



Intellectual Capital and Corporate Governance Mechanisms Impact on Firm Value: Evidence from Listed Non-Financial Firms in Nigeria

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ABSTRACT

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This study examines the effect of intellectual capital and corporate governance on the firm value of listed non-financial companies in Nigeria over the period 2014–2023. Anchored on the Knowledge-Based View and Agency Theory, the study employs panel data from 56 firms listed on the Nigerian Exchange Group and applies fixed effects regression techniques to control for unobservable firm-specific heterogeneity. Intellectual capital is measured using the Value Added Intellectual Coefficient (VAIC) framework, decomposed into human capital efficiency, structural capital efficiency, and relational capital efficiency, while firm value is proxied by Tobin's Q. Corporate governance mechanisms include board size, board independence, board meetings, board financial expertise, gender diversity, and ownership concentration. The results reveal that intellectual capital, particularly human capital efficiency, exerts a positive and statistically significant effect on firm value, underscoring the strategic importance of knowledge-based resources in emerging economies. Relational capital exhibits a weak positive effect, while structural capital is insignificant. Among governance mechanisms, board gender diversity is the only attribute with a positive and significant influence on firm value. The findings suggest that intellectual capital and inclusive governance structures play complementary roles in enhancing firm valuation. The study contributes to the limited Nigerian literature by providing long-term empirical evidence on the joint impact of intellectual capital and corporate governance on firm value and offers policy-relevant insights for regulators, managers, and investors.

KEYWORDS:

Intellectual Capital; Corporate Governance; Firm Value; Tobin's Q; Non-Financial Firms; Nigeria.

1. INTRODUCTION

The contemporary Nigerian business environment is characterized by rapid technological change, heightened competition, and an increasing reliance on knowledge as a strategic resource. In this context, intellectual capital (IC)—comprising human, structural, and relational resources—has emerged as a critical determinant of innovation, competitive advantage, and sustainable firm value. As economies transition from asset-based to knowledge-driven systems, intangible resources increasingly explain differences between firms' book values and market valuations.

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Between 2014 and 2023, Nigerian firms faced significant local and global challenges, including macroeconomic volatility, regulatory uncertainty, currency instability, and infrastructural deficiencies. These constraints compelled organizations to adopt alternative strategies such as information technology integration, human capital development, and knowledge management practices to enhance efficiency and resilience. Consequently, intellectual capital has become central to value creation, particularly for non-financial firms operating in competitive markets.

Parallel to intellectual capital, corporate governance (CG) plays a crucial role in shaping firm outcomes by promoting transparency, accountability, and effective monitoring of managerial actions. Sound governance structures mitigate agency conflicts arising from the separation of ownership and control and enhance investor confidence, which is essential for market-based firm valuation.

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Despite the acknowledged importance of intellectual capital and corporate governance, empirical evidence on their combined effect on firm value in Nigeria remains limited and fragmented. Existing Nigerian studies often examine governance or human capital in isolation and focus primarily on accounting-based performance measures rather than market-based firm value. This study addresses this gap by integrating intellectual capital and corporate governance within a single empirical framework to examine their joint and individual effects on firm value.

This study contributes to the literature in three ways. First, it provides rare long-term evidence on the relationship between intellectual capital and market-based firm value in Nigeria. Second, it integrates intellectual capital and corporate governance mechanisms within a unified empirical model, responding to calls for more comprehensive corporate value frameworks in emerging economies. Third, it provides policy-relevant evidence on board gender diversity as a governance mechanism that enhances firm value.

2. LITERATURE REVIEW

2.1 Concept of Firm Value

Firm value reflects the market's assessment of a company's overall worth and incorporates investors' expectations regarding future cash flows, risk, and growth prospects. Market-based measures of firm value, such as Tobin's Q and price-to-book value, are widely regarded as superior indicators because they capture real-time investor perceptions and are less susceptible to accounting manipulation.

Tobin's Q, defined as the ratio of a firm's market value to the replacement cost of its assets, provides a comprehensive measure of firm value by integrating both accounting and market information. A value greater than one indicates that the firm is valued above its replacement cost, signaling growth opportunities and efficient resource utilization.

2.2 Intellectual Capital

2.2.1 Concept of Intellectual Capital

Intellectual capital represents knowledge-based resources embedded in employees, organizational systems, and external relationships that contribute to value creation. Consistent with the literature, intellectual capital is decomposed into human capital, structural capital, and relational capital.

Human capital comprises employees' skills, experience, and competencies; structural capital includes organizational processes, systems, and intellectual property; while relational capital reflects relationships with customers, suppliers, and other stakeholders.

2.2.2 Measurement of Intellectual Capital

This study adopts the Value Added Intellectual Coefficient (VAIC) model developed by Pulic to measure intellectual capital efficiency. VAIC evaluates how efficiently firms utilize human, structural, and relational capital to generate value added and has been widely applied in empirical

accounting and finance research, particularly in emerging markets.

2.3 Corporate Governance

Corporate governance refers to the system of rules and mechanisms that direct and control corporate activities. Effective governance aligns managerial actions with shareholders' interests, reduces agency costs, and enhances firm value. Common governance mechanisms examined in the literature include board size, board independence, board meetings, financial expertise, gender diversity, and ownership concentration.

2.4 Theoretical Framework

This study is anchored on an integrated framework drawing from the Knowledge-Based View (KBV) and Agency Theory, with supporting insights from the Resource-Based View (RBV). The KBV posits that knowledge-based resources are the most strategically significant assets of the firm, while Agency Theory emphasizes governance mechanisms as tools for mitigating conflicts of interest and enhancing value creation.

2.5 Empirical Review

Empirical evidence largely supports a positive relationship between intellectual capital and firm value, although findings vary across contexts and measurement approaches. While studies from Asia and the Middle East document strong positive effects, Nigerian evidence remains mixed and underdeveloped, particularly with respect to market-based firm value. Similarly, corporate governance studies in Nigeria report inconsistent effects, often due to limited governance proxies and short study periods.

3. METHODOLOGY

3.1 Research Design

The study adopts an explanatory research design using panel data from listed non-financial firms in Nigeria over the period 2014–2023.

3.2 Population and Sample

The population comprises 104 non-financial firms listed on the Nigerian Exchange Group. Based on data availability and continuity criteria, a final sample of 56 firms was selected, yielding 560 firm-year observations.

3.3 Data Sources

Secondary data were extracted from audited annual reports and accounts of the sampled firms and from the Nigerian Exchange Group database.

3.4 Variable Measurement

Dependent Variable:

Firm value measured using Tobin's Q.

Independent Variables:

- Intellectual Capital (VAIC and its components)

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- Corporate Governance variables (board size, independence, meetings, financial expertise, gender diversity, ownership concentration)

Control Variables:

Firm size and leverage.

3.5 Model Specification

$$TQ_{it} = \alpha + \beta_1 HCE_{it} + \beta_2 RCE_{it} + \beta_3 SCE_{it} + \beta_4 CG_{it} + \beta_5 Controls_{it} + \epsilon_{it}$$
$$TQ_{it} = \alpha + \beta_1 HCE_{it} + \beta_2 RCE_{it} + \beta_3 SCE_{it} + \beta_4 CG_{it} + \beta_5 Controls_{it} + \epsilon_{it}$$

3.6 Estimation Technique

Panel regression techniques were employed using OLS, fixed effects, and random effects models. The Hausman test justified the adoption of the fixed effects estimator. Diagnostic tests for multicollinearity, heteroscedasticity, and model specification were conducted.

4. RESULTS AND DISCUSSION

The fixed effects results indicate that intellectual capital, particularly human capital efficiency, has a positive and statistically significant effect on firm value. Relational capital shows a weak positive effect, while structural capital is insignificant. Among corporate governance mechanisms, board gender diversity exhibits a positive and significant relationship with firm value, whereas other board attributes and ownership concentration are insignificant.

These findings support the Knowledge-Based View and suggest that Nigerian firms derive market valuation benefits primarily from effective utilization of human capital and inclusive governance structures.

5. CONCLUSION AND POLICY IMPLICATIONS

This study provides robust evidence that intellectual capital—especially human capital—is a key driver of firm value among listed non-financial firms in Nigeria. Corporate governance mechanisms exhibit mixed effects, with board gender diversity emerging as the most effective governance attribute.

Policy implications include the need for firms to invest in human capital development, for regulators to promote substantive governance reforms, and for investors to incorporate intellectual capital indicators into valuation decisions.

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