

## **DETERMINING THE RELATIVE IMPORTANCE OF CORPORATE GOVERNANCE FRAMEWORK ELEMENTS FOR TECHNOLOGY FIRMS IN NIGERIA USING THE ANALYTIC HIERARCHY PROCESS MODEL**

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### **Highlights**

- Historically, corporate governance practices are considerably entrenched in large corporations but not well enshrined in technology industry in Nigeria.
- Using the AHP model, this study extends the searchlight of corporate governance practice on technology companies in Nigeria due to their significant contribution to national GDP.
- And discovered that the most important Corporate Governance Framework element is the Board Structured, followed by Ethics and Compliance, Regulatory Framework and Compliance and Transparency and Accountability.

### **ABSTRACT**

Corporate governance has become a widely discussed topic in Nigeria as it is being considered a key factor for stable growth in businesses. Although it would appear that corporate governance in Nigeria is influenced by a number of internal and external factors, there are institutions that play significant roles in the governance process. To ensure compliance and make for the achievement of these fundamental principles, there are certain elements of Corporate Governance Framework that must necessarily be considered and put in place to effect viable Corporate Governance enforcement. Thus, this study applied the AHP model to determine the relative importance of Corporate Governance Framework elements that will help improve the performance of technology firms in Nigeria. The cross-

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sectional survey research design using an Analytic Hierarchy Process (AHP) model based quantitative approach was used to study a sample of 30 heads of department of technology firms selected using a multistage sampling procedure. Data was gathered through the use of a semi-structured questionnaire designed using the relative importance scale generated from the Super Decision Matrix. The data was analysed using descriptive statistics on the SPSS (Statistical Package for Social Sciences) version 26.0, Excel and the Super Decision Matrix ANP version 6.0. It was found that the CGF elements that will help improve the performance of technology firms in Nigeria, using the AHP model is: Board Structure (Size of Board); Ethics and Compliance (Code of Ethics); Regulatory Framework and Compliance (Applicable Laws) and Transparency and Accountability (Financial Reporting). It is recommended amongst others that Technology firms in Nigeria should Take advantage of the regulatory provisions for size of board and CEO Duality by the regulatory authorities since both are the highest ranked Board Structure criteria.

**Keywords:** Analytic Hierarchy Process, Corporate Governance, Technology, Performance.

## **1. Introduction**

The concept of corporate governance started to gain grounds on international scene especially after the collapse of firms like Fanny Mae, Freddy Mac, and Lehman Brothers and others in 2008 (UNCTAD, 2010). The failure of these firms was attributed to failings in accounting and financial control as well as outright corruption (Al-Matari, 2014). As it is in other nations, there has been a renewed emphasis in Nigeria for the effective corporate governance of public and private companies. Although it would appear that corporate governance in Nigeria is influenced by a number of internal and external factors (Okeke, 1998), there are institutions that play significant roles in the governance process. To ensure compliance and make for the achievement of these fundamental principles, there are certain elements of Corporate Governance that must necessarily be considered and put in place to effect viable Corporate Governance enforcement (Chen, 2023). While there can be as many elements of Corporate Governance as a company may want to implement, some of the most fundamental elements generally considered for effective Corporate Governance Mechanism are, Accountability, Ethics, Compliance, Regulatory framework and Transparency and Board Structure (Murphy & Hellmich, 2019; Chen, 2023).

It is very important to understand the order of importance of the various elements of Corporate Governance that a company may decide to put in place so as to ensure good performance. This therefore necessitates the need to create a scale of priority of the key Corporate Governance framework elements to be used. Thus, this study seeks to apply the AHP model to determine the relative importance of

Corporate Governance Framework elements to enable Technology firms in Nigeria design and develop the right models to help improve their performance.

## **2. Literature Review**

Corporate governance has become a widely discussed topic in Nigeria as it is being considered a key factor for stable growth in businesses. Although corporate governance mechanisms and practices are considerably entrenched in large corporations, they are not well enshrined in the small and medium enterprises (SME) as well as technology firms in Nigeria (Andonu, 2016).

As a result of the sharp growth trajectory seen in the technology industry in Nigeria, there has never been a better time in the technology landscape when corporate governance has been more necessary than now. The need to provide corporate governance in this sector is even more compelling considering allegations of compliance violations and other types of misconduct by young entrepreneurs who own these technology firms, as in the case of Risevest, Healthline and Kloud Commerce, among others (Oladunmade, 2022). Also, Martin and Marcel (2021) investigated the impact of good corporate governance on performance of non-listed firms in the United Kingdom by examining five corporate governance framework elements and showed that when the right corporate governance framework elements are chosen, the finances of a firm can be improved. In Nigeria, Sanni, Aliyu and Bakare (2019) and Babalola and Adedipe (2014) scrutinized the influence of corporate governance on performance of banks between 2011 and 2018 and discovered that the right application of corporate governance elements will produce better performance for the banks. Adekoya (2012) defined corporate governance framework as “the process and systems by which a country’s company laws and corporate governance codes are enforced”. While there is no “one size fits all” when it comes to determining the framework for effective corporate governance, there are some key elements that are key for technology Firms in Nigeria, namely: **Board Structure** - size of board, independence, diversity, CEO duality; **Ethics and Compliance** - code of ethics, board oversight, compliance training, monitoring and evaluation; **Regulatory Framework** - applicable laws, internal policies and procedure, board committees, reporting and communication; and **Transparency and Accountability** - financial reporting, board accountability and compliance, stakeholder engagement, internal control and audit (Linck, Netter and Yang, 2009; Murphy & Hellmich, 2019; Chen, 2023).

In this study, the Analytical Hierarchy Process (AHP) is used to rank, the most effective Corporate Governance Framework (CGF) elements for the performance of Technology firms in Nigeria so that they can focus on the CGF elements that produce the most significant performance results.

## **3. Objective**

The overarching aim of this research is to determine the Relative Importance of Corporate Governance Framework elements that will help improve the performance of technology firms in Nigeria, using the AHP model.

#### **4. Research Design/Methodology**

**Research Design:** This study adopted the cross-sectional survey research design using an Analytic Hierarchy Process (AHP) model based quantitative approach.

**Population:** The population of this study consists of the 269 technology companies registered as members of the Fintech Association of Nigeria – FintechNGR as at December 2023 (Proshare, 2024).

**Sample size and Procedure:** A sample of 30 heads of department of technology firms selected using a multistage sampling procedure.

**Sources of Data:** Both primary and secondary sources of data were used. The primary data was obtained through the administration of questionnaires to heads of department of technology firms while secondary data was obtained from literature review sources.

**Research Instrument:** Data was gathered through the use of a semi-structured questionnaire. The questionnaire was divided into two sections. Section A sought for information on the demographic data of the respondents and was designed using multiple choice and open-ended response structures. While, Section B was designed using the relative importance scale generated from the Super Decision Matrix (Saaty, 1980; 2001) based on variables identified from previous studies (Chen, 2023).

**Data Analytical Procedure:** The data was edited coded and analysed using descriptive statistics on the SPSS (Statistical Package for Social Sciences) version 26.0, Excel and the Super Decision Matrix ANP version 6.0.

#### **AHP Model Specification**

This study adopted the AHP model (Saaty, 2001) as follows:

**Goal:** Determine the relative importance of Corporate Governance Framework elements.

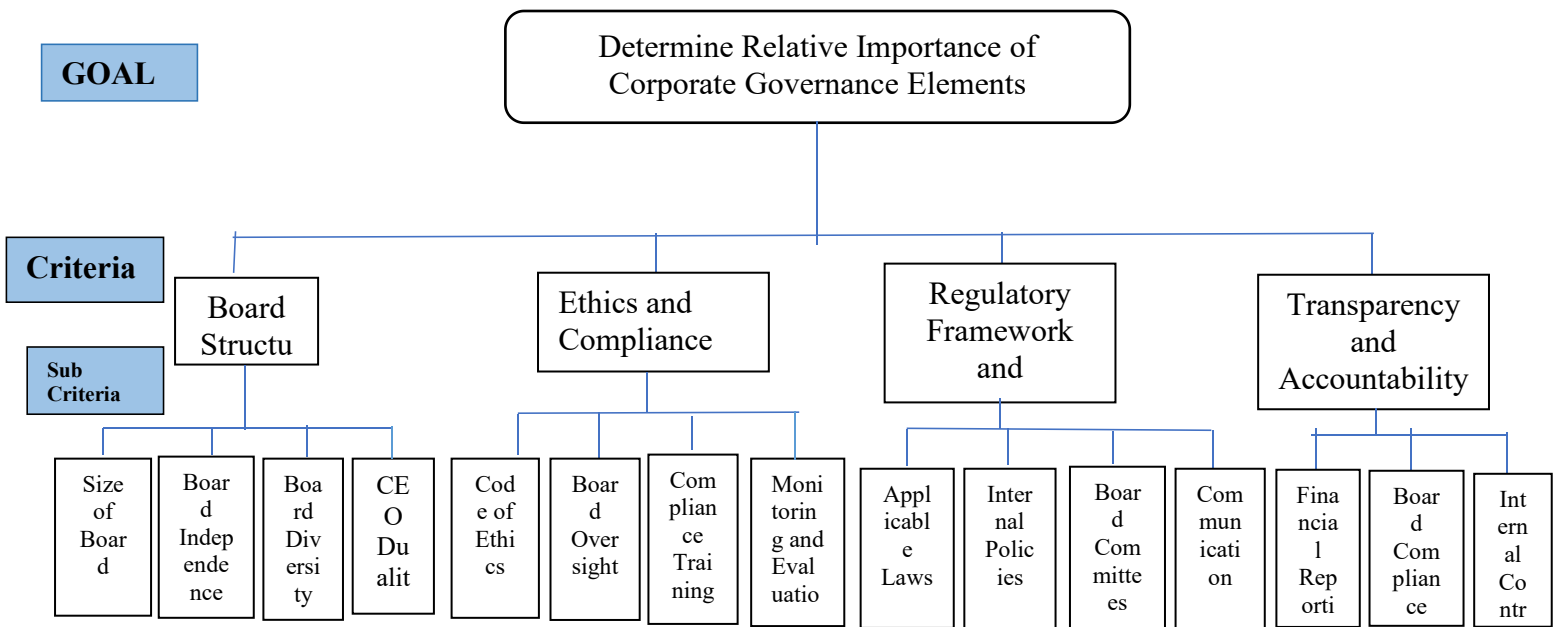
**Criteria:** These are the key Corporate Governance Framework elements as identified from literature review (Murphy & Hellmich, 2019; Chen, 2023): Board Structure (**BS**), Ethics and Compliance (**EC**), Regulatory Framework and Compliance (**RFC**), Transparency and Accountability (**TA**).

**Sub Criteria:** The sub criteria for the key Corporate Governance Framework elements as identified from literature review (Linck, Netter and Yang, 2009; Murphy & Hellmich, 2019; Chen, 2023) are; **BS** = size of board, independence, diversity, CEO duality; **EC**= code of ethics, board oversight, compliance training,

monitoring and evaluation; **RFC**= applicable laws, internal policies and procedure, board committees, reporting and communication; **TA**= financial reporting, board accountability and compliance, stakeholder engagement, internal control and audit.

The AHP Model for the study is as presented in Figure 1.

**Figure 1:** Analytic Hierarchy Process Model of relative importance of Corporate Governance Framework elements.



Source: Developed for this study by the authors.

**Figure 2:** Analytic Hierarchy Process Model of relative importance of Corporate Governance Framework elements

## 5. Results/Model Analysis

### 5.1 Response Rate

Out of the 30 instruments administered, all were correctly filled and returned resulting in a response rate of 100%.

### 5.2 Respondent Characteristics

Findings revealed that respondents gender distribution was even with 50% each being female and male, between 21 to 40 years of age (80%), mostly married (43.3%), all are graduates with at least a B.Sc. or equivalent (100%) and earning between N 500,001 - N 1,000,001 (70%).

### 5.3. Model Analysis

#### 5.3.1 Consistency Index (CI)

The judgments of the respondents were consistent and acceptable because the consistency ratios of all the pair-wise comparison matrices were below 0.1.

#### 5.3.2 Composite Priorities

The priorities for the relative importance of the Corporate Governance Framework elements and their sub criteria are as presented in tables 1 to 5.

**Table 1**  
**Pooled Average Composite Priorities and Relative Importance Ranking of the Corporate Governance Framework elements by heads of department of technology firms in Nigeria**

<b>Corporate Governance Framework Elements</b>	<b>Board Structure</b>	<b>Ethics and Compliance</b>	<b>Regulatory Framework and Compliance</b>	<b>Transparency and Accountability</b>
<b>Pooled Average Composite Priority</b>	0.493	0.282	0.150	0.075
<b>Relative Importance Ranking</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>

CI = 0.089

*Source: Survey Research (2024)*

Table 1 reveals that respondents are of the opinion that the most important CGF element is Board Structure which had the highest ranking and a pooled average composite value of 0.493, this is followed by Ethics and Compliance and Regulatory Framework and Compliance with pooled average composite priorities of 0.282 and 0.150 respectively. While Transparency and Accountability is the least important and ranked last with pooled average composite priority of 0.075.

**Table 2**  
**Pooled Average Composite Priorities and Relative Importance Ranking of the Corporate Governance Framework Board Structure Sub Criteria by heads of department of technology firms in Nigeria**

<b>Board Structure</b>	<b>Size of Board</b>	<b>Board Independence</b>	<b>Board Diversity</b>	<b>CEO Duality</b>
<b>Pooled Average Composite Priority</b>	<b>0.516</b>	<b>0.117</b>	<b>0.087</b>	<b>0.280</b>
<b>Relative Importance Ranking</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>2</b>

CI= 0.079

**Source: Survey Research (2024)**

Table 2 reveals that respondents are of the opinion that the most important Board Structure (BS) sub-criteria is Size of Board which had the highest ranking and a pooled average composite value of 0.516, this is followed by CEO Duality and Independence with pooled average composite priorities of 0.280 and 0.117 respectively. While Board Diversity is the least important and ranked last with pooled average composite priority of 0.087.

**Table 3**  
**Pooled Average Composite Priorities and Relative Importance Ranking of the Corporate Governance Framework Ethics and Compliance Sub Criteria by heads of department of technology firms in Nigeria**

<b>Ethics and Compliance</b>	<b>Code of Ethics</b>	<b>Board Oversight</b>	<b>Compliance Training</b>	<b>Monitoring and Evaluation</b>
<b>Pooled Average Composite Priority</b>	<b>0.494</b>	<b>0.270</b>	<b>0.154</b>	<b>0.082</b>
<b>Relative Importance Ranking</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>

CI= 0.089

**Source: Survey Research (2024)**

Table 3 reveals that respondents are of the opinion that the most important Ethics and Compliance (EC) sub-criteria is Code of Ethics which had the highest ranking and a pooled average composite priority value of 0.494, this is followed by Board Oversight and Compliance Training with pooled average composite priorities of 0.270 and 0.154 respectively. While Monitoring and Evaluation is the least important and ranked last with pooled average composite priority of 0.082.

**Table 4**  
**Composite Priorities and Relative Importance Ranking of the Corporate Governance Framework Regulatory Framework and Compliance (RFC) Sub Criteria by heads of department of technology firms in Nigeria**

<b>Regulatory Framework and Compliance</b>	<b>Applicable Laws</b>	<b>Internal policies</b>	<b>Board Committees</b>	<b>Reporting &amp; Communication</b>
<b>Pooled Average Composite Priority</b>	<b>0.561</b>	<b>0.244</b>	<b>0.129</b>	<b>0.066</b>
<b>Relative Importance Ranking</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>

CI= 0.095

**Source: Survey Research (2024)**

Table 4 reveals that respondents are of the opinion that the most important Regulatory Framework and Compliance (RFC) sub-criteria is Applicable Laws which had the highest ranking and a pooled average composite priority value of 0.561, this is followed by Internal Policies and Board Committees with pooled average composite priorities of 0.244 and 0.129 respectively. While Reporting and Communication is the least important and ranked last with pooled average composite priority of 0.066.

**Table 5**  
**Composite Priorities and Relative Importance Ranking of the Corporate Governance Framework Regulatory Framework and Compliance (RFC) Sub Criteria by heads of department of technology firms in Nigeria**

<b>Transparency and Accountability (TA)</b>	<b>Financial Reporting</b>	<b>Board Compliance</b>	<b>Internal Control</b>
<b>Pooled Average Composite Priority</b>	<b>0.674</b>	<b>0.225</b>	<b>0.101</b>
<b>Relative Importance Ranking</b>	<b>1</b>	<b>2</b>	<b>3</b>

CI= 0.082

**Source: Survey Research (2024)**

Table 5 reveals that respondents are of the opinion that the most important Transparency and Accountability (TA) sub-criteria is Financial Reporting which had the highest ranking and a pooled average composite priority value of 0.674, this is followed by Board Compliance with pooled average composite priorities of 0.225. While Internal Control is the least important and ranked last with pooled average composite priority of 0.101.

## **6. Conclusions**

The Composite Priorities and Relative Importance Ranking of the Corporate Governance Framework (CGF) elements by heads of department of technology firms in Nigeria shows that the most important CGF element is: Board Structure with the rank of 1, this is followed by Ethics and Compliance with the rank of 2, Regulatory Framework and Compliance with the rank of 3 and Transparency and Accountability was the last with the rank of 4. Also, with regards to the sub-criteria, the highest ranked Board Structure sub criteria is Size of Board this is followed by CEO Duality, Board Independence while Board Diversity ranked last. The highest ranked Ethics and Compliance sub criteria is Code of Ethics, followed by Board Oversight, Compliance Training while Monitoring and Evaluation ranked last. The highest ranked Regulatory Framework and



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Compliance sub criteria is Applicable Laws, followed by Internal policies, Board Committees, while Reporting & Communication. And finally, with regards to Transparency and Accountability (TA) the highest ranked sub criteria is Financial Reporting followed by Board Compliance while Internal Control ranked last.

Thus, the CGF elements that will help improve the performance of technology firms in Nigeria, using the AHP model is: Board Structure (Size of Board); Ethics and Compliance (Code of Ethics); Regulatory Framework and Compliance (Applicable Laws) and Transparency and Accountability (Financial Reporting). Based on these, it is recommended that Technology firms in Nigeria should take advantage of the regulatory provisions for size of board and CEO Duality by the regulatory authorities since both are the highest ranked Board Structure criteria. They can also adopt the principles of Ethics and Compliance, particularly code of ethics these will impact positively on their reputation thereby improving their chances of attracting investment. And imbibe Transparency and Accountability in all their activities to all stakeholders so that they can enjoy trust and loyalty since stakeholders will respond positively to such principles.

## **7. Limitations**

The main limitation of the study is the shortage of scholarly research with direct practical and local significance with respect to corporate governance framework elements and the performance of technology firms in Nigeria. The research overcame this limitation by getting practical direct information from local key stakeholders in the corporate governance and technology ecosystem like the Fintech Association of Nigeria (Fintech NGR).

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