2.3.3 Environmental Dynamism, Corporate Governance, Firm-Specific Factors, and Sustainability**

An investigation was carried out in China to establish the relationship between Chief Executive Officers empowering leadership and corporate entrepreneurship, the study also extends its tentacles to cover the mediating role of information elaboration in top management teams as well as the moderating role of environmental dynamism. Data for the investigation was collected through randomly distributed questionnaires to 97 organizations including 52 manufacturing firms. 422 questionnaires in total were retrieved and analysed using descriptive statistics and correlation analysis to understand the interrelation among the study variables. The study found that environmental dynamism positively moderates the relationship between empowering leadership and information collaboration. However, it was found to negatively moderate the relationship between information collaboration and corporate entrepreneurship<sup>194</sup>.

The impact of environmental dynamism on performance was also interrogated in research conducted in Indonesia. The study purposively sampled manufacturing companies listed on the Indonesia Stock Exchange between the periods 2017 to 2018 and analysed data collected using multiple regression analysis. The study found that technological environmental factors are essential for optimal firm performance<sup>195</sup>.

A related study was also carried out in India to investigate the mediating role of organizational and technological factors on environmental dynamism, industry 4.0, and performance. Data for the research was obtained from various companies with 116 completed responses out of 310 distributed questionnaires. The collected data were analysed using the partial least square. The result of the analysis shows that environmental dynamism has a positive impact on industry 4.0 to improve performance, the study also found that

technological factors, as well as organizational factors, have a mediating effect on the interaction between environmental dynamism and industry 4.0<sup>84</sup>.

Also, in an attempt to propose a model for firm performance and sustainability with a focus on integrated management system implementation in SMEs, a study was conducted to relate the influence of management systems on SMEs by reviewing other related research works. The study concluded that technology and innovation have a significant impact on the competitiveness of SMEs, thus the need for SMEs to employ strategies to tackle these challenges<sup>196</sup>.

The gaps noticed from the above review of existing empirical literature in their effort to address the sustainability of firms in various contexts are summarised in chapter 2.5 to give further credit to this study.

Do Not Copy, Lead City University, Nigeria

## 2.4 Conceptual Framework

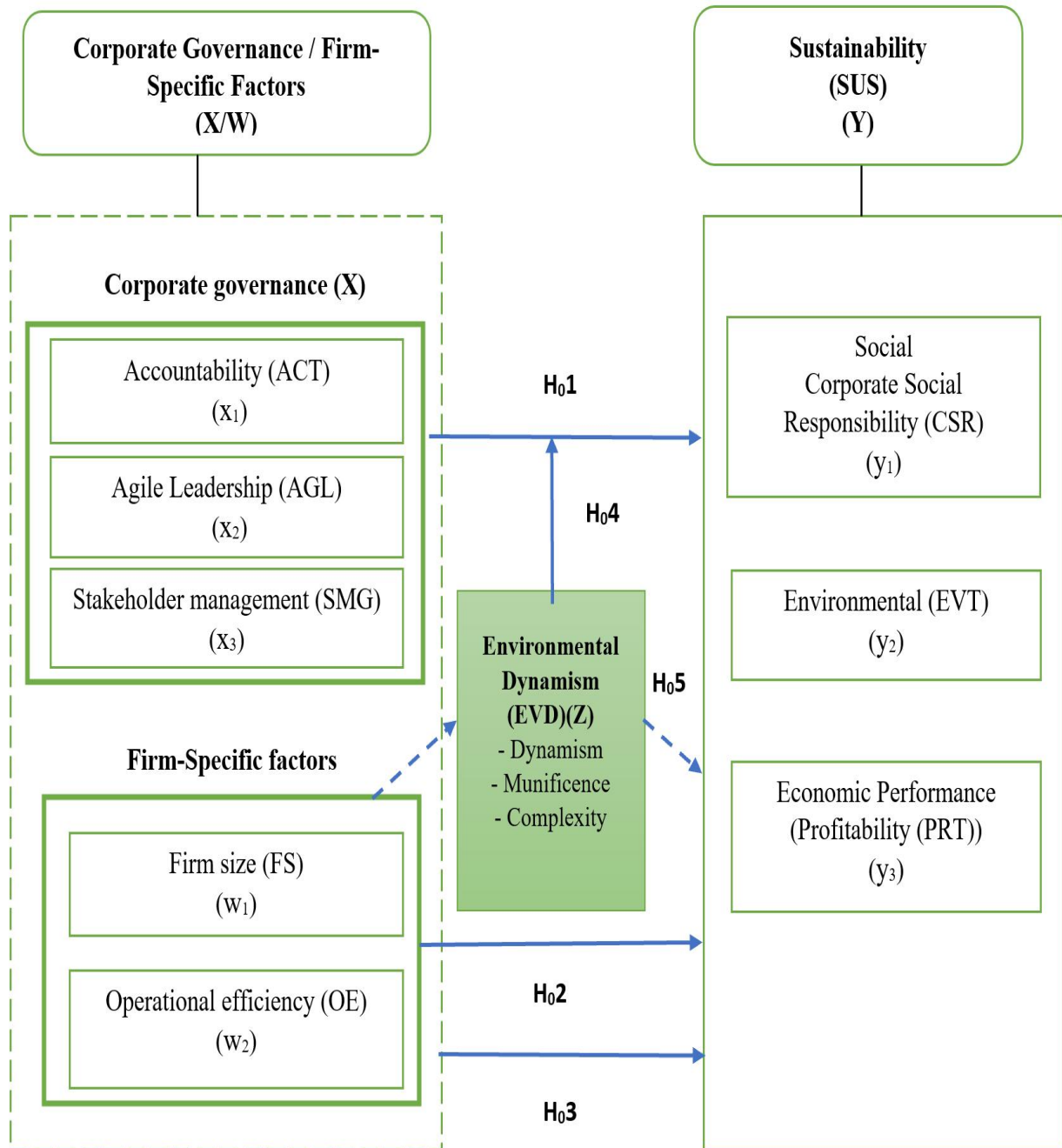


Figure 2.2: Conceptual framework of Corporate Governance, Firm-Specific Factors, and sustainability of Fast-Moving Consumer Goods manufacturing companies in Nigeria

Source: Researcher Computation, 2022

## Model Specification

The conceptual model of this study is developed on the strength of the Stakeholder Theory (ST), Resource-Based Theory (RBT), and Dynamic Capabilities Theory (DCT). The three theories explain the interactions between Corporate Governance, Firm-specific factors, Environmental dynamism, and corporate sustainability. The strength of the Stakeholder theory provided the link between corporate governance and the sustainability of the fast-moving consumer goods (FMCG) manufacturing companies. The proposal of the Resource-Based View Theory provides the link between firm-specific factors and sustainability of the FMCG manufacturing companies; while the Dynamic Capability Theory gives support to the link between environmental dynamism as a moderating variable in the interaction between corporate governance and sustainability, and as a mediating variable in the interaction between firm-specific factors, and sustainability of the FMCG manufacturing companies. The strength of the Dynamic Capability Theory also gives sustenance to the link between the FMCG manufacturing companies and the macro-environment in which they operate.

The model thus summarizes the construct of this study, which aims to investigate the effect of corporate governance and firm-specific factors on the sustainability of selected fast-moving consumer goods manufacturing companies in Lagos State, Nigeria. The independent variable corporate governance is proxied by accountability, agile leadership, and stakeholder management, while firm-specific factor is proxied by firm size and operational efficiency. The dependent variable is sustainability, which is measured by the three dimensions of sustainable development viz: social, environmental, and economic (profitability) performances. The moderating/mediating variable is environmental dynamism.

Therefore, the five null hypotheses will be linked as follows: corporate governance, its proxies and sustainability dimensions; firm-specific factors, its proxies and sustainability

dimensions; corporate governance, firm-specific-factors and sustainability; environmental dynamism, corporate governance, and sustainability; and environmental dynamism, firm-specific-factors, and sustainability. The formulated null hypothesis will be subjected to statistical tests to determine the direction of results, conclusion, and possible recommendation of this study. Proxies for the Dependent and Independent Variable are provided in Table 1 in the appendix.

In furtherance of the discussion on the conceptual model, this study will adopt a linear regression function to express the conceptual model to establish the effect the corporate governance and firm-specific factor has on the sustainability performance of the FMCG manufacturing companies under study through the following statistics:

$$Y = f(X_i, W_i)$$

Y = Dependent variable: Sustainability (SUS)

Y = Independent variables: X = Corporate Governance (CG); W = Firm-Specific Factor (FSF)

Z = Moderating/mediating variable: Z= Environmental dynamism

The first independent variable- Corporate Governance (CG) is measured as:

x<sub>1</sub> = Accountability (ACT),

x<sub>2</sub> = Agile Leadership (AGL),

x<sub>3</sub> = Stakeholder management (SMG)

The second independent variable- Firm-specific factor (FSF) is measured as:

w<sub>1</sub> = Firm size (FS),

w<sub>2</sub> = Operational efficiency (OE),

The dependent variable- Sustainability (SUS) Y is measured as:

y<sub>1</sub> = Corporate social responsibility (CSR),

y<sub>2</sub> = Environment (EVT).

y<sub>3</sub>= Profitability (PRT)

This study incorporates one intervening variable (Z) – Environmental dynamism (EVD).

The following acronyms are compiled to represent the dependent, independent, intervening variables under investigation in the present study. They are as follows:

SUS= (CSR, EVT, PRT)

CG = (ACC, AGL, SMG)

FSF= (FS, OE)

Z = (EVD)

By substituting the acronyms of each variable in the regression model, the researcher presents the following:

### Hypothesis One

$$Y = f(X)$$

$$X = (x_1, x_2, x_3)$$

$$Y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + e_i$$

$$SUS = \beta_0 + \beta_1ACC_i + \beta_2AGL_i + \beta_3SMG_i + e_i \dots \dots \dots \text{Regression equation 1}$$

### Hypothesis Two

$$Y = f(W)$$

$$W = (w_1, w_2)$$

$$Y = \beta_0 + \beta_1w_1 + \beta_2w_2 + e_i$$

$$SUS = \beta_0 + \beta_1FS_i + \beta_2OE_i + e_i \dots \dots \dots \text{Regression equation 2}$$

### Hypothesis Three

$$Y = f(X+W)$$

$$Y = \beta_0 + \beta_1X_1 + \beta_2W_2 + e_i$$

$$SUS = \beta_0 + \beta_1CG_i + \beta_2FSF_i + e_i \dots \dots \dots \text{Regression equation 3}$$

#### Hypothesis Four

$$Y = f(X*Z)$$

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 Z_1 + \beta_3 X_1 * Z_1 + e_i$$

$$SUS = \beta_0 + \beta_1 CG_i + \beta_2 EVD_1 + \beta_3 CG_1 * EVD_1 + e_i \dots \dots \dots \text{Regression equation 4}$$

#### Hypothesis Five

$$Y = f(W+Z)$$

$$Y = \beta_0 + \beta_1 W_1 + \beta_2 Z_1 + e_i$$

$$SUS = \beta_0 + \beta_1 FSF_i + \beta_2 EVD_1 + e_i \dots \dots \dots \text{Regression equation 5}$$

Where:

$\beta_0$  = the intercept expected value of y when x is equal to zero.

$\beta$  = the Coefficient of the independent variable (it is the rate of change in y with respect to x).

$e_i$  = the error term to accommodate the effect of other variables that can influence sustainability performance, but which were not included in the model.

A prior expectation of this study is that Corporate Governance (CG) proxied by Accountability, Agile Leadership, and Stakeholder Management; and Firm-Specific (FSF) proxied by Firm Size, and Operational Efficiency are expected to have a relationship with Corporate Social Responsibility (CSR), Environmental Performance (ENV), and profitability (PRT) of the selected Fast-Moving Consumer Good Manufacturing Companies in Lagos State, Nigeria.

Table 2.2 summarises the *apriori* expectation with regard to the hypotheses in this study.

**Table 2.2: *Apriori* Expectations**

Formulated Hypotheses	Model	<i>Apriori</i> expectations from the interlude for each hypothesis
<b>H<sub>01</sub>:</b> Accountability, agile leadership and stakeholder management (Corporate Governance) will have no significant effect on the sustainability of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.	$SUS = \beta_0 + \beta_1 ACC_i + \beta_2 AGL_i + \beta_3 SMG_i + e_i \dots \dots \dots (1)$	Reject if $\beta_i \neq 0$ and $p \leq 0.05$ ; (i=1-3) Otherwise accept
<b>H<sub>02</sub>:</b> Firm size and Operational efficiency (Firm-specific factors) will have no significant effect on the sustainability of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.	$SUS = \beta_0 + \beta_1 FS_i + \beta_2 OE_i + e_i \dots \dots \dots (2)$	Reject if $\beta_i \neq 0$ and $p \leq 0.05$ ; (i=1-2) Otherwise accept
<b>H<sub>03</sub>:</b> Accountability, agile leadership, stakeholder management (Corporate governance); firm size and operational efficiency (firm-specific factors) will have no significant influence on the sustainability performance of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.	$SUS = \beta_0 + \beta_1 CG_i + \beta_2 FSF_i + e_i \dots \dots \dots (3)$	Reject if $\beta_i \neq 0$ and $p \leq 0.05$ ; (i=1-2) Otherwise accept
<b>H<sub>04</sub>:</b> Environmental dynamism will have no significant moderating effect on the effect of accountability, agile leadership and stakeholder management (corporate governance) on the sustainability performance of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.	$SUS = \beta_0 + \beta_1 CG_i + \beta_2 EVD_i + \beta_3 CG_i * EVD_i + e_i \dots \dots \dots (4)$	Reject if $\beta_i \neq 0$ and $p \leq 0.05$ ; (i=1-5) Otherwise accept
<b>H<sub>05</sub>:</b> Environmental dynamism will have no significant mediating effect on the effect of firm size and operational efficiency (firm-specific factors) on the sustainability performance of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.	$SUS = \beta_0 + \beta_1 FSF_i + \beta_2 EVD_i + e_i \dots \dots \dots (5)$	Reject if $\beta_i \neq 0$ and $p \leq 0.05$ ; (i=1-2) Otherwise accept

Source: Researcher's *Apriori* Expectation, 2022

## 2.5 Summary of Gaps in Literature Reviewed

This section aims to summarise the gaps found in relevant studies conducted on the interaction between corporate governance (proxied by accountability, agile leadership, and stakeholder management), firm-specific factors (proxied by firm size and operational efficiency), and sustainability (proxied by the three pillars of sustainability viz, social performance, environmental performance, and economic performance (profitability)). The

studies reviewed show that there exists little literature addressing these measures which this study intends to look at in an effort to address sustainability performance in fast-moving consumer goods manufacturing companies in Nigeria with the moderating influence of environmental dynamism. Earlier studies conducted partially address some of these research variables in Asia, Europe, and America. The few studies conducted in Nigeria on corporate sustainability were as well seen to consider just a few of the independent variables of this research, with a major focus on reporting on the social and environmental dimensions of the dependent variable using secondary data.

Empirical studies on corporate governance and sustainability have dealt with issues such as: the integration of corporate governance alongside increased strategic leadership, corporate culture, business infrastructure, corporate alignment through corporate hospitality and sustainability; how corporate social responsibility mediates the relationship between corporate governance and sustainability performance; corporate governance and sustainability performance in UK firms; and in the context of Nigeria, issues such as firm characteristics and sustainability reporting of listed manufacturing companies have been investigated<sup>127,128,197</sup>.

Also, some studies were noted to be of relevance to the effect of the proxies of corporate governance and the individual dimensions of sustainability, these studies include those conducted on: the interaction between accounting system and corporate responsibility performance<sup>148</sup>; the effect of sustainability disclosure on financial performance<sup>149</sup>; the impact of sustainability disclosure on firm performance<sup>149</sup>; the impact of accountability on environmental sustainability<sup>153</sup>; the role of leadership in environmental performance<sup>155</sup>; the effect of leadership motivation on sustainability strategy<sup>158</sup>; the role of agile women leadership in archiving team management<sup>166</sup>; the impact of the interaction between firm readiness for change and agility of leadership on dynamic capabilities of SMEs<sup>167</sup>. However,

articles reviewed shows that studies on the interaction between corporate governance (measured by accountability, leadership, and stakeholder management) and the three dimensions of sustainability is scarce. Hence, it is imperative to address this gap in literature through an empirical study.

Furthermore, previous empirical studies on firm-specific factors and sustainability have interrogated issues such as: public debt, board size, audit committee, and the Economic Dimension of Sustainability; firm size, profitability, and CSR disclosure; impact of firm size on sustainability reporting; impact of firm size on the nature and quality of sustainability reporting; the effect of Firm size, board gender diversity, and industry type on CSR; the correlation between firm size and environmental sustainability; the impact of firm size and profitability; firm size and financial performance, growth, and firm dynamism; and firm size and financial performance<sup>177,178,180,183,185,188,191</sup>.

Though Nigerian scholars have paid little attention to the sustainability effect of firm-specific factors, some contextual studies have been conducted on: the effect of firm size and operational efficiency on sustainability using secondary data of sampled listed Consumer Goods Manufacturing Companies (CGMCs); the interface between firm size, growth opportunity, and financial performance of international oil companies; the impact of increase in turnover, assets, employee growth rate and account receivables on financial performance; as well as the moderating effect of environmental agencies on firm size and sustainability reporting<sup>146,184,181</sup>. While this shows that the interest of scholars is growing in the subject. There is still a gap to be filled with regard to the impact of firm size and operational efficiency on the collective as well as the individual dimensions of sustainability using primary data.

Overall, there appears to be a scarcity of literature relating to the combined effect of corporate governance and firm-specific factors on sustainability. The same was observed with literature on the moderating impact of environmental dynamism on the interaction between corporate governance and sustainability, as well as on the mediating impact of environmental dynamism on the interactions between firm-specific factors and sustainability. Nevertheless, studies were found that treated the moderating impact of environmental dynamism and the relationship between empowering leadership, information collaboration, and corporate entrepreneurship; also, the impact of technological environmental factors on firm performance; the impact of environmental dynamism on industry 4.0; and the impact of technology and innovation on the competitiveness of SMEs were observed to have been studied<sup>84,194,195,196</sup>.

The above-noted gaps further give strength to the benefit of this study in pushing forward the frontier of knowledge. Existing works of literature have interrogated some of the proposed variables in this study from various contexts. Moreso, the contextual study that addressed the impact of the proxies of firm-specific factors also considered by this study scoped its investigation to CGMCs and collected its data from secondary sources. Overall, none of the empirical studies have been able to treat the individual dimensions of sustainability with the measures of cooperate governance (CG) and the measures of firm-specific factors (FSF) proposed by this study used primary data, neither have the combined effect of CG and FSF been given any attention. Likewise, the moderating effect of environmental dynamism on the effect of CG on sustainability, as well as the mediating effect of environmental dynamism on the effect FSF on sustainability is grossly lacking.

## Endnotes

- <sup>1</sup> United Nations, *Sustainability*, United Nations. <https://www.un.org/en/academic-impact/sustainability> (accessed August 16, 2021).
- <sup>2</sup> T. Bansal & D. Agarwal, *Corporate Sustainability – Meaning, Examples and Importance*, "Network for Business Sustainability". <https://www.nbs.net/articles/corporate-sustainability-meaning-examples-and-importance>, (accessed September 8, 2021).
- <sup>3</sup> K. Farinloye, *Essentials of Environmental and Sustainable Development*, Ibadan: College Press, 2018, 87.
- <sup>4</sup> B. Sheehy & F. Farneti, *Corporate Social Responsibility, Sustainability, Sustainable Development and Corporate Sustainability: What is the Difference, and Does it Matter?* **MDPI**, 13(11), 2021, 1-12.
- <sup>5</sup> United Nations, *17 Goals to Transform the World for Persons with Disabilities*. United Nations. Available Online <https://www.un.org/development/desa/disabilities/envision2030.html>.
- <sup>6</sup> J. Mensah, *Sustainable Development: Meaning, History, Principles, Pillars and Implications: Literature Review*, **Cogent Social Sciences**, 5(1), 2019, 8.
- <sup>7</sup> S. Ricee & M. Read, *Social Sustainability – Everything you need to Know*. Diversity for Social Impact, <https://diversity.social/social-sustainability/> 2020.
- <sup>8</sup> A. M. Walker, K. Opferkuch, R. R. Lindgreen,; A. Simoli, J. V. Vermeulen, & A. Raggi, *Assessing the Social Sustainability of Circular Economy Practices: Industry Perspectives from Italy and Netherlands*, **Sustainable Production and Consumption**, 27, 2021, 831-844.
- <sup>9</sup> The University of Nottingham, *Sustainability and Corporate Responsibility*. The University of Nottingham. Available Online: [https://rdmc.nottingham.ac.uk/bitstream/handle/internal/86/Business\\_edit/14\\_sustainability\\_and\\_corporate\\_responsibility.html](https://rdmc.nottingham.ac.uk/bitstream/handle/internal/86/Business_edit/14_sustainability_and_corporate_responsibility.html) 2022.
- <sup>10</sup> A. Wahyuningsih & N. K. Rasmin, *CSR Disclosure on Earnings Management worth the Presence of Women in the GCG Structure*, **Journal Ilman Akuntansi Dan Bisnis**, 15(2), 2020, 293-307.
- <sup>11</sup> O. Gonzalez-Morales, A. Santana-Talevera & D. Dominguez-Gonzalez, *The Involvement of Marine Companies in CSR: The case of the Island of Tenerife*, **Environmental, Development and Sustainability**, 23, 2020, 1-24.
- <sup>12</sup> P. Saeidi, L. A. Robles, S. P. Saeidi, M. I. Zamora. *How Does Organizational Leadership Contribute to the Firm Performance Through Social Responsibility Strategies*, **Heliyon**, 7(7), 2021, 1-4.
- <sup>13</sup> N. Amodu, *Regulation and Enforcement of Corporate Social Responsibility in Corporate Nigeria*, **Journal of African Law**, 61(1), 2017, 105-130.

- 
- <sup>14</sup> P. L. Mesquita & M. Missimer, *Social Sustainability Work in Product Development Organizations: An Empirical Study of Three Sweden-Based Companies*, **MDPI**, 13(4), 2021, 1.
- <sup>15</sup> Government of Canada, *Causes of Climate Change*. Government of Canada. Available Online: <https://www.canada.ca/en/environment-climate-change/services/climate-change/causes.html>.
- <sup>16</sup> Environmental Protection Agency, *Global Greenhouse Gas Emissions Data*. United States Environmental Protection Agency. Available Online: <https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data>.
- <sup>17</sup> A. Blokhin, *The 5 Countries That Produce the Most Carbon Dioxide (CO2)*. Investopedia. Available Online: <https://www.investopedia.com/articles/investing/092915/5-countries-produce-most-carbon-dioxide-co2.asp>.
- <sup>18</sup> O. Adekomaya, *Contributing Impact of Climate Change on Sustainability of Bio-Degradable Material-Adaptation of Alternative Measures*, **Journal of Science and Technology Research**, 2(2), 2020, 102-107.
- <sup>19</sup> O. Makhinde & T. Adeyoke, *Environmental Law in Nigeria*. Mondaq. Available Online: <https://www.mondaq.com/nigeria/energy-law/53804/environmental-law-in-nigeria>.
- <sup>20</sup> A. Beattie, "The 3 Pillars of Corporate Sustainability," Investopedia. Available Online: <https://www.investopedia.com/articles/investing/100515/three-pillars-corporate-sustainability.asp> 2021.
- <sup>21</sup> J. Courtneil, *Economic Sustainability for Success: What it is and how to Implement it*. Process.st. Available Online: <https://www.process.st/economic-sustainability/>.
- <sup>22</sup> University of Mary Washington, *Economic Sustainability*. University of Mary Washington. Available Online: <https://sustainability.umw.edu/areas-of-sustainability/economic-sustainability/> 2021.
- <sup>23</sup> G. E. Oyedokun, *Business Policy: Strategy, Governance, Risk and Ethics*. Lagos: Aaron & Hur Publishing, 2019, pp. 275.
- <sup>24</sup> J. Zinkni, *Better Governance Across the Board: Creating Value Through Reputation, People, and Processes*, Boston: De Gruyter, 2019, pp. 3-18.
- <sup>25</sup> R. R. Setyahdi & M. I. Narsa, *Corporate Governance and Sustainability in Indonesia*. **Journal of Asian Finance, Economic and Business**, 7(12), 2020, 886.
- <sup>26</sup> J. Chen, *Corporate Governance*. Investopedia. Available Online: <https://www.investopedia.com/terms/c/corporategovernance.asp>.
- <sup>27</sup> Chartered Governance Institute UK & Ireland, *What is Corporate Governance?* Chartered Governance Institute UK & Ireland. Available Online: <https://www.cgi.org.uk/about-us/policy/what-is-corporate-governance>.

- 
- <sup>28</sup> G. Castrillon & M. Alfonso, *The Concept of Corporate Governance*. **Revista Científica “Vision de Futuro”**, 25(2), 2021, 182.
- <sup>29</sup> A. S. Alanzi, *Corporate Governance and the Characteristics of the Board of Directors: Evidence from an Emerging Market*, **Corporate Board: Role & Composition**, 15(1), 2019, 18.
- <sup>30</sup> S. E-Vahdati, N. Zulkifli & Z. Zakariya, *Corporate Governance Integration with Sustainability: A Systematic Literature Review*, **Corporate Governance: The International Journal of Business in Society**, 19(2), 2018, 258.
- <sup>31</sup> OECD Library, *G20/OECD Principles of Corporate Governance*. OECD. Available Online: [https://www.oecd-ilibrary.org/governance/g20-oecd-principles-of-corporate-governance-2015\\_9789264236882-en](https://www.oecd-ilibrary.org/governance/g20-oecd-principles-of-corporate-governance-2015_9789264236882-en).
- <sup>32</sup> M. Arslan & A. Alqatan, *Role of Institutions in Shaping Corporate Governance System: Evidence from Emerging Economy*, **Heliyon**, 6(3), 2020, 1-17.
- <sup>33</sup> O. Agbakoba, *The Importance of Good Corporate Governance in Nigeria*. Olisa Agbakoba Legal. Available Online: [https://oal.law/the-importance-of-good-corporate-governance-in-nigeria/?utm\\_source=Mondaq&utm\\_medium=syndication&utm\\_campaign=LinkedIn-integration](https://oal.law/the-importance-of-good-corporate-governance-in-nigeria/?utm_source=Mondaq&utm_medium=syndication&utm_campaign=LinkedIn-integration).
- <sup>34</sup> O. Jegede, M.C.I. Arb & W. Idiaru, *Principle of Corporate Governance in Nigeria*. Resolution Law Firm. Available Online: <https://www.resolutionlawng.com/principle-of-corporate-governance-in-nigeria/>.
- <sup>35</sup> K. L. Tripathi, *Corporate Accountability: A Review*, **SSRG Journal of Economics and Management Studies**, 3(6), 2016, 28-31.
- <sup>36</sup> A. Chizema & G. Pogrebna, *The Impact of Government and Culture on Corporate Leadership Practices: Evidence from the Field and the Laboratory*, **The Leadership Quarterly**, 30(5), 2019, 1-19.
- <sup>37</sup> C. Pesci, E. Costa & M. Andreus, *Using Accountability to Shape the Common Good*, **Critical Perspectives on Accounting**, 67, 2020, 102079.
- <sup>38</sup> W. Kenton, *Accountability*. Investopedia. Available Online: <https://www.investopedia.com/terms/a/accountability.asp> (accessed November 3, 2021).
- <sup>39</sup> J. Chen, *Corporate Accountability*. Investopedia. Available Online: <https://www.investopedia.com/terms/c/corporate-accountability.asp>.
- <sup>40</sup> L. F. Ackert, B. K. Church, S. Venkataraman, & P. Zhang, *The Joint Impact of Accountability and Transparency on Managers’ Reporting Choices and Owners’ Reaction to those Choices*, **Journal of Accounting and Public Policy**, 38(2), 2019, 130-145.
- <sup>41</sup> L. A. Amartei, M. Yu & O. Chukwu-lobelu, *Corporate Governance in Ghana: An Analysis of Board Accountability in Ghanaian Listed Banks*, **Journal of Financial Regulation and Compliance**, 27(2), 2019, 127.

- 
- <sup>42</sup> O. Boiral & I. Heras-Saizarbitoria, *Sustainability Reporting Assurance: Creating Stakeholder Accountability Through Hyperreality*, **Journal of Cleaner Production**, 243(5), 2019, 1-42.
- <sup>43</sup> M. P. Kusumawati, *Leadership in Good Corporate governance (GCG) as a Role Model of Anti-Fraud Culture*, **Asia Pacific Fraud Journal**, 5(1), 2020, 262.
- <sup>44</sup> A. Ghio & N. McGuigan, *A Life of Good Governance, Positive Activism, Accountability & Integrated Thinking: An Interview with Mervyn King*, **Journal of Management Inquiry**, 29(4), 2020, 1-9.
- <sup>45</sup> J. D. Castellanos & B. George, *Boardroom Leadership: The Board of Directors as a Source of Strategic Leadership*, **Economics and Business review**, 6(1), 2020, 103-119.
- <sup>46</sup> M. M. I. Chowdhury, K. Othman, M. A. Khan & I. F. Sulaiman, *Role of Effective Corporate Governance and Motivational Leadership in Increasing Productivity and Efficiency of Human Resources*, **Global Journal of Management and Business Research: Administration and Management**, 20(10), 2020, 29-39.
- <sup>47</sup> M. R. Angriani, A. Aliyana & D. S. Wulandari, *The Effect of Good Governance and Leadership in Applying Operations Readiness*, **Systematic Reviews in Pharmacy**, 11(10), 2020, 466-471.
- <sup>48</sup> M. Bruna, *Leadership Styles and How to Find Your Own*. American Express. Available Online: <https://www.americanexpress.com/en-us/business/trends-and-insights/articles/the-7-most-common-leadership-styles-and-how-to-find-your-own/> 2019.
- <sup>49</sup> E. Magso, *What is Agile Leadership, and why is it Important*. Management 3.0. Available Online: <https://management30.com/blog/what-is-agile-leadership/> 2021.
- <sup>50</sup> H. A. Razok, A. Adhiatma & I. R. Fitriati, *Strengthening Digital Ecosystem for SMEs Through Readiness to Change and Agile Leadership*, **Jurnal Siasat Bisnis**, 25(2), 2021, 155-165.
- <sup>51</sup> M. Pedrini & L. M. Ferri, *Stakeholder Management: A Systematic Literature Review*. **Corporate Governance International Journal of Business in Society**, 19(2), 2019, 44-59.
- <sup>52</sup> A. Aderibigbe & E. Fragouli, *Reputation Risk from Stakeholder Management Perspective*. **Risk and Financial Management**, 2(2), 2020, 1-11.
- <sup>53</sup> A. Salman, M. Jaafar & D. Mohammad, *Understanding the Importance of Stakeholder Management in Achieving Sustainable Ecotourism*, **Social Science and Humanities**, 29(1), 2021, 731-753.
- <sup>54</sup> H. Ranagen, *Stakeholder Management Theory Meets CSR Practice in Swedish Mining*, **Mineral Economics**, 30(1), 2017, 1-15.
- <sup>55</sup> E. Leonidou, M. Christofi, D. Vrontis & A. Thrassou, *An Integrative Framework of Stakeholder Engagement for Innovation Management and Entrepreneurship Development*, **Journal of Business Research**, 119, 2020, 245-258.

- 
- <sup>56</sup> A. Antwi-Adjei, Y. Kong, O. Kwame, & N. A. Antwi-Adjei, *A Review: Corporate Governance and Sustainability*, **International Journal of Scientific Research in Science and Technology**. 7(6), 2020, 85-86.
- <sup>57</sup> A. Klaus-Rosinska & J. Iwko, *Stakeholder Management – One of the Clues of Sustainable Project Management – As an Underestimated Factor of Project Success in Small Construction Companies*, **MDPI**, 13(17), 2021, 1-27.
- <sup>58</sup> A. Ilinova, A. Cherepovitsyn & O. Evseeva, *Stakeholder Management: An Approach in CCS Project*, **Resources**, 7(4), 2018, 1-16.
- <sup>59</sup> A. Carolinat dos Santos, K. J. Favato & M. Neumann, *Integrated Reporting and Stakeholder Management: A Research Agenda*, **Revista Contabilidade & Finanças**, 32(87), 2021, 1-15.
- <sup>60</sup> E. Siems & S. Seuring, *Stakeholder Management in Sustainable Supply Chains: A Case Study of the Bioenergy Industry*, **Business Strategy and The Environment**, 30(7), 2021, 3105-3106.
- <sup>61</sup> G. F. Oliveira & R. Rabechini, *Stakeholder Management Influence on Trust in a Project: A Quantitative Study*, **International Journal of Project Management**, 37(1), 2019, 131-133.
- <sup>62</sup> H. Wang, M. Jia & Z. Zhang, *Good Deed Done in Silence: Stakeholder Management and Quiet Giving by Chinese Firms*, **Organization Science**, 32(2), 2020, 1-27.
- <sup>63</sup> J. Xu, J. Wei & L. Lu, *Strategic Stakeholder Management, Environmental Corporate Social Responsibility Engagement, and Financial Performance of Stigmatized Firms Derived from Chinese Special Environmental Policy*, **Business Strategy and the Environment**, 28(6), 2019, 1-2.
- <sup>64</sup> K. Nishitani, T. Nguyen, T. Q. Trinh, Q. Wu, & K. Kokubu, *Are Corporate Environment Activities to Meet Sustainable Development Goals (SDGs) Simply Greenwashing? An Empirical Study of Environmental Management Control Systems in Vietnamese Companies from the Stakeholder Management Perspective*, **Journal of Environmental Management**, 296, 2021, 1-3.
- <sup>65</sup> J. D. Rendtorff, *Corporate Citizenship, Stakeholder Management and Sustainable Development Goals (SDGs) in Financial Institutions and Capital Markets*, **Journal of Capital Markets Studies**, 4(1), 2020, 49-50.
- <sup>66</sup> J. K. Akhwaba, O. Bowa & P. Keiyoro, *Leadership Skills, Stakeholder Management and Execution of Fibre Optic Infrastructure*, **Journal of Engineering, Project, and Production Management**, 10(1), 2020, 2426-2437.
- <sup>67</sup> L. M. de Alencar, R. de F.S.M. Russo & C. T. Kniess, *Socio-Environmental Perspective in Project Stakeholder Management: The Rialway Line 13 Case Study*, **Procedia Computer Science**, 181. (2021, 775-776.
- <sup>68</sup> S. B. Ngu & A. Amran, *The Impact of Sustainability Board Capital on Sustainability Reporting*, **Strategic Direction**, 35(12), 2019, 8-11.

- 
- <sup>69</sup> S. Sindhuja, *The Size of a Firm: Definitions, Measures and Concepts*. Business Management Ideas. Available Online: <https://www.businessmanagementideas.com/enterprises/the-size-of-a-firm-definition-measures-and-concepts/9054> .
- <sup>70</sup> C. Dang, Z. Li & C. Yang, *Measuring Firm Size in Empirical Corporate Finance*, **Journal of Finance**, 86, 2018, 159-176.
- <sup>71</sup> O. E. Umukoro, O. R. Uwuigbe, I. Obigbemi, B. S. Babajide, F. E. Eluyela, & I. Ofe, *Firm Size and Financial Performance Among Listed Banks of Emerging Economies in Africa*, **Research in World Economy**, 12(1), 2021, 340-341.
- <sup>72</sup> A. H. Nasution, Erlina & H. B. Tamizi, *An Analysis on the Influence of Profitability, Firm Size, Liquidity, and Leverage on the Expression of Firm's Social Responsibility in Banking Companies Listed in BEI (Indonesian Stock Exchange)*, **International Journal of Research and Review**, 5(9), 2018, 92-105.
- <sup>73</sup> C. Gaio & R. Henriques, *Are Large Firms More Profitable than Small and Medium Firms in the European Union?* **European Journal of Management Studies**, 23(1), 2018, 25-48.
- <sup>74</sup> J. Eyer, *The Effect of Firm Size on Fracking Safety*, **Resource and Energy Economics**, 53, 2018, 101-113.
- <sup>75</sup> C. Banton, *Efficiency Definition*. Investopedia. Available Online: <https://www.investopedia.com/terms/e/efficiency.asp>.
- <sup>76</sup> S. Sahoo, *Aligning Operational Practices to Competitive Strategies to Enhance the Performance of Indian Manufacturing Firms*, **Benchmarking: An International Journal**, 28(1), 2020, 131-165.
- <sup>77</sup> M. A. Salam, *Analyzing Manufacturing Strategies and Industry 4.0 Supplier Performance Relationships from a Resource-Based Perspective*, **Benchmarking: An International Journal**, 28(5), 2021, 1697-1716.
- <sup>78</sup> CFI, *Financial Ratios*. Corporate Finance Institute. Available Online: <https://corporatefinanceinstitute.com/resources/knowledge/finance/financial-ratios/>.
- <sup>79</sup> C. B. Murphy, *Operating Ratio*. Investopedia. Available Online: <https://www.investopedia.com/terms/o/operatingratio.asp>.
- <sup>80</sup> B. Petrus, *Environmental Dynamism: The Implication for Operational and Dynamic Capabilities*, **Management Sciences**, 24(1), 2019, 28-29.
- <sup>81</sup> X. Chen, G. Jiang, L. Yang, G. Li, & F. Xiang, *Redesign of Enterprise Lean Production System Based on Environmental Dynamism*, **Wiley Online Library**, 32(14), 2020, 1.
- <sup>82</sup> J. A. Zhang, C. O'Kane & G. Chen, *Business Ties, Political Ties, and Innovation Performance in Chinese Industrial Firms: The role of Entrepreneurial Orientation and Environmental Dynamism*, **Journal of Business Research**, 121, 2020, 257.

- 
- <sup>83</sup> S. K. Taghizadh, A Karini, G. Nadarajah & D. Nikbin, *Knowledge Management Capability, Environmental Dynamism and Innovation Strategy in Malaysian firms*, **Management Decisions**, 59(6), 2020, 1392.
- <sup>84</sup> S. Kumar & M. S. Bhatia, *Environmental Dynamism, Industry 4.0 and Performance: Mediating Role of Organizational and Technological Factors*, **Industrial Marketing Management**, 95(1), 2021, 54-55.
- <sup>85</sup> A. Rodrigues-Pena, *Assessing the Impact of Corporate Entrepreneurship in the Financial Performance of Subsidiaries of Colombian Business Groups: Under Environmental Dynamism Moderation*, **Journal of Innovation and Entrepreneurship**, 10(1), 2021, 4-5.
- <sup>86</sup> B. Park & S. Xioa, *Is exploring Dynamic Capabilities Important for The performance of Emerging Market Firms? The Moderation Effects of Entrepreneurial Orientation and Environmental Dynamism*, **Internal Studies Management & Orientation**, 50(1), 2020, 67.
- <sup>87</sup> E. H. Seo, C. Y, Kim & K. Kim, *A Study on th Mechanisms Linking Environmental Dynamism to Innovation Performance*, **MDPI**, 12(23), 2020, 1-3.
- <sup>88</sup> A. Agyapong, S. Zamore & H. K. Mensah, *Strategy and Performance: Does Environmental Dynamism Matter?* **Journal of African Business**, 21(3), 2020, 315-322.
- <sup>89</sup> I. Shafique, *Linking Element of Entrepreneurial Orientation and Firm Performance: Examining the Moderation of Environmental Dynamism*, **Middle East Journal of Management**, 7(1), 2020, 93-97.
- <sup>90</sup> S. K. Taghizadh, A Karini, G. Nadarajah & D. Nikbin, *Knowledge Management Capability, Environmental Dynamism and Innovation Strategy in Malaysian Firms*, **Management Decision**, 59(6), 2020, 1386-1405.
- <sup>91</sup> J. Hong, K. Zhu, & Y. Zhou, *Paternalistic Leadership and Innovation: The Moderation Effect of Environmental Dynamism*, **European Journal of Innovation Management**, 22(3), 2019, 562-563.
- <sup>92</sup> J. Andrade, M. Franco & L. Mendez, *Technology Capacity and Organizational Ambidexterity: The Moderating Role of Environmental Dynamism on Portuguese Technological SMEs*, **Review of Managerial Science**, 15(7), 2019, 2111-2136.
- <sup>93</sup> M. A. Saeed, Y. Jiao, M. M. Zahid, H. Tabassum, & S. Nauman, *Organizational Flexibility and Project Portfolio Performance: The Roles of Innovation, Absorptive Capacity and Environmental Dynamism*, **International Journal of Managing Projects in Business**, 14(3), 2020, 600-602.
- <sup>94</sup> B. J. Jaworski & A. K. Kohli, *Market Orientation: Antecedents and Consequences*, **Journal of Marketing**, 57(3), 1993, 50-70.
- <sup>95</sup> G. G. Dess & D. W. Beard, *Dimensions of Organizational Task Environment*, **Administrative Science Quarterly**, 29(1), 1984, 52-72.
- <sup>96</sup> R. Edward Freeman Stakeholder Theory, *About the Stakeholder Theory*. Available Online: <http://stakeholdertheory.org/about/>.

- 
- <sup>97</sup> H. Bhasin, *What is the Stakeholder Theory Strategy*. Marketing. Available Online: <https://www.marketing91.com/what-is-the-stakeholder-theory/>
- <sup>98</sup> B. L. Parmar, E. R. Freeman & J. S. Harrison, *Stakeholder Theory: The State of the Art*. UR Scholarship Repository. Available Online: [https://scholarship.richmond.edu/management-faculty-publications/99/?utm\\_source=scholarship.richmond.edu%2Fmanagement-faculty-publications%2F99&utm\\_medium=PDF&utm\\_campaign=PDFCoverPages](https://scholarship.richmond.edu/management-faculty-publications/99/?utm_source=scholarship.richmond.edu%2Fmanagement-faculty-publications%2F99&utm_medium=PDF&utm_campaign=PDFCoverPages).
- <sup>99</sup> S. Key, *Towards a New Theory of the Firm: A Critique of Stakeholder Theory*, **Emerald Insight**, 37(4), 1999, 317-328.
- <sup>100</sup> B. King, *What's Wrong with Stakeholder Theory?* Orgtheory.net. Available Online: <https://orgtheory.wordpress.com/2006/08/03/whats-wrong-with-stakeholder-theory/>.
- <sup>101</sup> E. Antonacopoulou & J. Meric, *A Critique of Stakeholder Theory: Management Science or a Sophisticated Ideology of Control?* **Corporate Governance International Journal of Business in Society**, 5(2), 2005, 22-33.
- <sup>102</sup> Y. Y. Kor, J. T. Mahoney, E. Siemsen, & D. Tan, *Penrose's The Theory of the Growth of the Firm: An Exemplar of Engaged Scholarship*, **Production and Operation Management**, 25(10), 2016, 1727-1744.
- <sup>103</sup> O. Jurevicius, *Resource-Based View*. Strategic Management Insight. Available Online: <https://strategicmanagementinsight.com/tools/resource-based-view/>.
- <sup>104</sup> M. Sridharan, *RBV: What is a Resource-Based View of Strategy*. Think Insights. Available Online: <https://thinkinsights.net/strategy/rbv-strategy/>.
- <sup>105</sup> J. Kraaijenbrink, J. C. Spender & A. Groen, *The Resource-Based View: A Review and Assessment of its Critiques*, **Journal of Management**, 36(1), 2010, 349-372.
- <sup>106</sup> T. C. Powell, *Strategic Advantage: Logical and Philosophical Considerations*, **Strategic Management Journal**, 22(9), 2001, 875-884.
- <sup>107</sup> T. Connor, *The Resource-Based View of Strategy and its Value to Practicing Managers*, **Strategic Change**, 11(6), 2002, 307-316.
- <sup>108</sup> T. McGuinness & R. E. Morgan, *Strategy, Dynamic Capabilities and Complex Science: Management Rhetoric Vs. Reality*, **Strategic Change**, 9(1), 2020, 209-220.
- <sup>109</sup> R. R. Nelson, *Why do Firms Differ, and how does it Matter*, **Strategic Management Journal**, 12(S2), 1991, 61-74.
- <sup>110</sup> J. B. Barney, *Where does Inequality come from? The Personal and Intellectual roots of Resource-based Theory*. USA: Oxford University Press, 2005, 280-303.
- <sup>111</sup> D. J. Collis, *Research Note: How Valuable are Organizational Capabilities?* **Strategic Management Journal**, 15, 1994, 143-152.

- 
- <sup>112</sup> M. Gibbert, *Generalizing About Uniqueness: An Essay on an Apparent Paradox in the Resource-Based View*, **Journal of Management Inquiry**, 15(2), 2006, 124-134.
- <sup>113</sup> E. Levitas, *What to do with the Resource-Based View: A Few Suggestions for what Ails the RBV that Supporters and Opponents Might Accept*, **Journal of Management Inquiry**, 15(2), 2006, 135-144.
- <sup>114</sup> M. C. Fiol, *Revisiting an Identity-based view of Sustainable Competitive Advantage*, **Journal of Management**, 27(6), 2001, 691-699.
- <sup>115</sup> J. Barney, M. Wright & D. J. Ketchen, *The Resource-based view of the Firm: Ten years after 1991*, **Journal of Management**, 27(6), 2001, 625-641.
- <sup>116</sup> K. R. Conner, *A Historical Comparison of Resource-Based Theory and Five Schools of Thought Within Industrial Organization Economics: Do we have a New Theory of the Firm?* **Journal of Management**, 17(1), 1991, 121-154.
- <sup>117</sup> B. Kogut & U. Zander, *Knowledge of the Firm, Combinative Capabilities, and the Replication of Technology*, **Organization of Science**, 3(3), 1992, 383-397.
- <sup>118</sup> O. E. Williamson & S. G. Winter, *The Nature of the Firms Origin, Evolution, and Development*. Oliver E. Williamson and Sidney G. Winter eds. New York: Oxford University Press, 1993, 75-89.
- <sup>119</sup> C. E. Armstrong & K. Shimizu, *A Review of Approaches to Empirical Research on the Resource-Based View of the Firm*, **Journal of Management**, 33, no.6 (December 2007): 959-986.
- <sup>120</sup> A. Locket, S. Thomson & U. Morgenstern, *The Development of the Resource-Based View of the Firm: A Critical Appraisal*, **International Journal of Management Reviews**, 11(1), 2009, 9-28.
- <sup>121</sup> A. Bledy, A. Hafiez & S. B. Ibrahim, *Dynamic Capabilities Theory: Pinning Down A Shifting Concept*, **Academy of Accounting and Financial Studies Journal** 22(2), 2018, 1-17.
- <sup>122</sup> V. Kaur & V. Mehata, *Dynamic Capabilities for Competitive Advantage: A Comparative Study of IT Multinationals in India*, **Paradigm**, 21(1), 2017, 31-51.
- <sup>123</sup> J. Mu, *Dynamic Capability and Firm Performance: The Role of Marketing Capability and Operations Capability*, **IEEE in Transactions on Engineering Management**, 64(4), 2017, 554-565.
- <sup>124</sup> M. Easterby-Smith, M. A. Lyles & M. A. Petraf, *Dynamic Capabilities: Current Debates and Future Directions*, **British Journal of Management**, 20(1), 2009, S1-S8.
- <sup>125</sup> P. L. Drnevich & A. Kriauciunas, *Clarifying the Conditions and Limits of the Contributions of Ordinary and Dynamic Capabilities to Relative Firm Performance*, **Strategic Management Journal**, 32(3), 2011, 254-279.

- 
- <sup>126</sup> O. W. Chukwuemeka & B. C. Onuoha, *Dynamic Capabilities and Competitive Advantage of Fast Foods Restaurants*, **International Journal of Management Science and Business Administration**, 4(3), 2018, 7-14.
- <sup>127</sup> H. N. Utami, B. E. Cahyana, U. Nimran, & M. Iqbal, *Organizational Transformation as a Determinant of Corporate Hospitality and its Effect on Corporate Sustainability*, **International Trade, Politics and Development**, 4(2), 2020, 105-125.
- <sup>128</sup> K. Maali, R. Rakia & M. Khairredine, *How Corporate Social Responsibility Mediates the Relationship Between Corporate Governance and Sustainability Performance in UK: A Multiple Mediator Analysis*, **Society and Business Review**, 16(2), 2021, 201-217.
- <sup>129</sup> G. Lazaroiu, L. Ionesu, M. Andronie & I. Dijmarescu, *Sustainability Management and Performance in the Urban Corporate Economy: A Systematic Literature Review*, **MDPI**, 12(18), 2020, 1-13.
- <sup>130</sup> M. F. Alsayegh, R. A. Rahman & S. Homayoun, *Corporate Economic, Environmental, and Social Sustainability Performance Transformation through ESG Disclosure*, **MDPI**, 12(9), 2020, 1-20.
- <sup>131</sup> B. Tjahjadi, N. Soewarno & F. Mustikaningtiyas, *Good Corporate Governance and Corporate Sustainability Performance in Indonesia: A Triple Bottom Line Approach*, **Heliyon**, 7(3), 2021, 1-11.
- <sup>132</sup> Ş. Önder & R. Baimurzin, *Effect of Corporate Governance on Sustainability Disclosures: Evidence from Turkey*, **Indonesian Journal of Sustainability and Management**, 4(1), 2020, 93-102.
- <sup>133</sup> A. Jamil, N. A. M Ghazali & S. P. Nelson, *The Influence of Corporate Governance Structure on Sustainability Reporting in Malaysia*, **Social Responsibility Journal**, 17(8), 2020, 1251-1278.
- <sup>134</sup> R. Konadu, G. Ahniful & S. Owusu-Agyei, *Corporate Governance Pillars and Business Sustainability: Does Stakeholders Engagement Matter?* **International Journal of Disclosure and Governance**, 18(3), 2021, 269-289.
- <sup>135</sup> R. R. Setyahadi & M. Nasra, *Corporate Governance and Sustainability in Indonesia*, **The Journal of Asian Finance, Economics and Business**, 7(12), 2020, 885-894.
- <sup>136</sup> P. Crifo, E. Escrig-Olmedo & N. Mottis, *Corporate Governance as a Key Driver of Corporate Sustainability in France: The Role of Board Members and Investor Relations*, **Journal of Business Ethics**, 159, 2019, 1127-1146.
- <sup>137</sup> A. Rashid, *The Influence of Corporate Governance Practices on Corporate Social Responsibility Reporting*, **Social Responsibility Journal**, 14(1), 2021, 20-39.
- <sup>138</sup> R. Zaman, M. Nadeem & M. Carvajal, *Corporate Governance and Corporate Social Rsynergies: Evidence from New Zealand*, **Meditari Accounting Research**, 29(1), 2020, 135-160.

- 
- <sup>139</sup> H. Yusoff, Z. Ahman & F. Darus, *The Influence of Corporate Governance on Corporate Social Responsibility Disclosure: A Focus on Accountability*, **Academy of Accounting and Financial Studies Journal**, 23(1), 2019, 1-16.
- <sup>140</sup> Qi Zhang, L. Loh & W. Wu, *How do Environmental, Social and Governance Initiatives Affect Innovative Performance for Corporate Sustainability?* **MDPI**, 12(8), 2020, 1-18.
- <sup>141</sup> M. K. Khan, R. M. Zahid, Saleem, A. & J. Sagi, *Board Composition and Social & Environmental Accountability: A Dynamic Model Analysis of Chinese Firms*, **MDPI**, 13(9), 2021, 1-18.
- <sup>142</sup> T. H. H. Nguyen, *Environmental Performance, Sustainability, Governance and Financial Performance: Evidence from Heavily Polluting Industries in China*, **Business Strategy and Environment**, 30(5), 2021, 2313-2331.
- <sup>143</sup> L. B. Mahjoub & I. Amara, *The Impact of Cultural Factors on Shareholders Governance and Environmental Sustainability: An International Context*, **World Journal of Science, Technology and Sustainability Development**, 17(2), 2020, 367-385.
- <sup>144</sup> L. W. Lu, *The Moderating Effect of Corporate Governance on the Relationship Between Corporate Sustainability Performance and Corporate Financial Performance*, **International Journal of Disclosure and Governance**, 18(3), 2021, 193-206.
- <sup>145</sup> H. U. Rahmana, M. Zahidb & M. Khanc, *Corporate Sustainability Practices: A New Perspective of Linking Board with Firm Performance*, **Total Quality Management & Business Excellence**, 32(16), 2021, 1-18.
- <sup>146</sup> N Ikponmwoosa & D. O. Ogbeide, *Environmental Responsibility and Firm Financial Performance: Evidence from International Oil Companies in Niger Delta*, **Oradea Journal of Business and Economic (OJBE)**, 1(1), 8-20.
- <sup>147</sup> B. S. Adedeji, T. S. Ong, M. H. Uzir, & A. B. Abdul Hamid, *Corporate Governance and Performance of Medium-sized Firms in Nigeria: Does Sustainability Initiative matter?* **Corporate Governance**, 20(3), 2021, 401-427.
- <sup>148</sup> B. Zyznarska-Dworczak, *The Impact of the Accountability on Accounting Development as the Essence of Sustainability Accounting*, **Problems of Management in the 21<sup>st</sup> Century**, 14(1), 2019, 73-83.
- <sup>149</sup> E. Hardi & C. Chairina, *The Effect of Sustainability Reporting Disclosure and Its Impact on Companies Financial Performance*, **Journal of Wetlands Environmental Management**, 7(1), 2019, 67-75.
- <sup>150</sup> A. Baknsh, Z. Mahmood & A. B. Mahmood, *An International Investigation of the Institutional Factors Driving Sustainability Assurance*, **Journal of Business and Social Review in Emerging Economies**, 5(2), 2019, 367-78.

- 
- <sup>151</sup> N. Minaei, M. Pourkiani, M. Zayandehroody, & A. Sheikhy, *Presenting an Executive Sustainable Development Model Based on the Corporate Social Responsibility (CSR) and Green Management with Accountability in Executive Organizations*, **International Journal of Social Sciences**, 10(2), 2020, 45-62.
- <sup>152</sup> M. Tamvada, *Corporate Social Responsibility and Accountability: A New Theoretical Foundation for Regulation CSR*, **International Journal of Corporate Social Responsibility**, 5(20), 2020, 1-14.
- <sup>153</sup> K. De Silva, P. W.S Yapa & G. Vetsy, *The Impact of Accountability Mechanisms on Public Sector Environmental Sustainability Performance: A Case Study of Sri Lanka*, **Australian Accounting, Business and Finance Journal**, 14(3), 2020, 38-55.
- <sup>154</sup> J. R. Pattiruhu, *The Impact of Budget, Accountability Mechanisms and Renewable Energy Consumption on Environmental Development: Evidence from Indonesia*, **International Journal of Energy Economics and Policy**, 10(6), 2020, 697-703.
- <sup>155</sup> M. A. Ammer, M. M Alieden & M. A. Alyahyu, *Do Corporate Environmental Sustainability Practices Influence Firm Value? The Role of Independent Directors: Evidence from Saudi Arabia*, **MDPI**, 12(22), 2020, 1-21.
- <sup>156</sup> L. Conca, F. Manta, D. Morrone, P. Toma, *The Impact of Direct Environmental, Social, and Governance Reporting: Empirical Evidence in European Listed Companies in Agri-Food Sector*, **Business Strategy and Environment**, 30(2), 2020, 1080-1093.
- <sup>157</sup> S. S. Motwani & H. B. Pandra, *Evaluating the Impact of Sustainability Reporting on Financial Performance of Selected Indian Companies*, **International Journal of Research in IT & Management**, 6(11), 2016, 14-23.
- <sup>158</sup> A. E. Eide, E. A. Saether & A. Aspelund, *An Investigation of Leaders' Motivation, Intellectual Leadership, and Sustainability Strategy in Relation to Norwegian Manufacturers' Performance*, **Journal of Cleaner Production**, 254, 2020, 1-12.
- <sup>159</sup> P. Y. Foo, V. Lee, K. Ooi, G. W. Tan, & A. Sohail, *Unfolding the Impact of Leadership and Management on Sustainability Performance: Green and Lean Practices and Guanxi as Dual Mediators*, **Business Strategy and Environment**, 30(8), 2021, 4136-4153.
- <sup>160</sup> Z. A. Iqbal, G. Abid, M. Arshad, & F. Ashfaq, *Impact of Authoritative and Laissez-Faire Leadership on Thriving at Work: The Moderating Role of Conscientiousness*, **European Journal of Investigation in Health, Psychology and Education**, 11(3), 2021, 667-685.
- <sup>161</sup> A. Malik, N. Khan & S. Faisal, *An Investigation on Leadership Styles for the Business Productivity and Sustainability of Small Medium Enterprises (SMEs)*, **International Journal of Entrepreneurship**, 25(5), 2020, 1-10.
- <sup>162</sup> B. Amin, Y. Hakimah, S. Madjir, & D. Noviantoro, *The Role of Transformation Leadership in Enhancing Corporate Sustainability Capabilities and Sustainability Supply Chain Management*, **Polish Journal of Management Studies**, 20(2), 2019, 83-91.

- 
- <sup>163</sup> K. S. Sapta, *Sustainability Performance of Organization: Mediating Role of Knowledge Management*, **Economics**, 9(3), 2021, 1-16.
- <sup>164</sup> W. L. Mangundjaya, *The Linkage between Transformational Leadership, and Organizational Sustainability: Testing the Mediating Role of Psychological Empowerment*, **Advance Social Science, Education and Humanities Research**, 229, 2019, 1012-1024.
- <sup>165</sup> J. S. Welch, *Leaving Your Mark: Seven Strategies for Indelible Leadership*, **Journal of Value-Based Leadership**, 13(2), 2020, 1-15.
- <sup>166</sup> B. Akkaya & A. Bagienska, *The Role of Agile Women Leadership in Achieving Team Effectiveness through Interpersonal Trust for Business Agility*, **MDPI**, 14(1), 2022, 1-16.
- <sup>167</sup> F. J. G. Silva, K. Kirytopoulos, L. P. Ferreira, J. C. Sa, G. Santos & M. C. Nogueira, *The Three Pillars of Sustainability and Agile Project Management: How Do They Influence Each Other*, **Corporate Social Responsibility and Environmental Management**, 29(2), 2022, 1495-1512.
- <sup>168</sup> L. Satiawati, *The Effect of Agile Leadership and Work Environment to Employees' Performance in a VUCA World (Study on Millennial Generation Employees in Jabodetabek)*, **International Journal of Social Science and Human Research**, 4(11), 2021, 3123-3131.
- <sup>169</sup> D. M. Salvioni & A. Almici, *Transitioning Toward a Circular Economy: The Impact of Stakeholder Engagement on Sustainability Culture*, **MDPI**, 12(20), 2020, 1-30.
- <sup>170</sup> D. Talbot, N. Raineri & A. Daou, *Implementation of Sustainability Management Tools: The Contribution of Awareness, External Pressures, and Stakeholder Consultation*, **Corporate Social Responsibility and Environmental Management**, 28(1), 2021, 71-81.
- <sup>171</sup> W. Qian, C. Tilt, D. Dissanayake, & S. Kuruppu, S. *Motivations and Impacts of Sustainability Reporting in the Indo Pacific Region: Normative and Instrumental Stakeholder Approaches*, **Business Strategy and Environment**, 29(8), 2020, 3370-3384.
- <sup>172</sup> W. Ahmed, M. S. Ashraf, A. A. Khan, & S. Kusi-Sarpong, *Analyzing the Impact of Environmental Collaboration Among Supply Chain Stakeholders on a Firm's Sustainable Performance*, **Operational Management Research**, 13(9), 2020, 4-21.
- <sup>173</sup> F. Brulhart, S. Gherra & B. V. Quelin, *Do Stakeholder Orientation and Environmental Proactivity Impact Firm Profitability?* **Journal of Business Ethics**, 158(1), 2019, 25-46.
- <sup>174</sup> B. Ghassim & M. Bogers, *Linking Stakeholder Engagement to Profitability through Sustainability-oriented Innovation: A Quantitative Study of the Minerals Industry*, **Journal of Cleaner Production**, 224, 2016, 905-919.
- <sup>175</sup> B. L. Cancela, D. Neves, M. Elisabeta, L. L. Rodrigues, G. Dias, & A. Carlos, *The Influence of Corporate Governance on Corporate Sustainability: New Evidence Using Panel Data in the Iberian Macroeconomic Environment*, **International Journal of Accounting & Information Management**, 28(4), 2020, 785-806.

- 
- <sup>176</sup> O. S. Ajao & O. O. Moses, *Corporate Governance and Sustainability Reporting: The Controlling Effect of Company Size and Age in Selected Listed Firms in Nigeria*, **International Journal of Innovative Research & Development**, 10(4), 2021, 36-48.
- <sup>177</sup> N. K. E. Kardiyanti & N. B. Dwiranda, *Pengaruh Profitabilitas, Ukuran Perusahaan, Dan Kepemilikan Asing Pada Pengungkapan CSR*, **E-Jurnal Akuntansi**, 30(9), 2020, 2338-2350.
- <sup>178</sup> N. Orazalin & M. Mahmood, *Determinants of GRI-Based Sustainability Reporting: Evidence from an Emerging Economy*, **Journal of Accounting in Emerging Economies**, 10(1), 2020, 140-164.
- <sup>179</sup> W. Islamiati & D. Suryandari, *The Impact of Firm Size, Leverage, and Liquidity on Sustainability Report Disclosure with Profitability as Moderating Variable*, **Jurna Akuntansi Bisnis**, 18(2), 2021, 197-251.
- <sup>180</sup> M. Maryana & Y. Carolina, *The Impact of Firm Size, Leverage, Firm Age, Media Visibility and Profitability on Sustainability Report Disclosure*, **Journal of Finance and Banking**, 25(1), 2021, 36-47.
- <sup>181</sup> A. Haladu & S. A. Bin-Nashwan, *The Moderating Effect of Environmental Agencies on Firms' Sustainability Reporting in Nigeria*, **Social Responsibility Journal**, 18(2), 2021, 388-402.
- <sup>182</sup> D. A. Indriyani & E. Sudaryati, *Pengaruh Keragaman Gender Dewan, Industri dan Ukuran Perusahaan Terhadap Donasi Corporate Social Responsibility*, **E-Jurnal Akuntansi**, 30(8), 2020, 851-875.
- <sup>183</sup> A. Ekadjaja, A. Wijaya & Vernetta, *Factors Affecting Firm Performance in Manufacturing Companies in Indonesia Stock Exchange*, **Jurnal Akuntansi**, 25(1), 2021, 154-167.
- <sup>184</sup> M. A. Suleiman, G. E. Oyedokun & M. A. Adeolu-Akande., *Firm-Specific Factors and Sustainability of Listed Consumer Goods Manufacturing Companies in Nigeria*, **Global Research Journal of Accounting and Finance**, 2(1), 2021, 65-79.
- <sup>185</sup> S. Balasubramanian, V. Shukla & J. Chanchaichujit, *Do Firm Characteristics Affect Environmental Sustainability? A Literature Review-based Assessment*, **Business Strategy and Environmental**, 30(2), 2020, 1389-1416.
- <sup>186</sup> J. Adriana & N. H. U. Dewi, *The Effect of Environmental Performance, Firm Size, and Profitability on Environmental Disclosure*, **The Indonesian Accounting Review**, 8(1), 2019, 1-11.
- <sup>187</sup> D. Oktafianti & A. Rizki, *Managerial Ownership, Firm Size, Financial Performance, and Corporate Environmental Disclosure*, **Opcion Revista de Ciencias Humanas Sociales**, 36(26), 2020, 225-244.
- <sup>188</sup> L. M. Ifada, M. Indriastuti, E. Y. Ibrani & Y. Setiawanta, *Environmental Performance and Environmental Disclosure: The Role of Financial Performance*, **Journal of Asian Finance, Economics and Business**, 8(4), 2021, 349-362.

- 
- <sup>189</sup> P. Andries & U. Stephan, *Environmental Innovation and Firm Performance: How Firm Size and Motives Matter*, **MDPI**, 11(13), 2019, 1-17.
- <sup>190</sup> M. S. Thayaraj & W. V. A. D. Karunarathne, *The Impact of Sustainability Reporting on Firms' Financial Performance*, **Journal of Business and Technology**, 5(2), 2021, 51-73.
- <sup>191</sup> I. A. Makris, P. Charalabakis & S. Stavroyianni, *Analysing Factors that affect Profitability and Growth in French Publicly Listed Firms*, **International Journal of Economics and Business Research**, 21(3), 2021, 343-359.
- <sup>192</sup> N. Jumadi & J. Sjarief, *Analisis Pengaruh Intellectual Capital, Pengungkapan Sustainability Report, Dan Ukuran Perusahaan Terhadap Kinerja Keuangan*, **Simak**, 19(2), 2021, 339-354.
- <sup>193</sup> I. J. Osazefua, *Operational Efficiency and Financial Sustainability of Listed Manufacturing Companies in Nigeria*, **Journal of Accounting and Taxation**, 11(1), 2019, 17-31.
- <sup>194</sup> Z. Li, H. Chen, Q. Ma, & H. Li, *CEO Empowering Leadership and Corporate Entrepreneurship: The Roles of TMT Information Elaboration and Environmental Dynamism*, **Frontiers in Psychology**, 12, 2021, 1-15.
- <sup>195</sup> L. D. Prawati & M. H. Setyawan, *The Optimization of Excellent Performance through Managerial Ownership, Funding Policy, Corporate Governance: Does it Depend on the Environmental Technology Dynamism?* **International Journal of Recent Technology and Engineering (IJRTE)**, 8(4), 2019, 11410-11415.
- <sup>196</sup> H. Magd & H. Karyamsetty, *Integrated Management System Implementation in SMES: A Proposed Model for Organizational Performance and Sustainability*, **International Journal of Business and Management Review**, 8(4), 2020, 58-77.
- <sup>197</sup> A.M. Tiamiyu, G.E. Oyedokun & A. Aderemi, *Firm Characteristics and Sustainability Reporting of Listed Manufacturing Companies in Nigeria*, **Afar Multidisciplinary Journal of Management Sciences (MJMS)**, 3(1), 2021, 1-18.

## **Chapter Three**

### **Methodology**

This chapter identifies the research strategies to be employed to investigate the objectives stated, research questions raised, and test hypotheses formulated in the introductory chapter of this study. The methods to be employed followed a synthesized framework, which includes: the research design for this study, the study population, computation of sample size, sampling technique adopted, methods employed to collect data, research instrument, validity, and reliability of the research instrument. Also, the pilot study, administration, and retrieval of the research instrument, method of data analysis, and mathematical models for each hypothesis tested.

#### **3.1 Research Design**

This study adopted a cross-sectional survey design as it attempts to study a subset of a population at a point in time and to investigate the effect of corporate governance and firm-specific factors on the sustainability of fast-moving consumer goods manufacturers in Lagos State, Nigeria. The advantage of this method is that it has an economic advantage over the longitudinal survey design and is less cumbersome<sup>1</sup>. Studies found cross-sectional survey design appropriate in specific circumstances, for example when examining the effect of corporate governance and firm-specific factors on sustainability at a point in time<sup>2</sup>.

#### **3.2 Population of the Study**

The population of the study comprised five thousand seven hundred and ten (5,710) staff of six (6) registered Fast-Moving Consumer Goods (FMCG) manufacturers in Lagos State, Nigeria. The population number was obtained from the company's human resource unit as of 21<sup>st</sup> November 2021. The FMCG manufacturers selected are all registered firms that account for more than 85% of the market share of the consumer goods industry in Nigeria<sup>3</sup>. The firms

selected were the subject of discussion in the statement of the problem in this study. The choice of Lagos State as the geographical setting for this study is because 70% of the FMCG manufacturers have their head offices in the State<sup>4</sup>.

**Table 3.1: Population of the study**

S/N	Names of Fast-Moving Consumer Goods Manufacturers Selected	Location	Staff Strength
1.	Nestle 22/24 Ilupeju Ind	22/24 Ilupeju Industrial Avenue, Ilupeju, Lagos.	1,485
2.	Procter & Gamble	52-54 Isaak John St, Ikeja GRA, Lagos	184
3.	PZ	Town Planning way, Ilupeju, Lagos	1,540
4.	Unilever	1 Billings Way, Oregun, Ikeja, Lagos	1,143
5.	Cadbury	Lateef Jakande Rd, 1011233, Ikeja Lagos	781
6.	FrieslandCampina	Plot 7b Acme Rd, Ogba Industrial Estate, Ikeja, Lagos	577
<b>Total</b>			<b>5,710</b>

Source: Human Resource Office of Fast-Moving Consumer Goods Manufacturers, 2021.

### 3.3 Sample and Sampling Techniques

The sample size drawn from the sampling frame (see Table 3.2) was computed using Raosoft online sample size calculator for a finite population. The use of the sample is appropriate because the study is not interested in studying the entire population of the registered FMCG manufacturers in Lagos State, Nigeria. From the Raosoft calculator, 360 is considered appropriate for a population of 5,710 employees. The decision is reached at a 5% margin of error critical to management studies and a 95% level of confidence.



## Sample size calculator

What margin of error can you accept?

5% is a common choice

5 %

The margin of error is the amount of error that you can tolerate. If 90% of respondents answer *yes*, while 10% answer *no*, you may be able to tolerate a larger amount of error than if the respondents are split 50-50 or 45-55.

Lower margin of error requires a larger sample size.

What confidence level do you need?

Typical choices are 90%, 95%, or 99%

95 %

The confidence level is the amount of uncertainty you can tolerate. Suppose that you have 20 yes-no questions in your survey. With a confidence level of 95%, you would expect that for one of the questions (1 in 20), the percentage of people who answer *yes* would be more than the margin of error away from the true answer. The true answer is the percentage you would get if you exhaustively interviewed everyone. Higher confidence level requires a larger sample size.

What is the population size?

If you don't know, use 20000

5710

How many people are there to choose your random sample from? The sample size doesn't change much for populations larger than 20,000.

What is the response distribution?

Leave this as 50%

50 %

For each question, what do you expect the results will be? If the sample is skewed highly one way or the other, the population probably is, too. If you don't know, use 50%, which gives the largest sample size. See below under **More information** if this is confusing.

Your recommended sample size is

360

This is the minimum recommended size of your survey. If you create a sample of this many people and get responses from everyone, you're more likely to get a correct answer than you would from a large sample where only a small percentage of the sample responds to your survey.

360

Source: Raosoft, 2021

To address the issue of anticipated non-response, 20% (72) of the sample size was added to the computed sample of 360. The addition of the 72 is to address issues of anticipated non-response from the respondents and this procedure is in concomitance with existing literature<sup>1</sup>. In addition, it will ensure that the scientifically determined sample (optimum sample size) is achieved at the end of the study. Therefore, the sample for the staff of FMCG manufacturers in Lagos State, Nigeria, is 432.

This study adopted a stratified random sampling technique. First, the sample size was proportioned to know the exact number to draw from each manufacturer based on their population, this was followed by a stratified sampling technique. The population was stratified into three strata to include top management, middle management, and the operational management level. This technique enabled researchers to capture key population

characteristics in the study sample. In other words, stratified sampling showed key characteristics in the sample that appropriately reflect the population under study, and it is appropriate for populations with multiple characteristics. Lastly, the simple random technique was employed to pick from each stratum in each manufacturer based on the proportion calculated. The stratified random procedure gives fewer error margins when compared with an outright simple random sampling technique for a heterogeneous population.

**Table 3.2: Fast-Moving Consumer Goods Manufacturers Selected.**

Consumer goods Manufacturers	Number of Management staff	Proportionate percentage	Proportionate distribution of 432 Questionnaires	Top management level 20%	Middle Management Level 30%	Operational management level 50%
Nestle	1,485	26%	112	22	34	56
Procter & Gamble	184	3%	14	3	4	7
PZ	1,540	27%	117	23	35	58
Unilever	1,143	20%	86	17	26	43
Cadbury	781	14%	59	12	18	30
FrieslandCampina	577	10%	44	9	13	22
<b>Total</b>	<b>5,710</b>	<b>100%</b>	<b>432</b>	<b>86</b>	<b>130</b>	<b>216</b>

Source: Researcher's Computation, 2022

To determine the proportion of the sample size to each level on the basis of the stratified sampling technique, the study adopted the percentage defined by scholars who used the technique<sup>5</sup>. The scholars suggested that respondents can be chosen from each stratum in this order; top management 20%, middle level 30%, and operational level 50% especially when the organisation under investigation did not provide such information about the percentage makeup of each level in the organisation. The resultant sample size from each stratum is provided in Table 3.2.

### 3.4 Description of Research Instrument

A structured questionnaire was adopted as this study's instrument. The use of questionnaire is relevant because it helps in collecting feedback based on the perception and opinion of the respondents, more so, it is suitable for collecting data from a pool of people within a short period on current issues, and it also enhances quantitative data analysis. The items in the questionnaire were adapted from existing literature (See Table 3.3). The adapted questionnaire is a standardised scale that has been used by authors on the subject matter of this research in other countries, sectors, and in different industries. In line with extant literature<sup>6</sup>, the response options provided in this study's questionnaire follow the 6-point Likert-type scale. This scale has an ordinal interval scale numbered from 6 to 1. The response options in the questionnaire covered, Very High Extent (VHE) = 6, High Extent (HE) = 5, Moderately High Extent (MHE) = 4, Moderately Low Extent (MLE) = 3, Low Extent (LE) = 2, Very Low Extent (VLE) = 1

**Table 3.3: Source of Adapted Questionnaire**

Variable	Measurement	Source
Corporate Governance	Accountability, Agile Leadership, Stakeholder management	E-Vahdati, Zulkifli & Zakariya (2018); Chizema & Pogrebna (2019); Ackert, Church, Ventaraman, & Zhang (2019); Aderibigbe & Fragouli (2020)
Firm-specific factors	Firm-size, Operational efficiency	Yun, Ahmed, Jebran, & Mohammed (2020); Banerjee & Gupta (2021)
Environmental Dynamism	Tech dynamism, munificence, and complexities	Asikhia, Adewole, Onamusi, & Makinde (2022), Onamusi, Asikhia, & makinde (2019)

Source; Literature Review, 2022

The questionnaire has 5 sections: Section A covered the demographic variables with six (6) items, section B covered corporate governance with twenty-seven (27) items, section C covered firm-specific factors with eighteen (18) items. Section D covered business sustainability with twenty-six (26) items. Section E covered environmental dynamism with ten (10) items.

### **3.5 Validity of Research Instrument**

The research instrument was validated using criterion, content, and construct validity. For criterion and content validity, the instruments were validated by the project supervisor and practitioners who took part in this study. The contributions were used to modify the questionnaire as necessary for the main study taking into consideration how each of the variables was measured in existing literature. A pilot study was also conducted to provide an opportunity to pre-test the instruments to ascertain construct validity.

The pilot study was conducted using the regular staff of paint manufacturers, viz African Paints Nigeria Plc, Fabex paint Nigeria Ltd, and Askar Paints Nigeria Ltd in Ibadan because they share similar attributes with the manufacturers under investigation. A sample of 43 representing 10% of the sample size was used for the study. Hence, forty-three (43) copies of the questionnaire were administered to the staff of African Paints Nigeria Plc, Fabex paints Nigeria Ltd, and Askar Paints Nigeria Ltd. Convenient sampling was used to select respondents from the sampling unit. After retrieval and sorting of the questionnaire, thirty-six (36) copies of the questionnaire were deemed usable since they were properly filled.

The issues that came up during and after the pilot study include the following: Respondents complained about the number of items in the questionnaire and advised it should be reduced to aid the response rate. The respondents did not complain about the length of each question, but they advised the use of simple English that would enable respondents to adequately

respond to the questionnaire. The result of the pilot study shows that the instrument is valid and reliable for the study. The result of the Average Variance Extract (AVE), Composite Reliability (CR), and Cronbach's Alpha (CA) coefficient, confirms the validity and the reliability of the instrument.

The researcher conducted Confirmatory Factor Analysis (CFA) to ascertain the overall adequacy and validity of the instrument. Through the Varimax Extraction Method, factor loadings were extracted from the rotated component matrix to compute the Average Variance Extracted (AVE). Hence, AVE's value greater than 0.5 provided added proof of convergent validity, and the discriminate validity value for all the constructs below 1.00 on the Heterotrait-Monotrait (HTMT) criterion provided additional evidence of construct validity for each of the measured variables. Both the AVE and discriminant validity values provided evidence of construct validity for all the variables under study.

Table 3.4 and 3.5 present a summary of the construct validity for the questionnaire items of this study.

**Table 3.4: Summary of Pilot Test Incorporating Construct Validity Test**

Variable	AVE	Remark
Accountability	0.435	Reliable
Agile Leadership	0.591	Reliable
Corporate social responsibility	0.554	Reliable
Environmental dynamism	0.579	Reliable
Environmental performance	0.729	Reliable
Firm size	0.474	Reliable
Operational efficiency	0.568	Reliable
Profitability	0.53	Reliable

Stakeholder management

0.485

Reliable

Source: Computed from Pilot Study, 2021

Table 3.4 shows the result of the AVE values for the study constructs. AVE value of 0.45 is adjudged to be fair, a value of 0.55 is deemed to be good, while the value of 0.63 and 0.71 are respectively considered to be very good and excellent<sup>7</sup>. Thus, the AVE values of all the constructs as shown in table 3.4 suggest that convergent validity has been established for all the reflective constructs in this study.

In addition, the HTMT criterion was used to assess the discriminant validity for all the reflective constructs. An acceptable approach to establishing discriminant validity is through HTMT criterion which measures the average correlations of the indicators across constructs. The liberal benchmark for the HTMT value is 0.9<sup>8</sup>, added proof of discriminant validity between the reflective construct is established where the HTMT values for all the reflective constructs are below 1.0<sup>9</sup>. Table 3.5 present the HTMT criterion for this study which was computed using SmartPLS statistical version 3.3.3 platform.

**Table 3.5: Discriminant Validity using Heterotrait-Monotrait Ratio (HTMT)**

Construct	ACT	AGL	CSR	EVD	ENV	FS	OE	PRT	SUS
Accountability									
Agile Leadership	0.9								
Corporate responsibility	0.77	0.46							
Environmental dynamism	0.48	0.69	0.98						
Environmental performance	0.61	0.91	0.57	0.83					
Firm size	0.79	0.67	0.58	0.65	0.55				

Operational efficiency	0.53	0.8	0.31	0.65	0.59	0.54		
Profitability	0.9	0.99	0.7	0.74	0.99	0.81	0.8	
Stakeholder management	0.43	0.57	0.68	0.44	0.52	0.67	0.38	0.87

Source: Computed from Pilot Study, 2021

In concomitance with previous research on the threshold for establishing discriminant validity, all the constructs in table 3.5 had HTMT values below 1.00 to suggest that discriminant validity has been established for all the reflective constructs in this study<sup>9,10</sup>. Scholars have emphasised that both convergent validity (through AVE) and discriminant validity (through HTMT criterion) are important measures of construct validity<sup>11</sup>.

In furthering the process of validating the research instrument, factor analysis using principal component analysis was employed through Kaiser-Meyer-Olkin (KMO) test to measure the suitability of the data to the study and measure the sampling adequacy for each variable in the model and for the complete model. KMO (Kaiser-Meyer-Olkin) greater than 0.5 is required for the variable to be accepted<sup>12</sup>.

**Table 3.6: Validity Statistics Process**

Variable	KMO	Bart.	Sig	Remark
Accountability	0.599	119.261	(0.000)	Accepted
Agile Leadership	0.605	226.829	(0.000)	Accepted
Corporate social responsibility	0.564	205.964	(0.000)	Accepted
Environmental dynamism	0.577	227.706	(0.000)	Accepted
Environmental performance	0.834	522.968	(0.000)	Accepted
Firm size	0.562	235.996	(0.000)	Accepted
Operational efficiency	0.565	248.442	(0.000)	Accepted

Profitability	0.62	181.585	(0.000)	Accepted
Stakeholder management	0.688	278.007	(0.000)	Accepted

Source: Computed from Pilot Study, 2021

In addition, Bartlett test of Sphericity evaluates the strength of the relationship among variables. Hence, Bartlett test the null hypothesis which suggested that the items in the original correlational matrix have no relationship among them, which would indicate that the variables are unrelated and hence unsuitable for the study. In table 3.6, the KMO and Bartlett test values and the concomitant probability values were below the 0.05 threshold suggesting that the factor analysis conducted is appropriate<sup>13</sup>.

### 3.6 Reliability of the Instrument

The researcher subjected the questionnaire to test reliability. The variables were tested for internal consistency method of reliability and composite reliability. The internal consistency was used to establish the reliability of a measure by evaluating the within-scale consistency of the responses to the items of the measure. Applicable to multiple-item measurement instruments (like that of this study), Cronbach's alpha coefficient is widely employed for assessing this internal consistency. A Cronbach's alpha coefficient of  $> 0.7$  but  $< 1$  score for a questionnaire is adjudged to be reliable<sup>14</sup>. The composite reliability is used to revalidate the reliability of the instrument. Table 3.7 depicts the reliability statistic of all the variables in this study.

**Table 3.7: Reliability Statistic**

S/N	Variables	Composite Reliability	Cronbach's alpha coefficient
1.	Accountability	0.679	0.655
2.	Agile Leadership	0.809	0.644
3.	Corporate social responsibility	0.859	0.79
4.	Environmental dynamism	0.87	0.813
5.	Environmental performance	0.96	0.953
6.	Firm size	0.711	0.647
7.	Operational efficiency	0.886	0.847
8.	Profitability	0.792	0.683
9.	Stakeholder management	0.782	0.729

Source: Computed from Pilot Study, 2022

### 3.7 Administration of Research Instrument and Method of Data Collection

Primary data was collected to address the objectives of this study because it helps to reduce the chances of obtaining incorrect data. The primary data was collected using a structured questionnaire in line with existing studies. Moreover, this instrument works well with a cross-section design mainly because it aids the collection of data regarding the opinion and perception of respondents at a point in time on current issues.

The researcher met with each company's human resources managers and other designated officers responsible for seeking permission to conduct this study. This was seen to be necessary because the approval of the human resource managers, should facilitate the questionnaire administration, and retrieval and enhance the response rate.

The questionnaire was administered to 432 regular staff of the selected FMCG manufacturers across the top, middle, and operational management levels during opening hours at the business premise. A letter introducing the researcher, enumerating the purpose of the study, and copies of the questionnaire were delivered to the respondents. The copies

of the questionnaire were distributed both in person and by trained research assistants, with specific instructions on the administration process, which involved administering copies of the questionnaire to regular staff and retrieval of the copies of the questionnaire from the respondents.

### **3.8 Method of Data Analysis**

The data obtained through the administration of questionnaires to employees of FMCG manufacturers in Lagos State, Nigeria was analysed using descriptive statistics and inferential statistics. Descriptive statistics was used to analyse the variables in the questionnaire and to answer the research question. Inferential statistics was used to test and substantiate the hypotheses formulated for this study. Hypotheses 1-5 were achieved through Partial Least Square-Structural Equation Modelling. The result of the hypotheses will be significant at a probability value of less than 0.05. These descriptive statistics were carried out through the use of Statistical Package for Service Solutions (SPSS) version 25 while the inferential statistics was carried out via SmartPLS version 4.0. Table 3.8 shows a summary of the method used in analysing the objectives in this study.

**Table 3.8: Method of Analysing the Objectives in this Study**

<b>Objectives</b>	<b>Analytical Statistics Techniques</b>
Examine the effect of corporate governance on the sustainability of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.	PLS-SEM
Assess how firm-specific factors affect the sustainability of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.	PLS-SEM
Evaluate the effect of corporate governance and firm-specific factors on the sustainability performance of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.	PLS-SEM
Determine the moderating effect of environmental dynamism on the effect of corporate governance on the sustainability performance of Consumer Goods Manufacturing Companies in Nigeria.	PLS-SEM
Determine the mediating effect of environmental dynamism on the effect of firm-specific factors on the sustainability performance of Consumer Goods Manufacturing Companies in Nigeria.	PLS-SEM

Source: Researcher's Compilation, 2022

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## Endnotes

- <sup>1</sup> A. B. Onamusi, *Adaptive Capability, Social Media Agility, Ambidextrous Marketing Capability, and Business Survival: A Mediation Analysis*, **Marketing and Branding Research**, 8(1), 2021, 31-47.
- <sup>2</sup> S. L. Martin, R. G. Javalgi & L. Ciravegna, *Marketing Capabilities New Venture Performance: The Mediation Role of Marketing Communication and The Moderating Effect of Technological Turbulence*, **Journal of Business Research**, 107(1), 2020, 25-37.
- <sup>3</sup> National Bureau of Statistics, *Nigeria Manufacturing Sector Report*, National Bureau of Statistics. Available Online: <https://nigerianstat.gov.ng/elibrary?queries=manufacturing>.
- <sup>4</sup> Euromonitor International, *Lagos in Nigeria*. Euromonitor International. Available Online: <https://www.euromonitor.com/lagos-in-nigeria/report>.
- <sup>5</sup> A. B. Onamusi, O. G. Makinde & H. B. Akinlabi, *Entry Mode Strategy, Firm-level Capability, Environmental Turbulence, and Organisational Performance: A Moderated Analysis*, **Management and Economics Review**, 6(2), 2020, 101-114.
- <sup>6</sup> A. B. Onamusi, *Strategic Response Capability and Firm Competitiveness: How Omoluabi Leadership Makes a Difference*, **Business Excellence and Management**, 10(4), 2020, 23-37.
- <sup>7</sup> University of Cambridge, *What Thresholds Should I Use For Factor Loading Cut-offs?*, University of Cambridge. Available Online: <https://imaging.mrc-cbu.cam.ac.uk/statswiki/FAQ/thresholds>.
- <sup>8</sup> E. Roemer, F. Schuberth & J. Hensler, *HTMT2- An Improved Criterion For assessing Discriminant Validity in Structural Equation Modeling*. *Industrial Management & Data Systems*, 121(12), 2021, 2637-2649.
- <sup>9</sup> J. Gaskin, S. Godfrey & A. Vance, *Successful System Use: It's Not Just Who You Are, But What You Do*, **AIS Journals**, 10(2), 2018, 57-81.
- <sup>10</sup> J. Henseler, C. M. Ringle & M. Sarstedt, *A New Criterion for Accessing Discriminant Validity in Variance-Based Structural Equation Modeling*, **Journal of the Academy of Marketing Science**, 43(1), 2015, 115-135.
- <sup>11</sup> O. O. Tijani, T. Edmond & A. B. Onomusi, *The Relevance of Organisational Capabilities for Nursing Mother's Satisfaction*, **IAR Journal of Business Management**, 2(1), 2021, 12-20.
- <sup>12</sup> R. Gikunda, *Re: What Should Be Ideal KMO Value for Factor Analysis?*, ResearchGate. Available Online: <https://www.researchgate.net/post/What-should-be-ideal-KMO-value-for-factor-analysis/5b6b5b4436d235121d0f7bd9/citation/download> 2018.
- <sup>13</sup> V. Nijis, *Evaluate if Data are Appropriate for Factor Analysis*. Radiant. Available Online: [https://radiant-rstats.github.io/docs/multivariate/pre\\_factor.html](https://radiant-rstats.github.io/docs/multivariate/pre_factor.html), 2019.

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<sup>14</sup> J. F. Hair, B. J. Babin, R. E. Anderson, & C. B. Black, *Multivariate Data Analysis*, 8 ed. Hampshire: Cengage Learning, 2018, 122.

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## Chapter Four

### Results and Discussion of Findings

This chapter offers the empirical results from the data analysis conducted, an interpretation of the findings, and a discussion of the study results. Thus, this chapter presents the analyses of the data collected in the field survey. The analysis is mainly drawn from primary data collected through structured questionnaires. Descriptive statistics were adopted to analyse the variables in the questionnaire and answer the research question. Inferential statistics were used to test and substantiate the hypotheses formulated. Hypothesis 1-5 were tested using partial least square-structural equation modelling.

#### 4.1 Presentation of Data

A total of four hundred and thirty-two (432) copies of questionnaire were administered, and four hundred and six (406) copies were returned. After sorting the questionnaires 383 copies were certified as duly filled and considered usable. The useable questionnaire represented 88.65% response rate. The high response rate was recorded as the researcher administered the instruments with the help of research assistants who put concerted efforts to regularly visit the respondents to request them to fill the instrument, sometimes to clarify queries from the respondents and to prompt the respondents to fill the questionnaire. The response results are presented in Table 4.1.

**Table 4.1: Response Rate**

Responses	Frequency	Percent
Completed usable copies of questionnaire	383	88.65%
Unusable, unreturned and disqualified questionnaires	49	11.34%
Total	432	100%

Source: Field Survey Results, 2022

**Table 4.2 Demographic Characteristic of Respondents**

<b>Variables</b>	<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Gender	Male	272	71.0%
	Female	111	29.0%
Age	21-30 years	154	40.2%
	31-40 years	206	53.7%
	41-50 years	23	6.1%
Educational Qualification	ND/NCE	136	35.4%
	B.Sc/BA/HND	231	60.3%
	PGD/MBA/MSc/MA	16	4.3%
Job Level	Top Management	88	22.9%
	Middle Management	136	35.4%
	Operational Management	160	41.7%
Length of service	Below 5 years	184	48.1%
	6-10 years	159	41.5%
	11-15 years	40	10.4%

Source: Field Survey Results, 2022

This section consists of background and respondents' information that describes basic characteristics such as gender of the respondents, age of the respondents, educational qualification, job level, and length of service. To this effect, the results are presented in Table 4.2.

Table 4.2 presents the demographic and personal profile of respondents used for this study. Demographic and personal profile of respondents as shown in table 4.2. Profile of gender indicated that 272 respondents representing 71.0% were male while 111 respondents representing 29.0% were female, indicating that most of the respondents were male. Demographic and personal profile of respondents as shown in table 4.2 by age revealed that 154 respondents representing 40.2% were between the ages of 21-30 years, 206 respondents representing 53.7% were between 31-40 years, and 23 respondents representing 6.1% were

between 41-50 years, indicating that most of the respondents were between 31-40 years. Meanwhile, 136 respondents representing 35.4% had ND/NCE, 231 respondents representing 60.3% had BSc/BA/HND, and 16 respondents representing 4.3% had PGD/MBA/MSc/MA. Also, 88 respondents representing 22.9% were top management, 136 respondents representing 35.4% were middle management, and 160 respondents representing 41.7% were operational management. Furthermore, 184 respondents representing 48.1% had below 5 years length of service, 159 respondents representing 41.5% had 6-10 years, and 40 respondents representing 10.4% had 11-15 years.

#### 4.2 Presentation of Research Questions

**Research Question One:** How does accountability, agile leadership and stakeholder management (corporate governance) affect the sustainability of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria?

**Table 4.3: Descriptive Analysis of the Response on Accountability, Agile Leadership and Stakeholder Management (Corporate Governance)**

Accountability	VHE	HE	PHE	PLE	LE	VLE	Mean
Legal compliance	311 (79.1%)	8 (2.0%)	50 (12.7%)	16 (4.1%)	-	8 (2.0%)	5.50
Sanction on unethical practice	237 (60.3%)	140 (35.6%)	-	8 (2.0%)	-	8 (2.0%)	5.48
Ethical awareness	89 (22.6%)	156 (39.7%)	140 (35.6%)	8 (2.0%)	-	-	4.83
Reward for professional conduct	180 (45.8%)	114 (29.0%)	-	91 (23.2%)	8 (20%)	-	4.93

Display of Professionalism	211 (53.7%)	116 (29.5%)	50 (12.7%)	16 (4.1%)	-	-	5.33
Information disclosure	64 (16.3%)	149 (37.9%)	8 (2.0%)	107 (27.2%)	32 (8.1%)	33 (8.4%)	4.02
Adherence to accounting best practice	246 (62.6%)	32 (8.1%)	8 (2.0%)	67 (17.0%)	40 (10.2%)	-	4.96
Weighted Mean							5.01

<b>Stakeholder Management</b>	<b>VHE</b>	<b>HE</b>	<b>PHE</b>	<b>PLE</b>	<b>LE</b>	<b>VLE</b>	<b>Mean</b>
Shareholder's interest	219 (55.7%)	99 (25.2%)	51 (13.0%)	-	24 (6.1%)	-	5.24
Board Competence	245 (62.3%)	123 (31.3%)	25 (6.4%)	-	-	-	5.56
CEO's succession planning.	180 (45.8%)	156 (39.7%)	57 (14.5%)	-	-	-	5.31
Effective committee structures	147 (37.4%)	197 (50.1%)	49 (12.5%)	-	-	-	5.25
Effective decisions making	180 (45.8%)	213 (54.2%)	-	-	-	-	5.46
Collective responsibility	204 (51.9%)	74 (18.8%)	90 (22.9%)	25 (6.4%)	-	-	5.16
Governing Policies	180 (45.8%)	131 (33.3%)	74 (18.8%)	8 (2.0%)	-	-	5.23
Risk Assessment	169 (43.0%)	141 (35.9%)	9 (2.3%)	-	-	74 (18.8%)	4.65

Risk control	252 (64.1%)	109 (27.7%)	24 (6.1%)	8 (2.0%)	-	-	5.54
Protection of employees' rights	171 (43.5%)	74 (18.8%)	50 (12.7%)	8 (2.0%)	74 (18.8%)	16 (4.1%)	4.54
Weighted Mean							5.19

<b>Agile Leadership</b>	<b>VHE</b>	<b>HE</b>	<b>PHE</b>	<b>PLE</b>	<b>LE</b>	<b>VLE</b>	<b>Mean</b>
Ability to quickly cope with complex environmental issues	213 (54.2%)	172 (43.8%)	8 (2.0%)	-	-	-	5.52
Value high quality thinking in problem solving	220 (56.0%)	156 (39.7%)	17 (4.3%)	-	-	-	5.52
Provide opportunity for transparent feedbacks	171 (43.5%)	124 (31.6%)	57 (14.5%)	41 (10.4%)	-	-	5.08
Builds a system of shared purpose for all employees	180 (45.8%)	124 (31.6%)	57 (14.5%)	8 (2.0%)	24 (6.1%)	-	5.09
Inspires employees to bring their best to work	105 (26.7%)	165 (42.0%)	49 (12.5%)	8 (2.0%)	25 (6.4%)	41 (10.4%)	4.49
Develop tomorrow's leader without prejudice	140 (35.6%)	131 (33.3%)	32 (8.1%)	40 (10.2%)	25 (6.4%)	25 (6.4%)	4.63
Devolve appropriate authority	155 (39.4%)	84 (21.4%)	73 (18.6%)	8 (2.0%)	57 (14.5%)	16 (4.1%)	4.57
Encourage learning across departments	245 (62.3%)	91 (23.2%)	33 (8.4%)	16 (4.1%)	8 (2.0%)	-	5.4
Allow those close to problems generate ideas to solve it	302 (76.8%)	66 (16.8%)	16 (4.1%)	9 (2.3%)	-	-	5.68

Encourage change without chaos	114 (29.0%)	189 (48.1%)	24 (6.1%)	57 (14.5%)	-	9 (2.3%)	4.85
Weighted Mean							5.08
Grand mean for Corporate Governance							5.09

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Source: Field Survey Results, 2022

According to results in Table 4.3., 79.1% of respondents rated to a very high extent that there is legal compliance, 2.0% high extent, 12.7% partially high extent, 4.1% partially low extent, and 2.0% very low extent. On average, the respondents indicated that there is legal compliance has a mean of 5.50. Results also indicated that 60.3% of respondents rated to a very high extent that there is sanction on unethical practice, 35.6% high extent, 2.0% partially low extent, and 2.0% very low extent. On average, the respondents indicated that there is sanction on unethical practice has a mean of 5.48. Results also indicated that 22.6% of the respondents rated to a very high extent that there is ethical awareness, 39.7% high extent, 35.6% partially high extent, and 2.0% partially low extent. On average, the respondents indicated that there is ethical awareness has a mean of 4.83.

With regards to reward for professional conduct in the establishment, results indicated that 45.8% of the respondents rated to a very high extent that there is reward for professional conduct, 29.0% high extent, 23.2% partially low extent, and 2.0% low extent. On average, the respondents indicated that there is reward for professional conduct has a mean of 4.93. Results also indicated that 53.7% of respondents rated to a very high extent that there is display of professionalism, 29.5% high extent, 12.7% partially high extent, and 4.1% partially low extent. On average, the respondents indicated that there is display of professionalism has a mean of 5.33.

Result on information disclosure shows that, 16.3% of respondents rated to a very high extent that there is information disclosure, 37.9% high extent, 2.0% partially high extent, 27.2% partially low extent, 8.1% low extent, and 8.4% very low extent. On average, the respondents indicated that there is information disclosure has a mean of 4.02. Results also indicated that 62.6% of the respondents rated to a very high extent that there is adherence to accounting best practices, 8.1% high extent, 2.0% partially high extent, 17.0% partially low extent, and 10.2% low extent. On average, the respondents indicated that there is adherence to accounting best practice has a mean of 4.96.

On stakeholder's interest, results in Table 4.3., indicated that 55.7% of respondents rated to a very high extent that there is stakeholder's interest, 25.2% high extent, 13.0% partially high extent, and 6.1% low extent. On average, the respondents indicated that there is stakeholder's interest has a mean of 5.24. Results also indicated that 62.3% of respondents rated to a very high extent that there is board competence, 31.3% high extent, and 6.4% partially high extent. On average, the respondents indicated that there is board competence has a mean of 5.56. Results also indicated that 45.8% of the respondents rated to a very high extent that there is CEO'S succession planning, 39.7% high extent, and 14.5% partially high extent. On average, the respondents indicated that there is CEO's succession planning has a mean of 5.31.

Also, the results in Table 4.3 indicated that 37.4% of the respondents rated to a very high extent that there is there are effective committee structures, 50.1% high extent, and 12.5% partially high extent. On average, the respondents indicated that there are effective committee structures has a mean of 5.25. Results also indicated that 45.8% of respondents rated to a very high extent that there is effective decision making, and 54.2% high extent. On average, the respondents indicated that there is effective decision making has a mean of 5.46. Results also indicated that 51.9% of respondents rated to a very high extent that there is collective responsibility, 18.8% high extent, 22.9% partially high extent, and 6.4% partially low extent.

On average, the respondents indicated that there is collective responsibility has a mean of 5.16.

Furthermore, results also indicated that 45.8% of the respondents rated to a very high extent that there is governing policies, 33.3% high extent, 18.8% partially high extent, and 2.0% partially low extent. On average, the respondents indicated that there is governing policies has a mean of 5.23. Results also indicated that 43.0% of the respondents rated to a very high extent that there is risk assessment, 35.9% high extent, 2.3% partially high extent, and 18.8% very low extent. On average, the respondents indicated that there is risk assessment has a mean of 4.65.

With regards to risk control in the establishment, results also that 64.1% of the respondents rated very high that there is risk control, 27.7% high extent, 6.1% partially high extent, and 2.0% partially low extent. On average, the respondents indicated that there is risk control has a mean of 5.54. Results also indicate that 43.5% of the respondents rated to a very high extent that there is protection of employee's rights, 18.8% high extent, 12.7% partially high extent, 2.0% partially low extent, 18.8% low extent, and 4.1% very low extent. On average, the respondents indicated that there is protection of employee's rights has a mean of 4.54.

Result on ability to quickly cope with complex environmental issues in Table 4.3. indicated that, 54.2% of respondents rated to a very high extent that there is ability to quickly cope with complex environmental issues, 43.8% high extent, and 2.0% partially high extent. On average, the respondents indicated that there is ability to quickly cope with complex environmental issues has a mean of 5.52. Results also indicated that 56.0% of respondents rated to a very high extent that they value high quality thinking in problem solving, 39.7% high extent, and 4.3% partially high extent. On average, the respondents indicated that they value high quality thinking in problem solving has a mean of 5.52.

Results also indicated that 43.5% of the respondents rated to a very high extent that they provide opportunity for transparent feedbacks, 31.6% high extent, 14.5% partially high extent, and 10.4% partially low extent. On average, the respondents indicated that they provide opportunity for transparent feedbacks has a mean of 5.08. Results also indicated that 45.8% of the respondents rated to a very high extent that they build a system of shared purpose for all employees, 31.6% high extent, 14.5% partially high extent, 2.0% partially low extent, and 6.1% low extent. On average, the respondents indicated that they build a system of shared purpose for all employees has a mean of 5.09.

On employee inspiration, the results also indicated that 26.7% of respondents rated to a very high extent that they inspire employees to bring their best to work, 42.0% high extent, 12.5% partially high extent, 2.0% partially low extent, 6.4% low extent, and 10.4% very low extent. On average, the respondents indicated that they inspire employees to bring their best to work has a mean of 4.49. Results also indicated that 35.6% of respondents rated to a very high extent that they develop tomorrow's leader without prejudice, 33.3% high extent, 8.1% partially high extent, 10.2% partially low extent, 6.4% low extent, and 6.4% very low extent. On average, the respondents indicated that they develop tomorrow's leader without prejudice has a mean of 4.63. Results also indicated that 39.4% of the respondents rated to a very high extent that they devolve appropriate authority, 21.4% high extent, 18.6% partially high extent, 2.0% partially low extent, 14.5% low extent, and 4.1% very low extent. On average, the respondents indicated that they devolve appropriate authority has a mean of 4.57.

Furthermore, the results also indicated that 62.3% of the respondents rated to a very high extent that they encourage learning across departments, 23.2% high extent, 8.4% partially high extent, 4.1% partially low extent, and 2.0% low extent. On average, the respondents indicated that they encourage learning across departments has a mean of 5.40. In addition, results further indicated that 76.8% of the respondents rated very high that they allow those

close to problems generate ideas to solve it, 16.8% high extent, 4.1% partially high extent, and 2.3% partially low extent. On average, the respondents indicated that they allow those close to problems generate ideas to solve it has a mean of 5.68. Additionally, results also indicate that 29.0% of the respondents rated to a very high extent that they encourage change without chaos, 48.1% high extent, 6.1% partially high extent, 14.5% partially low extent, and 2.3% very low extent. On average, the respondents indicated that they encourage change without chaos has a mean of 4.85.

The grand mean for corporate governance is 5.09 which indicate that on average, respondents agreed with most of the statements on the high scale as it relates to how accountability, agile leadership, and stakeholder management are appropriate measures of corporate governance.

**Research Question Two:** What is the effect of firm size and operational efficiency (firm-specific factors) on the sustainability of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria?

**Table 4.4: Descriptive Analysis of the response on Firm size and Operational Efficiency (Firm-Specific Factors)**

<b>Operational Efficiency</b>	<b>VHE</b>	<b>HE</b>	<b>PHE</b>	<b>PLE</b>	<b>LE</b>	<b>VLE</b>	<b>Mean</b>
Customer service delivery	229 (58.3%)	132 (33.6%)	24 (6.1%)	8 (2.0%)	-	-	5.48
Customer service sensitivity	212 (53.9%)	157 (39.9%)	24 (6.1%)	-	-	-	5.48
Customer confidentiality	286 (72.8%)	74 (18.8%)	25 (6.4%)	8 (2.0%)	-	-	5.62
Satisfying range of clients	220 (56.0%)	140 (35.6%)	33 (8.4%)	-	-	-	5.48
Production cost reduction	138 (35.1%)	140 (35.6%)	107 (27.2%)	8 (2.0%)	-	-	5.04

Competence in handling customers	253 (64.4%)	124 (31.6%)	8 (2.0%)	8 (2.0%)	-	-	5.58
Operational creativity	229 (58.3%)	115 (29.3%)	41 (10.4%)	8 (2.0%)	-	-	5.44
Customer feedback mechanism	187 (47.6%)	91 (23.2%)	74 (18.8%)	41 (10.4%)	-	-	5.08
Responsive to customer compliant.	237 (60.3%)	82 (20.9%)	66 (16.8%)	8 (2.0%)	-	-	5.39
Weighted Mean							5.4

<b>Firm Size</b>	<b>VHE</b>	<b>HE</b>	<b>PHE</b>	<b>PLE</b>	<b>LE</b>	<b>VLE</b>	<b>Mean</b>
Number of employees	130 (33.1%)	157 (39.9%)	65 (16.5%)	41 (10.4%)	-	-	4.96
Products on Offer	229 (58.3%)	122 (31.0%)	42 (10.7%)	-	-	-	5.48
Number of outlets	147 (37.4%)	139 (35.4%)	50 (12.7%)	9 (2.3%)	24 (6.1%)	24 (6.1%)	4.77
Productive capacity	162 (41.2%)	124 (31.6%)	49 (12.5%)	-	16 (4.1%)	42 (10.7%)	4.74
Acquisition of competitive resources	237 (60.3%)	57 (14.5%)	82 (20.9%)	8 (2.0%)	-	9 (2.3%)	5.26
Diversification into related business	172 (43.8%)	74 (18.8%)	65 (16.5%)	58 (14.8%)	-	24 (6.1%)	4.73
Customer acquisition	163 (41.5%)	41 (10.4%)	92 (23.4%)	40 (10.2%)	57 (14.5%)	-	4.54
Customer Retention	106 (27.0%)	57 (14.5%)	114 (29.0%)	90 (22.9%)	17 (4.3%)	9 (2.3%)	4.3
Product quality	171 (43.5%)	155 (39.4%)	42 (10.7%)	16 (4.1%)	9 (2.3%)	-	5.18
Brand Image	285 (72.5%)	75 (19.1%)	25 (6.4%)	8 (2.0%)	-	-	5.62

Weighted Mean	4.96
Grand mean for firm-specific factors	5.18

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Source: Field Survey Results, 2022

According to results in Table 4.4. 58.3% of respondents rated to a very high extent that there is customer service delivery, 33.6% high extent, 6.1% partially high extent, and 2.0% partially low extent. On average, the respondents indicated that there is customer service delivery has a mean of 5.48. Results also indicated that 53.9% of respondents rated to a very high extent that there is customer service sensitivity, 39.9% high extent, and 6.1% partially high extent. On average, the respondents indicated that there is customer service sensitivity has a mean of 5.48.

With regards to customer confidentiality, results indicated that 72.8% of the respondents rated to a very high extent that there is customer confidentiality, 18.8% high extent, 6.4% partially high extent, and 2.0% partially low extent. On average, the respondents indicated that there is customer confidentiality has a mean of 5.62. Results also indicated that 56.0% of the respondents rated to a very high extent that there is satisfying range of clients, 35.6% high extent, and 8.3% partially high extent. On average, the respondents indicated that there is satisfying range of clients has a mean of 5.48. Results also indicated that 35.1% of respondents rated to a very high extent that there is production cost reduction, 35.6% high extent, 27.2% partially high extent, and 2.0% partially low extent. On average, the respondents indicated that there is production cost reduction has a mean of 5.04.

Results on competence in handling customers indicated that 64.4% of respondents rated to a very high extent that there is competence in handling customers, 31.6% high extent, 2.0% partially high extent, and 2.0% partially low extent. On average, the respondents indicated

that there is competence in handling customers has a mean of 5.58. Results also indicated that 58.3% of the respondents rated to a very high extent that there is operational creativity, 29.3% high extent, 10.4% partially high extent, and 2.0% partially low extent. On average, the respondents indicated that there is operational creativity has a mean of 5.44. Results also indicated that 47.6% of the respondents rated to a very high extent that there is customer feedback mechanism, 23.2% high extent, 18.8% partially high extent, and 10.4% partially low extent. On average, the respondents indicated that there is customer feedback mechanism has a mean of 5.08. Results also indicated that 60.3% of the respondents rated to a very high extent that they are responsive to customer compliant, 20.9% high extent, 16.8% partially high extent, and 2.0% partially low extent. On average, the respondents indicated that they are responsive to customer compliant has a mean of 5.39.

According to results in Table 4.4. 33.1% of respondents rated to a very high extent that they have number of employees, 39.9% high extent, 16.5% partially high extent, and 10.4% low extent. On average, the respondents indicated that they have number of employees has a mean of 4.96. Results also indicated that 58.3% of respondents rated to a very high extent that there are products on offer, 31.0% high extent, and 10.7% partially high extent. On average, the respondents indicated that there are products on offer has a mean of 5.48. Results also indicated that 37.4% of the respondents rated to a very high extent that there are number of outlets, 35.4% high extent, 12.7% partially high extent, 2.3% partially low extent, 6.1% low extent, and 6.1% very low extent. On average, the respondents indicated that there are number of outlets has a mean of 4.77.

Furthermore, results indicated that 41.2% of the respondents rated to a very high extent that there is productive capacity, 31.6% high extent, 12.5% partially high extent, 4.1% low extent, and 10.7% very low extent. On average, the respondents indicated that there is productive capacity has a mean of 4.74. Results also indicated that 60.3% of respondents rated to a very

high extent that there is acquisition of competitive resources, 14.5% high extent, 20.9% partially high extent, 2.0% partially low extent, and 2.3% very low extent. On average, the respondents indicated that there is acquisition of competitive resources has a mean of 5.26. Results also indicated that 43.8% of respondents rated to a very high extent that there is diversification into related business, 18.8% high extent, 16.5% partially high extent, 14.8% partially low extent, and 6.1% very low extent. On average, the respondents indicated that there is diversification into related business has a mean of 4.73. Results also indicated that 41.5% of the respondents rated to a very high extent that there is customer acquisition, 10.4% high extent, 23.4% partially high extent, 10.2% partially low extent, and 14.5% low extent. On average, the respondents indicated that there is customer acquisition has a mean of 4.54.

In addition, results also indicated that 27.0% of the respondents rated to a very high extent that there is customer retention, 14.5% high extent, 29.0% partially high extent, 22.9% partially low extent, 4.3% low extent, and 2.3% very low extent. On average, the respondents indicated that there is customer retention has a mean of 4.30. Results also indicated that 43.5% of the respondents rated very high that there is product quality, 39.4% high extent, 10.7% partially high extent, 4.1% partially low extent, and 2.3% low extent. On average, the respondents indicated that there is product quality has a mean of 5.18. Results also indicated that 72.5% of the respondents rated to a very high extent that there is brand image, 19.1% high extent, 6.4% partially high extent, and 2.0% partially low extent. On average, the respondents indicated that there is brand image has a mean of 5.62.

The grand mean for firm-specific factor is 5.18 which indicate that on average, respondents agreed with most of the statements on the high scale as it relates to how firm size and operational efficiency are appropriate measures of corporate governance.

**Research Question Three:** What is the joint effect of accountability, agile leadership, stakeholder management (corporate governance); firm size and operational efficiency (firm-specific factors) on the sustainability performance of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria?

**Table 4.5: Descriptive Analysis of the response on Sustainability**

<b>Environmental Performance</b>	<b>VHE</b>	<b>HE</b>	<b>PHE</b>	<b>PLE</b>	<b>LE</b>	<b>VLE</b>	<b>Mean</b>
Personnel training in environmental care	262 (66.7%)	16 (4.1%)	74 (18.8%)	-	41 (10.4%)	-	5.17
Allocation of budgetary resources to minimize pollution	173 (44.0%)	155 (39.4%)	8 (2.0%)	16 (4.1%)	41 (10.4%)	-	5.03
Pollution prevention	180 (45.8%)	82 (20.9%)	41 (10.4%)	74 (18.8%)	16 (4.1%)	-	4.85
Pollution control	172 (43.8%)	90 (22.9%)	33 (8.4%)	49 (12.5%)	49 (12.5%)	-	4.73
Use of environmental management systems	180 (45.8%)	90 (22.9%)	74 (18.8%)	33 (8.4%)	8 (2.0%)	8 (2.0%)	4.96
Recycling or reuse of materials and waste	106 (27.0%)	40 (10.2%)	157 (39.9%)	33 (8.4%)	16 (4.1%)	41 (10.4%)	4.16
Selection of renewable raw materials in the production process	56 (14.2%)	58 (14.8%)	181 (46.1%)	57 (14.5%)	-	41 (10.4%)	3.97
Selection of renewable energy in the production process	65 (16.5%)	48 (12.2%)	207 (52.7%)	32 (8.1%)	-	41 (10.4%)	4.06
Environmental impact assessment of the product life cycle	147 (37.4%)	24 (6.1%)	115 (29.3%)	66 (16.8%)	25 (6.4%)	16 (4.1%)	4.39

Weighted Mean 4.59

<b>Corporate Social Responsibility</b>	<b>VHE</b>	<b>HE</b>	<b>PHE</b>	<b>PLE</b>	<b>LE</b>	<b>VLE</b>	<b>Mean</b>
Legal responsibility	229 (58.3%)	124 (31.6%)	32 (8.1%)	-	8 (2.0%)	-	5.44
Ethical responsibility	163 (41.5%)	173 (44.0%)	16 (4.1%)	33 (8.4%)	8 (2.0%)	-	5.15
Professional responsibility	163 (41.5%)	206 (52.4%)	16 (4.1%)	-	8 (2.0%)	-	5.31
Political responsibility	148 (37.7%)	41 (10.4%)	98 (24.9%)	65 (16.5%)	41 (10.4%)	-	4.48
Social responsibility	82 (20.9%)	171 (43.5%)	90 (22.9%)	42 (10.7%)	8 (2.0%)	-	4.7
Environment responsibility	196 (49.9%)	123 (31.3%)	41 (10.4%)	25 (6.4%)	8 (2.0%)	-	5.21
Employee responsibility	140 (35.6%)	163 (41.5%)	57 (14.5%)	25 (6.4%)	8 (2.0%)	-	5.02
Supplier responsibility	64 (16.3%)	206 (52.4%)	8 (2.0%)	90 (22.9%)	25 (6.4%)	-	4.49
Competitor responsibility	138 (35.1%)	162 (41.2%)	42 (10.7%)	34 (8.7%)	17 (4.3%)	-	4.94
Weighted Mean							4.97

<b>Profitability</b>	<b>VHE</b>	<b>HE</b>	<b>PHE</b>	<b>PLE</b>	<b>LE</b>	<b>VLE</b>	<b>Mean</b>
Increase between 2015 and 2016	139 (35.4%)	196 (49.9%)	25 (6.4%)	33 (8.4%)	-	-	5.12
Increase between 2016 and 2017	187 (47.6%)	99 (25.2%)	107 (27.2%)	-	-	-	5.2
Increase between 2017 and 2018	221 (56.2%)	115 (29.3%)	57 (14.5%)	-	-	-	5.42
Increase between 2018 and 2019	66 (16.8%)	237 (60.3%)	90 (22.9%)	-	-	-	4.94
Increase between 2019 and 2020	172 (43.8%)	98 (24.9%)	32 (8.1%)	91 (23.2%)	-	-	4.89
Increase between 2020 and 2021	163 (41.5%)	115 (29.3%)	24 (6.1%)	8 (2.0%)	-	83 (21.1%)	4.47
Weighted Mean							5.01
Grand mean for Sustainability							4.85

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Source: Field Survey Results, 2022

According to results in Table 4.5. 66.7% of respondents rated to a very high extent that there is personnel training in environmental care, 4.1% high extent, 18.8% partially high extent, and 10.4% low extent. On average, the respondents indicated that there is personnel training in environmental care has a mean of 5.17. Results also indicated that 44.0% of respondents rated to a very high extent that there is allocation of budgetary resources to minimize pollution, 39.4% high extent, 2.0% partially low extent, 4.1% partially low extent, and 10.4%

low extent. On average, the respondents indicated that there is allocation of budgetary resources to minimize pollution has a mean of 5.03.

With regards to pollution prevention, results indicated that 45.8% of the respondents rated to a very high extent that there is pollution prevention, 20.9% high extent, 10.4% partially high extent, 18.8% partially low extent, and 4.1% low extent. On average, the respondents indicated that there is pollution prevention has a mean of 4.85. Results also indicated that 43.8% of the respondents rated to a very high extent that there is pollution control, 22.9% high extent, 8.4% partially high extent, 12.5% partially low extent, and 12.5% low extent. On average, the respondents indicated that there is pollution control has a mean of 4.73. Results also indicated that 45.8% of respondents rated to a very high extent that they make use of environmental management systems, 22.9% high extent, 18.8% partially high extent, 8.4% partially low extent, 2.0% low extent, and 2.0% very low extent. On average, the respondents indicated that they make use of environmental management systems has a mean of 4.96.

Results on recycling or reuse of materials and waste also indicated that, 27.0% of respondents rated to a very high extent that there is recycling or reuse of materials and waste, 10.2% high extent, 39.9% partially high extent, 8.4% partially low extent, 4.1% low extent, and 10.4% very low extent. On average, the respondents indicated that there is recycling or reuse of materials and waste has a mean of 4.16. Results also indicated that 14.2% of the respondents rated to a very high extent that there is selection of renewable raw materials in the production process, 14.8% high extent, 46.1% partially high extent, 14.5% partially low extent, and 10.4% very low extent. On average, the respondents indicated that there is selection of renewable raw materials in the production process has a mean of 3.97.

On selection of renewable energy for production process, results indicated that 16.5% of the respondents rated to a very high extent that there is selection of renewable energy in the

production process, 12.2% high extent, 52.7% partially high extent, 8.1% partially low extent, and 10.4% very low extent. On average, the respondents indicated that there is selection of renewable energy in the production process has a mean of 4.06. Results also indicated that 37.4% of the respondents rated to a very high extent that there is environmental impact assessment of the product life cycle, 6.1% high extent, 29.3% partially high extent, 16.8% partially low extent, 6.4% low extent, and 4.1% very low extent. On average, the respondents indicated that there is environmental impact assessment of the product life cycle has a mean of 4.39.

According to results in Table 4.5. 58.3% of respondents rated to a very high extent that there is legal responsibility, 31.6% high extent, 8.1% partially high extent, and 2.0% low extent. On average, the respondents indicated that there is legal responsibility has a mean of 5.44. Results also indicated that 41.5% of respondents rated to a very high extent that there is ethical responsibility, 44.0% high extent, 4.1% partially high extent, 8.4% partially low extent, and 2.0% low extent. On average, the respondents indicated that there is ethical responsibility has a mean of 5.15. Results also indicated that 41.5% of the respondents rated to a very high extent that there is professional responsibility, 52.4% high extent, 4.1% partially high extent, and 2.0% low extent. On average, the respondents indicated that there is professional responsibility has a mean of 5.31.

Results also indicated that 37.7% of the respondents rated to a very high extent that there is political responsibility, 10.4% high extent, 24.9% partially high extent, 16.5% partially low extent, and 10.4% low extent. On average, the respondents indicated that there is political responsibility has a mean of 4.48. Results also indicated that 20.9% of respondents rated to a very high extent that there is social responsibility, 43.5% high extent, 22.9% partially high extent, 10.7% partially low extent, and 2.0% low extent. On average, the respondents indicated that there is social responsibility has a mean of 4.70. Results also indicated that

49.9% of respondents rated to a very high extent that there is environment responsibility, 31.3% high extent, 10.4% partially high extent, 6.4% partially low extent, and 2.0% low extent. On average, the respondents indicated that there is environment responsibility has a mean of 5.21.

Furthermore, results indicated that 35.6% of the respondents rated to a very high extent that there is employee responsibility, 41.5% high extent, 14.5% partially high extent, 6.4% partially low extent, and 2.0% low extent. On average, the respondents indicated that there is employee responsibility has a mean of 5.02. Results also indicated that 16.3% of the respondents rated to a very high extent that there is supplier responsibility, 52.4% high extent, 2.0% partially high extent, 22.9% partially low extent, and 6.4% low extent. On average, the respondents indicated that there is supplier responsibility has a mean of 4.49. Results also indicated that 35.1% of the respondents rated very high that there is competitor responsibility, 41.2% high extent, 10.7% partially high extent, 8.7% partially low extent, and 4.3% low extent. On average, the respondents indicated that there is competitor responsibility has a mean of 4.94.

According to results in Table 4.5., 35.4% of respondents rated to a very high extent that there is increase between 2015 and 2016, 49.9% high extent, 6.4% partially high extent, and 8.4% partially low extent. On average, the respondents indicated that there is increase between 2015 and 2016 has a mean of 5.12. Results also indicated that 47.6% of respondents rated to a very high extent that there is increase between 2016 and 2017, 25.2% high extent, and 27.2% partially high extent. On average, the respondents indicated that there is increase between 2016 and 2017 has a mean of 5.20. Results also indicated that 56.2% of the respondents rated to a very high extent that there is increase between 2017 and 2018, 29.3% high extent, and 14.5% partially high extent. On average, the respondents indicated that there is increase between 2017 and 2018 has a mean of 5.42.

In addition, results indicated that 16.8% of the respondents rated to a very high extent that there is increase between 2018 and 2019, 60.3% high extent, and 22.9% partially high extent. On average, the respondents indicated that there is increase between 2018 and 2019 has a mean of 4.94. Results also indicated that 43.8% of respondents rated to a very high extent that there is increase between 2019 and 2020, 24.9% high extent, 8.1% partially high extent, and 23.2% partially low extent. On average, the respondents indicated that there is increase between 2019 and 2020 has a mean of 4.89. Results also indicated that 41.5% of respondents rated to a very high extent that there is increase between 2020 and 2021, 29.3% high extent, 6.1% partially high extent, 2.0% partially low extent, and 21.1% very low extent. On average, the respondents indicated that there is increase between 2020 and 2021 has a mean of 4.47.

The grand mean for sustainability is 4.85 which indicate that on average, respondents agreed with most of the statements on the high scale as it relates to how profitability, corporate social responsibility and environmental performance are appropriate measures of corporate governance.

Relating results in tables 4.3, 4.4, and 4.5 together, the corporate governance with respect to accountability, agile leadership, and stakeholder's management and firm-specific factors with regards to firm size and operational efficiency have varying patterns of increase with sustainability vis-à-vis environmental performance, corporate social responsibility, and profitability of FMCGs companies in Lagos State, Nigeria.

The findings reveal corporate governance measures such as accountability, agile leadership, and stakeholder's management are evident and in play within the FMCGs manufacturing companies in Lagos State, Nigeria to ensures best practices in their operations. Further analysis show that firm-specific factors contextualized as firm size and operational efficiency experienced increase too.

The descriptive analysis for each of the corporate governance measures, firm-specific factors, and sustainability of FMCGs companies was at a moderately high level. Nonetheless, reasonable efforts in strategies can be put in place to improve these results. Consequent on these findings mentioned above, it suggests that corporate governance and firm-specific factors may affect sustainability of FMCGs manufacturing companies in Lagos State, Nigeria. This provides response to research questions and create the basis for the achievement of the specific objectives of this study.

**Research Question Four:** What is the moderating effect of environmental dynamism on the effect of accountability, agile leadership and stakeholder management (corporate governance) on the sustainability performance of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria?

**Table 4.6: Descriptive Analysis of the response on Environmental Dynamism**

<b>Environmental Dynamism</b>	<b>VHE</b>	<b>HE</b>	<b>PHE</b>	<b>PLE</b>	<b>LE</b>	<b>VLE</b>	<b>Mean</b>
Instability of demand	124 (31.6%)	57 (14.5%)	147 (37.4%)	24 (6.1%)	8 (2.0%)	33 (8.4%)	4.42
Frequent product innovations	271 (69.0%)	98 (24.9%)	24 (6.1%)	-	-	-	5.63
Opportunity for growth	156 (39.7%)	172 (43.8%)	65 (16.5%)	-	-	-	5.23
Increasing competition	148 (37.7%)	98 (24.9%)	131 (33.3%)	8 (2.0%)	8 (2.0%)	-	4.94
Unpredictable consumer behaviour	48 (12.2%)	164 (41.7%)	125 (31.8%)	48 (12.2%)	8 (2.0%)	-	4.50
Unpredictable challenges	181 (46.1%)	57 (14.5%)	49 (12.5%)	98 (24.9%)	8 (2.0%)	-	4.78
Technological diversity	178 (45.3%)	98 (24.9%)	91 (23.3%)	18 (4.6%)	8 (2.0%)	-	5.07
Environmental hostility	114 (29.0%)	115 (29.3%)	82 (20.9%)	82 (20.9%)	-	-	4.66

Economic wellbeing	163 (41.5%)	179 (45.5%)	35 (8.9%)	8 (2.0%)	8 (2.0%)	-	5.22
Enabling regulatory policy(s)	229 (58.3%)	73 (18.6%)	75 (19.1%)	8 (2.0%)	8 (2.0%)	-	5.29
Grand Mean for Environmental Dynamism							4.97

Source: Field Survey Results, 2022

According to results in Table 4.6. 31.6% of respondents rated to a very high extent that there is instability of demand, 14.5% high extent, 37.4% partially high extent, 6.1% partially low extent, 2.0% low extent, and 8.4% very low extent. On average, the respondents indicated that there is instability of demand has a mean of 4.42. Results also indicated that 69.0% of respondents rated to a very high extent that there is frequent product innovations, 24.9% high extent, and 6.1% partially high extent. On average, the respondents indicated that there is frequent product innovations has a mean of 5.63.

Results also indicated that 39.7% of the respondents rated to a very high extent that there is opportunity for growth, 43.8% high extent, and 16.5% partially high extent. On average, the respondents indicated that there is opportunity for growth has a mean of 5.23. Results also indicated that 37.7% of the respondents rated to a very high extent that there is increasing competition, 24.9% high extent, 33.3% partially high extent, 2.0% partially low extent, and 2.0% low extent. On average, the respondents indicated that there is increasing competition has a mean of 4.94. Results also indicated that 12.2% of respondents rated to a very high extent that there is unpredictable consumer behavior, 41.7% high extent, 31.8% partially high extent, 12.2% partially low extent, and 2.0% low extent. On average, the respondents indicated that there is unpredictable consumer behavior has a mean of 4.50.

With regards to unpredictable challenges, results indicated that 46.1% of respondents rated to a very high extent that there is unpredictable challenges, 14.5% high extent, 12.5% partially high extent, 24.9% partially low extent, and 2.0% low extent. On average, the respondents

indicated that there is unpredictable challenges has a mean of 4.78. Results also indicated that 45.3% of the respondents rated to a very high extent that there is technology diversity, 24.9% high extent, 23.3% partially high extent, 4.6% partially low extent, and 2.0% low extent. On average, the respondents indicated that there is technological diversity has a mean of 5.07.

Results on environmental hostility indicated that 29.0% of the respondents rated to a very high extent that there is environmental hostility, 29.3% high extent, 20.9% partially high extent, and 20.9% partially low extent. On average, the respondents indicated that there is environmental hostility has a mean of 4.66. Results also indicated that 41.5% of the respondents rated very high that there is economic wellbeing, 45.5% high extent, 8.9% partially high extent, 2.0% partially low extent, and 2.0% low extent. On average, the respondents indicated that there is economic wellbeing has a mean of 5.22. Results also indicated that 58.3% of the respondents rated to a very high extent that they enable regulatory policy(s), 18.6% high extent, 19.1% partially high extent, 2.0% partially low extent, and 2.0% low extent. On average, the respondents indicated that they enable regulatory policy(s) has a mean of 5.29.

The grand mean for environmental dynamism is 4.97 which indicate that on average, respondents agreed with most of the statements on the high scale as it relates to the level of environmental dynamism exposure of FMCGS manufacturing companies in Nigeria. The grand mean for sustainability is 4.85 which indicate that on average, respondents agreed with most of the statements on the high scale to suggest the level of sustainability is moderately high. Relating results in tables 4.3, 4.4, 4.5, and 4.6 together, the corporate governance, firm-specific factors, and environmental dynamism have varying patterns of increase with sustainability vis-à-vis environmental performance, corporate social responsibility, and profitability of FMCG companies in Lagos State, Nigeria.

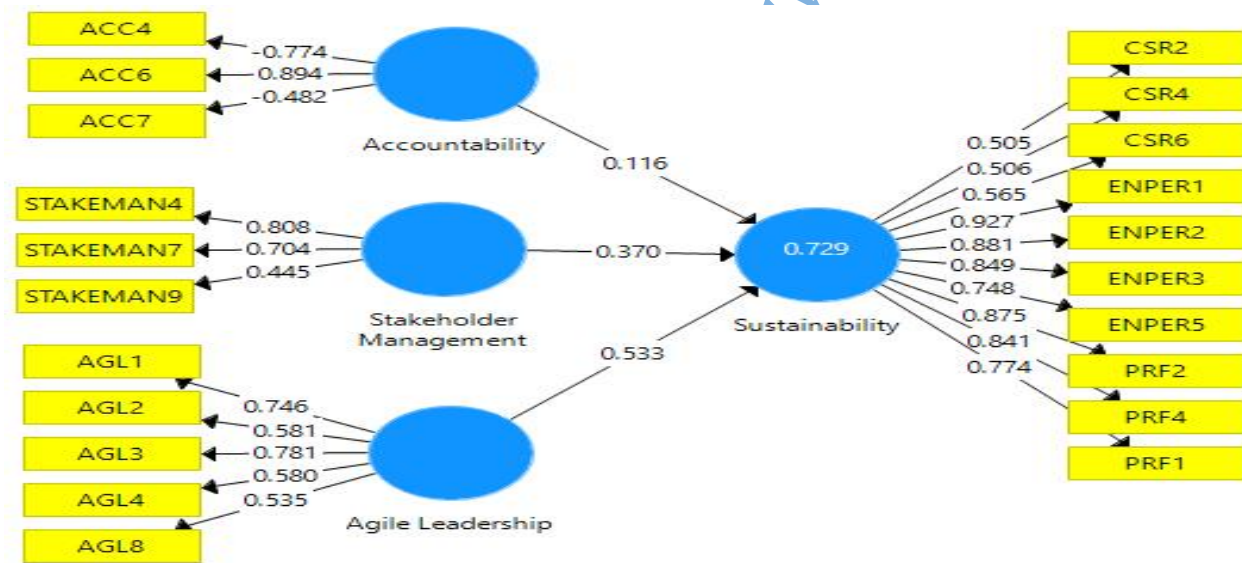
The findings reveal that the level of environmental dynamism exposure by FMCGS manufacturing companies in Nigeria is moderately high to suggest growth potential to take advantage of. The descriptive analysis for corporate governance measures, firm-specific factors, environmental dynamism, and sustainability of FMCGs companies was at a moderately high level to suggest that environmental dynamism may intervene to either moderate or mediate the interaction between corporate governance, firm-specific factors and sustainability of FMCGs manufacturing companies in Lagos State, Nigeria. This provides response to research questions four and five and creates the basis for the achievement of the specific objectives four and five of this study.

#### **4.2 Presentation of Test of Hypotheses**

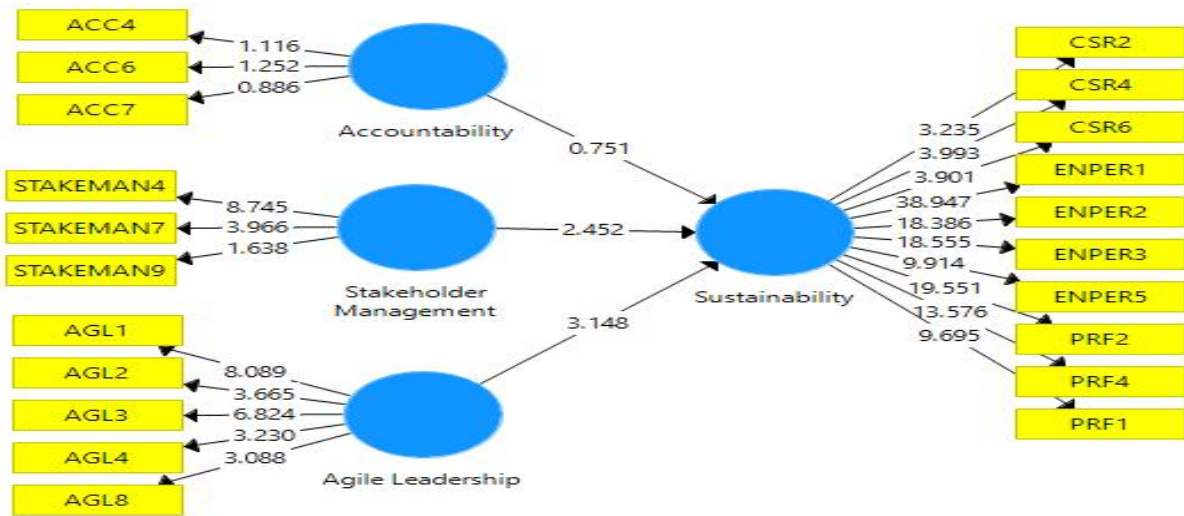
**Hypothesis One:** Accountability, agile leadership and stakeholder management (corporate governance) will have no significant effect on the sustainability of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.

To test the null hypothesis one, PLS-Structural Equation Modelling (PLS-SEM) was adopted using the SmartPLS statistical platform version 4.0. The study used the PLS-algorithm's command which is appropriate for predicting effect-relationship, ran the bootstrapping to ascertain the level of significance of the prediction, and ran blindfolding to determine the predictive relevance of the structural model specified. Hence, the choice of PLS-SEM (via SmartPLS) is because it is a more advanced multivariate analytical technique which performs multiple regression, factor analysis, and provides a pictorial model of the interactions in a study with the push of one command as against running an isolated analysis using SPSS<sup>1</sup>. In addition, the SmartPLS statistical platform offers a more strict and robust analysis compared with the outcomes of SPSS<sup>2</sup>. The independent variable, corporate governance includes sub-measures such as accountability, leadership, and stakeholder management while sustainability constitutes the dependent variable. Data from three hundred and eighty-three

(383) respondents were collated for the analysis. The result of the PLS-SEM is presented in three model (see figure 4.1, 4.2 & 4.3, and table 4.7). Figure one shows the path analysis, figure two shows the t values which confirm the significance of the path analysis, and figure three shows  $Q^2$  which confirms the predictive relevance of the structural model (t value above 1.96 and  $Q^2$  above zero confirm a statistically significant effect and that the structural model specified is relevance). Each model comprised of an outer model which shows the factor loadings (correlation) of each item in relation to the latent variable and the inner model termed the structural model (predictive model) which explains the interactions between the independent (corporate governance) variable(s) and the dependent (sustainability) variable in a study. Table 4.7 provides a tabular representation of the information in Figure 4.1, 4.2 & 4.3.



**Figure 4.1 Path Analysis for Hypothesis One**  
**Source: Researcher's Computation via SmartPLS V4.0**



**Figure 4.2 T-Statistics for Hypothesis One**  
 Source: Researcher's Computation via SmartPLS V4.0



**Figure 4.3: Q<sup>2</sup> Statistics for Hypothesis One**  
 Source: Researcher's Computation via SmartPLS 4.0

**Table 4.7: Summary of the PLS-SEM for the effect of Accountability, Agile leadership and Stakeholder Management (Corporate Governance) on Sustainability of FMCGs in Lagos State, Nigeria**

Path Description	Original sample (o) Unstandardized Beta	t	Sig.	f <sup>2</sup>	R <sup>2</sup>	Adj. R <sup>2</sup>	Sig.
					0.729	0.710	0.000
Accountability → Sustainability	0.116	0.751	0.453	0.044			
Agile Leadership → Sustainability	0.533	3.148	0.002	0.529			
Stakeholder management → Sustainability	0.370	2.452	0.015	0.311			

Source: Researcher's Result via SmartPLS Version 4.0, 2022

Table 4.7 presents the results of PLS-SEM analysis for the effect of corporate governance dimensions on sustainability of FMCGs manufacturers in Lagos State, Nigeria. The Adjusted R<sup>2</sup> was used to establish the predictive power of the study's model. From the results, the adjusted coefficient of determination (*Adj R<sup>2</sup>*) of 0.710 showed that corporate governance dimensions explained 71% of the variation in sustainability of FMCGs manufactures under study while the remaining 29% variation in sustainability is explained by other exogenous variables different from corporate governance dimensions considered in this study and the effect is statistically significant at 95% confidence interval and p value less than 0.05. This result suggests that corporate governance dimensions influence 71% of the sustainability of FMCGs in Lagos State, Nigeria.

The path coefficient of each corporate governance dimensions (accountability, leadership, and stakeholder management) represents the coefficient of determination ( $\beta$ ) which shows the

relative effect of each corporate governance dimensions on sustainability of FMCGs in Lagos State, Nigeria. PLS-SEM results in fig. 4.2 and 4.3 revealed that all corporate governance dimensions have positive and significant effect except for accountability with insignificant relative effect.

Specifically, the results revealed that at 95% confidence level, Agile Leadership ( $\beta = 0.533$ ,  $t = 3.148$ ), Stakeholder management ( $\beta = 0.370$ ,  $t = 2.452$ ) of the FMCGs in Lagos State, Nigeria were statistically significant as their p-values were less than 0.05 and their t-values greater than 1.96. However, the relative effect of accountability ( $\beta = 0.116$ ,  $t = 0.751$ ) has a t-value below the acceptable threshold of 1.96 to suggest that the relative effect is statistically insignificant. Based on the path coefficient, the regression model is restated as follows:

$$\text{SUS} = 0.00 + 0.533\text{AGL} + 0.370\text{SMG} \text{----- (i)}$$

SUS= Sustainability

AGL= Agile Leadership

SMG= Stakeholder Management

Further analysis indicates that taking all other independent variables at zero, a unit change in agile leadership holds a potential increase of 0.533 in sustainability for the FMCGs in Lagos State, Nigeria given that all other factors are held constant. Similarly, the result shows that a unit change in stakeholder management will lead to a 0.370 increase in sustainability for the FMCGs manufacturers in Lagos State, Nigeria given that all other factors are held constant. Overall, from the results, agile leadership has the highest relative effect on sustainability for the FMCGs in Lagos State, Nigeria with a coefficient of 0.533 and t value of  $t = 3.148$ . In second place is stakeholder management with a coefficient of 0.370 and t value of  $t = 2.452$ .

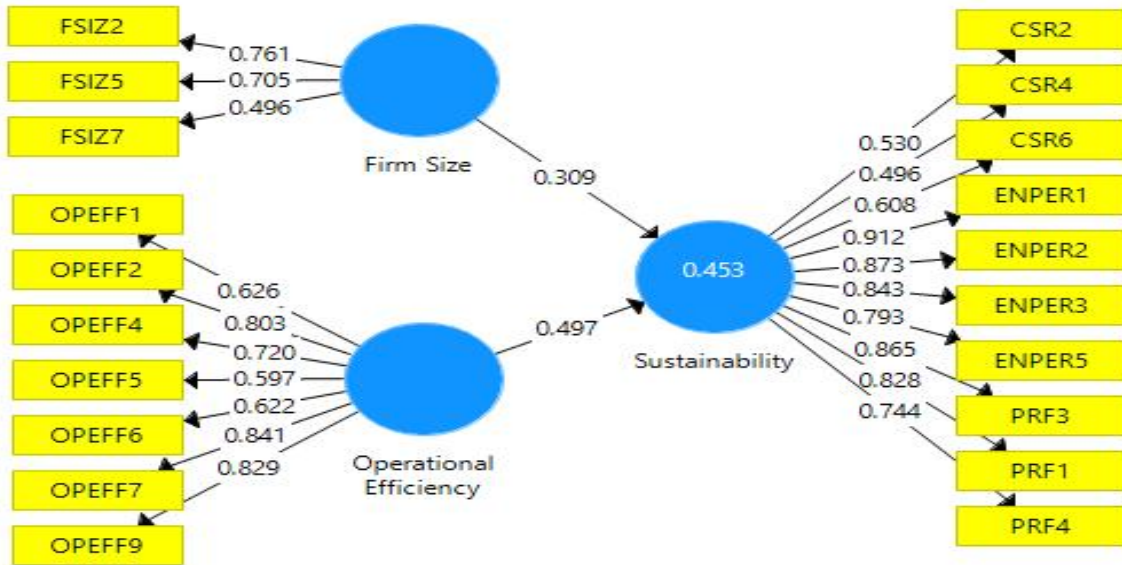
The PLS-SEM offers the opportunity to detect the effect size of the predictor variables (corporate governance dimension) on the outcome variable (sustainability) using the F-Square ( $f^2$ ) statistic. Scholars provided threshold for  $f^2$  Values of 0.02, 0.15, and 0.35, represents small, medium, and large effects respectively<sup>1</sup>. Table 4.7 represents the effect-size of all corporate governance dimensions on sustainability of the FMCGs in Lagos State, Nigeria. The effect-size of agile leadership and stakeholder management were 0.529 and 0.311 respectively. With reference to Cohen's  $f^2$  criterion, it is safe to say that agile leadership have large effect size while and stakeholder management has above medium effect-size on sustainability of the FMCGs in Lagos State, Nigeria.

Further analysis was conducted to establish the predictive relevance of the model using Stone-Gleisser  $Q^2$  value. Scholars posit that  $Q^2$  values of 0.02, 0.15 and 0.35 represents small, medium, and large predictive relevance. Furthermore,  $Q^2$  above zero have been suggested to confirm that the structural model specified is relevance<sup>3</sup>. According to Table 4.7, the  $Q^2$  value of sustainability of FMCGs in Lagos State, Nigeria is 0.391. Hence, corporate governance has large degree of predictive relevance with regards to sustainability of FMCGs in Lagos State, Nigeria. And for this reason, the structural model specified is relevant and has sufficient predictive quality. On the strength of the PLS-SEM summarized results in table 4.7 ( $Adj R^2 = 0.710$ ,  $p = 0.000$ ,  $Q^2 = 0.391$ ), this study can conclude that corporate governance significantly affects sustainability of FMCGs manufacturers in Lagos State, Nigeria hence, the study rejects the null hypothesis one ( $H_01$ ) which states that the effect of corporate governance dimensions on sustainability of FMCGs manufacturers in Lagos State, Nigeria, will not be significant.

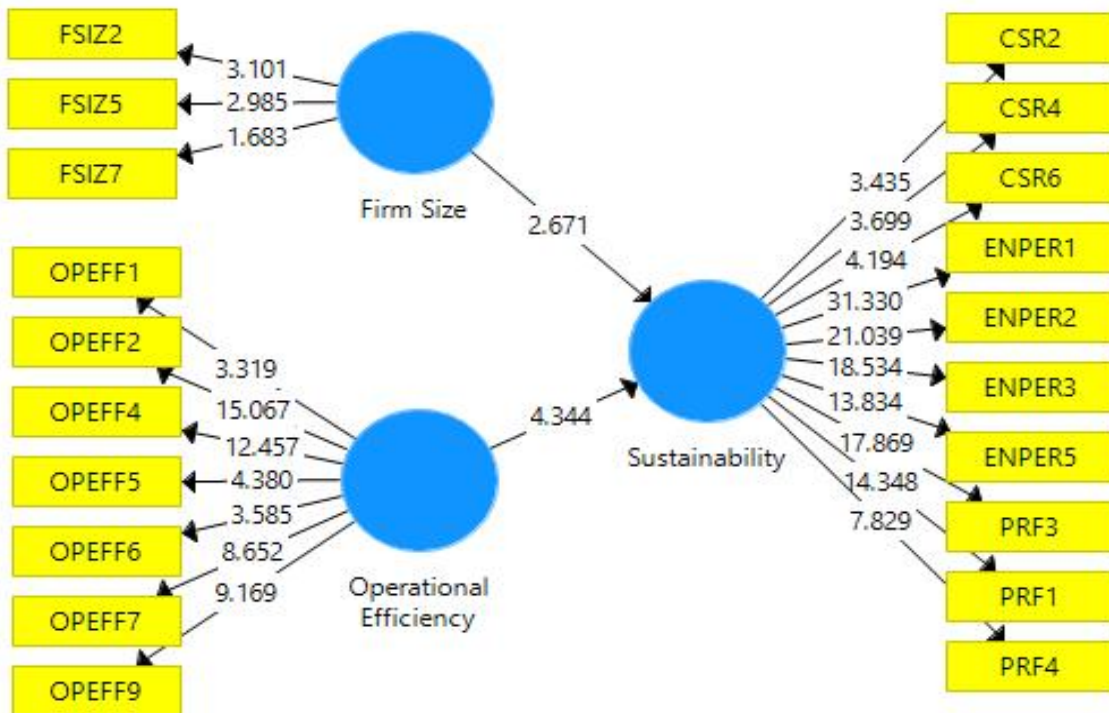
**Hypothesis Two:** Firm size and operational efficiency (firm-specific factors) will have no significant effect on the sustainability of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.

To test the null hypothesis two, PLS-Structural Equation Modelling (PLS-SEM) was adopted using the SmartPLS statistical platform version 4.0. The study used the PLS-algorithm's command which is appropriate for predicting effect-relationship, ran the bootstrapping to ascertain the level of significance of the prediction, and ran blindfolding to determine the predictive relevance of the structural model specified. Hence, the choice of PLS-SEM (via SmartPLS) is because it is a more advanced multivariate analytical technique which performs multiple regression, factor analysis, and provides a pictorial model of the interactions in a study with the push of one command as against running an isolated analysis using SPSS<sup>1</sup>. In addition, the SmartPLS statistical platform offers a more strict and robust analysis compared with the outcomes of SPSS<sup>2</sup>.

The independent variable firm-specific factors include sub-measures such as firm size and operational efficiency while sustainability constitutes the dependent variable. Data from three hundred and eighty-three (383) respondents were collated for the analysis. The result of the PLS-SEM is presented in three models (see figure 4.4, 4.5, & 4.6 and table 4.8). Figure 4.4 shows the path analysis, figure 4.5 shows the t values which confirm the significance of the path analysis and figure 4.6 shows  $Q^2$  which confirms the predictive relevance of the structural model (t value above 1.96 and  $Q^2$  above zero confirm a statistically significant effect and that the structural model specified is relevance). Each model comprised of outer model which shows the factor loadings (correlation) of each item in relation to the latent variable and the inner model termed the structural model (predictive model) which explains the interactions between the independent (firm-specific factors) variable(s) and the dependent (sustainability) variable in a study. Table 4.8 provides a tabular representation of the information in Figures 4.4, 4.5, & 4.6.



**Figure 4.4 Path Analysis for Hypothesis Two**  
**Source: Researcher's Computation via SmartPLS V4.0**



**Figure 4.5 T-Statistics for Hypothesis Two**  
**Source: Researcher's Computation via SmartPLS V4.0**

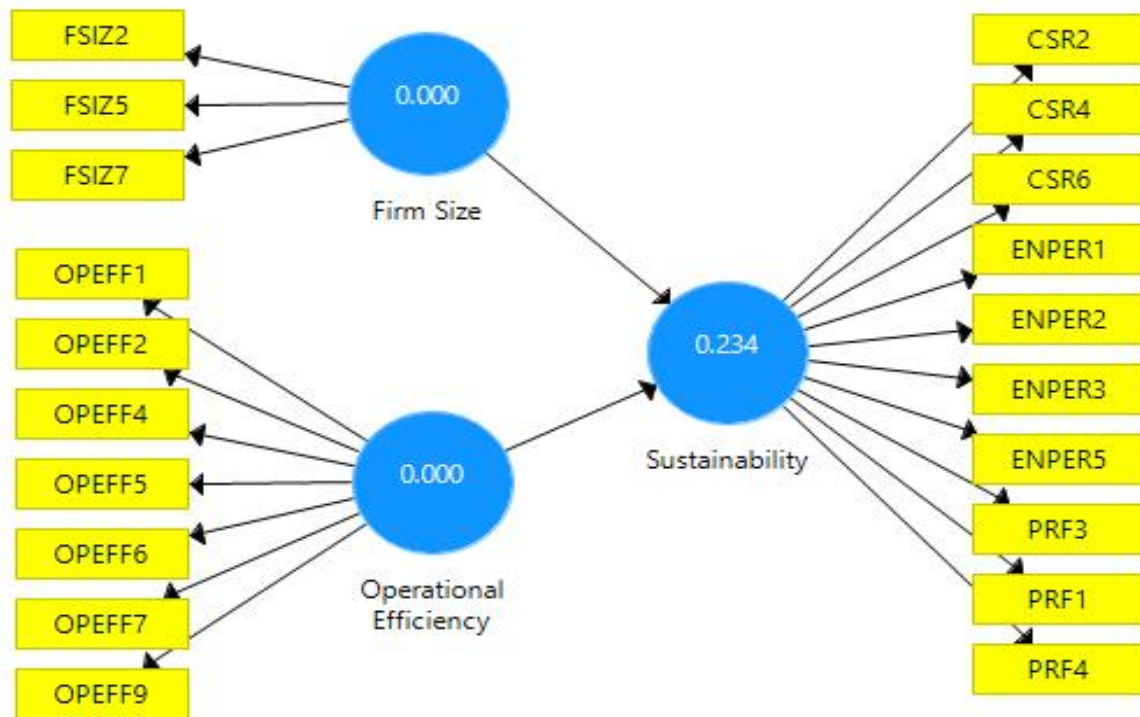


Figure 4.6: Q<sup>2</sup> Statistics for Hypothesis Two  
 Source: Researcher's Computation via SmartPLS V4.0

Table 4.8: Summary of the PLS-SEM for the effect of Firm Size and Operational Efficiency (Firm-specific Factors) on Sustainability of FMCGs Manufacturers in Lagos State, Nigeria

Path Description	Original sample (o) Unstandardized Beta	t	Sig.	f <sup>2</sup>	R <sup>2</sup>	Adj. R <sup>2</sup>	Sig.	Q <sup>2</sup>
					0.453	0.428	0.000	0.234
Firm Size → Sustainability	0.309	2.671	0.004	0.152				
Operational Efficiency → Sustainability	0.497	4.344	0.000	0.394				

Source: Researcher's Result via SmartPLS Version 4.0, 2022

Table 4.8 presents the results of PLS-SEM analysis for the effect of firm-specific factors dimensions on sustainability of FMCGs manufacturers in Lagos State, Nigeria. The Adjusted

$R^2$  was used to establish the predictive power of the study's model. From the results, the adjusted coefficient of determination (*Adj. R<sup>2</sup>*) of 0.428 showed that firm-specific factors dimensions explained 42.8% of the changes in sustainability of FMCGs manufacturers under study while the remaining 57.2% changes in sustainability is explained by other exogenous variable different from firm-specific factors dimensions considered in this study and the effect is statistically significant at 95% confidence interval and p value less than 0.05. This result suggests that firm-specific factors dimensions influence 42.8% of the sustainability of FMCGs manufacturers in Lagos State, Nigeria.

The path coefficient of each firm-specific factors dimensions (firm size and operational efficiency) represents the coefficient of determination ( $\beta$ ) which shows the relative effect of each firm-specific factors dimensions on sustainability of FMCGs manufacturers in Lagos State, Nigeria. PLS-SEM results in fig. 4.4, 4.5, & 4.6 revealed that all firm-specific factor dimensions have a positive and significant relative effect.

Specifically, the results revealed that at 95% confidence level, firm size ( $\beta = 0.309$ ,  $t = 2.671$ ), and operational efficiency ( $\beta = 0.497$ ,  $t = 4.344$ ) of the FMCGs in Lagos State, Nigeria were statistically significant as their p-values were less than 0.05 and their t-values greater than 1.96. Based on the path coefficient, the regression model is restated as follows:

$$SUS = 0.00 + 0.309FS + 0.497OE \text{----- (ii)}$$

SUS= Sustainability

FS= Firm Size

OE= Operational Efficiency

Further analysis indicates that taking all other independent variables at zero, a unit change in firm size holds potential increase of 0.309 in sustainability for the FMCGs in Lagos State,

Nigeria given that all other factors are held constant. Similarly, the result shows that a unit change in operational efficiency will lead to a 0.497 increase in sustainability for the FMCGs in Lagos State, Nigeria given that all other factors are held constant. Overall, from the results, operational efficiency has the highest relative effect on sustainability for the FMCGs in Lagos State, Nigeria with a coefficient of 0.497 and t value of  $t=4.344$ . In second place is firm size with a coefficient of 0.309 and t value of  $t=2.671$ .

The PLS-SEM offers the opportunity to detect the effect size of the predictor variables (firm-specific factors dimension) on the outcome variable (sustainability) using the F-Square ( $f^2$ ) statistic. Scholars provided threshold for  $f^2$  Values of 0.02, 0.15, and 0.35, represents small, medium, and large effects respectively<sup>1</sup>. Table 4.8 represents the effect-size of all firm-specific factors dimensions on sustainability of the FMCGs manufacturers in Lagos State, Nigeria. The effect-size of firm size and operational efficiency were 0.152 and 0.394 respectively. With reference to Cohen's  $f^2$  criterion, it is safe to say that firm size has above medium effect size while and operational efficiency has large effect-size on sustainability of the FMCGs in Lagos State, Nigeria.

Further analysis was conducted to establish the predictive relevance of the model using Stone-Gleisser  $Q^2$  value. Scholars posit that  $Q^2$  values of 0.02, 0.15 and 0.35 represents small, medium, and large predictive relevance. In addition,  $Q^2$  above zero have been suggested to confirm that the structural model specified is relevance<sup>3</sup>. According to Table 4.8, the  $Q^2$  value of sustainability of FMCGs manufacturers in Lagos State, Nigeria is 0.234. Hence, firm-specific factors have above medium degree of predictive relevance with regards to sustainability of FMCGs in Lagos State, Nigeria. And for this reason, the structural model specified is relevant and has sufficient predictive quality. On the strength of the PLS-SEM summarized results in table 4.8 (*Adj. R<sup>2</sup>* =0.428,  $p=0.000$ ,  $Q^2=0.234$ ), this study can conclude that firm-specific factors significantly affect sustainability of FMCGs in Lagos State, Nigeria

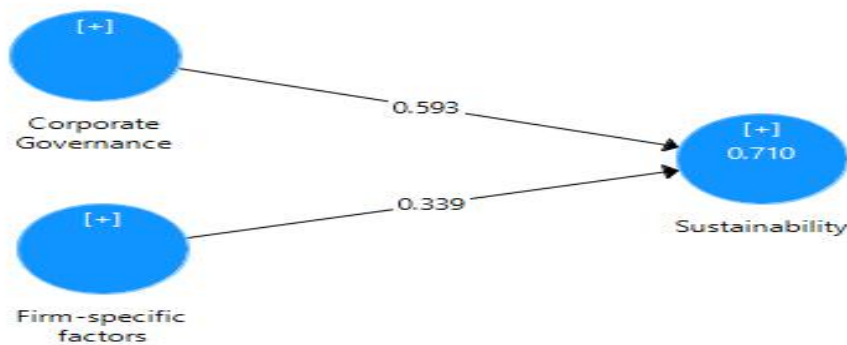
hence, the study rejects the null hypothesis two ( $H_02$ ) which states that the effect of firm-specific factors dimensions on sustainability of FMCGs manufacturers in Lagos State, Nigeria, will not be significant.

**Hypothesis Three:** Accountability, agile leadership and stakeholder management (Corporate governance); firm size and operational efficiency (firm-specific factors) will have no significant effect on the sustainability of FMCGs in Lagos State, Nigeria.

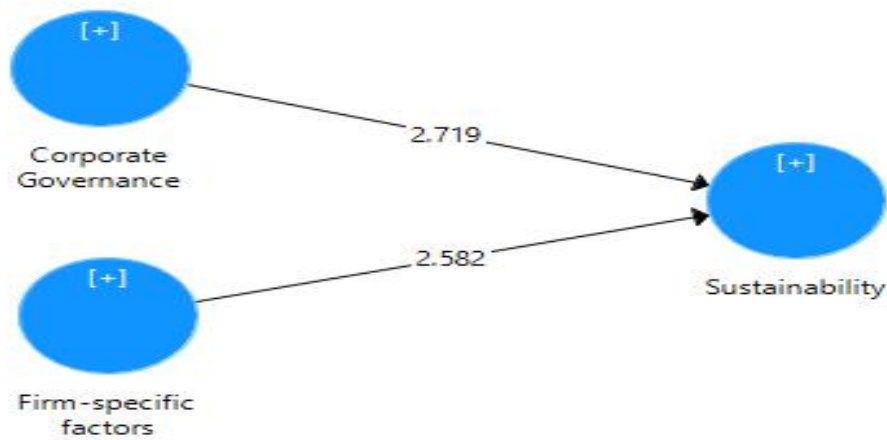
To test the null hypothesis three, PLS-Structural Equation Modelling (PLS-SEM) was adopted using the SmartPLS statistical platform version 4.0. The study used the PLS-algorithm's command which is appropriate for predicting effect-relationship, ran the bootstrapping to ascertain the level of significant of the prediction, and ran blindfolding to determine the predictive relevance of the structural model specified. Hence, the choice of PLS-SEM (via SmartPLS) is because it is a more advanced multivariate analytical technique which performs multiple regression, factor analysis, and provides a pictorial model of the interactions in a study with the push of one command as against running an isolated analysis using SPSS<sup>1</sup>. In addition, the SmartPLS statistical platform offers more strict and robust analysis compared with the outcomes of SPSS<sup>2</sup>.

The independent variables are corporate governance dimension and firm-specific factors dimension while sustainability constitutes the dependent variable. Data from 383 respondents were collated for the analysis. The result of the PLS-SEM is presented in three model (see figure 4.7, 4.8, & 4.9, and Table 4.9). Figure one shows the path analysis, figure two shows the t values which confirm the significance of the path analysis and figure three shows  $Q^2$  which confirms the predictive relevance of the structural model (t value above 1.96 and  $Q^2$  above zero confirm a statistically significant effect and that the structural model specified is relevance). Each model comprised of outer model which shows the factor loadings

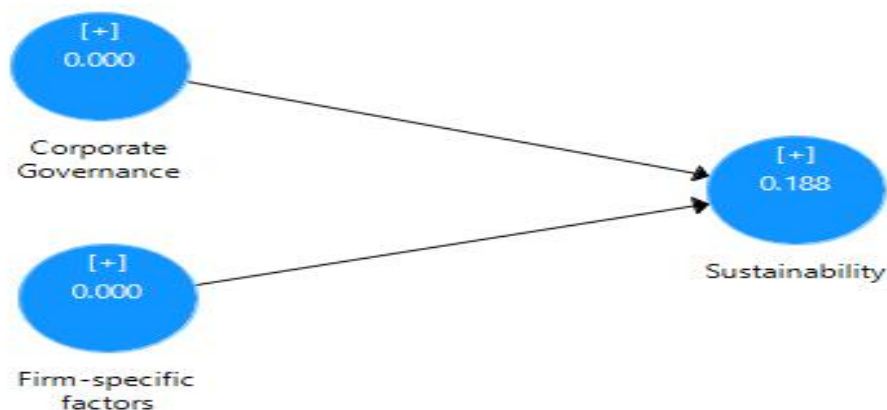
(correlation) of each item in relation to the latent variable and the inner model termed the structural model (predictive model) which explains the interactions between the independent (corporate governance and firm-specific factors) variable(s) and the dependent (sustainability) variable in a study. The Table 4.9 provides a tabular representation of the information in Figure 4.7, 4.8, & 4.9.



**Figure 4.7 Path Analysis for Hypothesis Three**  
**Source: Researcher's Computation via SmartPLS V4.0**



**Figure 4.8 T-Statistics for Hypothesis Three**  
**Source: Researcher's Computation via SmartPLS V4.0**



**Figure 4.9: Q<sup>2</sup> Statistics for Hypothesis Three**  
**Source: Researcher's Computation via SmartPLS V4.0**

**Table 4.9: Summary of the PLS-SEM for the effect of Corporate Governance and Firm-specific factors on Sustainability of FMCGs Manufacturers in Lagos State, Nigeria**

Path Description	Original sample		t	Sig.	f <sup>2</sup>	R <sup>2</sup>	Adj. R <sup>2</sup>	Sig.	Q <sup>2</sup>
	(o)	Unstandardized Beta							
						0.710	0.698	0.000	0.188
Corporate Governance → Sustainability	0.593		2.719	0.007	0.766				
Corporate governance and firm-specific factors → Sustainability	0.339		2.582	0.010	0.251				

Source: Researcher's Result via SmartPLS Version 4.0, 2022

Table 4.9 presents the results of PLS-SEM analysis for the effect of corporate governance and firm-specific factors on sustainability of FMCGs in Lagos State, Nigeria. The Adjusted R<sup>2</sup> was used to establish the predictive power of the study's model. From the results, the adjusted coefficient of determination (*Adj R<sup>2</sup>*) of 0.698 showed that corporate governance and firm-specific factors explained 69.8% of the changes in sustainability of FMCGs under study while the remaining 30.2% changes in sustainability is explained by other exogenous variable different from corporate governance and firm-specific factors dimensions considered in this study and the effect is statistically significant at 95% confidence interval and p value less than 0.05. This result suggests that corporate governance and firm-specific factors dimensions influence 69.8% of the sustainability of FMCGs in Lagos State, Nigeria.

The path coefficient of each corporate governance and firm-specific factors represents the coefficient of determination ( $\beta$ ) which shows the relative effect of each corporate governance and firm-specific factors on sustainability of FMCGs in Lagos State, Nigeria. PLS-SEM

results in Table 4.9 revealed that all corporate governance and firm-specific factors have positive and significant relative effect. Specifically, the results revealed that at 95% confidence level, corporate governance ( $\beta = 0.593$ ,  $t = 2.719$ ), and firm-specific factors ( $\beta = 0.339$ ,  $t = 2.582$ ) of the FMCGs in Lagos State, Nigeria were statistically significant as their p-values were less than 0.05 and their t-values greater than 1.96. Based on the path coefficient, the regression model is restated as follows:

$$\text{SUS} = 0.00 + 0.593\text{CG} + 0.339\text{FSF} \text{----- (iii)}$$

SUS= Sustainability

CG= Firm Size

FSF= Operational Efficiency

Further analysis indicates that taking all other independent variables at zero, a unit change in corporate governance holds potential increase of 0.593 in sustainability for the FMCGs in Lagos State, Nigeria given that all other factors are held constant. Similarly, the result shows that a unit change in firm-specific factors will lead to a 0.339 increase in sustainability for the FMCGs in Lagos State, Nigeria given that all other factors are held constant. Overall, from the results, corporate governance has the highest relative effect on sustainability for the FMCGs in Lagos State, Nigeria with a coefficient of 0.593 and t value of  $t = 2.719$ . In second place is firm size with a coefficient of 0.339 and t value of  $t = 2.582$ .

The PLS-SEM offers the opportunity to detect the effect size of the predictor variables (corporate governance and firm-specific factors) on the outcome variable (sustainability) using the F-Square ( $f^2$ ) statistic. Scholars provided threshold for  $f^2$  Values of 0.02, 0.15, and 0.35, represents small, medium, and large effects respectively<sup>2</sup>. Table 4.9 represents the effect-size of all corporate governance and firm-specific factors on sustainability of the

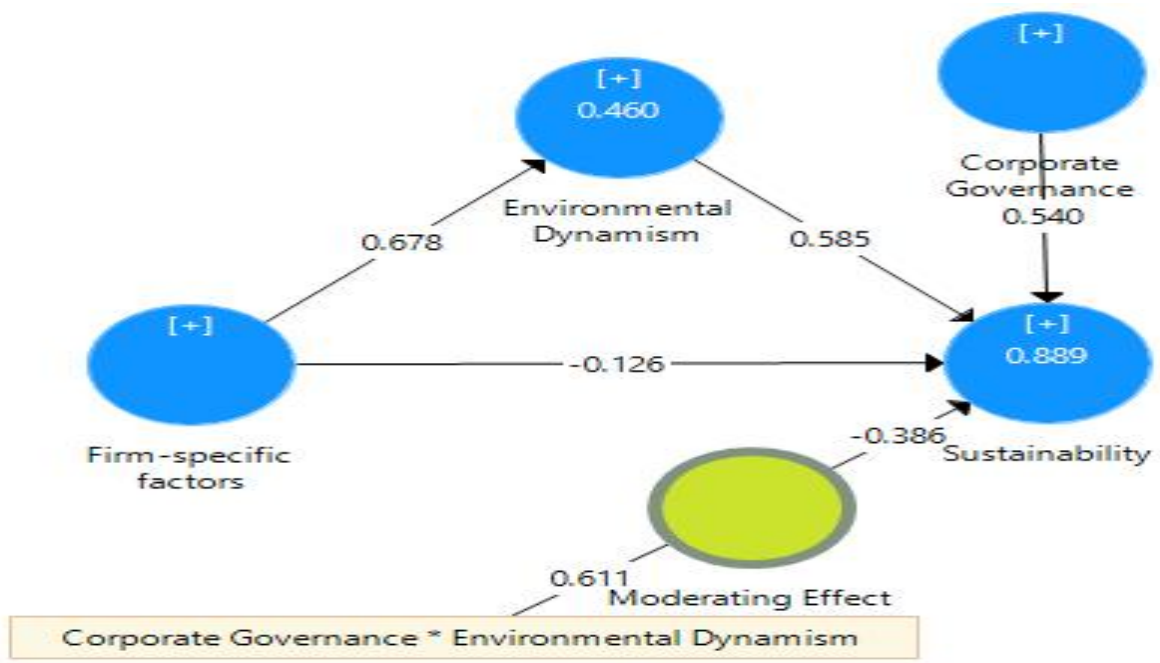
FMCGs in Lagos State, Nigeria. The effect-size of corporate governance and firm-specific factors were 0.766 and 0.251 respectively. With reference to Cohen's  $f^2$  criterion, it is safe to say that corporate governance has large effect size while and firm-specific factors has medium effect-size on sustainability of the FMCGs manufacturers in Lagos State, Nigeria.

Further analysis was conducted to establish the predictive relevance of the model using Stone-Gleisser  $Q^2$  value. Scholars posit that  $Q^2$  values of 0.02, 0.15 and 0.35 represents small, medium, and large predictive relevance; and that  $Q^2$  above zero confirm that the structural model specified is relevance<sup>3</sup>. According to Table 4.9, the  $Q^2$  value of sustainability of FMCGs manufacturers in Lagos State, Nigeria is 0.188. Hence, corporate governance and firm-specific factors have medium degree of predictive relevance with regards to sustainability of FMCGs manufacturers in Lagos State, Nigeria. And for this reason, the structural model specified is relevant and has sufficient predictive quality. On the strength of the PLS-SEM summarized results in table 4.9 ( $Adj R^2 = 0.710$ ,  $p = 0.000$ ,  $Q^2 = 0.188$ ), this study can conclude that corporate governance and firm-specific factors significantly affects sustainability of FMCGs in Lagos State, Nigeria hence, the study rejects the null hypothesis three ( $H_03$ ) which states that corporate governance and firm-specific factors will have no significant effect on the sustainability of FMCGs manufactures in Lagos State, Nigeria.

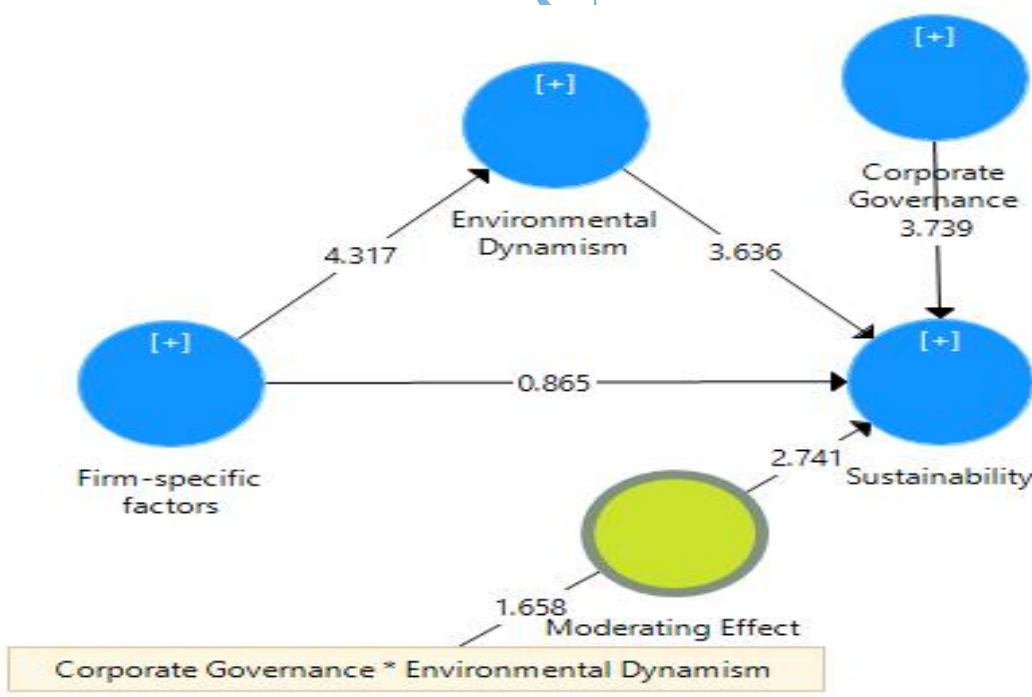
**Hypothesis Four:** Environmental dynamism will have no significant moderating effect on the joint effect of accountability, agile leadership and stakeholder management (corporate governance) on the sustainability performance of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.

To test the null hypothesis four, PLS-Structural Equation Modelling (PLS-SEM) was adopted using the SmartPLS statistical platform version 4.0. The independent variable is corporate

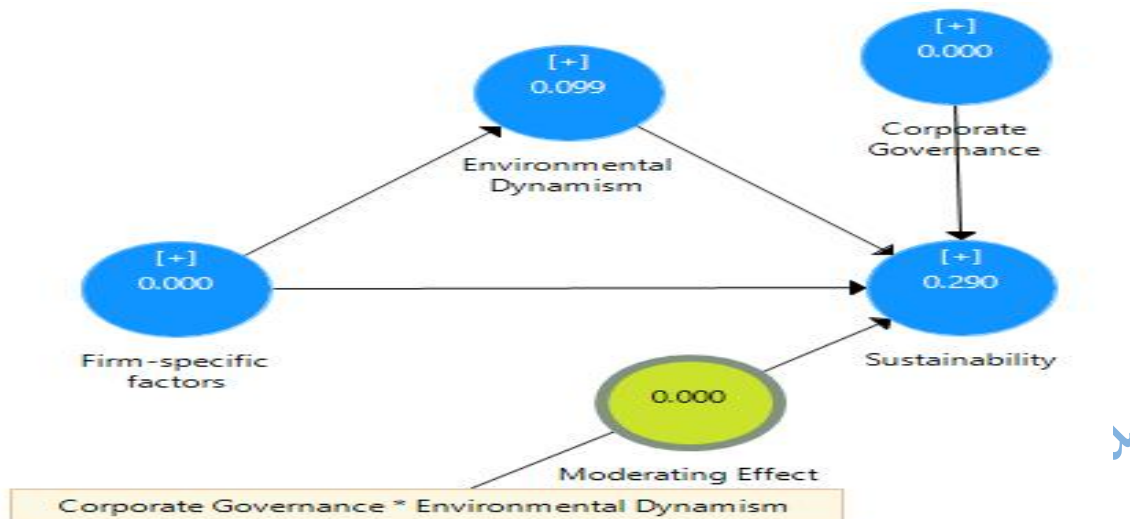
governance, sustainability constitutes the dependent variable and environmental dynamism is the moderating variable.



**Figure 4.10 Path Analysis for Hypothesis Four & Five**  
**Source: Researcher's Computation via SmartPLS V4.0**



**Figure 4.11 T-Statistics for Hypothesis Four & Five**  
**Source: Researcher's Computation via SmartPLS V4.0**



**Figure 4.12: Q<sup>2</sup> Statistics for Hypothesis Four & Five**  
**Source: Researcher's Computation via SmartPLS V4.0**

**Table 4.10: Summary of PLS-SEM Analysis for the Moderation-Mediation Effect of Environmental Dynamism on the Interaction Between Corporate Governance, Firm-Specific Factors and Sustainability of FMCG Manufacturers in Lagos State, Nigeria**

Path Coefficient	Original Sample(O)	Sample Mean(M)	T-Statistics	P-Values	Q <sup>2</sup>
<b>Model 1,2</b>					
Corporate Governance → Sustainability	0.54	0.544	3.739	0.470	
Environmental dynamism → Sustainability	0.585	0.463	3.636	0.000	0.099
Firm-specific factors → Environmental Dynamism	0.678	0.728	4.317	0.001	
Firm-specific factors → Sustainability	-0.126	-0.010	0.865	0.388	
CG*EVD → Sustainability	0.386	0.263	2.741	0.006	0.290
<b>Specific Indirect Effect</b>					
FSF → EVD → Sustainability					
	0.396	0.332	2.919	0.004	

Note: CG- Corporate Governance, EVD- Environmental Dynamism

Source: Researcher's Results via SmartPLS V4.0, 2022

Figure 4.10, 4.11, 4.12 and Table 4.10 presents the results of PLS-SEM analysis for the moderating effect of environmental dynamism on the interaction between corporate governance and sustainability of FMCGs companies in Lagos State, Nigeria. To establish the moderating effect in a PLS-SEM warrants the creation of a new variable termed corporate governance \*environmental dynamism. This interaction term's influence is examined on the dependent variable (sustainability) and a significant moderating effect is established if the coefficient of interaction term has a p value less than 0.05. It is noteworthy that in a moderation PLS-SEM analysis, emphasis is on the moderating path result and with less attention to Adj R<sup>2</sup> or the R<sup>2</sup> coefficient found in SPSS output for moderation analysis. From the result in Figure 4.10, 4.11, 4.12, it is observed that the interaction term of corporate governance\*environmental dynamism has a path coefficient of determination value of 0.386. This suggest that the introduction of environmental dynamism has enhanced the effect corporate governance has on sustainability by 0.386 and this moderating effect is positive and statistically significant at p-value = 0.006.

It is on the strength of the moderated analysis result in Table 4.10 ( $\beta = 0.386$ ;  $p < 0.006$ ,  $Q^2 = 0.290$ ) that this study concludes that environmental dynamism has a positive and significant moderating effect on the interaction between corporate governance and sustainability of FMCGs companies in Lagos State, Nigeria. Hence, the study rejects the fourth null hypothesis (H<sub>04</sub>) which states that environmental dynamism will have no significant moderating effect on the interaction between corporate governance and sustainability of FMCGs companies in Lagos State, Nigeria.

**Hypothesis Five:** Environmental dynamism will have no significant mediating effect on the joint effect of firm size and operational efficiency (firm-specific factors) on the sustainability performance of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria.

To test the null hypothesis five, PLS-Structural Equation Modelling (PLS-SEM) was adopted using the SmartPLS statistical platform version 4.0. The independent variable is firm-specific factors, sustainability constitutes the dependent variable and environmental dynamism is the mediating variable. Data from 383 staff of FMCGs manufacturing companies in Nigeria were collated for the analysis. The result of the PLS-SEM is presented in three model (see Figure 4.10, 4.11, 4.12, and table 4.10).

Figure 4.10 shows the path analysis, Figure 4.11 shows the t values which confirm the significance of the path analysis and Figure 4.12 shows  $Q^2$  which confirms the predictive relevance of the structural model (t value above 1.96 and  $Q^2$  above zero confirm a statistically significant effect and that the structural model specified is relevance). Each model comprised of outer model which shows the factor loadings (correlation) of each item in relation to the latent variable and the inner model termed the structural model (predictive model) which explains the interactions between the independent (Firm-specific factors) variable(s), mediator (environmental dynamism), and the dependent (sustainability) variable in a study. Table 4.10 provides a tabular representation of the information in Figures 4.10, 4.11, and 4.12.

Figure 4.10, 4.11, 4.12 and Table 4.10 presents the results of PLS-SEM analysis for the mediating effect of environmental dynamism on the interaction between firm-specific factors and sustainability in FMCG manufacturers in Nigeria. To establish the mediating effect in PLS-SEM, the study followed the preconditions prescribed by researchers<sup>4</sup>. According to the researchers, full mediation occurs when the direct interaction between an independent variable (firm-specific factors) and the dependent variable (sustainability) becomes insignificant at the introduction of a third variable (environmental dynamism) considered a mediator. In addition to Baron and Kenny, PLS-SEM via the SmartPLS offers the result for the specific indirect effect examined. The specific indirect effects from 'Firm-specific factors' → 'Environmental dynamism' → 'Sustainability' must be statistically significant<sup>3</sup>. If

the impact is a full mediation, then the direct impact of firm-specific factors on sustainability of FMCGs companies in Lagos State, Nigeria from the path analysis will be statistically insignificant. However, if the indirect effect and the direct effects are significant from the path analysis then a partial mediation is established.

Given the above precondition, the PLS-SEM result in Figure 4.10, 4.11, 4.12 and in Table 4.10 shows that the direct path (influence) from Firm-specific factors to sustainability of FMCGs firms is statistically insignificant ( $\beta = -0.126$ ,  $t = 0.865$ ,  $p = 0.388$ ). The path from Firm-specific factors to environmental dynamism is statistically significant ( $\beta = 0.678$ ,  $t = 4.317$ ,  $p = 0.001$ ). Lastly, the path from environmental dynamism to sustainability in FMCGs manufacturers in Lagos State, Nigeria is statistically significant ( $\beta = 0.585$ ,  $t = 3.636$ ,  $p = 0.000$ ). The implication of this result (in relation to the preconditions for the present of a mediation as postulated by scholars suggests that since the specific indirect effect (Firm-specific factors  $\rightarrow$  environmental dynamism  $\rightarrow$  Sustainability performance) is significant across all the paths (see table 4.10), then the study provides evidence to establish a mediating impact. More specifically, because the direct impact of Firm-specific factors on sustainability is insignificant while specific indirect path 'Firm-specific factors  $\rightarrow$  environmental dynamism  $\rightarrow$  operation performance' is significant, hence a full mediating effect is established. In other words, the result posits that the impact firm-specific factors have on sustainability is as a result of the environmental dynamism. More specifically, the effect firm-specific factors have on sustainability of FMCGs companies in Lagos State, Nigeria is explained through taking advantage of opportunities in a dynamic environment.

In addition, the PLS-SEM provides the result of the specific indirect effect to reinforce the mediation analysis threshold positioned. According to Table 4.10, the result of the specific indirect effect shows a path analysis from Firm-specific factors  $\rightarrow$  environmental dynamism  $\rightarrow$  sustainability ( $\beta = 0.396$ ,  $t = 2.919$ ,  $p = 0.004$ ) proves that, as a whole, the indirect path is

significant. On the strength of the specific indirect impact ( $\beta=0.396$ ,  $t= 2.919$ ,  $p= 0.004$ ) and  $Q^2$  value (0.099), this study can conclude that environmental dynamism significantly and fully mediate the interaction between firm-specific factors and sustainability of FMCGs companies in Lagos State, Nigeria hence, the study reject the null hypothesis five ( $H_05$ ) which states that environmental dynamism does not significantly mediate the interaction between firm-specific factors and sustainability of FMCGs firms in Lagos State, Nigeria.

### **4.3 Discussion of Findings**

#### **4.3.1 Effect of Accountability, Agile Leadership and Stakeholder Management (Corporate Governance) on Sustainability**

The results of multiple regression analysis for the effect of corporate governance measures (accountability, agile leadership, and stakeholder management) on sustainability dimensions (Social performance (CSR), Environmental performance, and Economic Performance (Profitability)) of selected fast-moving consumer goods manufacturers in Lagos State, Nigeria established that the combined effect of the measures of corporate governance used in this study exerts a positive and significant effect on the sustainability of the selected fast-moving consumer goods manufacturers in Lagos State, Nigeria. However, looking at the relative contribution of the individual measures of corporate governance, stakeholder management exerted a positive and significant effect, agile leadership also exerted a positive and significant effect, while accountability was found to exert no significant effect on the sustainability of the selected firms.

Conceptually, the adoption of appropriate corporate governance enhances the sustainable going-concern of organisations. Furthermore, Corporate governance has been appraised to provide assurance to investors on the efficiency of the firm leadership in running the affairs of an organisation<sup>5</sup>, enhancement of business prosperity<sup>6</sup>, and the incline organisations

towards sustainable practices<sup>7</sup>. In addition, the finding of this study corroborates the researcher's definition of corporate governance which considers the mannerism by which a firm is regulated in an effort to address or meet the interest of the firm and its stakeholders, to be pivotal to the sustainable performance of the firm. Similarly, corporate governance has been considered as the way organisations are directed and controlled, in alignment with the interest of various stakeholders<sup>8</sup>.

Empirically, the positive and significant effect of corporate governance on sustainability found in this study has been supported by the findings of some studies. For instance, a study conducted in Indonesia to investigate the transformation of firms as a determinant of corporate hospitality and how such interaction impacts corporate sustainability found that Corporate Governance (alongside increased strategic leadership, corporate culture, business infrastructure, and corporate alignment through corporate hospitality) ensures a greater level of Corporate Sustainability<sup>9</sup>. This study result is also corroborated by the submission of another empirical literature conducted in the United Kingdom to investigate how social responsibility mediates the relationship between corporate governance and sustainability performance in UK firms, which suggested that corporate governance exerts a positive effect on sustainability<sup>10</sup>. In further support of these findings, is the result of an empirical review conducted based on the review of literature from America and Europe on the linkage between Corporate Governance and Sustainability, based on the Global Sustainability Index and sustainable goals for the United Nation's sustainability agenda 2030 which found that corporate governance practices and process do aid the sustainable performance of firms<sup>11</sup>. Furthermore, the result of a systematic review conducted to establish coherence between sustainability management and performance in Urban Corporate Economy also concluded that sound corporate governance promotes sustainability performance<sup>12</sup>.

Looking at the individual contribution of the dimensions of corporate governance interrogated in this study (agile leadership, stakeholder management, and accountability) and their respective effect on the sustainability of the selected firms interrogated; of corroborative relevance to the positive and significant effect of agile leadership on the sustainability of the selected fast-moving consumer goods manufacturing companies investigated in this study, is the result of a research conducted to investigate the impact of leadership and management on the sustainable performance of sampled manufacturing firms registered on the Suruhanjaya Syarikat Malaysia directory located at Klang Valley in Malaysia which found that, leadership exerts a positive influence on green and lean practices, while green and lean practices were found to influence sustainability performance positively<sup>13</sup>. Similarly, another study conducted in Pakistan in an attempt to investigate the moderating role of authoritative and laissez-faire leadership on thriving at work by obtaining data from head offices of major schools also established that, the style of leadership and consciousness does have an impact on thriving at work, therefore impacting the growth and sustainability of the organization<sup>14</sup>. The finding of this study is further supported by the result of a study conducted in Thailand to investigate the influence of transformational leadership on corporate sustainability capabilities and sustainable supply chain management, which found that transformational leadership has a positive impact on developing organizational sustainability capabilities<sup>15</sup>. This result also corroborates the findings of a study conducted in Indonesia to examine the mediating role of knowledge management on the sustainability performance of organizations, which concluded that transformational leadership exerts a positive impact on performance sustainability<sup>16</sup>.

In addition, the positive and significant effect of stakeholder management on sustainability of the selected fast-moving consumer goods manufacturers interrogated in this study aligns with the findings of a study conducted on “Eni” Company (the sixth-largest integrated energy company in the world with operations in 41 countries including the United States of America,

the United Kingdom, Italy, Egypt, and Nigeria) to gain a deeper understanding of the impact of stakeholder engagement on sustainability culture which found that, engagement of stakeholders contribute to the transformation of corporate culture to achieve the three dimensions of sustainability<sup>17</sup>. This study finding is further supported by the submission of a study conducted in Canada to investigate the contribution of awareness, external pressures, and stakeholder consultation to the implementation of sustainability management tools which found that stakeholder consultation plays a significant role in the implementation of sustainable management tools in firms<sup>18</sup>.

Finally on the relative effect of the individual measures of cooperate governance adopted in this study; this study found that accountability has no significant effect on sustainability of the selected fast-moving consumer goods manufacturing companies interrogated. Conceptually, the meaning of accountability varies, depending on what is considered as the rendition of account in a particular situation which ultimately defines what accountability should be under the circumstance<sup>19</sup>. To reflect this submission therefore, the researcher defines accountability as the acceptance of responsibility and rendition of stewardship to stakeholders. In line with this definition, this study interrogated issues bordering on Legal Compliance, Sanction on Unethical practice, Ethical Awareness, Reward for Professional conduct, Display of Professionalism, Information disclosure, and Adherence to accounting best practice. However, following the findings of this study, it will thus imply that the interrogated indicators of accountability adopted in this study, do not significantly affect sustainability of the interrogated firms. In other words, the acceptance of responsibility and rendition of stewardship to stakeholders (accountability) did not significantly contribute to the sustainability of the selected fast-moving consumer goods manufacturers in Lagos State, Nigeria.

Nevertheless, the positive and significant combined effect of the measures of corporate governance interrogated in this study provided support for stakeholder theory. The stakeholder perspective affirms that firms who are interested in running sustainably need to factor the interest of stakeholders into their plans and policies to ensure that a harmonious relationship is established and maintained with these diverse stakeholders, given that these stakeholders can be impacted by the firm activities and firm activities can as well be impacted by these stakeholders' actions. This study's results are in concomitance with these theoretical perspectives. Hence, given the support found in conceptual, empirical, and theoretical submissions in previous literature with this present study's result, the study posits that corporate governance has a significant effect on firm sustainability.

#### **4.3.2 Effect of Firm Size and Operational Efficiency (Firm-Specific Factors) on Sustainability**

The results of multiple regression analysis for the combined effect of firm-specific factors measures (firms-size and operational efficiency) adopted in this study on the sustainability of fast-moving consumer goods manufacturers in Lagos State, Nigeria showed that the firm-specific factors measures jointly exert a positive and significant effect on sustainability of the selected fast-moving consumer goods manufacturing companies in Lagos State, Nigeria. Furthermore, the measures of the firm-specific factors adopted in this study are seen to exert a positive and significant relative effect on sustainability.

Conceptually the ideal firm size is that size that promotes efficiency<sup>20</sup>, and is considered a significant factor in the determination of a firm's profitability<sup>21</sup>. Also, efficiency is key to achieving the highest level of performance using available resources to meet set goals<sup>22</sup>. Thus, the adoption of an appropriate firm-specific factor strategy, therefore, can be seen to enhance firm sustainability. The findings of this study corroborate the researcher's definition of firm-specific factors and operational efficiency which considered firm-specific factors to be

resources and capabilities of the organization identified to be of relevant impact in deciding a course of action; and proposed operational efficiency as deploying resources in a manner that minimizes resources consumed to achieve the same or better output level without compromising quality.

Empirically, there exists a dearth of literature that has attempted to study the effect of firm-specific factors on the sustainability of firms in Nigeria. Of close contextual relevance, however, is the study conducted to investigate firm-specific factors (measured by firm size and operational efficiency) and sustainability dimensions (social, environmental, and economic performances) of listed consumer goods manufacturing companies in Nigeria. The study used secondary data obtained from the 10 years financial reports of the interrogated listed companies, but could not establish the impact of the firm-specific factors on all dimensions of sustainability due to the inadequacy of data in the financial reports. Nevertheless, the result of the study showed that firm size (measured by total assets) and operational efficiency (measured by the ratio of operating expenses to Net sales) exerted a significant negative impact on the economic dimension (profitability), while firm size was found to exert a positive impact on CSR performance. The difference in the findings of the study could be traced to the methodology of the research and the inadequacy of the data collected to address the environmental dimension of sustainability to enable a full analysis of the impact of the treatment variables of sustainability as a whole<sup>23</sup>. Furthermore, studies have shown that not all efficiency ratio is rewarded with profit<sup>24</sup>.

Despite the above, the positive effect of firm size on sustainability found by this study has been supported by some studies. For instance, larger firms have been found to perform better in the environmental dimension of sustainability in countries across America, Europe, Asia, and Africa<sup>25</sup>. Firm size has also been established to play a significant role in financial performance of France-listed firms and also found by a study carried out in Indonesia to exert

a positive impact on the financial performance of the 117 interrogated firms listed on the Indonesia stock exchange<sup>26,27</sup>. These positive findings however disagree with the result of another study conducted in Indonesia which among other findings established that firm size has no significant effect on financial performance of the investigated non-financial companies listed on the Indonesian stock exchange using panel data for the period 2017 to 2020<sup>28</sup>.

From the theoretical standpoint, the significant and positive effect of firm-specific factors on sustainability of the selected fast-moving consumer goods manufacturing companies interrogated in this study further strengthens the provision of the Resource Based-View (RBV). The RBV which is an inside-out perspective theory holds that the combination of both tangible and intangible resources of a firm gives birth to other specialised resources referred to as capabilities that create strategic capabilities which provide a sustainable competitive advantage to organizations. This study's result is in concomitance with this theoretical perspective. Therefore, on the strength of the support found in conceptual, empirical, and theoretical submissions in extant literature with this present study's result, the study posits that firm-specific factors have a significant effect on the sustainability of selected fast-moving consumer goods manufacturing companies in Lagos State, Nigeria.

#### **4.3.3 The Joint Effect of Accountability, Agile Leadership, Stakeholder Management (Corporate Governance); Firm Size and Operational Efficiency (Firm-Specific Factors) on Sustainability**

The result of the multiple regression analysis for the combined effect of corporate governance dimensions and firm-specific factors dimensions on the sustainability of the selected fast-moving consumer goods manufacturers in Lagos State, Nigeria, shows that corporate governance and firm-specific factor have a positive and significant combined effect. Conceptually, the adoption of appropriate corporate governance practices and efficient firm-

specific factor mix enhance a firm's sustainability. Also, the definitions of corporate governance and firm-specific factors proposed by this study agree with this finding.

Though, there exist a dearth of empirical works of literature that have attempted to investigate the combined effect of corporate governance and firm-specific factors either by interrogating the measures used in this study or through other relevant dimensions. Yet, the findings of this study strengthened the narratives of both the stakeholder theory and the Resource-Based View perspective. The stakeholder theory posits that firms that are interested in sustaining their operations need to coexist in harmony with their diverse stakeholders<sup>29</sup>. On the other hand, the Resource-Based View emphasises that to achieve a sustainable competitive advantage, organisations must combine resources to create unique capabilities<sup>30</sup>. This study's findings align with these theoretical perspectives. Therefore, on the strength of the support found in conceptual, and theoretical submissions in extant literature with this present study's result, this study posits that corporate governance and firm-specific factors have a significant effect on the sustainability of selected fast-moving consumer goods manufacturers in Lagos State, Nigeria.

#### **4.3.4 Moderating Effect of Environmental Dynamism on the Interaction Between Accountability, Agile Leadership and Stakeholder Management (Corporate Governance) and Sustainability**

The result of hierarchical multiple regression analysis for the effect of environmental dynamism on the functional relationship between corporate governance dimension and organisational sustainability shows the presence of a moderation effect on the relationship. This result implies that environmental dynamism had a positive and significant moderating effect on the interaction between the corporate governance dimension and sustainable performance of selected fast-moving consumer goods manufacturers in Lagos State, Nigeria.

Empirically, other studies have been conducted in China to investigate the moderating role of environmental dynamism focusing on how it moderates the interaction between empowering leadership and information collaboration; the study found environmental dynamism to exert a positive moderating effect. The same study also established that environmental dynamism negatively moderates the relationship between information collaboration and corporate entrepreneurship<sup>31</sup>. Another study conducted in Indonesia also found environmental dynamism (technological environmental factors) to be essential for optimal firm performance<sup>32</sup>.

Conceptually, environmental dynamism presents uncertain consequences for organisations by presenting frequent changes which are often unprecedented and makes it difficult to generate reliable predictions<sup>33,34,35</sup>. The narrative suggests that environment dynamism presents both threats and opportunities to firms as they adapt to these changes by rejigging corporate strategies in the face of distorted projected profits to ensure that the business is sustained<sup>36</sup>.

According to the findings of this study, therefore, the potency of the effect of the corporate governance measures on sustainability is contingent on environmental dynamism. In line with this position advanced by the dynamic capability theory, this study posits that while corporate governance is found to be pivotal to corporate sustainability, the dynamic environment within which the fast-moving consumer goods manufacturing companies operate in Nigeria, increases the potency of the relevance of corporate governance to the sustainable operation and performance of the interrogated firms. Therefore, on the strength of the support found in extant literature with this present study result, this study concludes that environmental dynamism has a significant and positive moderating effect on the interaction between the corporate governance dimensions and sustainable performance of the selected fast-moving consumer goods manufacturers in Lagos State, Nigeria.

#### **4.3.5 Mediating Effect of Environmental Dynamism on the Interaction Between Firm Size and Operational Efficiency (Firm-Specific Factors) and Sustainability**

The partial least square-structural equation modelling results for the mediating effect of environmental dynamism on the interaction between firm-specific factors and sustainability of the selected manufacturers of fast-moving consumer goods products in Lagos State, Nigeria showed that environmental dynamism established a positive and significant mediating effect in the interaction between the firm-specific factor measures and sustainability of the interrogated firms.

Conceptually, this finding corroborates the researcher's definition of environmental dynamism as those turbulent forces which are external to the firm with the ability to shape or influence the organisation's plan and strategy and or its outcome. In addition, the dynamic nature of the external environment dictates the approach used by firms in their exploratory and exploitative approach to innovation, as well as the approach to competition, technology reconfiguration, and customer satisfaction. Also, the exploitative and exploratory innovation approach could be considered under different external environmental conditions. When there is relative stability in the external environment, the former (exploratory approach) is considered, while the latter (exploitative approach) is used to address a relatively highly unstable external environment<sup>37</sup>. In measuring environmental dynamism, the two dimensions of interest are the changes in customer demand and changes in technology. Other scholars however consider it necessary to factor into consideration changes in the size of the industry as well as the rate of change in competition within the industry. These measures are carried out either subjectively (via the experience of players) or objectively (reliance on facts and figures)<sup>38</sup>.

Empirically, works addressing this study concern in scarce, but still, of corroborative relevance is the findings of a study conducted in India to investigate the mediating role of

organizational and technological factors on environmental dynamism, industry 4.0, and performance which shows that, environmental dynamism has a positive impact on industry 4.0 to improve performance, while technological factors, as well as organizational factors, have a mediating effect on the interaction between environmental dynamism and industry 4.0<sup>39</sup>.

In line with the findings of this study, the relevance of the firm-specific factors measure to the sustainability of the interrogated firms lies in the turbulence and dynamic environment, in the absence of which the firm-specific factors measures become less significant in deciding the sustainability performance of the selected firms. Furthermore, the finding of this study gives sustenance to the dynamic capability theory which emphasises the need to factor in the dynamic nature of the business environment within which organisations operate in order to generate a sustainable competitive edge and to sustain superior performance; by a swift organisation of resources to address unprecedented environmental changes without distorting performance level, bringing in new ideas that translate to new product and processes, identification, acquisition, and utilization of external knowledge to the advantage of the firm<sup>40</sup>.

In all, based on this study's finding and the support found in existing literature, it can therefore be stated that environmental dynamism mediates the interaction between the firm-specific factors measures and sustainability of the selected fast-moving consumer goods manufacturers in Lagos State, Nigeria.

## Endnotes

- <sup>1</sup> K. Adeyemo, C. Adu & A. Onomusi, *Implementation of Transfer Pricing Regulations Should Improve Tax Revenue Growth in Nigeria. Is This True? Does Institutional Capacity Have a Role?* **International Journal of Advances Multidisciplinary Research and Studies**, 2(6), 2022, 623-631.
- <sup>2</sup> O. U. Asihkia, O. U. Adewole, A. B. Onamusi, & G. O. Makinde, *The Afinity to Executive Strategy Could Drive Firm Profitability. Is this True? What Role Does Anagile Leader Play?* **Global Journal of Management and Business Research: A Administrative and Management**, 22(5), 2022, 49-62.
- <sup>3</sup> J. F. Hair, G. T. M. Hult, C. M. Ringle, & M. A. & Sarstedt, *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. London: 2<sup>nd</sup> Ed. SAGE Publication, 2017, pp 212.
- <sup>4</sup> M. Baron & D.A. Kenny, *The Moderating Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations*, **Journal of Personality and Social Psychology**, 51(6), 1986, 1173-1182.
- <sup>5</sup> R. R. Setyahdi & M. I. Narsa, *Corporate Governance and Sustainability in Indonesia*, **Journal of Asian Finance, Economic and Business**, 7(12), 2020, 885-894.
- <sup>6</sup> J. Zinkni, *Better Governance Across the Board: Creating Value Through Reputation, People, and Processes*, Boston: De Gruyter, 2019, pp. 3-18.
- <sup>7</sup> S. E-Vahdati, N. Zulkifli & Z. Zakariya, *Corporate Governance Integration with Sustainability: A Systematic Literature Review*, **Corporate Governance: The International Journal of Business in Society**, 19(2), 2018, 258.
- <sup>8</sup> G. E. Oyedokun, *Business Policy: Strategy, Governance, Risk and Ethics*. Lagos: Aaron & Hur Publishing, 2019, pp. 275.
- <sup>9</sup> H. N. Utami, B. E. Cahyana, U. Nimran, & M. Iqbal, *Organizational Transformation as a Determinant of Corporate Hospitality and its Effect on Corporate Sustainability*, **International Trade, Politics and Development**, 4(2), 2020, 105-125.
- <sup>10</sup> K. Maali, R. Rakia & M. Khaireddine, *How Corporate Social Responsibility Mediates the Relationship Between Corporate Governance and Sustainability Performance in UK: A Multiple Mediator Analysis*, **Society and Business Review**, 16(2), 2021, 201-217.
- <sup>11</sup> A. Antwi-Adjei, Y. Kong, O. Kwame, & N. A. Antwi-Adjei, *A Review: Corporate Governance and Sustainability*, **International Journal of Scientific Research in Science and Technology**, 7(6), 2020, 85-86.
- <sup>12</sup> G. Lazaroiu, L. Ionesu, M. Andronie & I. Dijmarescu, *Sustainability Management and Performance in the Urban Corporate Economy: A Systematic Literature Review*, **Sustainability**, 12(18), 2020, 1-13.
- <sup>13</sup> P. Y. Foo, V. Lee, K. Ooi, G. W. Tan, & A. Sohail, *Unfolding the Impact of Leadership and Management on Sustainability Performance: Green and Lean Practices and Guanxi as Dual Mediators*, **Business Strategy and Environment**, 30(8), 2021, 4136-4153.

- 
- <sup>14</sup> Z. A. Iqbal, G. Abid, M. Arshad, & F. Ashfaq, *Impact of Authoritative and Laissez-Faire Leadership on Thriving at Work: The Moderating Role of Conscientiousness*, **European Journal of Investigation in Health, Psychology and Education**, 11(3), 2021, 667-685.
- <sup>15</sup> B. Amin, Y. Hakimah, S. Madjir, & D. Noviantoro, *The Role of Transformation Leadership in Enhancing Corporate Sustainability Capabilities and Sustainability Supply Chain Management*, **Polish Journal of Management Studies**, 20(2), 2019, 83-91.
- <sup>16</sup> K. S. Sapta, *Sustainability Performance of Organization: Mediating Role of Knowledge Management*, **Economics**, 9(3), 2021, 1-16.
- <sup>17</sup> D. M. Salvioni & A. Almici, *Transitioning Toward a Circular Economy: The Impact of Stakeholder Engagement on Sustainability Culture*, **MDPI**, 12(20), 2020, 1-30.
- <sup>18</sup> D. Talbot, N. Raineri & A. Daou, *Implementation of Sustainability Management Tools: The Contribution of Awareness, External Pressures, and Stakeholder Consultation*, **Corporate Social Responsibility and Environmental Management**, 28(1), 2021, 71-81.
- <sup>19</sup> C. Pesci, E. Costa & M. Andreus, *Using Accountability to Shape the Common Good*, **Critical Perspectives on Accounting**, 67, 2020, 102079.
- <sup>20</sup> S. Sindhuja, *The Size of a Firm: Definitions, Measures and Concepts*. Business Management Ideas. Available Online: <https://www.businessmanagementideas.com/enterprises/the-size-of-a-firm-definition-measures-and-concepts/9054>
- <sup>21</sup> C. Gaio & R. Henriques, *Are Large Firms More Profitable than Small and Medium Firms in the European Union?* **European Journal of Management Studies**, 23(1), 2018, 25-48.
- <sup>22</sup> C. Banton, *Efficiency Definition*. Investopedia. Available Online: <https://www.investopedia.com/terms/e/efficiency.asp> 2021.
- <sup>23</sup> M. A. Suleiman, G. E. Oyedokun & M. A. Adeolu-Akande., *Firm-Specific Factors and Sustainability of Listed Consumer Goods Manufacturing Companies in Nigeria*, **Global Research Journal of Accounting and Finance**, 2(1), 2021, 65-79.
- <sup>24</sup> I. J. Osazefua, *Operational Efficiency and Financial Sustainability of Listed Manufacturing Companies in Nigeria*, **Journal of Accounting and Taxation**, 11(1), 2019, 17-31.
- <sup>25</sup> S. Balasubramanian, V. Shukla & J. Chanchaichujit, *Do Firm Characteristics Affect Environmental Sustainability? A Literature Review-based Assessment*, **Business Strategy and Environmental**, 30(2), 2020, 1389-1416.
- <sup>26</sup> I. A. Makris, P. Charalabakis & S. Stavroyianni, *Analysing Factors that affect Profitability and Growth in French Publicly Listed Firms*, **International Journal of Economics and Business Research**, 21(3), 2021, 343-359.
- <sup>27</sup> L. M. Ifada, M. Indriastuti, E. Y. Ibrani & Y. Setiawanta, *Environmental Performance and Environmental Disclosure: The Role of Financial Performance*, **Journal of Asian Finance, Economics and Business**, 8(4), 2021, 349-362.

- 
- <sup>28</sup> N. Jumadi & J. Sjarief, *Analisis Pengaruh Intellectual Capital, Pengungkapan Sustainability Report, Dan Ukuran Perusahaan Terhadap Kinerja Keuangan*, **Simak**, 19(2), 2021, 339-354.
- <sup>29</sup> Stakeholder Theory, "About the Stakeholder Theory" Available Online: <http://stakeholdertheory.org/about/>.
- <sup>30</sup> Y. Y. Korl, J. T. Mahoney, E. Siemsen, & D. Tan, *Penrose's The Theory of the Growth of the Firm: An Exemplar of Engaged Scholarship*, **Production and Operation Management**, 25(10), 2016, 1727-1744.
- <sup>31</sup> Z. Li, H. Chen, Q. Ma, & H. Li, *CEO Empowering Leadership and Corporate Entrepreneurship: The Roles of TMT Information Elaboration and Environmental Dynamism*, **Frontiers in Psychology**, 12, 2021, 1-15.
- <sup>32</sup> L. D. Prawati & M. H. Setyawan, *The Optimization of Excellent Performance through Managerial Ownership, Funding Policy, Corporate Governance: Does it Depend on the Environmental Technology Dynamism?* **International Journal of Recent Technology and Engineering (IJRTE)**, 8(4), 2019, 11410-11415.
- <sup>33</sup> B. Petrus, *Environmental Dynamism: The Implication for Operational and Dynamic Capabilities*, **Management Sciences**, 24(1), 2019, 28-29.
- <sup>34</sup> J. A. Zhang, C. O'Kane & G. Chen, *Business Ties, Political Ties, and Innovation Performance in Chinese Industrial Firms: The role of Entrepreneurial Orientation and Environmental Dynamism*, **Journal of Business Research**, 121, 2020, 257.
- <sup>35</sup> S. K. Taghizadh, A Karini, G. Nadarajah & D. Nikbin, *Knowledge Management Capability, Environmental Dynamism and Innovation Strategy in Malaysian firms*, **Management Decisions**, 59(6), 2020, 1392.
- <sup>36</sup> B. Petrus, *Environmental Dynamism: The Implication for Operational and Dynamic Capabilities*, **Management Sciences**, 24(1), 2019, 28-29.
- <sup>37</sup> J. Andrade, M. Franco & L. Mendez, *Technology Capacity and Organizational Ambidexterity: The Moderating Role of Environmental Dynamism on Portuguese Technological SMEs*, **Review of Managerial Science**, 15(7), 2019, 2111-2136.
- <sup>38</sup> X. Chen, G. Jiang, L. Yang, G. Li, & F. Xiang, *Redesign of Enterprise Lean Production System Based on Environmental Dynamism*, **Wiley Online Library**, 32(14), 2020, 1.
- <sup>39</sup> S. Kumar & M. S. Bhatia, *Environmental Dynamism, Industry 4.0 and Performance: Mediating Role of Organizational and Technological Factors*, **Industrial Marketing Management**, 95(1), 2021, 54-55.
- <sup>40</sup> V. Kaur & V. Mehata, *Dynamic Capabilities for Competitive Advantage: A Comparative Study of IT Multinationals in India*. **Paradigm**, 21(1), 2017, 31-51.

## **Chapter Five**

### **Conclusion**

This chapter discusses the summary of the findings, conclusions, and recommendations of the study. These findings of this study concisely summarise the contributions of the study to knowledge whilst also emphasising respective implication of findings, limitation to the study as well as suggestions to further studies.

#### **5.1 Summary of Findings**

The study evaluated the effect of corporate governance measures (Accountability, Agile leadership, and Stakeholder management) and firm-specific factors measures (Firm-size and Operational efficiency) on the sustainability of selected fast-moving consumer goods manufacturers in Lagos State, Nigeria. It precisely assessed the effect of corporate governance measures on organisational sustainability as well as firm-specific factors measures on organisational sustainability. It also evaluated the combined effect of corporate governance and firm-specific factors on organisational sustainability. Further analysis was done to ascertain the moderating effect of environmental dynamism on the interaction between corporate governance and Organisational sustainability. The mediating effect of environmental dynamism on the interactions between firm-specific factors and organisational sustainability of selected fast-moving consumer goods manufacturers in Lagos State, Nigeria was also conducted.

This study was structured into five chapters in an effort to achieve the earlier-stated specific objectives of the study. The introductory chapter presented a detailed background to the study which revealed that issues of environmental sustainability have been given more attention at the global level with the 2020 global Environmental Performance Index (EPI) ranking Denmark as the number one most environmentally sustainable country in the world, with

Luxembourg, Switzerland, and United Kingdom following at 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> position respectively. In Africa, Seychelles was reported to top the list of the most environmentally sustainable sub-Saharan African countries, ranking 38 globally, followed by Gabon, Moraceous, and South Africa at the 76, 82, and 95 world rank positions. In West Africa on the other hand, Burkina Faso with 38.3 points tops the West African list of the Global EPI, ranking 112 at the global position, Nigeria stands at 151 position (out of 180 countries around the world) with 31.0 points. Thus, presenting statistics of concern to the manufacturing activities in Nigeria which requires urgent attention.

It was also identified that, the sustainability of manufacturing companies (which includes the fast-moving consumer goods manufacturers) in Nigeria is under serious threat, given the closure of over 196 manufacturing companies in the country between the period of 2015 – 2019 due to the turbulent nature of the business environment which was further accentuated by the harsh external forces alluded to by the Manufacturers Association of Nigeria to include difficulty in accessing foreign exchange to procure raw materials; high electricity cost; high cost of transportation; low demand for commodities; difficulty in accessing funds; regulatory issues from numerous agencies; poor port administration; unavailability of raw materials; policy summersault; and corruption. As a result of these events, this study assessed the relevance of corporate governance and firm-specific factors to the sustainability of fast-moving consumer goods manufacturing companies in Nigeria and further investigates, the effect of the dynamic environment on this relevance. In addition, five objectives, broken down into three relative effect relationships, one moderating-effect relationship, and one mediating-effect relationship were formulated.

A review of previous related literature on the concept of corporate governance dimensions including accountability, agile leadership, and stakeholder management; firm-specific factors

dimensions including firm-size, operational efficiency; and environmental dynamism were conducted.

The empirical review was unbundled in methodological review and findings review. The findings review provided mixed results regarding the effect of corporate governance and firm-specific factors of sustainability performance. In addition, existing contextual findings concentrated more on environmental reporting either as a problem variable or treatment variable. Given the scant empirical findings to substantiate the findings of this study, both conceptual and theoretical justifications were also employed.

The theoretical framework considered three theories (the Stakeholder Theory, The Resource Based View, and the Dynamic Capability Theory) that are relevant to this study. The Stakeholder Theory suggests that to maintain the going concern of an organisation, the interest of diverse stakeholders requires to be given due consideration to ensure a harmonious relationship is established and maintained with those who are affected by the firm activities or/and can affect the firm's activities. This provided theoretical justification to explain the effect of this study's corporate governance measures on organisational sustainability. The Resource-Based View (RBV) was employed to justify the effect of firm-specific factors on organisational sustainability, while the Dynamic Capability Theory (DCT) gave justification to the moderating effect of environmental dynamism objective stated in this study as regards the interaction between corporate governance and sustainability. The DCT also gave justification to the mediating effect of environmental dynamism on the interaction between firm-specific factors and corporate sustainability performance. This is because the DCT explains the capabilities needed for attaining a sustainable competitive advantage in an ever-changing and turbulent environment.

However, while the RBV specifically addressed the firm-specific factors that are needed to achieve superior performance, it failed to address the dynamic nature of the environment and how this could define resource configuration to give a level of performance that can be sustained over time. This gap in the RBV was bridged by DCT, thus, given the static nature of the RBV in explaining the capabilities needed for attaining a sustainable competitive advantage in changing environment, and also given the relevance of the dynamic environment to this study, the RBV was dropped while the DCT was adopted to complement the stakeholder theory. The literature review equally synthesised the gaps in extant literature. In all, the review of literature provided conceptual, theoretical, methodological, and empirical support for this present study, more so, it provided justification for the measurement of the variables of concern in this study.

On the methodology chapter, this study adopted the cross-sectional survey design as an example of quantitative non-experimental design. One population (Fast-moving consumer goods manufacturers) was identified given the specific objective of this study. Using the raosoft online sample size calculator for finite population, a sample size of 432 was obtained (after adding 20% to the original 360 sample size calculated to provide for anticipated non-response). Stratified random sampling technique was employed in selecting the respondents. The three levels of management in the selected companies formed the unit of analysis for the study. An adapted questionnaire was designed and employed to collect data from the population after it was scientifically certified to be valid and reliable for the intended purpose through the conduct of a pilot study.

Both descriptive and inferential statistics were adopted. Specifically, the descriptive statistics enhanced the analysis for all the study variables and provided answers to the specific research questions of the study. On the other hand, the inferential statistics enabled the test of the five null hypotheses formulated in the introductory chapter; hypotheses one to three been relative

effect analysis was established through multiple regression, while hypotheses four and five been a moderating and mediating effect analysis respectively, were established through hierarchical multiple regression analysis. Overall, the researcher ensured absolute obedience to ethical considerations as required by the university research committee.

The data analysis established the analytical technique adopted, the interpretation of results, and the discussion of the research findings. In all five research questions, objectives and hypotheses were formulated and tested. The data analysis was carried out in line with the study's specific objectives and hypotheses from which the patterns were investigated, interpreted, and conclusions drawn. Both descriptive and inferential statistics were adopted to analyse the data. The descriptive aspect of analysis was used to interpret the respondents' opinion research questions. Frequency distribution tables and percentage presentation approaches were employed in the analysis and interpretation of data collected using the Statistical Product and Service Solutions (SPSS) version 24.0 versions for the analysis. Tables were also used to present the summarised findings.

In addition, to test hypotheses one to five, PLS-Structural Equation Modelling (PLS\_SEM) was adopted using SmartPLS statistical platform version 4.0. Furthermore, The research objectives one, two, and three were analysed through PLS-SEM (an inferential statistics) to substantiate the effects of corporate governance dimensions, firm-specific factor dimension, and the combined effect of corporate governance and firm-specific factors on sustainability. Likewise, PLS-SEM was used to test objective four and five to substantiate the moderating effect of environmental dynamism on the interaction between corporate governance on sustainability; and the mediating effect of environmental dynamism on the interaction between firm-specific factors and sustainability of selected fast-moving consumer goods manufacturers in Lagos State, Nigeria.

The data generated were sorted, coded, analysed, and substituted in each of the functional relationship equations to obtain PLS-SEM and establish the statistical significance of corporate governance and firm-specific factors on sustainability of fast-moving consumer goods manufacturers in Lagos State, Nigeria, and final acceptance or rejection of the hypotheses were made. From the interpretation of analyses of data collected and findings of the study, the following can be summed up as the major empirical findings of this study:

1. Corporate governance dimensions (accountability, stakeholder management, and agile leadership) have a combined positive and significant effect on sustainability of selected fast-moving consumer goods manufacturers in Lagos State, Nigeria (*Adj R*<sup>2</sup> =0.710, *p*=0.000, *Q*<sup>2</sup>=0.391)
2. Firm-specific factors dimensions (firm-size and operational efficiency) have a collective positive and significant effect on sustainability of selected fast-moving consumer goods manufacturers in Lagos State, Nigeria (*Adj. R*<sup>2</sup> =0.428, *p*=0.000, *Q*<sup>2</sup> =0.234).
3. Corporate governance dimension and firm-specific factors dimension have a joint positive and significant effect on sustainability of fast-moving consumer goods manufacturers in Lagos State, Nigeria (*Adj R*<sup>2</sup> =0.710, *p*=0.000, *Q*<sup>2</sup>=0.188)
4. Environmental dynamism has positive and significant moderating effect on the interaction between the corporate governance measures and sustainability of selected fast-moving consumer goods manufacturers in Lagos State, Nigeria ( $\beta$  =0.386; *p*< 0.006, *Q*<sup>2</sup>=0.290).
5. Environmental dynamism has positive and significant mediating effect on the interaction between the firm-specific factors measures and sustainability of selected fast-moving consumer goods manufacturers in Lagos State, Nigeria ( $\beta$ =0.396, *t*= 2.919, *p*= 0.004).

## 5.2 Conclusion

Based on the empirical findings, this study concludes that there was a statistically significant joint effect of the dimensions of corporate governance and the dimensions of firm-specific factors on the sustainability of the selected firms. Hence, the study established that the corporate governance and firm-specific factors dimensions have a positive and significant effect on the sustainability of the selected fast-moving consumer goods manufacturers in Lagos State, Nigeria.

Further analysis showed that environmental dynamism moderated the functional relationship between the corporate governance dimension and sustainability of the selected fast-moving consumer goods manufacturers in Lagos State, Nigeria, given that the interaction effect was significant and positive.

Also, environmental dynamism was found to have a mediating effect on the functional relationship between the firm-specific factors dimensions and sustainability of the selected fast-moving consumer goods manufacturers in Lagos, Sate Nigeria, given that the effect was significant and positive.

Theoretically, the findings of this study are in line with the stakeholder theory and the dynamic capability theory, which provided the theoretical underpinnings for the study. The theories were selected to guide this study because their perspectives relate to the variables under investigation. The stakeholder theory explained how organisation can attain sustainability through the stakeholder right recognition to generate a harmonious relationship with those that can either be impacted by the organisation's activities or/and those whose actions could affect the continuous operation of the organisation. In addition, the second underpinning theory (dynamic capability) suggest that within turbulent macro-environment, it

is imperative for firms desirous of achieving sustainable competitive performance to possess capabilities that are renewable and can be used to adapt to the changing business environment. Hence, the corporate governance and firm-specific factors measures investigated are all capabilities that are not static but can be renewed and reconfigured by the firms under investigation to consistently mitigate threats and harness opportunities in the environment and consequently attain superior performance.

The findings of the study have implications for the management of fast-moving consumer goods manufacturers investigated, the body of academia, governments and policymakers, and the general public.

For the management, the findings of this study suggest the need for the executive management in the fast-moving consumer goods manufacturing companies to adopt appropriate corporate governance strategy and firm-specific factor configuration, given that the interrogated measures of these two variables offers significant levels of sustainability performance to the organisation. Under firm-specific factors, firm size and operational efficiency offered a significant and positive effect on organisational sustainability. However, under corporate governance, Agile leadership and stakeholder management offered significant positive effect on sustainability performance than accountability, the study thus suggest that management of the fast-moving consumer goods manufacturers should invest more in improving their corporate governance and firm-specific factors given the ripple effect it presents in enhancing sustainability of the firm.

For the body of academia, this study provides useful information and contributions to empirical literature on the link between corporate governance, firm-specific factors, and sustainability. The study further established the part played by environmental dynamism as a moderator/mediator in this link. This study also addressed some gaps in existing literature on

corporate governance, firm specific factors, and sustainability. Hence, contributing to recent research in this regard and contributing to the scant empirical literature on moderation-mediation effect of environmental dynamism on the interaction between corporate governance and firm-specific factors within sustainability literature in Nigeria. Therefore, it provides reference material for students to learn and for further studies in the field of accounting, strategic management and sustainability hence, pushing forward the frontier of knowledge.

To the government, this study considered the macro environment with recognition that the Government contributes in no small measure to create the framework within which business operates through economic policies. This study provides the Government with a piece of empirical information to substantiate the effect the macro environment has on sustainability of the manufacturing sector (fast-moving consumer goods manufacturers) in the country with the hope that policies that will favour the sector are not only formulated but also implemented to reduce the issues of high cost of production and corrupt practices of the Ministries, Departments, and Agencies which the operators of manufacturing entities deal with on regular basis in the course of their business.

To the industry regulators, the findings of this study shows that corporate governance strategies and firm-specific factors capabilities has significant effect on the overall sustainability of the manufacturing companies examined. By implication, these findings should enable the regulators of the fast-moving consumer goods (FMCG) industry in Nigeria to put appropriate measures in place to enhance the overall performance of the FMCG manufacturers in competing favourably with their counterpart in other jurisdiction and offer product of similar quality. This study, in agreement with other studies, outlines the issues within the macro-environment, which include difficulty in accessing foreign exchange to procure raw materials; high electricity cost; high cost of transportation; low demand for

commodities; difficulty in accessing funds to procure machineries; regulatory issues from numerous agencies; poor port administration (Laced with issues of corruption); unavailability of raw materials; policy summersault; and corruption. The information this study, is expected to enhance the regulators' decision regarding how to strategically help the prospect of the industry, particularly in enhancing the process of technology transfer for the industry and also to pressure government agencies to provide infrastructures that will aid the growth of the industry. Lastly, issues of sub-standard foreign products being imported into the country to compete with locally manufactured products needs regulating policy, if our local manufacturing companies must survive.

For the society, the ripple effect of the findings of this study provides information regarding the sustainability effect of corporate governance and firm-specific factors of the selected fast-moving consumer goods manufacturers in Lagos State, Nigeria in the face of the turbulent environment within which the manufacturers operate in Nigeria. Overall, the recommendation of this study is aimed to enhance the overall sustainability of these manufacturing companies, hence, the attainment of sustainability performance of these companies gives rise to ripple effects of sustainable products to serve the needs of the society, generations of employment, improved environmental performance by the companies and creation of corporate social responsibility as an additional gain to the society.

### **5.3 Recommendation**

The following recommendations are put together based on the findings of this study.

1. The study established that the joint effect of the measures of corporate governance (accountability, agile leadership, and stakeholder management) adopted in this study had a positive and significant effect on firm sustainability. However, the findings shows that the contribution of accountability to the combined effect was not

significant. Hence, concerted effort needs to be made in ensuring that these firms are more accountable especially as it concerns ethical awareness and information disclosure, as this will go a long way in improving stakeholder loyalty and commitment to the firm. Also, the management of these companies should focus more on the agility of leadership and stakeholder management strategies in their company since it offered higher margins for accountability.

2. The combined effect of firm-specific factors measures (proxied by firm size and operational efficiency) was found in this study to affect organisational sustainability positively and significantly, with both measures (firm size and operational efficiency) exerting relative significant effect. On the strength of this finding therefore, the firms are advised to have a good understanding of the contribution of both their tangible and intangible assets and how the combination of these resources affects the sustainability of their operations. The appropriate configuration of firm-specific factors needs to be understood and taken seriously to ensure constant monitoring and reconfiguration to curb waste and attain the highest possible level of efficiency without comprising quality.
3. Given the significant and positive joint effect of corporate governance and firm-specific factors dimension on organisational sustainability, management should take appropriate measures to enhance performance measures such as accountability, agile leadership, stakeholder management, firm-size and operational efficiency.
4. Environmental dynamism significantly moderated the interaction between corporate governance and organisational sustainability. Hence to enhance sustainability performance, the management must continue to adopt a system that continues to evaluate how emerging issues in the dynamic environment impacts achieving of set targets and establish such policies and take such actions that continue to align

performance to achieving set goals in the face of the turbulence in the business environment.

5. Lastly, environmental dynamism potentially comes with both threats and opportunities for companies; hence the choice of an appropriate configuration of firm-specific factors must be environment appropriate. Environmental dynamism mediate the interaction between firm-specific factor dimension and sustainability, hence management need to keep abreast of issues on-going in the external environment and proactively position their firm-specific factors to mitigate the negative consequence and take advantage of the opportunities presented.

#### **5.4 Contribution to Knowledge**

The findings of this study offer conceptual, empirical and theoretical contributions to knowledge.

##### **5.4.1 Conceptual Contribution**

This study offers an immense contribution to knowledge conceptually in diverse ways. Upon critical literature review, the researcher redefined the main variables (predictors & outcome) in this study to provide a robust understanding of the concepts. Corporate sustainability is considered the ability of a firm to operate profitably while maintaining a harmonious relationship with diverse stakeholders without degrading or destroying the environment or environmental assets as a result. Also, corporate governance was conceptualized as the mannerism by which a firm is regulated to address or meet the interest of the firm and its stakeholders. Lastly, firm-specific factors were considered to be resources and core capabilities of the organization identified to be relevant in deciding a course of action. Furthermore, environmental dynamism was proposed as those turbulent forces external to the firm that can shape or influence the organization's plan and strategy and its outcome.

Another conceptual contribution to knowledge was this study's self-developed conceptual framework, which provides a diagrammatic representation of the study construct. It incorporates the two groups of treatment variables (corporate governance and firm-specific factors and their measures) proposed by the study to address the problem variable (sustainability) and the intervening variable, environmental dynamism. Further studies may adopt this model to study the sustainability of other research contexts.

In addition, this study identified and filled gaps in the literature regarding the moderating role of environmental dynamism in the interaction between corporate governance and firm sustainability and environmental dynamism in mediating the relationship between firm-specific factors and sustainability of the selected fast-moving consumer goods manufacturing companies in Lagos State, Nigeria. Likewise, about the combined effect of corporate governance and firm-specific factors on sustainability. By this conceptual contribution, the study has added to the scanty academic literature on the interaction of corporate governance, firm-specific factors, environmental dynamism, and organizational sustainability within fast-moving consumer goods manufacturers in Lagos, State, Nigeria.

#### **5.4.2 Theoretical Contribution**

The outcome of this study offered additional support for the tenets of the stakeholder theory and the dynamic capabilities theory, which provided the theoretical underpinnings for this study. Specifically, these theories offered a complementary explanation to substantiate the interaction between corporate governance and firm-specific factors. The stakeholder theory explains how firms can be more sustainable by maintaining a harmonious relationship with diverse stakeholders, and it emphasizes the need for corporate policy to recognize the right of those affected by their operations as much as those who can impact their operations through

their actions or inactions. In addition, dynamic capability theory suggests that within a turbulent macro environment, it is imperative for firms desirous of achieving superior sustainable performance to possess capabilities that are renewable and can be used to adapt to the changing business environment. Hence, the firm-specific factors dimensions investigated are all capabilities that are not static but can be renewed by firms under investigation consistently to harness environmental opportunities and consequently attain corporate sustainability. Therefore, on the strength of the outcomes of theory testing (see 4.2 Test of hypotheses), this study confirms that via the complementary role played by the stakeholder theory and the dynamic capability theory, this study has made a significant contribution to theory application and offers future study the ability to infuse two theories to provide theoretical basis and explanation for the achievement of the objective of a study.

#### **5.4.3 Empirical Contribution**

This study investigated the interactions of corporate governance (measured by accountability, agile leadership and stakeholder management), firm-specific factors (measured by firm size and operational efficiency), and sustainability of selected fast-moving consumer goods manufacturers in Lagos State, Nigeria. The empirical outcome of this study contributes to the existing literature in the accounting field. The empirical findings from the test of hypotheses suggested that corporate governance and firm-specific factors are critical success factors for the sustainability of selected fast-moving consumer goods manufacturers in Lagos State, Nigeria, given that individually and collectively, they exert positive and significant effects on sustainability. Moreover, this study positioned the value relevance of taking cognizance of environmental dynamism given that it holds twofold relevance: being a moderator enhancing the interaction between corporate governance and firm sustainability, and secondly, being a mediator, establishing the boundary condition that explains how firm-specific factors affected sustainability of selected fast-moving consumer goods manufacturers in Lagos State, Nigeria.

These empirical submissions are a product of hypotheses testing, and they offer future researchers the opportunity of having a robust finding to aid their empirical reviews in their studies and the basis to corroborate and present a contrary outcome as with this study's submission, hence pushing forward the frontier of knowledge in the accounting field.

### **5.5 Suggested Area of Further Studies**

The limitation of this study offers opportunity and suggested for future study.

1. Future studies may consider a multi-industry study that will incorporate other manufacturing companies in Fast-moving Consumer Goods, Metal works, Automobile and service industry like hospitality, logistics firms, marketing agencies, and quick-service restaurants in the country to enhance the generalization of this study's findings.
2. In other to provide explanations of causality between the variables studied over time, future studies may consider a longitudinal study.
3. Future studies may incorporate other measures of corporate governance and firm-specific factors to see how they affect organisational sustainability.
4. Future studies may consider incorporating the effect of the treatment variables on the individual dimensions of sustainability to ascertain how the treatment variables affect these dimensions individually.
5. Future studies may also consider incorporating the moderating or mediating effect of three dimensions of environmental turbulence (Dynamism, munificence and complexity) to evaluate the performance-effect of each dimension.
6. Future studies may consider factors that influence the corporate governance choice of fast-moving consumer goods manufacturers and how those factors influence performance.

7. The place of leadership in enhancing organisational sustainability has been identified in extant literature however, leadership in a moderation-mediation capacity in relation to the sustainability effect of firm-specific factors will present an interesting research opportunity.
8. On a methodological basis, future study on corporate governance and firm-specific factors may focus mainly on top management staff as the unit of analysis so as to enhance obtaining an in-depth understanding of issues. In addition, other data analytical techniques such as structural equation model can be adopted to provide additional support for the findings of this study.

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## Bibliography

### Textbooks

- Barney, J. B. *Where does Inequality come from? The Personal and Intellectual roots of Resource-based Theory*. USA: Oxford University Press, 2005.
- Farinloye, K. *Essentials of Environmental and Sustainable Development*, Ibadan: College Press, 2018.
- Hair, J. F.; Babin, B.J.; Anderson, R.E. & Black, C.B. *Multivariate Data Analysis*, 8 ed. Hampshire: Cengage Learning, 2018.
- Hair, J.F.; Hult, G.T.M.; Ringle, C.M. & Sarstedt, M. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. London: 2 Ed. SAGE Publication, 2017.
- Oyedokun, G. E. *Business Policy: Strategy, Governance, Risk and Ethics*. Aaron & Hur Publishing: Lagos, Nigeria, 2019.
- Williamson, O. E. & Winter, S. G. *The Nature of the Firms Origin, Evolution, and Development*. Oliver E. Williamson and Sidney G. Winter eds. New York: Oxford University Press, 1993.
- Zinkni, J. *Better Governance Across the Board: Creating Value Through Reputation, People, and Processes*, Boston: De Gruyter, 2019.

### Journals

- Ackert, L. F.; Church, B.K.; Venkataraman, S. & Zhang, P. *The Joint Impact of Accountability and Transparency on Managers' Reporting Choices and Owners' Reaction to those Choices*, **Journal of Accounting and Public Policy**, 38(2), 2019, 130-145.
- Adedeji, B. S.; Ong, T.S.; Uzir, M.H. & Abdul Hamid, A.B. *Corporate Governance and Performance of Medium-sized Firms in Nigeria: Does Sustainability Initiative matter?*, **Corporate Governance**, 20(3), 2021, 401-427.
- Adekomaya, O. *Contributing Impact of Climate Change on Sustainability of Bio-Degradable Material-Adaptation of Alternative Measures*, **Journal of Science and Technology Research**, 2(2), 2020, 102-107.
- Aderibigbe, A. & Fragouli, E. *Reputation Risk from Stakeholder Management Perspective*. **Risk and Financial Management**, 2(2), 2020, 1-11.
- Adeyemo, K.; Adie, C. & Onomusi, A. *Implementation of Transfer Pricing Regulations Should Improve Tax Revenue Growth in Nigeria. Is This True? Does Institutional Capacity Have a Role?* **International Journal of Advances Multidisciplinary Research and Studies**, 2(6), 2022, 623-631.
- Adriana, J. & Dewi, N. H. U. *The Effect of Environmental Performance, Firm Size, and Profitability on Environmental Disclosure*, **The Indonesian Accounting Review**, 8(1), 2019, 1-11.
- Agyapong, A.; Zamore, S. & Mensah, H.K. *Strategy and Performance: Does Environmental Dynamism Matter?* **Journal of African Business**, 21(3), 2020, 315-322.

- Ahmed, W.; Ashraf, M.S.; Khan, A.A. & Kusi-Sarpong, S. *Analyzing the Impact of Environmental Collaboration Among Supply Chain Stakeholders on a Firm's Sustainable Performance*, **Operational Management Research**, 13(9), 2020, 4-21.
- Ajao, O. S. & Moses, O. O. *Corporate Governance and Sustainability Reporting: The Controlling Effect of Company Size and Age in Selected Listed Firms in Nigeria*, **International Journal of Innovative Research & Development**, 10(4), 2021, 36-48.
- Akhwaba, J. K. Bowa, O. & Keiyoro, P. *Leadership Skills, Stakeholder Management and Execution of Fibre Optic Infrastructure*, **Journal of Engineering, Project, and Production Management**, 10(1), 2020, 2426-2437.
- Akkaya, B. & Bagienska, A. *The Role of Agile Women Leadership in Achieving Team Effectiveness through Interpersonal Trust for Business Agility*, **MDPI**, 14(1), 2022, 1-16.
- Alanzi, A. S. *Corporate Governance and the Characteristics of the Board of Directors: Evidence from an Emerging Market*, **Corporate Board: Role & Composition**, 15(1), 2019, 17-24.
- Alencar, L. M.; Russo, R. & Kniess, C. T. *Socio-Environmental Perspective in Project Stakeholder Management: The Rialway Line 13 Case Study*, **Procedia Computer Science**, 181. (2021, 775-783.
- Alsayegh, M. F.; Rahman, R. A. & Homayoun, S. *Corporate Economic, Environmental, and Social Sustainability Performance Transformation through ESG Disclosure*, **Sustainability**, 12(9), 2020, 1-20.
- Amartei, L. A.; Yu, M. & Chukwu-lobelu, O. *Corporate Governance in Ghana: An Analysis of Board Accountability in Ghanaian Listed Banks*, **Journal of Financial Regulation and Compliance**, 27(2), 2019, 126-140.
- Amin, B.; Hakimah, Y.; Madjir, S. & Noviantoro, D. *The Role of Transformation Leadership in Enhancing Corporate Sustainability Capabilities and Sustainability Supply Chain Management*, **Polish Journal of Management Studies**, 20(2), 2019, 83-91.
- Ammer, M. A.; Alieden, M. M. & Alyahyu, M. A. *Do Corporate Environmental Sustainability Practices Influence Firm Value? The Role of Independent Directors: Evidence from Saudi Arabia*, **MDPI**, 12(22), 2020, 1-21.
- Amodu, N. *Regulation and Enforcement of Corporate Social Responsibility in Corporate Nigeria*, **Journal of African Law**, 61(1), 2017, 105-130.
- Andrade, J.; Franco, M. & Mendez, L. *Technology Capacity and Organizational Ambidexterity: The Moderating Role of Environmental Dynamism on Portuguese Technological SMEs*, **Review of Managerial Science**, 15(7), 2019, 2111-2136.
- Andries, P. & Stephan, U. *Environmental Innovation and Firm Performance: How Firm Size and Motives Matter*, **MDPI**, 11(13), 2019, 1-17.
- Angriani, M. R. Aliyana, A. & Wulandari, D. S. *The Effect of Good Governance and Leadership in Applying Operations Readiness*, **Systematic Reviews in Pharmacy**, 11(10), 2020, 466-471.

- Antonacopoulou, E. & Meric, J. *A Critique of Stake-holder Theory: Management Science or a Sophisticated Ideology of Control?*, **Corporate Governance International Journal of Business in Society**, 5(2), 2005, 22-33.
- Antwi-Adjei, A.; Kong, Y.; Kwame, O. & Antwi-Adjei, N.A., *A Review: Corporate Governance and Sustainability*, **International Journal of Scientific Research in Science and Technology**, 7(6), 2020, 79-89.
- Armstrong, C. E. & Shimizu, K. *A Review of Approaches to Empirical Research on the Resource-Based View of the Firm*, **Journal of Management**, 33, no.6 (December 2007): 959-986.
- Arslan, M. & Alqatan, A. *Role of Institutions in Shaping Corporate Governance System: Evidence from Emerging Economy*, **Heliyon**, 6(3), 2020, 1-17.
- Asihkia, O.U.; Adewole, O.U.; Onamusi, A.B. & Makinde, G.O. *The Afinity to Executive Strategy Could Drive Firm Profitability. Is this True? What Role Does Anagile Leader Play?*, **Global Journal of Management and Business Research: A Administrative and Management**, 22(5), 2022, 49-62.
- Baknsh, A. Z. & Mahmood, A. B. *An International Investigation of the Institutional Factors Driving Sustainability Assurance*, **Journal of Business and Social Review in Emerging Economies**, 5(2), 2019, 367-78.
- Balasubramanian, S.; Shukla, V. & Chanchaichujit, J. *Do Firm Characteristics Affect Environmental Sustainability? A Literature Review-based Assessment*, **Business Strategy and Environmental**, 30(2), 2020, 1389-1416.
- Barney, J.; Wright, M. & Ketchen, D. J. *The Resource-based view of the Firm: Ten years after 1991*, **Journal of Management**, 27(6), 2001, 625-641.
- Baron, M. & Kenny, D.A. *The Moderating Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations*, **Journal of Personality and Social Psychology**, 51(6), 1986, 1173-1182.
- Boiral, O. & Heras-Saizarbitoria, I. *Sustainability Reporting Assurance: Creating Stakeholder Accountability Through Hyperreality*, **Journal of Cleaner Production**, 243(5), 2019, 1-42.
- Brulhart, F.; Gherra, S. & Quelin, B. V. *Do Stakeholder Orientation and Environmental Proactivity Impact Firm Profitability?* **Journal of Business Ethics**, 158(1), 2019, 25-46.
- Bleady, A.; Hafiez, A. & Ibrahim, S. B. *Dynamic Capabilities Theory: Pinning Down A Shifting Concept*, **Academy of Accounting and Financial Studies Journal** 22(2), 2018, 1-17.
- Cancela, B. L.; Neves, D.; Elisabeta, M.; Rodrigues, L.L.; Dias, G. & Carlos, A. *The Influence of Corporate Governance on Corporate Sustainability: New Evidence Using Panel Data in the Iberian Macroeconomic Environment*, **International Journal of Accounting & Information Management**, 28(4), 2020, 785-806.
- Carolina dos Santos. A.; Favato, K. J. & Neumann, M. *Integrated Reporting and Stakeholder Management: A Research Agenda*, **Revista Contabilidade & Finanças**, 32(87), 2021, 1-15.

- Castellanos, J. D. & George, B. *Boardroom Leadership: The Board of Directors as a Source of Strategic Leadership*, **Economics and Business review**, 6(1), 2020, 103-119.
- Castrillon, G. & Alfonso, M. *The Concept of Corporate Governance*, **Revista Científica "Vision de Futuro"**, 25(2), 2021, 178-194.
- Chen, X.; Jiang, G.; Yang, L.; Li, G. & Xiang, F. *Redesign of Enterprise Lean Production System Based on Environmental Dynamism*, **Wiley Online Library**, 32(14), 2020, 1-13.
- Chizema, A. & Pogrebna, G. *The Impact of Government and Culture on Corporate Leadership Practices: Evidence from the Field and the Laboratory*, **The Leadership Quarterly**, 30(5), 2019, 1-19.
- Chowdhury, M. M. I.; Othman, K.; Khan, M. A. & Sulaiman, I. F. *Role of Effective Corporate Governance and Motivational Leadership in Increasing Productivity and Efficiency of Human Resources*, **Global Journal of Management and Business Research: Administration and Management**, 20(10), 2020, 28-39.
- Chukwuemeka, O. W. & Onuoha, B. C. *Dynamic Capabilities and Competitive Advantage of Fast Foods Restaurants*, **International Journal of Management Science and Business Administration**, 4(3), 2018, 7-14.
- Collis, D. J. *Research Note: How Valuable are Organizational Capabilities?*, **Strategic Management Journal**, 15, 1994, 143-152.
- Conca, L.; Manta, F.; Morrone, D. & Toma, P. *The Impact of Direct Environmental, Social, and Governance Reporting: Empirical Evidence in European Listed Companies in Agri-Food Sector*, **Business Strategy and Environment**, 30(2), 2020, 1080-1093.
- Conner, K. R. *A Historical Comparison of Resource-Based Theory and Five Schools of Thought Within Industrial Organization Economics: Do we have a New Theory of the Firm?* **Journal of Management**, 17(1), 1991, 121-154.
- Connor, T. *The Resource-Based View of Strategy and its Value to Practicing Managers*, **Strategic Change**, 11(6), 2002, 307-316.
- Crifo, P.; Escrig-Olmedo, E. & Mottis, N. *Corporate Governance as a Key Driver of Corporate Sustainability in France: The Role of Board Members and Investor Relations*, **Journal of Business Ethics**, 159, 2019, 1127-1146.
- Dang, C.; Li, Z. & Yang, C. *Measuring Firm Size in Empirical Corporate Finance*, **Journal of Finance**, 86, 2018, 159-176.
- De Silva, K.; Yapa, P. W.S. & Vetsy, G. *The Impact of Accountability Mechanisms on Public Sector Environmental Sustainability Performance: A Case Study of Sri Lanka*, **Australian Accounting, Business and Finance Journal**, 14(3), 2020, 38-55.
- Dess, G. G. & Beard, D. W. *Dimensions of Organizational Task Environment*, **Administrative Science Quarterly**, 29(1), 1984, 52-72.
- Drnevich, P. L. & Kriauciunas, A. *Clarifying the Conditions and Limits of the Contributions of Ordinary and Dynamic Capabilities to Relative Firm Performance*, **Strategic Management Journal**, 32(3), 2011, 254-279.

- Easterby-Smith, M.; Lyles, M. A. & Petraf, M. A. *Dynamic Capabilities: Current Debates and Future Directions*, **British Journal of Management**, 20(1), 2009, S1-S8.
- Eide, A. E.; Saether, E. A. & Aspelund, A. *An Investigation of Leaders' Motivation, Intellectual Leadership, and Sustainability Strategy in Relation to Norwegian Manufacturers' Performance*, **Journal of Cleaner Production**, 254, 2020, 1-12.
- Ekadjaja, A.; Wijaya, A. & Vernetta, *Factors Affecting Firm Performance in Manufacturing Companies in Indonesia Stock Exchange*, **Jurnal Akuntansi**, 25(1), 2021, 154-167.
- E-Vahdati, S. Zulkifli, N. & Zakariya, Z. *Corporate Governance Integration with Sustainability: A Systematic Literature Review*, **Corporate Governance: The International Journal of Business in Society**, 19(2), 2018, 255-269.
- Eyer, J. *The Effect of Firm Size on Fracking Safety*, **Resource and Energy Economics**, 53, 2018, 101-113.
- Fiol, M. C. *Revisiting an Identity-based view of Sustainable Competitive Advantage*, **Journal of Management**, 27(6), 2001, 691-699.
- Foo, P. Y.; Lee, V.; Ooi, K.; Tan, G.W. & Sohail, A. *Unfolding the Impact of Leadership and Management on Sustainability Performance: Green and Lean Practices and Guanxi as Dual Mediators*, **Business Strategy and Environment**, 30(8), 2021, 4136-4153.
- Gaio, C. & Henriques, R. *Are Large Firms More Profitable than Small and Medium Firms in the European Union?* **European Journal of Management Studies**, 23(1), 2018, 25-48.
- Gaskin, J.; Godfrey, S. & Vance, A. *Successful System Use: It's Not Just Who You Are, But What You Do*, **AIS Journals**, 10(2), 2018, 57-81.
- Ghassim, B. & Bogers, M. *Linking Stakeholder Engagement to Profitability through Sustainability-oriented Innovation: A Quantitative Study of the Minerals Industry*, **Journal of Cleaner Production**, 224, 2016, 905-919.
- Ghio, A. & McGuigan, N. *A Life of Good Governance, Positive Activism, Accountability & Integrated Thinking: An Interview with Mervyn King*, **Journal of Management Inquiry**, 29(4), 2020, 1-9.
- Gibbert, M. *Generalizing About Uniqueness: An Essay on an Apparent Paradox in the Resource-Based View*, **Journal of Management Inquiry**, 15(2), 2006, 124-134.
- Gonzalez-Morales, O.; Santana-Talevera, A. & Dominguez-Gonzalez, D. *The Involvement of Marine Companies in CSR: The case of the Island of Tenerife*, **Environmental, Development and Sustainability**, 23, 2020, 1-24.
- Haladu, A. & Bin-Nashwan, S. A. *The Moderating Effect of Environmental Agencies on Firms' Sustainability Reporting in Nigeria*, **Social Responsibility Journal**, 18(2), 2021, 388-402.
- Hardi, E. & Chairina, C. *The Effect of Sustainability Reporting Disclosure and Its Impact on Companies Financial Performance*, **Journal of Wetlands Environmental Management**, 7(1), 2019, 67-75.

- Henseler, J.; Ringle, C. M. & Sarstedt, M. *A New Criterion for Accessing Discriminant Validity in Variance-Based Structural Equation Modelling*, **Journal of the Academy of Marketing Science**, 43(1), 2015, 115-135.
- Huo, B.; Hong, J.; Zhu, K. & Zhou, Y. *Paternalistic Leadership and Innovation: The Moderation Effect of Environmental Dynamism*, **European Journal of Innovation Management**, 22(3), 2019, 562-582.
- Ifada, L. M.; Indriastuti, M.; Ibrani, E. Y. & Setiawanta, Y. *Environmental Performance and Environmental Disclosure: The Role of Financial Performance*, **Journal of Asian Finance, Economics and Business**, 8(4), 2021, 349-362.
- Ikponmwosa, N, & Ogbeide, D. O. *Environmental Responsibility and Firm Financial Performance: Evidence From International Oil Companies in Niger Delta*, **Oradea Journal of Business and Economic (OJBE)**, 1(1), 2021, 8-20.
- Ilinova, A.; Cherepovitsyn, A. & Evseeva, O. *Stakeholder Management: An Approach in CCS Project*, **Resources**, 7(4), 2018, 1-16.
- Imhanzenube, J. & Adeyemi, S. *Financial Decisions and Sustainable Cash Flows in Nigerian Manufacturing Companies*, **International Journal of Management, Economic and Social Sciences**, 9(2), 2020, 90-112.
- Indriyani, D. A. & Sudaryati, E. *Pengaruh Keragaman Gender Dewan, Industri dan Ukuran Perusahaan Terhadap Donasi Corporate Social Responsibility*, **E-Jurnal Akuntansi**, 30(8), 2020, 851-875.
- Iqbal, Z. A.; Abid, G.; Arshad, M. & Ashfaq, F. *Impact of Authoritative and Laissez-Faire Leadership on Thriving at Work: The Moderating Role of Conscientiousness*, **European Journal of Investigation in Health, Psychology and Education**, 11(3), 2021, 667-685.
- Islamiati, W. & Suryandari, D. *The Impact of Firm Size, Leverage, and Liquidity on Sustainability Report Disclosure with Profitability as Moderating Variable*, **Jurna Akuntansi Bisnis**, 18(2), 2021, 197-251.
- Jamil, A. Ghazali, N. A. M. & Nelson, S. P. *The Influence of Corporate Governance Structure on Sustainability Reporting in Malaysia*, **Social Responsibility Journal**, 17(8), 2020, 1251-1278.
- Jaworski, B. J. & Kohli, A. K. *Market Orientation: Antecedents and Consequences*, **Journal of Marketing**, 57(3), 1993, 50-70.
- Jumadi, N. & Sjarief, J. *Analisis Pengaruh Intellectual Capital, Pengungkapan Sustainability Report, Dan Ukuran Perusahaan Terhadap Kinerja Keuangan*, **Simak**, 19(2), 2021, 339-354.
- Kaoje, A. N.; Sani, A.B.; Tank, G, I.; Babangida, M.A. & Sabo, A. *The Implication of Corporate Social Cost on the Profitability of Oil Marketing Companies in Nigeria*, **IOSR Journal of Business and Management (IOSR-JBM)**, 22(1), 2020, 51-56.
- Kardiyanti, N. K. E. & Dwiranda, N. B. *Pengaruh Profitabilitas, Ukuran Perusahaan, Dan Kepemilikan Asing Pada Pengungkapan CSR*, **E-Jurnal Akuntansi**, 30(9), 2020, 2338-2350.

- Kaur, V. & Mehata, V. *Dynamic Capabilities for Competitive Advantage: A Comparative Study of IT Multinationals in India*, **Paradigm**, 21(1), 2017, 31-51.
- Key, S. *Towards a New Theory of the Firm: A Critique of Stakeholder Theory*, **Emerald Insight**, 37(4), 1999, 317-328.
- Khan, M. K.; Zahid, R.M.; Saleem, A. & Sagi, J. *Board Composition and Social & Environmental Accountability: A Dynamic Model Analysis of Chinese Firms*, **MDPI**, 13(9), 2021, 1-18.
- Klaus-Rosinska, A. & Iwko, J. *Stakeholder Management – One of the Clues of Sustainable Project Management – As an Underestimated Factor of Project Success in Small Construction Companies*, **MDPI**, 13(17), 2021, 1-27.
- Kogut, B. & Zander, U. *Knowledge of the Firm, Combinative Capabilities, and the Replication of Technology*, **Organization of Science**, 3(3), 1992, 383-397.
- Konadu, R. Ahniful, G. & Owusu-Agyei, S. *Corporate Governance Pillars and Business Sustainability: Does Stakeholders Engagement Matter?* **International Journal of Disclosure and Governance**, 18(3), 2021, 269-289.
- Korl, Y. Y.; Mahoney, J.T.; Siemsen, E. & Tan D. *Penrose's The Theory of the Growth of the Firm: An Exemplar of Engaged Scholarship*, **Production and Operation Management**, 25(10), 2016, 1727-1744.
- Kraaijenbrink, J.; Spender, J. C. & Groen, A. *The Resource-Based View: A Review and Assessment of its Critiques*, **Journal of Management**, 36(1), 2010, 349-372.
- Kumar, S. & Bhatia, M. S. *Environmental Dynamism, Industry 4.0 and Performance: Mediating Role of Organizational and Technological Factors*, **Industrial Marketing Management**, 95(1), 2021, 54-64.
- Kusumawati, M. P. *Leadership in Good Corporate governance (GCG) as a Role Model of Anti-Fraud Culture*, **Asia Pacific Fraud Journal**, 5(1), 2020, 258-265.
- Lazaroiu, G.; Ionesu, L.; Andronie, M. & Dijmarescu, I. *Sustainability Management and Performance in the Urban Corporate Economy: A Systematic Literature Review*, **Sustainability**, 12(18), 2020, 1-13.
- Leonidou, E.; Christofi, M.; Vrontis, D. & Thrassou, A. *An Integrative Framework of Stakeholder Engagement for Innovation Management and Entrepreneurship Development*, **Journal of Business Research**, 119, 2020, 245-258.
- Levitas, E. *What to do with the Resource-Based View: A Few Suggestions for what Ails the RBV that Supporters and Opponents Might Accept*, **Journal of Management Inquiry**, 15(2), 2006, 135-144.
- Li, Z.; Chen, H.; Ma, Q. & Li, H. *CEO Empowering Leadership and Corporate Entrepreneurship: The Roles of TMT Information Elaboration and Environmental Dynamism*, **Frontiers in Psychology**, 12, 2021, 1-15.
- Locket, A.; Thomson, S. & Morgenstern, U. *The Development of the Resource-Based View of the Firm: A Critical Appraisal*, **International Journal of Management Reviews**, 11(1), 2009, 9-28.

- Lu, L. W. *The Moderating Effect of Corporate Governance on the Relationship Between Corporate Sustainability Performance and Corporate Financial Performance*, **International Journal of Disclosure and Governance**, 18(3), 2021, 193-206.
- Maali, K.; Rakia. R. & Khairredine, M. *How Corporate Social Responsibility Mediates the Relationship Between Corporate Governance and Sustainability Performance in UK: A Multiple Mediator Analysis*, **Society and Business Review**, 16(2), 2021, 201-217.
- Magd, H. & Karyamsetty, H. *Integrated Management System Implementation in SMES: A Proposed Model for Organizational Performance and Sustainability*, **International Journal of Business and Management Review**, 8(4), 2020, 58-77.
- Mahjoub, L. B. & Amara, I. *The Impact of Cultural Factors on Shareholders Governance and Environmental Sustainability: An International Context*, **World Journal of Science, Technology and Sustainability Development**, 17(2), 2020, 367-385.
- Makris, I. A.; Charalabakis, P. & Stavroyianni, S. *Analysing Factors that affect Profitability and Growth in French Publicly Listed Firms*, **International Journal of Economics and Business Research**, 21(3), 2021, 343-359.
- Malik, A; Khan, N. & Faisal, S. *An Investigation on Leadership Styles for the Business Productivity and Sustainability of Small Medium Enterprises (SMEs)*, **International Journal of Entrepreneurship**, 25(5), 2020, 1-10.
- Mangundjaya, W. L. *The Linkage between Transformational Leadership, and Organizational Sustainability: Testing the Mediating Role of Psychological Empowerment*, **Advance Social Science, Education and Humanities Research**, 229, 2019, 1012-1024.
- Martin, S. L.; Javalgi, R. G. & Ciravegna, L. *Marketing Capabilities New Venture Performance: The Mediation Role of Marketing Communication and The Moderating Effect of Technological Turbulence*, **Journal of Business Research**, 107(1), 2020, 25-37.
- Maryana, M. & Carolina, Y. *The Impact of Firm Size, Leverage, Firm Age, Media Visibility and Profitability on Sustainability Report Disclosure*, **Journal of Finance and Banking**, 25(1), 2021, 36-47.
- McGuinness, T. & R. E. Morgan, *Strategy, Dynamic Capabilities and Complex Science: Management Rhetoric Vs. Reality*, **Strategic Change**, 9(1), 2020, 209-220.
- Mensah, J. *Sustainable Development: Meaning, History, Principles, Pillars and Implications: Literature Review*, **Cogent Social Sciences**, 5(1), 2019, 1-21.
- Mesquita, P. L. & Missimer, M. *Social Sustainability Work in Product Development Organizations: An Empirical Study of Three Sweden-Based Companies*, **MDPI**, 13(4), 2021, 1-21.
- Minaei, N.; Pourkiani, M.; Zayandehroody, M. & Sheikhy, A. *Presenting an Executive Sustainable Development Model Based on the Corporate Social Responsibility (CSR) and Green Management with Accountability in Executive Organizations*, **International Journal of Social Sciences**, 10(2), 2020, 45-62.
- Motwani, S. S. & Pandra, H. B. *Evaluating the Impact of Sustainability Reporting on Financial Performance of Selected Indian Companies*, **International Journal of Research in IT & Management**, 6(11), 2016, 14-23.

- Mu, J. *Dynamic Capability and Firm Performance: The Role of Marketing Capability and Operations Capability*, **IEEE in Transactions on Engineering Management**, 64(4), 2017, 554-565.
- Nasution, A. H.; Erlina, & Tamizi, H. B. *An Analysis on the Influence of Profitability, Firm Size, Liquidity, and Leverage on the Expression of Firm's Social Responsibility in Banking Companies Listed in BEI (Indonesian Stock Exchange)*, **International Journal of Research and Review**, 5(9), 2018, 92-105.
- Nelson, R. R. *Why do Firms Differ, and how does it Matter*, **Strategic Management Journal**, 12(S2), 1991, 61-74.
- Ngu, S. B. & Amran, A. *The Impact of Sustainability Board Capital on Sustainability Reporting*, **Strategic Direction**, 35(12), 2019, 8-11.
- Nguyen, T.H.H. *Environmental Performance, Sustainability, Governance and Financial Performance: Evidence from Heavily Polluting Industries in China*, **Business Strategy and Environment**, 30(5), 2021, 2313-2331.
- Nishitani, K.; Nguyen, T.; Trinh, T.Q.; Wu, Q. & Kokubu, K. *Are Corporate Environment Activities to Meet Sustainable Development Goals (SDGs) Simply Greenwashing? An Empirical Study of Environmental Management Control Systems in Vietnamese Companies from the Stakeholder Management Perspective*, **Journal of Environmental Management**, 296, 2021, 1-14.
- Oktafianti, D. & Rizki, A. *Managerial Ownership, Firm Size, Financial Performance, and Corporate Environmental Disclosure*, **Opcion Revista de Ciencias Humanas Sociales**, 36(26), 2020, 225-244.
- Oliveira; G. F. & Rabechini, R. *Stakeholder Management Influence on Trust in a Project: A Quantitative Study*, **International Journal of Project Management**, 37(1), 2019, 131-144.
- Onamusi, A. B. *Strategic Response Capability and Firm Competitiveness: How Omoluabi Leadership Makes a Difference*, **Business Excellence and Management**, 10(4), 2020, 23-37.
- Onamusi, A.B. *Adaptive Capability, Social Media Agility, Ambidextrous Marketing Capability, and Business Survival: A Mediation Analysis*, **Marketing and Branding Research**, 8(1), 2021, 31-47.
- Onamusi, A.B.; Makinde, O.G. & Akinlabi, H. B. *Entry Mode Strategy, Firm-level Capability, Environmental Turbulence, and Organisational Performance: A Moderated Analysis*, **Management and Economics Review**, 6(2), 2020, 101-114.
- Önder, Ş. & Baimurzin, R. *Effect of Corporate Governance on Sustainability Disclosures: Evidence from Turkey*, **Indonesian Journal of Sustainability and Management**, 4(1), 2020, 93-102.
- Onyali, C. I.; Okerekeoti, C. U. & Uchegbu, C. U. *Assessment of the Effective Factors of Social Responsibility Disclosure of Listed Consumer Goods Firms on Nigeria Stock Exchange*, **International Journal of Innovative Finance and Economic Research**, 8(2), 2020, 126-133.

- Orazalin, N. & Mahmood, M. *Determinants of GRI-Based Sustainability Reporting: Evidence from an Emerging Economy*, **Journal of Accounting in Emerging Economies**, 10(1), 2020, 140-164.
- Osazefua, I. J. *Operational Efficiency and Financial Sustainability of Listed Manufacturing Companies in Nigeria*, **Journal of Accounting and Taxation**, 11(1), 2019, 17-31.
- Park, B. & Xioa, S. *Is exploring Dynamic Capabilities Important for The performance of Emerging Market Firms? The Moderation Effects of Entrepreneurial Orientation and Environmental Dynamism*, **Internal Studies Management & Orientation**, 50(1), 2020, 57-73.
- Pattiruhu, J. R. *The Impact of Budget, Accountability Mechanisms and Renewable Energy Consumption on Environmental Development: Evidence from Indonesia*, **International Journal of Energy Economics and Policy**, 10(6), 2020, 697-703.
- Pedrini, M. & Ferri, L. M. *Stakeholder Management: A Systematic Literature Review*. **Corporate Governance International Journal of Business in Society**, 19(2), 2019, 44-59.
- Pesci, C.; Costa, E. & Andreus, M. *Using Accountability to Shape the Common Good*, **Critical Perspectives on Accounting**, 67, 2020, 1-24.
- Petrus, B. *Environmental Dynamism: The Implication for Operational and Dynamic Capabilities*, **Management Sciences**, 24(1), 2019, 28-36.
- Powell, T. C. *Strategic Advantage: Logical and Philosophical Considerations*, **Strategic Management Journal**, 22(9), 2001, 875-884.
- Prawati, L. D. & Setyawan, M. H. *The Optimization of Excellent Performance through Managerial Ownership, Funding Policy, Corporate Governance: Does it Depend on the Environmental Technology Dynamism?*, **International Journal of Recent Technology and Engineering (IJRTE)**, 8(4), 2019, 11410-11415.
- Qian, W.; Tilt, C.; Dissanayake, D. & Kuruppu, S. *Motivations and Impacts of Sustainability Reporting in the Indo Pacific Region: Normative and Instrumental Stakeholder Approaches*, **Business Strategy and Environment**, 29(8), 2020, 3370-3384.
- Rahmana, H. U.; Zahidb, M. & Khanc, M. *Corporate Sustainability Practices: A New Perspective of Linking Board with Firm Performance*, **Total Quality Management & Business Excellence**, 32(16), 2021, 1-18.
- Ranagen, H. *Stakeholder Management Theory Meets CSR Practice in Swedish Mining*, **Mineral Economics**, 30(1), 2017, 1-15.
- Rashid, A. *The Influence of Corporate Governance Practices on Corporate Social Responsibility Reporting*, **Social Responsibility Journal**, 14(1), 2021, 20-39.
- Razok, H. A.; Adhiatma, A. & Fitriati, I. R. *Strengthening Digital Ecosystem for SMEs Through Readiness to Change and Agile Leadership*, **Jurnal Siasat Bisnis**, 25(2), 2021, 155-165.
- Rendtorff, J. D. *Corporate Citizenship, Stakeholder Management and Sustainable Development Goals (SDGs) in Financial Institutions and Capital Markets*, **Journal of Capital Markets Studies**, 4(1), 2020, 47-59.

- Rodrigues-Pena, A. *Assessing the Impact of Corporate Entrepreneurship in the Financial Performance of Subsidiaries of Colombian Business Groups: Under Environmental Dynamism Moderation*, **Journal of Innovation and Entrepreneurship**, 10(1), 2021, 1-27.
- Roemer, E.; Schuberth, F. & Hensler, J. *HTMT2- An Improved Criterion For assessing Discriminant Validity in Structural Equation Modelling*. **Industrial Management & Data Systems**, 121(12), 2021, 2637-2649.
- Saeed, M. A.; Jiao, Y.; Zahid, M.M.; Tabassum, H. & Nauman, S. *Organizational Flexibility and Project Portfolio Performance: The Roles of Innovation, Absorptive Capacity and Environmental Dynamism*, **International Journal of Managing Projects in Business**, 14(3), 2020, 600-624.
- Saeidi, P.; Robles, L. A.; Saeidi, S.P. Zamora, M.I.V. *How Does Organizational Leadership Contribute to the Firm Performance Through Social Responsibility Strategies*, **Heliyon**, 7(7), 2021, 1-34.
- Sahoo, S. *Aligning Operational Practices to Competitive Strategies to Enhance the Performance of Indian Manufacturing Firms*, **Benchmarking: An International Journal**, 28(1), 2020, 131-165.
- Salam, M. A. *Analyzing Manufacturing Strategies and Industry 4.0 Supplier Performance Relationships from a Resource-Based Perspective*, **Benchmarking: An International Journal**, 28(5), 2021, 1697-1716.
- Salman, A.; Jaafar, M. & Mohammad, D. *Understanding the Importance of Stakeholder Management in Achieving Sustainable Ecotourism*, **Social Science and Humanities**, 29(1), 2021, 731-753.
- Salvioni, D. M. & Almici, A. *Transitioning Toward a Circular Economy: The Impact of Stakeholder Engagement on Sustainability Culture*, **MDPI**, 12(20), 2020, 1-30.
- Sapta, K. S. *Sustainability Performance of Organization: Mediating Role of Knowledge Management*, **Economics**, 9(3), 2021, 1-16.
- Satiawati, L. *The Effect of Agile Leadership and Work Environment to Employees' Performance in a VUCA World (Study on Millennial Generation Employees in Jabodetabek)*, **International Journal of Social Science and Human Research**, 4(11), 2021, 3123-3131.
- Seo, E. H.; Kim, C. Y. & Kim, K. *A Study on the Mechanisms Linking Environmental Dynamism to Innovation Performance*, **MDPI**, 12(23), 2020, 1-21.
- Setyahadi, R. R. & Nasra, M. *Corporate Governance and Sustainability in Indonesia*, **The Journal of Asian Finance, Economics and Business**, 7(12), 2020, 885-894.
- Shafique, I. *Linking Element of Entrepreneurial Orientation and Firm Performance: Examining the Moderation of Environmental Dynamism*, **Middle East Journal of Management**, 7(1), 2020, 93-97.
- Sheehy, B. & Farneti, F. *Corporate Social Responsibility, Sustainability, Sustainable Development and Corporate Sustainability: What is the Difference, and Does it Matter?* **MDPI**, 13(11), 2021, 1-12.

- Siems, E. & Seuring, S. *Stakeholder Management in Sustainable Supply Chains: A Case Study of the Bioenergy Industry*, **Business Strategy and The Environment**, 30(7), 2021, 3105-3106.
- Silva, F. J. G.; Kirytopoulos, K.; Ferreira, L. P.; Sa, J. C.; Santos, G. & Nogueira, M. C. *The Three Pillars of Sustainability and Agile Project Management: How Do They Influence Each Other*, **Corporate Social Responsibility and Environmental Management**, 29(2), 2022, 1495-1512.
- Skarmeas, D.; Zeriti, A. & Argouslidis, P. *Importer and exporter capabilities, governance mechanisms, and environmental factors determining customer-perceived relationship value*, **Industrial Marketing Management**, 78(4), 2019 158-168.
- Suleiman, M. A.; Oyedokun, G. E. & Adeolu-Akande, M. A. *Firm-Specific Factors and Sustainability of Listed Consumer Goods Manufacturing Companies in Nigeria*, **Global Research Journal of Accounting and Finance**, 2(1), 2021, 65-79.
- Taghizadh, S. K.; Karini, A.; Nadarajah, G. & Nikbin, D. *Knowledge Management Capability, Environmental Dynamism and Innovation Strategy in Malaysian Firms*, **Management Decision**, 59(6), 2020, 1386-1405.
- Talbot, D.; Raineri, N. & Daou, A. *Implementation of Sustainability Management Tools: The Contribution of Awareness, External Pressures, and Stakeholder Consultation*, **Corporate Social Responsibility and Environmental Management**, 28(1), 2021, 71-81.
- Tamvada, M. *Corporate Social Responsibility and Accountability: A New Theoretical Foundation for Regulation CSR*, **International Journal of Corporate Social Responsibility**, 5(20), 2020, 1-14.
- Thayaraj, M. S. & Karunarathne, W. V. A. D. *The Impact of Sustainability Reporting on Firms' Financial Performance*, **Journal of Business and Technology**, 5(2), 2021, 51-73.
- Tiamiyu, A. M.; Oyedokun, G. E. & Ademola, A. *Firm Characteristics and Sustainability Reporting of Listed Manufacturing Companies in Nigeria*, **Journal of Management Sciences (MJMS)**, 3(1), 2021, 1-18.
- Tiamiyu, A.M.; Oyedokun, G.E. & Aderemi, A. *Firm Characteristics and Sustainability Reporting of Listed Manufacturing Companies in Nigeria*, **Afar Multidisciplinary Journal of Management Sciences (MJMS)**, 3(1), 2021, 1-18.
- Tijani, O. O.; Edmond, T. & Onomusi, A. B. *The Relevance of Organisational Capabilities for Nursing Mother's Satisfaction*, **IAR Journal of Business Management**, 2(1), 2021, 12-20.
- Tjahjadi, B.; Soewarno, N. & Mustikaningtyas, F. *Good Corporate Governance and Corporate Sustainability Performance in Indonesia: A Triple Bottom Line Approach*, **Heliyon**, 7(3), 2021, 1-11.
- Tripathi, K. L. *Corporate Accountability: A Review*, **SSRG Journal of Economics and Management Studies**, 3(6), 2016, 28-31.
- Umukoro, O. E.; Uwuigbe, O.R.; Obigbemi, I.; Babajide, B. S.; Eluyela, F.E. & Ofe, I. *Firm Size and Financial Performance Among Listed Banks of Emerging Economies in Africa*, **Research in World Economy**, 12(1), 2021, 340-341.

- Utami, H. N.; Cahyana, B.E.; Nimran, U. & Iqbal, M. *Organizational Transformation as a Determinant of Corporate Hospitality and its Effect on Corporate Sustainability*, **International Trade, Politics and Development**, 4(2), 2020, 105-125.
- Wahyuningsih, A. & Rasmin, N. K. *CSR Disclosure on Earnings Management worth the Presence of Women in the GCG Structure*, **Journal Ilman Akuntansi Dan Bisnis**, 15(2), 2020, 293-307.
- Walker, A. M.; Opferkuch, K; Lindgreen E.R.; Simoli, A.; Vermeulen, J.V. & Raggi. A. *Assessing the Social Sustainability of Circular Economy Practices: Industry Perspectives from Italy and Netherlands*, **Sustainable Production and Consumption**, 27, 2021, 831-844.
- Wang, H.; Jia, M. & Zhang, Z. *Good Deed Done in Silence: Stakeholder Management and Quiet Giving by Chinese Firms*, **Organization Science**, 32(2), 2020, 1-27.
- Welch, J. S. *Leaving Your Mark: Seven Strategies for Indelible Leadership*, **Journal of Value-Based Leadership**, 13(2), 2020, 1-15.
- Xu, J.; Wei, J. & Lu, L. *Strategic Stakeholder Management, Environmental Corporate Social Responsibility Engagement, and Financial Performance of Stigmatized Firms Derived from Chinese Special Environmental Policy*, **Business Strategy and the Environment**, 28(6), 2019, 1-18.
- Yusoff, H.; Ahman, Z. & Darus, F. *The Influence of Corporate Governance on Corporate Social Responsibility Disclosure: A Focus on Accountability*, **Academy of Accounting and Financial Studies Journal**, 23(1), 2019, 1-16.
- Zaman, R.; Nadeem, M. & Carvajal, M. *Corporate Governance and Corporate Social Rsynergies: Evidence from New Zealand*, **Meditari Accounting Research**, 29(1), 2020, 135-160.
- Zhang, J. A.; O’Kane, C. & Chen, G. *Business Ties, Political Ties, and Innovation Performance in Chinese Industrial Firms: The role of Entrepreneurial Orientation and Environmental Dynamism*, **Journal of Business Research**, 121, 2020, 254-267.
- Zhang, Q.; Loh, L. & Wu, W. *How do Environmental, Social and Governance Initiatives Affect Innovative Performance for Corporate Sustainability?*, **MDPI**, 12(8), 2020, 1-18.
- Zyznarska-Dworczak, B. *The Impact of the Accountability on Accounting Development as the Essence of Sustainability Accounting*, **Problems of Management in the 21 Century**, 14(1), 2019, 73-83.

### Periodical Articles

- Adekoya, F. *Nigeria’s Manufacturing Sector Still Struggling to Survive*, The Guardian Newspaper, Available Online: <https://guardian.ng/business-services/nigerias-manufacturing-sector-still-struggling-to-survive/> 2021.
- Atoyebi, O. *322 Nigerian Firms Shut down in Five year – World Bank*, Available Online: <https://punchng.com/322-nigerian-firms-shut-down-in-five-years-wbank/>, 2019.

- Chartered Governance Institute UK & Ireland, *What is Corporate Governance?*, Available Online: <https://www.cgi.org.uk/about-us/policy/what-is-corporate-governance> 2021.
- Courtneil, J. *Economic Sustainability for Success: What it is and how to Implement it*, Available Online: <https://www.process.st/economic-sustainability/> 2021.
- Environmental Protection Agency, *Global Greenhouse Gas Emissions Data*. United States Environmental Protection Agency, Available Online: <https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data> 2021.
- Frank-Matin, B. & Peattie, K. *Sustainability Around the Globe*, Available Online: <https://globalsustainabilitystrategy.wordpress.com/2014/10/21/sustainability-around-the-globe/> 2014.
- Gikunda, R. *Re: What Should Be Ideal KMO Value for Factor Analysis?*, Available Online: <https://www.researchgate.net/post/What-should-be-ideal-KMO-value-for-factor-analysis/5b6b5b4436d235121d0f7bd9/citation/download> 2018.
- Kolawole, Y. *Contribution to Economy: Manufacturing Sector Stagenates*. Vanguard, Available Online: <https://www.vanguardngr.com/2022/05/gdp-contribution-to-economy-manufacturing-sector-stagnates/#:~:text=A%20breakdown%20of%20the%20NBS,percent%20and%208.98%20percent%2C%20respectively> 2022.
- National Bureau of Statistics, *Nigeria Manufacturing Sector Report*, Available Online: <https://nigerianstat.gov.ng/elibrary?queries=manufacturing> 2021.
- OECD Library, *G20/OECD Principles of Corporate Governance*, Available Online: [https://www.oecd-ilibrary.org/governance/g20-oecd-principles-of-corporate-governance-2015\\_9789264236882-en](https://www.oecd-ilibrary.org/governance/g20-oecd-principles-of-corporate-governance-2015_9789264236882-en) 2021.

## Websites

- Agbakoba, O. *The Importance of Good Corporate Governance in Nigeria*, 2021 Available Online: [https://oal.law/the-importance-of-good-corporate-governance-in-nigeria/?utm\\_source=Mondaq&utm\\_medium=syndication&utm\\_campaign=LinkedIn-integration](https://oal.law/the-importance-of-good-corporate-governance-in-nigeria/?utm_source=Mondaq&utm_medium=syndication&utm_campaign=LinkedIn-integration).
- Anudu, O. & Faminu, G. *Closure of P&G 300m Agbara Plant Mirrors Challenges of Manufacturers in 2018*, Available Online: <https://businessday.ng/exclusives/article/closure-of-pg-300m-agbara-plant-mirrors-challenges-of-manufacturers-in-2018/> 2018.
- Anyalewechi, C. *Nigeria's Manufacturing Sector Records Growth of 5.89% in Q1 2022*, Available Online: <https://nairametrics.com/2022/05/23/nigerias-manufacturing-sector-records-growth-of-5-89-in-q1-2022/>
- Babalobi, B. *Of Nigeria Dying Factories and Exodus to Ghana*, 2021 Punch Newspaper on line, <https://punchng.com/of-nigerias-dying-factories-and-exodus-to-ghana/>.
- Bansal, T. & Agarwal, D. *Corporate Sustainability – Meaning, Examples and Importance, Network for Business Sustainability*, 2021 Available Online: <https://www.nbs.net/articles/corporate-sustainability-meaning-examples-and-importance>.

- Banton, C. *Efficiency Definition*, Available Online: <https://www.investopedia.com/terms/e/efficiency.asp>
- Beattie, A. *The 3 Pillars of Corporate Sustainability*, 2021 Available on Line: <https://www.investopedia.com/articles/investing/100515/three-pillars-corporate-sustainability.asp>.
- Blokhin, A. *The 5 Countries That Produce the Most Carbon Dioxide (CO2)*, Available Online: <https://www.investopedia.com/articles/investing/092915/5-countries-produce-most-carbon-dioxide-co2.asp>
- Bruna, M. *Leadership Styles and How to Find Your Own*, 2019 Available Online: <https://www.americanexpress.com/en-us/business/trends-and-insights/articles/the-7-most-common-leadership-styles-and-how-to-find-your-own/>.
- Central Bank of Nigeria, *Purchasing Managers' Index*, 2022 Available Online: <https://www.cbn.gov.ng/documents/purchmanindex.asp?beginrec=1&endrec=20&key word=&from=&tod=>.
- CFI, *Financial Ratios*, Available Online: <https://corporatefinanceinstitute.com/resources/knowledge/finance/financial-ratios/2021>.
- Chen, J. *Corporate Accountability*, Available Online: <https://www.investopedia.com/terms/c/corporate-accountability.asp> 2021.
- Deloitte, *2022 Manufacturing Industry Outlook*, Available Online: <https://www2.deloitte.com/us/en/pages/energy-and-resources/articles/manufacturing-industry-outlook.html>.
- Euromonitor International, *Lagos in Nigeria*, 2022 Available Online: <https://www.euromonitor.com/lagos-in-nigeria/report>.
- Freeman, R.E. *About the Stakeholder Theory*, 2021 Available Online: <http://stakeholdertheory.org/about/>.
- Government of Canada, *Causes of Climate Change*, 2021 Available Online: <https://www.canada.ca/en/environment-climate-change/services/climate-change/causes.html>.
- Hitesh Bhasin, *What is the Stakeholder Theory Strategy*, 2021 Available Online: <https://www.marketing91.com/what-is-the-stakeholder-theory/>.
- Jegede, O. MCI Arb and Idiaru, W. *Principle of Corporate Governance in Nigeria*, 2021 Available Online: <https://www.resolutionlawng.com/principle-of-corporate-governance-in-nigeria/>.
- Jurevicius, O. *Resource-Based View*, 2022 Available Online: <https://strategicmanagementinsight.com/tools/resource-based-view/>.
- Kenton, W. *Accountability*. Investopedia, 2021 Available Online: <https://www.investopedia.com/terms/a/accountability.asp>.
- King, B. *What's Wrong with Stakeholder Theory?* Available Online: <https://orgtheory.wordpress.com/2006/08/03/whats-wrong-with-stakeholder-theory/>

- Magso, E. *What is Agile Leadership, and why is it Important*. Management 3.0, 2021 Available online: <https://management30.com/blog/what-is-agile-leadership/>.
- Makhinde, O. & Adeyoke, T. *Environmental Law in Nigeria*, 2021 Available Online <https://www.mondaq.com/nigeria/energy-law/53804/environmental-law-in-nigeria>.
- Murphy, C. B. *Operating Ratio*, Available Online: <https://www.investopedia.com/terms/o/operatingratio.asp>
- Nijis, V. *Evaluate if Data are Appropriate for Factor Analysis*. Radiant, 2019 Available Online: [https://radiant-rstats.github.io/docs/multivariate/pre\\_factor.html](https://radiant-rstats.github.io/docs/multivariate/pre_factor.html).
- Olawoyin, O. *Exclusive: P&G to shut down \$300 million Nigeria Production Plant, One year after Launch*, 2018 Available Online: <https://www.premiumtimesng.com/news/headlines/274899-exclusive-pg-to-shut-down-300-million-nigeria-production-plant-one-year-after-launch.html>.
- Olowookere, D. *GlaxoSmithKline to Shut Down Agbara Factory After Restructuring*, 2021 Available Online: <https://businesspost.ng/economy/glaxosmithkline-to-shut-down-agbara-factory-after-restructuring/>.
- Parmar, B. L.; Freeman, E. R. & Harrison, J. S. *Stakeholder Theory: The State of the Art*, 2010 Available Online: [https://scholarship.richmond.edu/management-faculty-publications/99/?utm\\_source=scholarship.richmond.edu%2Fmanagement-faculty-publications%2F99&utm\\_medium=PDF&utm\\_campaign=PDFCoverPages](https://scholarship.richmond.edu/management-faculty-publications/99/?utm_source=scholarship.richmond.edu%2Fmanagement-faculty-publications%2F99&utm_medium=PDF&utm_campaign=PDFCoverPages)
- Ricee, S. & Read, M. *Social Sustainability – Everything you need to Know*, 2020 Available Online: <https://diversity.social/social-sustainability/>.
- Sasu, D. D. *Share of GDP from Manufacturing Sector in Nigeria*, 2021 Available Online: <https://www.statista.com/statistics/1207933/share-of-gdp-from-manufacturing-sector-in-nigeria/>.
- Sindhuja, S. *The Size of a Firm: Definitions, Measures and Concepts*, Available Online: <https://www.businessmanagementideas.com/enterprises/the-size-of-a-firm-definition-measures-and-concepts/9054>.
- Sridharan, M. *RBV: What is a Resource-Based View of Strategy*, 2022 Available Online: <https://thinkinsights.net/strategy/rbv-strategy/>.
- Stakeholder Theory, “*About the Stakeholder Theory*,” 2021 Available Online: <http://stakeholdertheory.org/about/>.
- The University of Nottingham, *Sustainability and Corporate Responsibility*, 2022 Available Online: [https://rdmc.nottingham.ac.uk/bitstream/handle/internal/86/Business\\_edit/14\\_sustainability\\_and\\_corporate\\_responsibility.html](https://rdmc.nottingham.ac.uk/bitstream/handle/internal/86/Business_edit/14_sustainability_and_corporate_responsibility.html).
- United Nations, *17 Goals to Transform the World for Persons with Disabilities*, 2021 Available Online: <https://www.un.org/development/desa/disabilities/envision2030.html>.
- United Nations, *Sustainability*, United Nations, 2021 Available Online: <https://www.un.org/en/academic-impact/sustainability>.

University of Cambridge, *What Thresholds Should I Use For Factor Loading Cut-offs?*, University of Cambridge, 2022 Available Online: <https://imaging.mrc-cbu.cam.ac.uk/statswiki/FAQ/thresholds>

University of Mary Washington, *Economic Sustainability*. University of Mary Washington, 2021 Available Online: <https://sustainability.umw.edu/areas-of-sustainability/economic-sustainability/>.

Wendling, Z. A.; Emerson, J.W.; de Sherbinin, A. & Esty, D. C. *Environmental Performance Index 2020*. Centre for Environmental Law and Policy, 2021 Available online: <https://epi.yale.edu/downloads/epi2020report20210112.pdf>.

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## Appendix

### Questionnaire

Lead City University, Ibadan, Oyo State

Department of Management & Accounting

Dear Respondent,

As part of the requirement for a Doctor of Philosophy degree in Accounting, I am carrying out a study on “Corporate Governance, Firm-Specific Factors and Sustainability of Fast-Moving Consumer Goods Manufacturing Companies in Nigeria”. This study is mainly an academic exercise as all information provided would be treated with the utmost confidentiality. In any case, you feel uncomfortable to proceed; you may withdraw your consent at no cost. Below is the questionnaire that addressed the objective of this study. Please feel free to tick the option that best express your personal views.

Thank you.

Mustapha Aikins SULEIMAN

#### Section A: Demographic Information

Please carefully go through each item and tick (✓) as appropriate.

1. Gender: Male ( ) Female ( )
2. What is your age bracket: 21- 30 ( ) 31- 40( ) 41-50 ( ) 51 – 60( ) 61 - 65 ( )
3. What is your highest academic qualification: ND/NCE ( ) B.Sc/BA/HND ( ) PGD/MBA/MSc/MA ( ) MPhil ( ) PhD ( ) Others, (please specify).....
4. Job Level: Top management ( ) Middle management ( ) Operational management ( )
5. Length of Service: Below 5yrs ( ), 6-10yrs ( ), 11-15yrs ( ) 16yrs + ( )
6. Kindly rate your **knowledge** of the overall organisational activities and performance on the scale below.

<i>Very low</i>										<i>Excellent</i>	
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>		

#### Section B: Corporate Governance

The statement in this section concerns corporate governance dimensions as observed in your organisation. Using the six-point Likert-type scale provided, please indicate the extent to which each statement applies to your organization by selecting one of the options provided (6, 5, 4, 3, 2, 1).

**6 = Very High extent; 5 = High extent; 4 = Partially High extent; 3 = Partially Low extent; 2= Low extent; 1 = Very Low extent**

<b>I Accountability</b>		<b>VHE</b>	<b>HE</b>	<b>PHE</b>	<b>PLE</b>	<b>LE</b>	<b>VLE</b>
To what extent, does your firm observe the following?							
1.	Legal Compliance	6	5	4	3	2	1
2.	Sanction on Unethical practice	6	5	4	3	2	1
3.	Ethical Awareness	6	5	4	3	2	1
4.	Reward for Professional conduct	6	5	4	3	2	1
5.	Display of Professionalism	6	5	4	3	2	1
6.	Information disclosure	6	5	4	3	2	1
7.	Adherence to accounting best practice	6	5	4	3	2	1
<b>II Stakeholder Management</b>		<b>VHE</b>	<b>HE</b>	<b>PHE</b>	<b>PLE</b>	<b>LE</b>	<b>VLE</b>
To what extent, does your firm observe the following?							
1	Shareholder's interest	6	5	4	3	2	1
2	Board Competence	6	5	4	3	2	1
3	CEO's succession planning.	6	5	4	3	2	1
4	Effective committee structures	6	5	4	3	2	1
5	Effective decisions making	6	5	4	3	2	1
6	Collective responsibility	6	5	4	3	2	1
7	Governing Policies	6	5	4	3	2	1
8	Risk Assessment	6	5	4	3	2	1
9	Risk control	6	5	4	3	2	1
10	Protection of employees' rights	6	5	4	3	2	1
<b>III Agile Leadership</b>		<b>VHE</b>	<b>HE</b>	<b>PHE</b>	<b>PLE</b>	<b>LE</b>	<b>VLE</b>
To what extent does the following items reflect the leadership philosophy of your organisation?							
1	Ability to quickly cope with complex environmental issues	6	5	4	3	2	1
2	Value high quality thinking in problem solving	6	5	4	3	2	1
3	Provide opportunity for transparent feedbacks	6	5	4	3	2	1
4	Builds a system of shared purpose for all employees	6	5	4	3	2	1
5	Inspires employees to bring their best to work	6	5	4	3	2	1
6	Develop tomorrow's leader without prejudice	6	5	4	3	2	1
7	Devolve appropriate authority	6	5	4	3	2	1
8	Encourage learning across departments	6	5	4	3	2	1
9	Allow those close to problems generate ideas to solve it	6	5	4	3	2	1
10	Encourage change without chaos	6	5	4	3	2	1

### Section C: Firm-Specific Factors

The statement in this section concerns firm-specific factors as applicable to your organisation. Using the six-point Likert-type-scale provided, please indicate the extent to which each statement applies to your organization by selecting one of the options provided (6, 5, 4, 3, 2, 1).

**6 = Very High extent; 5 = High extent; 4 = Partially High extent; 3 = Partially Low extent; 2= Low extent; 1 = Very Low extent**

<b>IV Operational Efficiency</b>		<b>VHE</b>	<b>HE</b>	<b>PHE</b>	<b>PLE</b>	<b>LE</b>	<b>VLE</b>
To what extent, does your firm achieve the following?							
1	Customer service delivery	6	5	4	3	2	1
2	Customer service sensitivity	6	5	4	3	2	1
3	Customer confidentiality	6	5	4	3	2	1
4	Satisfying range of clients	6	5	4	3	2	1
5	Production cost reduction	6	5	4	3	2	1
6	Competence in handling customers	6	5	4	3	2	1
7	Operational creativity	6	5	4	3	2	1
8	Responsive to customer complaint.	6	5	4	3	2	1
<b>V Firm Size</b>		<b>VHE</b>	<b>HE</b>	<b>PHE</b>	<b>PLE</b>	<b>LE</b>	<b>VLE</b>
In the last 5 years, our organisation is able to increase							
1	Number of employees	6	5	4	3	2	1
2	Products on Offer	6	5	4	3	2	1
3	Number of outlets	6	5	4	3	2	1
4	Productive capacity	6	5	4	3	2	1
5	Acquisition of competitive resources	6	5	4	3	2	1
6	Diversification into related business	6	5	4	3	2	1
7	Customer acquisition	6	5	4	3	2	1
8	Customer Retention	6	5	4	3	2	1
9	Product quality	6	5	4	3	2	1
10	Brand Image	6	5	4	3	2	1

#### Section D: Sustainability Performance

The statement in this section concerns **Sustainability Performance sub-measure** as achieved by your organisation. Using the six-point Likert-type-scale provided, please indicate the extent to which each statement applies to your organization by selecting one of the options provided (6, 5, 4, 3, 2, 1).

**6 = Very High extent; 5 = High extent; 4 = Partially High extent; 3 = Partially Low extent; 2= Low extent; 1 = Very Low extent**

VI	<b>Environmental performance</b> To what extent, does your firm achieve the following relative to industry average?	VHE	HE	PHE	PLE	LE	VLE
1	Personnel training in environmental care	6	5	4	3	2	1
2	Allocation of budgetary resources to minimize pollution	6	5	4	3	2	1
3	Pollution prevention	6	5	4	3	2	1
4	Pollution control	6	5	4	3	2	1
5	Use of environmental management systems	6	5	4	3	2	1
6	Recycling or reuse of materials and waste	6	5	4	3	2	1
7	Selection of renewable raw materials in the production process	6	5	4	3	2	1
8	Selection of renewable energy in the production process	6	5	4	3	2	1
9	Environmental impact assessment of the product life cycle						
VII	<b>Corporate Social Responsibility (CSR)</b> To what extent does our organisation's CSR covers?	VHE	HE	PHE	PLE	LE	VLE
1	Legal responsibility	6	5	4	3	2	1
3	Ethical responsibility	6	5	4	3	2	1
4	Professional responsibility	6	5	4	3	2	1
5	Political responsibility	6	5	4	3	2	1
6	Social responsibility	6	5	4	3	2	1
7	Environment responsibility	6	5	4	3	2	1
8	Employee responsibility	6	5	4	3	2	1
9	Supplier responsibility	6	5	4	3	2	1
10	Competitor responsibility	6	5	4	3	2	1
VIII	<b>Profitability</b> Concerning profitability, to what extent has your organisation achieved the following?	VHE	HE	PHE	PLE	LE	VLE
2	Increase between 2015 and 2016	6	5	4	3	2	1
3	Increase between 2016 and 2017	6	5	4	3	2	1
4	Increase between 2017 and 2018	6	5	4	3	2	1
5	Increase between 2018 and 2019	6	5	4	3	2	1
6	Increase between 2019 and 2020	6	5	4	3	2	1
7	Increase between 2020 and 2021	6	5	4	3	2	1

## Section E: Environmental Dynamism (Moderator)

The statement in this section concerns environmental dynamism as experienced by your organisation. Using the six-point Likert-type-scale provided, please indicate the extent to which each statement applies to your organization by selecting one of the options provided (6, 5, 4, 3, 2, 1).

**6 = Very High extent; 5 = High extent; 4 = Partially High extent; 3 = Partially Low extent; 2= Low extent; 1 = Very Low extent**

IX	<b>Environmental Dynamism</b> To what extent does the following items reflect your organisation's business environment?	VHE	HE	PHE	PLE	LE	VLE
1	Instability of demand	6	5	4	3	2	1
2	Frequent product innovations	6	5	4	3	2	1
3	Opportunity for Growth	6	5	4	3	2	1
4	Increasing competition	6	5	4	3	2	1
5	Unpredictable consumer behaviour	6	5	4	3	2	1
6	Unpredictable challenges	6	5	4	3	2	1
7	Technological diversity	6	5	4	3	2	1
8	Environmental hostility	6	5	4	3	2	1
9	Economic wellbeing	6	5	4	3	2	1
10	Enabling regulatory policy(s)	6	5	4	3	2	1

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**Table 1: Operationalisation of the Research Variables and Their Proxies**

<b>Latent variable</b>	<b>Sub-variables</b>	<b>Acronyms</b>
<b>Dependent Variables (Y) = Sustainability (SUS)</b>	Corporate Social Responsibility ( $y_1$ )	CSR
	Environmental Performance ( $y_2$ )	EVT
	Economic Performance (Profitability) ( $y_3$ )	PRT
<b>Independent Variable 1 (X) = Corporate Governance (CG)</b>	Accountability ( $x_1$ )	ACT
	Agile Leadership ( $x_2$ )	AGL
	Stakeholder Management ( $x_3$ )	SMG
<b>Independent Variable 2 (W) = Firm-Specific Factors (FSF)</b>	Firm Size ( $w_1$ )	FS
	Operational Efficiency ( $w_2$ )	OE
<b>Intervening variable</b>	Environmental Dynamism	EVD

Source: Researcher's compilation, 2022.

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## Biodata

### A. Personal Data

**Full Name:** Mustapha Aikins Suleiman  
**Address:** 17 Road 2, Alaka Bus Stop, Odo Ono Elewe, Orita Challenge, Ibadan.  
Oyo State.  
**E-mail:** aikinsng@gmail.com  
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**Next of Kin:**  
*Name:* Mrs. Adeola A. Aikins  
*Address:* 17 Road 2, Alaka Bus Stop, Odo Ono Elewe, Orita Challenge, Ibadan.  
Oyo State

### B. Educational Background

#### Educational Institution Attended with Dates and Qualifications

<b>Institution</b>	<b>Qualification Obtained</b>	<b>Date</b>
Lead City University, Ibadan	PhD. Accounting	(in view)
Lead City University, Ibadan	MSc. Accounting	2020
University of Jos	B.Sc. Accounting	1996

#### Membership of Professional Bodies:

Associate of the Chartered Institute of Taxation of Nigeria  
Associate of the Association of National Accountants of Nigeria  
Fellow of the Institute of Management Consultants, Nigeria

### C. Working Experience with Dates:

<b>Company</b>	<b>Role</b>	<b>Date</b>
Nasco Town Free Trade Zone, Lagos	Director	2020–Date
Aikins & Associates (Mgt. Consultants)	Lead Consultant	2012–Date
Nasco Town Ltd, Lagos	In-House Mgt. Consultants	2004–2022
Sunshine Oil & Chemical Ltd., Ibadan	Accountant	2003–2004
Nasco Group, Jos	Account Supervisor	1998–2003

#### **D. Publications:**

- i. Chapter Contribution, **Taxation for Economic Development**, Published Book in Nigeria by OGE Business School, ISBN: 978-978-991-390-9. 2022.
- ii. **Pension Reforms and Employees Savings in Oyo State, Nigeria**. Journal published in Volume 9, Issue 12, 2022 edition of International Research Journal of Human Resource and Social Sciences.
- iii. **Firm-Specific Factors and Sustainability of Listed Consumer Goods Manufacturing Companies in Nigeria**. Journal published in Volume 2, Issue 1, 2021 edition of Global Research Journal of Accounting and Finance.
- iv. **Impact of Audit Committees and Quality of Audit Report of Listed Health Care Firms in Nigeria**. Journal published in Volume 9, Issue 4, 2021 edition of Global Scientific Journals.
- v. **Effect of Free Trade Zone Incentives on Foreign Direct Investment in Nigeria**. Journal published in Volume 8, Issue 8, August 2020 edition of Global Scientific Journals (GSJ Publisher).
- vi. **Budgeting as a Management Tool and its Influence on Operational Efficiency and Profitability of Selected Manufacturing Firms**. Journal published in Volume 7, Issue 9, September 2019 edition of Global Scientific Journals (GSJ Publisher).

#### **E. Conference Presentations**

Paper on “**Sustainability Testing and Environmental Dynamism: Are Corporate Governance with Firm-Specific Factors Relevant?**” - Lead City University Ibadan, Nigeria. Faculty of Management and Social Sciences (FM&SS) 2<sup>nd</sup> International Conference 2023



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**Signature**

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**Date**

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**Signature**

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**Date**

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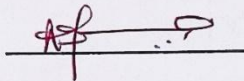
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19/04/2023

**Date**