

Integrated Disclosures and the Value of Listed Industrial Goods Firms in Nigeria

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Abstract: This study looked at the impact of integrated disclosures, especially human capital disclosure, manufacturing capital disclosure and social capital disclosure, on the market value of listed industrial goods companies in Nigeria. The Tobins Q was used to measure the value of the firms, and regression analysis was performed to see how the non-financial disclosures affected the investors' expectations and valuation of firms. The result shows that the explanatory variables all had a significant effect on firm value though the effect varies with regard to the strength of impact and its direction. It is interesting to note that there is a significant negative effect of human capital disclosure on firm value suggesting that large disclosure about employee related information could make investors apprehensive of labour cost and pressures from employees/unions. Manufacturing capital disclosure however showed a positive and significant effect on firm value suggesting that disclosure of production capacities and innovations would improve the confidence of investors, while social capital disclosure showed a positive relation to firm value although statistically not significant suggesting that social activities have not really been noticed by the capital market in Nigeria. Overall, the study finds that rather than firm size, disclosure quality matters more in determining the value of industrial goods firms in Nigeria and recommends for improved integrated reporting system to boost firm value and investors.

Keywords: *Integrated Disclosures, Human Capital Disclosure, Manufacturing Capital Disclosure, Social Capital Disclosure, Firm Value, Tobin's Q.*

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Introduction

In recent years, the context of corporate reporting has changed dramatically as organizations begin to recognize that value creation depends on resources broader than just financial capital, with companies reporting on intangibles such as human, social, and manufacturing capital as a means of identifying drivers of long-term performance and strategy (Felix & Mashukudu, 2024). Integrated reporting has been at the forefront of the attempt to present these concepts coherently and to combine financial information with non-financial disclosure to communicate how the organization creates, sustains, and appropriates value over time (Akpan et al., 2022). The International Integrated Reporting Council, identifying six forms of capital organizations depend on – financial, manufactured, human, intellectual, social and relationship, and natural – suggests that organizations should disclose performance across all of these capitals to enable investors make effective decisions (Soumillion, 2018). Evidence from across many countries shows that high quality integrated reports enhances firm visibility, strengthens investors' confidence and increases firms' market values (Cosma et al., 2018; Nurkumalasari et al., 2019; Dwi et al., 2024). Despite this global growth, there is a scarcity of integrated reporting literature focused on Nigeria, especially sector-specific research in industries with significant capital intensive structure.

The industrial goods sector in Nigeria is an important part of this economy as it comprises manufacturing, construction and infrastructure activities and relies on production capacity, skilled labor force and relationships with stakeholders. Disclosure

practices in the Nigerian industrial goods sector are known to be poor due to limitations on transparency, governance, and convergence with international reporting standards (Ogar-Abang et al., 2022; Moloi, 2015; Adegbe et al., 2019), often leading to disjointed disclosures with limited information to provide strategic insights into how value is created and leaving investors uncertain and less willing to award high market values to firms.

Existing studies on the link between integrated reporting and firm value in developing economies have had mixed results. While some researchers have observed a positive and significant relationship between integrated reporting and firm valuation (Nurkumalasari et al., 2019; Dwi et al., 2024; Onumoh et al., 2024), other authors conclude that integrated reporting impacts value indirectly or through strengthening stakeholders' relationship (Olusanjo et al., 2019). Other studies link the quality of integrated reports and its consequent market value to governance characteristics (Abdallah et al., 2022), thus indicating a need for sector-specific investigations where disclosures are still developing.

Institutional and operational constraints are hindrances to the widespread application of integrated reporting principles in Nigeria; weak enforcement, lack of awareness and poor standardization result in incomplete disclosures (Aondoakaa, 2015; Nzekwe et al., 2021; Ohiokha & Ogirri, 2024). Key non-financial elements like human capital (lack of disclosure on employee competencies and capability), manufacturing capital (inability to reflect the efficient operations and innovation capabilities) and

social capital (lack of disclosure on stakeholder relations and legitimacy) remain under-disclosed despite their important contribution to the value and sustainability of firms (Amahalu et al., 2018; Akpan et al., 2022; Adebimpe et al., 2015; Aminu et al., 2021).

The poor disclosure practices described above create information asymmetry and consequently under-valuation and distrust among investors, thereby denying the economy access to foreign capital (Adegboyegun et al., 2020; Wei-Lun & Fu, 2019). Empirical research to date lacks an examination of the independent impact of human, manufacturing, and social capital disclosures on the market value of firms, leaving the matter of whether and how these distinct types of non-financial disclosure affect firm value unclear. To bridge this research gap, this study assesses how human, manufacturing and social capital disclosures affect firm value among listed industrial goods companies in Nigeria—a sector where these capitals are arguably of paramount importance to value creation. The study's findings aim to inform and guide regulatory changes and improved disclosure practices that will consequently increase firm value and investor confidence.

- i. This research specifically examines the relationship between integrated disclosures, namely human capital disclosure, manufacturing capital disclosure, and social capital disclosure, and the market value of listed industrial goods firms in Nigeria. In pursuit of the overall research question, this study sets out to answer the following specific objectives;
- ii. To determine the effect of human capital disclosure on the market value of listed industrial goods firms in Nigeria.
- iii. To assess the effect of manufacturing capital disclosure on the market value of listed industrial goods firms in Nigeria.
- iv. To investigate the effect of social capital disclosure on the market value of listed industrial goods firms in Nigeria.

Literature Review

Concept of Integrated Reporting

Integrated reporting creates a holistic framework, combining financial and non-financial information to disclose how an organisation creates, preserves, and sustains value over time. It transcends traditional reporting by recognizing multiple capitals—financial, manufactured, human, intellectual, social & relationship and natural—which influence organizational performance (Soumilion, 2018). Globally, integrated reporting responds to investor calls for improved accountability, transparency, and sustainability (Ali et al., 2018) by reducing information asymmetry and supporting better decision-making (Cosma, 2018). Research has indicated that well-prepared integrated reports enhance a firm's reputation, attract investments, and boost investor relations (Nurkumalasari et al., 2019). Similarly, in Nigeria's industrial goods sector, integrated reporting is an emergent way to improve the quality of disclosure and ultimately the firm value (Ohiokha et al., 2024; Akpan et al., 2022).

Integrated Disclosure and its Dimensions: Human Capital Disclosure

Disclosure of human capital is a critical component of integrated reporting because it highlights the skills, expertise and capabilities that are vital to a firm's success and long-term sustainability. According to the IIRC (2013) human capital includes the experiences, competencies and motivations which individuals contribute to value creation in an organization. Nzekwe et al. (2021) explained that clear disclosure on human resource practices, such as employee development and remuneration practices improves investor confidence through indicating effective utilization of resources and expected future performance. Empirical studies in Nigeria have found that the stronger the human resource related disclosures, the greater the market values for industrial goods companies in Nigeria (Oyedokun et al., 2019; Orshi et al., 2019). In ICT sector of Nigeria the same trend was found by Aminu et al. (2021). The explanation for this result is the signalling theory (Spence, 1973) that indicates the role of disclosure on human capital as credible signals for performance, thereby lowering agency costs.

Integrated Disclosure and its Dimensions: Manufacturing Capital Disclosure

Manufacturing capital consists of both tangible and intangible aspects which are necessary for the production of goods and services such as plants, technology, systems, processes and so on (IIRC, 2013). Adegbe et al. (2019) believe that the disclosure on manufacturing capital provides evidence to investors on whether a company uses resources efficiently in its production processes, innovation and overall operational sustainability. In Nigeria, Akai et al. (2022) have discovered that the more a company makes detailed disclosures on production assets, research and development activities and innovative practices, the higher the value obtained by the company. Similarly, the disclosure quality on manufacturing resources as a measure of the firm's ability to withstand shocks leads to an improvement in firm value as measured by Tobin's Q (Akpan et al., 2022). Dube (2018) shows similar results in South Africa by reporting a positive relation between disclosure on manufacturing resources and firm's long-term performance. Disclosure on sustainability aspects in manufacturing such as energy utilization will result in good performance measures (Oyedokun et al., 2019). According to Felix et al. (2024) manufacturing capital plays an important role for firm value.

Integrated Disclosure and its Dimensions: Social Capital Disclosure

Social capital disclosure involves the extent to which a company discloses relationships that may influence value creation in an organization, including interactions with various groups and networks such as shareholders, customers, community etc. (IIRC, 2013). According to Adegboyegun et al. (2020), disclosures on CSR activities, community engagement and stakeholder involvement are likely to provide a firm with social legitimacy and access to valuable resources. Appah and Onowu (2021) found that integrated social capital disclosure lead to improved firm value in Nigerian insurance companies. Nwoye et al. (2022) found that in the Nigerian and South African oil & gas, and manufacturing sectors the disclosure of social capital significantly enhanced firm value, this result was stronger in industries where there is more stakeholders interest and this is supported by Ahmed-Haji and

Anifowose (2016) who suggested that in South Africa there is a trend toward substantive IR that prioritizes accountability to stakeholders.

Integrated Disclosure and its Dimensions: Tobin's Q

Tobin's Q is often defined as the market value to replacement cost of firm's asset ratio and it is widely considered to be an important measure of firm's value (Spence, 1973; Moloi & Iredele, 2020). In the context of IR, Tobin's Q represents a market based measure that reflects investor's perceived information value relevance. According to Adegbie et al. (2019) it is appropriate in assessing the impact of non-financial disclosures, such as human, manufacturing and social capital, as it incorporates market expectations beyond traditional accounting variables. Studies in emerging markets report a similar relationship between disclosure on IR and Tobin's Q in Nigeria (Akpan et al., 2022) and in both the Nigerian and South African markets (Nwoye et al., 2022).

Integrated Reporting and Value Creation in Emerging Economies

Integrated reporting has become an influential reporting framework in linking financial and non-financial performance to organisational value creation especially in emerging markets where investors are interested in a comprehensive view of corporate activities. Ali et al. (2018) and Alade and Odugbemi (2022) state that integrated reporting increases investors confidence through reduction of information asymmetry and providing a wider outlook of sustainability, governance, and strategy, thereby influencing long-term capital allocation. The rate of adoption varies with the institutional environment, governance and regulatory framework in developing markets. Cosma (2018) indicates that integrated reporting may serve to enhance a firm's accountability and social legitimacy. Findings by Nurkumalasari et al. (2019) and Amanda et al. (2022) suggest that integrated disclosure positively impacts shareholder relations and reputation. Ohiokha et al. (2024) and Asein et al. (2020) concur on the perceived positive association between integrated reporting and firm value through its ability to create transparency in disclosure to boost long-term shareholder value.

Research Gaps in Literature

While there is an increased acceptance of the role of integrated reporting, the application of integrated reporting within Nigeria's industrial goods sector has been subject to less attention. Much of the research done is in the area of overall performance (Akpan et al., 2022; Onumoh et al., 2024) and sustainability disclosure (Amahalu et al., 2018) with limited insights into human, manufacturing and social capital. Questions such as how the disclosure on these capitals impact investor confidence, valuation and overall market confidence are largely unanswered. These gaps form the basis of this study.

Theoretical Review

Stakeholder theory posits that a company should manage the demands of its stakeholders (shareholders, customers, employees, suppliers etc.) in such a way that over the long term the firm will gain value. Integrated reporting complements stakeholder theory as it involves disclosing information about its management, strategy, environmental and social performance, all of which are influential to the long-term value of the organization and in Nigeria integrated reporting significantly increases stakeholder trust and value (Olusanjo et al., 2019; Nzekwe et al., 2021). Resource-based

view theory sees integrated reporting as a strategic resource which positively impacts reputational capital and investor relations (Barney, 2001; Cosma et al., 2018) and Nigeria studies have confirmed its effect on intangible value (Adegboyegun et al., 2020; Onumoh et al., 2024). Together the theories explain how the integrated report positively impact value and the overall markets (Nwoye et al., 2022; Akai et al., 2023).

Empirical Review

In a bid to examine the impact of integrated reporting on shareholder relationships in Nigerian manufacturing companies, Olusanjo et al. (2019) employed a survey design of 45 companies and 675 purposively sampled respondents. A structured questionnaire whose reliability was 0.73-0.85 was utilized and regression analysis was used for descriptive and inferential analysis. It was concluded that integrated reporting positively affects shareholder relationships and that it enhanced the transparency and communication quality of companies. This further resulted to improved shareholder confidence and corporate governance practices in Nigeria's manufacturing industry.

Adegbie et al. (2019) examined the impact of integrated reporting on the value of 38 companies in the Nigerian manufacturing sector from 2012-2016 using an ex-post facto research design and secondary data obtained from the audited financial statements of the firms. The regression result indicated that integrated reporting positively impacted firm value measured by Tobin's Q although varied on the type of capital. While the impact of disclosure on financial capital was negatively significant, those on other capitals were insignificantly different from zero. This effect was moderated by size and leverage. The study suggested increasing regulatory consciousness and a compulsory IR framework.

Akpan et al. (2022) studied the effect of integrated reporting on firm value in the manufacturing sector in Nigeria (2011-2020) through ex post facto research designs and annual report and NGX Fact Book data. Using robust regression of 51 purposively selected manufacturing firms, it was observed that human capital disclosures significantly influenced firm value, whereas manufactured and social/relationship capital disclosures have a statistically insignificance effect on the firms value. It was concluded that human capital reporting is a main value driver; therefore, non-financial disclosures should be reinforced transparently.

Akai et al. (2023) explored the influence of integrated reporting on market value of Nigerian firms in the industrial goods sector over the 2014-2023 period, using ex post facto research design and Ordinary least squares regression on 13 sampled Nigerian industrial goods sector firms. From 13 industrial goods sector firms, 11 were selected using purposive method. It was observed that manufactured capital, financial capital and intellectual capital had a significant positive impact on market value with an indication of high effect of intellectual capital. It was concluded that integrated reporting promotes market value and calls for improved financial capital management, integrated planning and effective risk management for sustainable growth.

Onumoh et al. (2024) evaluated the link between integrated reporting elements and firm value of Nigerian manufacturing firms, using data from annual reports (2011-2022). Using elimination sampling methodology, out of 59 eligible firms, 8 were selected as the sample for this study. The empirical results

provided evidence that manufacturing capital and financial leverage have a significant impact on the firm value; whereas intellectual capital, human capital, and social/relationship capital did not significantly explain the firm value. It concludes that whilst manufacturing capital and financial leverage positively drive firm value, it fails to confirm the association between other selected elements of IR and firm value, given this context.

Model specifications

The model for this study is stated in econometrics terms below as;

Model I VAL= f(INTEGRATED DISCLOSURE)

$$\text{TOBIN'S Q} = f(\text{HCD, MCD, SCD, FSIZE})$$
$$\text{TOBIN'S Q}_{it} = \alpha_0 + \beta_1\text{HCD}_{it} + \beta_2\text{MCD}_{it} + \beta_3\text{SCD}_{it} + \beta_4\text{FSIZE}_{it} + \varepsilon_t$$

Where;

f = Stochastic error term capturing other unexplanatory variables

ε_t = error term

i = firm identifier

t = time variable (10 Years)

α₀ is the intercept of the regression.

β₁, β₂, β₃ and β₄ are the co-efficient of the regression equation.

The Apriori expectation: β₁, β₂, β₃ and β₄ is less or greater than 0.

Variables Measurement

The table below shows the measurement of variables used for this study in the order of dependent variable and independent variables.

Table 3.1: Variables with Apriori Expectation

Variable	Symbol	Measurement	Scoring
Tobin's q	TOBIN'S Q	Tobin's Q; measured as market capitalization plus total liabilities minus cash divided by total asset	Each capital was assessed against disclosure indicators developed from prior studies and the IIRC framework. A 0–3 ordinal scoring scale was adopted to capture the extent and quality of disclosure:
Human Capital disclosure	HCD	measured Integrated Reporting (IR) disclosure by applying a content analysis scoring index in line with the International Integrated Reporting Framework (IIRC, 2013).	0 = No Disclosure → The report makes no mention of the capital or related information.
Manufactured Capital disclosure	MCD	measured Integrated Reporting (IR) disclosure by applying a content analysis scoring index in line with the International Integrated Reporting Framework (IIRC, 2013).	1 = Minimal Disclosure → The report makes a general/qualitative mention without specifics (narrative only).
Social Capital disclosure	SCD	measured Integrated Reporting (IR) disclosure by applying a content analysis scoring index in line with the International Integrated Reporting Framework (IIRC, 2013).	2 = Moderate Disclosure → The report provides partial disclosure with some quantitative or descriptive details, but not comprehensive.
Firm size	FSIZE	measured as total liabilities divided by total asset	3 = Full Disclosure → The report provides detailed, comprehensive, and quantifiable information on the capital, including metrics, policies, and outcomes.

Source: Extant Literatures

Research Methodology

This study utilized an ex-post facto research design, which involves exploring relationships and the impact on a phenomenon over a specified period using collected data. The target population for this study were all sixteen (16) listed firms under the Industrial Goods sector on the Nigerian Exchange Group (NGX) as at December 2024(<https://ngxgroup.com>).Secondary data from annual reports of all ten (10) listed industrial goods firms was utilized as data of the study. Pooled panel was employed in analyzing data of this study.

Analysis and Discussion of Results

Descriptive Statistics Analysis and Discussion

Table 1: Summary of Descriptive for TOBINSQ HCD MCD SCD and FSIZE,

VARIABLES	OBS	MEAN	STD. DEV	MIN	MAX
TOBINSQ	100	1.21057	1.380484	.082	6.032
HCD	100	.75932	.1927931	.067	.87
MCD	100	.66822	.1738378	.067	.87
SCD	100	.83842	.2029262	.067	.93
FSIZE	100	15.69963	1.197841	14.07986	18.48695

Source: Regression Output, 2025.

Table 1 provides descriptive statistics for the variables used in this analysis. For Tobins Q (TOBINSQ) where the dependent variable Tobin's Q is the firm value the average value is 1.21, SD = 1.38. Tobin's Q is quite dispersed for firms in the sample with a low of 0.082 and a high of 6.032. Human capital disclosure (HCD) is 0.76 on average with a reasonable spread in disclosure values,

SD= 0.193. Manufactured capital disclosure (MCD) is 0.67 on average and is less widely disclosed. Social/relationship capital disclosure (SCD) has a higher value of 0.84. FSIZE, where firm size, has an average value of 15.70 and a low of 14.08 and a high of 18.49.

Normality Test

Table 2: Skewness/Kurtosis tests for Normality

VARIABLES	OBS	W	V	Z	PROB>Z
TOBINSQ	100	0.70950	23.985	7.049	0.00000
HCD	100	0.58072	34.617	7.863	0.00000
MCD	100	0.73280	22.061	6.863	0.00000
SCD	100	0.46389	44.263	8.408	0.00000
FSIZE	100	0.88363	9.608	5.019	0.00000

Source: Regression Output, 2025.

Table 2 presents the Skewness/Kurtosis tests for normality of five variables: TOBINSQ, HCD, MCD, SCD, and FSIZE. All variables have 100 observations. The W statistics for these variables range from 0.46389 (SCD) to 0.88363 (FSIZE), with

corresponding Z values varying from 5.019 (FSIZE) to 8.408 (SCD). The p-values (PROB>Z) for all variables are 0.00000, indicating significant departures from normality. These results suggest that none of the variables follow a normal distribution.

Correlation Analysis

Table 4.3: Summary of Spearman Rank Correlation Matrix; TOBINSQ HCD MCD SCD and FSIZE, stats(rho p) star(0.05)

	TOBINSQ	HCD	MCD	SCD	FSIZE
TOBINSQ	1.0000				
HCD	-0.2596* 0.0001	1.0000			
MCD	0.0470 0.6427	0.4453* 0.0000	1.0000		
SCD	-0.1323 0.1893	0.2820* 0.0045	0.4164* 0.0000	1.0000	
FSIZE	-0.1522 0.1305	-0.0286 0.7779	0.1640 0.1031	0.1693 0.0923	1.0000

Source: Regression Output, 2025.

Table 4.3 presents the Spearman Rank Correlation Matrix for the variables TOBINSQ, HCD, MCD, SCD, and FSIZE,

showing correlation coefficients (rho) and p-values (p). A significant negative correlation is observed between HCD and TOBINSQ (-0.2596, p=0.0001), while MCD is positively

correlated with HCD (0.4453, $p=0.0000$). SCD shows significant correlations with both MCD (0.2820, $p=0.0045$) and FSIZE (0.4164, $p=0.0000$). No significant correlation is found between

FSIZE and other variables. Statistically significant correlations are marked with a star at the 0.05 level.

Result for Multicollinearity Test

Table 4.4: VIF Test Result

VARIABLE	VIF	1/VIF
HCD	6.91	0.144747
MCD	6.16	0.162341
SCD	5.84	0.171176
FSIZE	1.06	0.946873
MEAN VIF	4.99	

Source: Regression Output, 2025.

Table 4.4 presents the results of the Variance Inflation Factor (VIF) test for multicollinearity. The VIF values for HCD, MCD, and SCD are 6.91, 6.16, and 5.84, respectively, indicating moderate multicollinearity. FSIZE has a VIF of 1.06, suggesting no

significant multicollinearity. The 1/VIF values range from 0.144747 (HCD) to 0.946873 (FSIZE). The mean VIF across all variables is 4.99, indicating that multicollinearity is not a severe issue in the model.

Other Diagnostic Tests

Breusch and Pagan Lagrangian Multiplier test

Table 4.5: Breusch and Pagan Lagrangian Multiplier test

Decision rule	If p-value is statistically significant, then reject H_0 and accept H_A
Result	$\chi^2(1) = 351.05$; Prob> $\chi^2 = 0.0000$

Source: Regression Output, 2025

The Breusch and Pagan Lagrangian Multiplier (LM) test was in Table 4.5 conducted to determine whether a random effects model is more appropriate than a pooled ordinary least squares (OLS) regression. The test result shows a chi-square statistic of

351.05 with a p-value of 0.0000, which is statistically significant at the 1 percent level. This outcome implies that the pooled OLS approach would be inappropriate because it ignores unobserved heterogeneity across firms.

Hausman Tests

Table 4.6 Results for Hausman Test

Variables	(b) FE	(B) RE	(b-B) Difference	S. E.	Chi2 (4)	Prob> Chi2	Decision
	Fixed Effect	Random Effect	Difference	Sqrt (diag(V _b - V _B))			
HCD	.3259929	3.34142	-3.01542	1.270483	0.58	0.9651	Accept Random Effect Model
MCD	.0223988	-.054762	.077161	.228605			
SCD	-12.8306	-8.86224	-3.96835	9.989372			
FSIZE	103.6755	11.96046	91.715	24.15402			

Source: Regression Output, 2025.

The Hausman test was performed to select among fixed effects or random effects panel estimation method. According to the results of Hausman test (Table 4.6), the value of the chi-square statistic is 0.58 with a p-value of 0.9651. As the p-value is significantly above the common thresholds (1%, 5% and 10%) for significance level, we cannot reject the null hypothesis that the

random effects estimator is consistent. Thus, the random effects estimator is more efficient than the fixed effects estimator for the given sample. This conclusion that random effects estimator is the most suitable model for this study is also in agreement with the Breusch and Pagan LM test conducted earlier.

Hypotheses Testing

Table 4.7: Summary of TOBINSQ HCD MCD SCD and FSIZE, RE regression analysis

TOBINSQ	COEF.	STD. ERR.	Z	P> Z
HCD	-4.088837	1.286608	-3.18	0.001
MCD	2.586503	1.303243	1.98	0.047
SCD	1.510832	1.722358	0.88	0.380
FSIZE	.0728478	.0786234	0.93	0.354
_CONS	.1765576	1.325557	0.13	0.894
N				100
R-SQUARED				0.0481
WALD CHI2(4)				14.65
PROB > CHI2				0.0055

Source: Regression Output, 2025.

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Table 4.7 shows the results of the random effects regression to determine the impact of human capital disclosure (HCD), market capital disclosure (MCD), structural capital disclosure (SCD) and firm size (FSIZE) on firm value (Tobin's Q). The regression resulted in R-squared value of 0.0481 and a statistically significant Wald Chi-square value of 14.65 ($p=0.0055$) and therefore explain 4.8% of the variation in firm value. HCD has a statistically significant negative impact on firm value ($= -4.0888$, $p = 0.001$), implying that increased levels of disclosure about human capital may increase costs and expose strategic plans and so forth to the market and thereby decrease firm value. Market capital disclosure has a statistically significant positive impact on firm value ($= 2.5865$, $p = 0.047$), implying that increased disclosure relating to market affects the confidence of investors. Structural capital disclosure and firm size has a positive but statistically insignificant impact on firm value. These show varying degrees of impact of intellectual capital on firm value for emerging economies like Nigeria.

Discussion of findings

This study aimed to investigate the relationship between integrated disclosure, which covers human capital disclosure (HCD), manufacturing capital disclosure (MCD), and social capital disclosure (SCD), and the market value of listed industrial goods firms in Nigeria (measured by Tobin's Q). The results show that the explanatory variables have a significant relationship with firm value (Wald Chi-square value of $= 14.65$, $p=0.0055$). However, the strength of impact and direction vary between the components.

HCD was significantly negatively related to firm value ($= -4.0888$, $p = 0.001$). This result differs from some earlier studies in suggesting that investments in human capital are likely to contribute to firm performance (Adegboyegun et al., 2020; Amahalu & Obi, 2020). This result may reflect the potential negative perception by investors of increased labour costs and possible labour unionism prevalent in the Nigerian industrial sector.

Market capital disclosure had a statistically significant positive impact on firm value ($= 2.5865$, $p=0.047$). This is consistent with prior research which revealed that the degree of

disclosures about market-related assets positively impact firm value due to investor confidence (Akpan et al., 2022; Albetairi et al., 2018). Structural capital disclosure had a positive and insignificant impact on firm value ($= 1.5108$, $p=0.380$), implying that social capital is not adequately priced by the Nigerian capital market. Firm size had a positive and insignificant impact on firm value, confirming earlier study which showed that disclosure quality, instead of size, is what is valued by investors in the Nigerian economy (Adekanmi, 2022).

Summary, Conclusion and Recommendations

Summary of findings

This study investigated the impact of integrated disclosures on the market value of industrial goods firms in Nigeria. The results indicate that the disclosures as a group have a significant impact on firm value (Wald $= 14.65$, $p=0.0055$). Specifically;

- Human capital disclosure (HCD) is negatively related to firm value and statistically significant. This can suggest that in Nigeria, extensive disclosure of human capital issues would either indicate potential labour risk or increased costs to managers and thus they may not be willing to disclose them.
- Manufacturing capital disclosure (MCD) is positively related to firm value and statistically significant. This may infer that the market values transparency concerning the production capacity of the firm, innovation and market-related assets, and these may be an indication of higher returns and so it influences positively the firm value.
- Social capital disclosure (SCD) is positively related to firm value but statistically insignificant. This suggests that social disclosure information is not fully valued by Nigerian investors. Also, since there are fewer companies that report on social capital disclosure (as seen below), the coefficient would be more volatile.

Conclusion

- i. Human capital disclosure (HCD) significantly reduces firm value. This implies that investors may see increased transparency in human capital as a possible additional labour cost and risk, so they may discount it.
- ii. Manufacturing capital disclosure (MCD) significantly enhances firm value. This suggests that disclosures concerning production process, innovation and related assets will boost the confidence of investors.
- iii. Social capital disclosure (SCD) has no statistically significant effect on firm value, although it has a positive relationship. This reflects that social disclosures are yet to be taken into consideration by investors in Nigeria.
- iv. Firm size (FSIZE) does not affect firm value in Nigeria, which implies that it is only the disclosure practices that are valued, and not necessarily the size of the firm, among the firms listed in the industrial sector of the Nigeria economy.

Recommendations

- i. Enhance manufacturing capital disclosure: Companies should encourage transparency of information about production efficiency, innovation, and technological capacity because it is strongly associated with increase in the value of firm.
- ii. Change the nature of human capital disclosure reporting: Management should communicate the investment of human capital as a means of increasing future productivity and value creation rather than showing it as just cost.
- iii. Promote the idea of social capital disclosure: Regulators and professional bodies should ensure that investors are made aware of the value of social capital disclosure to stimulate interest from the market.
- iv. Education of investors: Securities market should make available relevant training and education on disclosure in non-financial terms for investors so that they will be in a position to make appropriate investment decisions based on this information.

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