EFFECT OF MANUFACTURED CAPITAL REPORTING ON THE FIRM VALUE OF LISTED COMPANIES IN KENYA

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ABSTRACT

The failure to provide financial and non-financial information has led to a lack of accountability and transparency, which has caused the firm value of many businesses to decline. In the modern business environment, the majority of prosperous companies understand that the primary goal of any enterprise is to use integrated reporting to generate firm value for customers, employees, and investors. More research on integrated reporting is necessary because many businesses are struggling financially even after implementing it. The study's objective was to determine the effect of manufactured capital reporting on the firm value of listed companies. The research was guided by trade-off theory. The study was guided by the research philosophy of positivism. The study design used was correlational. Twenty-three integrated reporting businesses listed on the Nairobi Securities Exchange made up the research population. Since the Nairobi Securities Exchange was the only stock market in Kenya legally obligated to prepare integrated reports under the company statute CAP 486, the selection of the listed companies there was justified. A census survey was employed. Secondary data was collected from the Nairobi Securities Exchange website from 2015 through 2022 for eight years. Panel summary statistics and panel data regressions were used to analyze the gathered data. The components of descriptive statistics included overall means, standard deviations, minimum and maximum ratios, the between-firm standard deviations, and the within-firm standard deviations. Panel data regressions included serial correlation tests, stationarity tests, Hausman tests, Breusch-Pagan Lagrange multiplier (LM) tests, and testparm tests. The Hausman test was used to select suitable models between the random effects (RE) and fixed effects (FE) for each variable modeling. According to the results of the STATA analysis, manufactured capital reporting has a positive and significant impact on listed businesses' firm value, and raising financial capital reporting raises the firm's overall value. However, firm value does not change much over time, while it is somewhat impacted by unnoticed firm-specific factors. Furthermore, implementing reporting standards only yields long-term benefits. This result supports previous studies by demonstrating that, with the right model, it is possible to pinpoint the precise variation in company value that unobserved firm-specific factors contribute to the idiosyncratic mistake.

INTRODUCTION

Background of the study

The topic of firm value is still central to the discussion of investments. Today's most prosperous companies understand that the primary goal of every company endeavor is to generate value for customers, employees, and investors. Brands, people, ideas, and innovation are examples of intangible assets that are included in firm value. Therefore, a broad definition of company value is the process by which resources and labor are transformed into concrete results that satisfy the demands of others. (Husna & Satria, 2019). Due to shifts in global corporate governance, firm value is now the main focus. To promote and convey the true value of businesses in the capital markets, Japan, for example, has implemented a governance agenda (Zhu & Lin, 2017). The Netherlands places a strong emphasis on the long term, claiming that loyalty shares that are dependent on short-termism don't increase business value or offer the required degree of accountability (Orihara, 2017).

Listing in the securities markets presents corporations with the potential to augment their firm value by utilizing financial accessibility and improved public recognition. Kenton (2024) avers that the essence of having a stock listed on the securities market is to raise money. Said and Weddington (2023) adds that a stock exchange, also referenced as a securities exchange or bourse, allows traders to buy and sell securities, including shares of stock, bonds, and other financial instruments. Essentially, securities exchanges mainly act as "continuous auction" markets that allow open outcry for buyers and sellers to consummate transactions at a central location. Therefore, going public and allowing investors to buy and sell shares can help companies raise enough capital to meet their financial needs, including growing their business or paying off their debts.

The occurrence of firm failures in Kenya highlights the significance of considering the interests of many stakeholders beyond shareholders to maximize firm value. The companies demonstrated inadequate governance and openness in their decision-making processes, particularly when considering the interests of a broader range of stakeholders. During periods such as the current situation, wherein the Nairobi Securities Exchange is facilitating the revival of distressed enterprises, it becomes evident that the management and board members of listed firms must comprehend the principles governing company value. It is crucial to acknowledge that the concept of firm value should not be confined just to the interests of shareholders (Anyanzwa, 2021).

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Integrated reporting encompasses the presentation of both voluntary and obligatory information. Mandatory disclosure refers to revealing information to adhere to legal and regulatory obligations. Companies and managers prefer voluntary disclosure over required financial reporting. This dissatisfaction has prompted investors, financial markets, and other significant stakeholders to advocate for companies to willingly furnish more extensive information regarding their long-term strategies and performance (Hoque, 2017).

Voluntary disclosure refers to companies providing additional information voluntarily, aiming to meet users' information requirements in the context of decision-making. Optional disclosures refer to information primarily located outside the financial statements and not explicitly mandated by accounting rules or standards (Opanyi, & Omare, 2022). In contrast, voluntary disclosure refers to providing further information beyond what is legally required for mandatory disclosure. The motivation for the need for Corporate Social Disclosure (CSD) largely stems from the public's need for information to assess firms' appropriateness and legitimacy. Voluntary disclosure is a proactive endeavor to establish or maintain a sense of legitimacy (Kenton, 2021).

Implementing integrated reporting offers numerous advantages to businesses, including improved decision-making about the allocation of internal resources, enhanced engagement with shareholders and other stakeholders, and reduced exposure to reputational risks. Integrated reporting also addresses ordinary investors' information requirements, facilitates inclusion in sustainability indices, and ensures the provision of correct non-financial data by data vendors pertaining to the company (Hoque, 2017).

Integrated reporting seeks to enhance transparency and accountability by providing succinct insights into how an organization's strategy, governance, performance, and prospects, within the framework of its external environment, contribute to creating firm value over the short, medium, and long term. The attributes above lead to the conclusion that integrated reporting embodies a novel approach fostering integrated cognition and advancing business value. The corporation's business model exemplifies the process of firm value creation, which elucidates

the allocation and utilization of resources across various corporate operations to generate valuable output in the form of goods or services (Adhariani & De Villiers, 2019).

Financial performance indicators such as net profit margin, return on assets, return on equity, and return on investments are crucial in influencing firm value. Net profit margin measures a company's profitability by indicating the percentage of revenue that translates into profit after accounting for expenses. Return on assets evaluates how efficiently a company utilizes its assets to generate profits, while return on equity measures the profitability of shareholders' investments. Return on investments assesses the returns generated from various investment activities undertaken by the company. These indicators provide valuable insights into a company's financial performance ability to create value for shareholders, making them essential metrics for evaluating firm value (Panigrahi & Vachhani, 2021).

Globally, for instance, in Europe, Integrated reporting has been the subject of examination on a global scale. This examination has focused on State-Owned Enterprises (SOEs), aiming to explore the potential benefits of integrated reporting as a comprehensive instrument that combines financial and non- financial information. The potential of integrated reporting to enhance the firm value of petroleum businesses has been widely acknowledged. However, it is essential to note that integrated reporting remains a relatively new and groundbreaking concept. While it exhibits promising signs of legitimizing value, further research and implementation are required to understand its impact fully.

Primarily, the impact of the performance of numerous organizations in the African continent has been identified as a firm value. Hence, there has been a widespread adoption of integrated reporting. For instance, the research conducted in Sub-Saharan Africa demonstrated the presence of various substantial obstacles to reporting (Tilt et al., 2020). Many firms continue to utilize voluntary reporting frameworks to incorporate informal norms and adapt to legal changes. Furthermore, empirical evidence has demonstrated that the inclusion of integrated reporting and sustainability reporting disclosures, which span governance, social, and environmental aspects, decreases companies' cost of capital (Pulino et al., 2022). The predominant focus of the conversation surrounding integrated reporting in Africa is centered on South Africa, where integrated reporting is implemented within a compulsory reporting framework (Wachira et al., 2020).

In South Africa, the International Integrated Reporting Council released a discussion paper titled "The Framework for Integrated Reporting and the Integrated Report," published in South Africa. South Africa has taken a leading role in adopting integrated reporting by mandating that all listed firms produce integrated reports. Alternatively, corporations must explain why they do not adopt an integrated reporting approach. The framework proposes the utilization of the guidelines. It proposes comparable primary components, including the incorporation of risk and opportunity identification, strategic objectives, and performance evaluation through key performance indicators (KPIs) and key risk indicators (KRIs), remuneration policies, and forward-looking information (Manes et al., 2018).

Integrated reporting is becoming increasingly popular among listed companies in Kenya as they face the ongoing difficulty of generating value for investors, customers, and employees. The implementation of the International Financial Reporting Standards (IFRS) is in effect in Kenya, and the National Reporting framework for IFRS is fully recognized. Within this framework, the Institute of Certified Public Accountants of Kenya (ICPAK) is responsible for overseeing the activities of accountants and setting standards for accounting and corporate reporting (Vitolla et al., 2020).

Despite the growing focus and implementation of integrated reporting, a universally mandated reporting standard has yet to be established. The adherence to formality holds significant value for investors, particularly those operating within diverse business environments. It facilitates implementing a uniform system for documenting business transactions, ensuring an impartial and just evaluation of businesses. Additionally, it enables a fair comparison between peer companies operating under distinct legal jurisdictions. Integrated reporting is often regarded as a fundamental aspect of organizational practices, as it aims to foster accountability toward future societies (Hoque, 2017).

The study will focus on listed companies in the Nairobi Securities Exchange (NSE) that have adopted and not adopted integrated reporting from 2015 to 2022. Listed companies use integrated reporting because it clarifies how an entity's strategy, governance, performance, and prospects within its external environment contribute to firm value over the short, medium, and long term, helping them increase transparency and accountability.

Statement of the Problem

Due to a lack of accountability and transparency, around 390,000 companies worldwide fail each year, resulting in lower earnings per share for shareholders and nonpayment of suppliers and employees. As a result, listed enterprises today lack firm value (Stubbs & Higgins, 2018). Businesses are increasingly using integrated reporting as a strategic tool to achieve both immediate and long-term benefits. Encouragement of corporate information reporting with concern for economic, social, and environmental sustainability has become more important since the financial scandals of the early 2000s and the global financial crisis of 2008 (Slack & Campbell, 2016). The significance of integrated reporting has permeated the Kenyan business context, albeit voluntarily. Several scholars have explored integrated reporting in various sectors in Kenya. For instance, Pillay (2019) used the financial industry to show an overall increase in integrated reporting among financial sector firms over the years. Bonareri et al. (2022) used firms drawn from the East African securities exchange to show that integrated reporting positively correlated with earnings quality. Despite these efforts to increase company value and integrated reporting, there are a number of gaps in the research that is currently available. First of all, the majority of research is conducted on both types of businesses, necessitating an initial examination of adoption and non-adoption. Second, the majority of studies overlook the reality that a variety of factors affect business value by using financial performance as a stand-in for firm value. The Ordinary Least Squares (OLS) technique, which has been used in the majority of studies, does not account for variations over time within and between firms. Because integrated reporting, firm value, and panel data

statistics address both within and between firm differences over time, the study aims to close this gap by utilizing only those firms..

Objectives of the Study

To establish the effect of manufactured capital reporting on the firm value of listed companies in Kenya.

Hypotheses of the Study

H_0: Manufactured capital reporting has no significant effect on the firm value of listed companies in Kenya.

Scope of the Study

The study concentrated on the firm value and integrated reporting of companies listed on the Nairobi Securities Exchange. Reports on manufactured capital were the study's construct. The listed firms in Kenya that adopted integrated reporting between 2015 and 2022 served as the study's basis. Under the business act CAP 486, the NSE is the only stock market in Kenya that is legally obligated to prepare integrated reports, therefore the selection of the listed companies there was validated. The firm's public reports were examined in this investigation. A fair generalization of the findings across the sectors was provided by this time, which took into account the different market trends and volatility.

LITERATURE REVIEW

Stakeholder Theory

This working throty was developed as a guide on ethics and strategy by Freeman and Reed (1983). Freeman (1983) defines stakeholders as individuals or groups with an impact or the potential to influence corporate action. The support and acceptance of the organization's stakeholders is necessary for its continued existence over the long term. The more influence the stakeholders have, the more effectively the firm can meet their requirements (Freeman & Reed, 1983).

The theory provides a means of integrating ethics with strategy, which can assist organizations in serving all stakeholders' interests. This can be accomplished through the use of the theory. According to the contemporary corporate stakeholder theory, the value of a firm is defined not only by the cost of explicit claims, such as providing quality service to customers but also by the cost of implicit claims, such as being socially responsible and providing good customer service. Consequently, corporations with a strong CSR image may find they are in a better position to make low-cost implicit claims than other businesses, ultimately leading to tremendous financial success (Freeman & Reed, 1983).

The instrumental stakeholder theory emphasizes the relationship between stakeholder management and attaining long-term organizational objectives, such as growth and financial success. The prevailing belief posits that a corporation functions to earn financial gains, and integrated reporting is commonly perceived as a strategic instrument to attain economic goals (Jones et al., 2017).

It is imperative to engage stakeholders in decision-making processes that significantly impact their overall welfare. Managers must assume the role of agents for stakeholders and operate in the corporation's best interests, guaranteeing the organization's long-term viability. Freeman further expounded on the normative theory by articulating the doctrine of fair contracts, which outlined six specific criteria to improve engagement between stakeholders and the firm (Freudenreich et al., 2020).

It is essential for a business's success to have effective stakeholder relationship management in a capitalist economy. It is also proper because it requires balancing the priorities, possibilities, and implications many individuals hold. When a practitioner is provided with a management description that emphasizes establishing, maintaining, and aligning stakeholder relationships, the practitioner is better prepared to offer value and avoid moral errors (Freeman et al., 2020).

This theory is applicable in this study since integrated reporting necessitates openness and accountability, and there is a growing interest in understanding how the economic system, ethics, and sustainability may benefit all organization stakeholders, whether they are primary (capital contributors) or not. Since the external stakeholders have limited means of monitoring the agent's conduct, stakeholder engagement is critical when addressing informational asymmetry.

Conceptual Framework

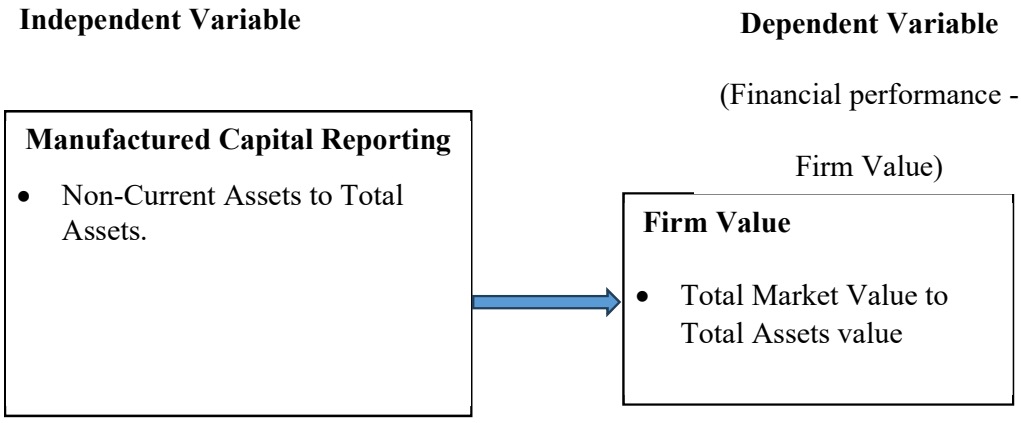

Figure 1. 1: Conceptual Framework

Manufactured Capital Reporting

Manufactured Capital reflects the collection of material, physical, and technological assets that are available to a company to provide services and fulfill its purpose. Material assets and infrastructure refer to the tangible resources possessed, rented, or managed by a firm, which are utilized in producing or delivering services. However, these assets are not physically included in the company's end product. Machinery and tools are products created by humans. Illustrative instances encompass many forms of equipment, machinery, structures, and diverse infrastructure categories. For an organization to achieve sustainable growth, manufactured capital is paramount, serving two critical functions (Zaw, 2019).

Isaac et al. (2022) sought to evaluate the impact of integrated reporting (manufactured capital reporting) on the financial performance of Nigerian-listed multinational companies. The study employed a longitudinal research design using secondary data from the financial records of companies from 2011 through 2020. Descriptive, correlative, and panel regression approaches were used to investigate the fixed effect model. STATA 16 was used to analyze the data. The findings demonstrated that manufactured capital reporting positively and significantly impacts the financial performance of listed multinational corporations in Nigeria.

Zaw (2019) conducted a study to analyze selected Australian and New Zealand companies' financial statements and organizations' planned manufactured capital investment disclosure policies. The disclosures made by PMCI in annual and integrated reports were examined using content analysis in the study. The information includes 108 yearly reports and 73 integrated reports from chosen New Zealand and Australian organizations. These studies were released between 2014 and 2018. Over the five-year reporting period under review, 93 PMCI disclosures were found in 25 integrated reports and 41 yearly reports. The study's conclusions showed that manufactured capital significantly and positively affected the financial performance of the selected enterprises.

Akpan et al. (2022) studied to investigate the effect of integrated reporting. Ex post facto research design was adopted, and secondary data from the annual reports of the sampled companies and the Nigeria Exchange Group fact book were used in the study. 51 out of the 59 manufacturing companies listed on the Nigeria Exchange Group were chosen using a purposeful sampling technique. The study used a reliable regression analysis to examine the impact of manufactured capital reporting on financial performance. The analysis's findings demonstrated that the value of listed manufacturing enterprises in Nigeria increases significantly when manufactured capital information is included in the annual report.

Adegbie et al. (2019), looked at how integrated reporting affected the value of Nigeria's listed manufacturing enterprises. An ex-post facto research design was used in the study. 53 manufacturing enterprises listed on the Nigerian Stock Exchange (NSE) made up the research's population as of June 30, 2017. Purposively choosing 38 companies included companies producing consumer and industrial items during the study period (2012-2016). The published audited financial statements were used as the data source, and the report from the external auditors served as validation. Regression analysis with descriptive and inferential statistics was used. Disclosure of manufactured capital had an insignificant positive effect on the firm value of the listed companies.

RESEARCH METHODOLOGY

Research Philosophy

Research philosophy is a framework that guides how research should be conducted based on ideas about reality and the nature of knowledge. A research philosophy comprises established knowledge and beliefs, necessitating the transformation of beliefs into empirical knowledge (Collins & Hussey, 2014). This research employed a positivist theoretical framework, which is

predicated on the assumption that the observable phenomena provide dependable and consistent data. Positivism is a research philosophy utilized by researchers who adopt quantitative methodologies characterized by the systematic application of quantitative techniques. Positivism encompasses using statistical tools to empirically examine hypotheses and analyze research data obtained through the implementation of quantitative research procedures (Zukauskas et al., 2018).

Research Design

The study adopted a panel data research design that examines observations about different cross-sections across time. Panel data is collected from multiple individuals over a set period, organized chronologically (Hsiao, 2022). This research design was appropriate to the study because the study involved data from 62 panels of listed firms on the NSE drawn over 8 years, combining cross-sectional and time series components.Target Population

This study's target population was 62 companies listed at the Nairobi Securities Exchange (NSE) from 2015 to 2022. The target population comprised all the sixty-two listed companies.

Sample Size and Sampling Technique

The study employed a census survey where all the twenty-three companies filing integrated reports were used for data collection to establish the effect of integrated reporting on the firm value of listed companies in NSE. This technique was appropriate since the target population is small. It was also a suitable technique as it helped eliminate sampling error; hence, valid and detailed information was collected (Skinner, 2018).

Research Instruments

The secondary data collection sheet was used for the study's secondary data collection. Secondary panel data was gathered from the annual reports of NSE-listed companies in Kenya for 2015 to 2022.

Data Collection Procedure

Published audited annual financial reports from 2015 to 2022 were downloaded from the Nairobi Securities Exchange website. Data collected included total equity, total debts, total intangible assets, cost of goods manufactured, total non-current assets, total environmental management cost, total human capital, net income, preferred dividends, weighted average common shares outstanding, and total assets.

Data Processing, Analysis, and Presentation

Before exporting the collected data to STATA for analysis, the gathered data was edited and cleaned in Microsoft Excel. Panel summary statistics and panel data regressions were used to analyze the gathered data. The components of descriptive statistics included overall means, standard deviations, minimum and maximum ratios, between-firm standard deviations, and within-firm standard deviations. Panel data regressions included serial correlation tests, stationarity tests, Hausman tests, Breusch-Pagan Lagrange multiplier (LM) tests, testparm tests, and generation of panel data regression coefficients. The Hausman test was used to select

suitable models between the random effects (RE) and the fixed effects (FE) for each variable modeling. The overall model relating firm value to integrated reporting was of the form summarized in the equation 3.1below;

$Y_{it} = \beta_0 + \beta_1 MCR_{it} + \alpha_i + U_{it}$ ……(3.1)

Where:

Y represents Firm Value

MCR represents Manufactured Capital Reporting

α_i represents firm-specific error

U_{it} represents the idiosyncratic error.

Bo represents the regression constant

β_1 – represents slope coefficients indicating the effect of financial reporting practices on firm value.

i denotes the listed firms adopting integrated reports at NSE

t represents time dimensions from 2015-2022

Measurement of Variables

Table 1. 1: Measurement of Variables

Variable	Category	Measurement	Formula	Source
Manufactured Capital Reporting	Independent	Fixed Assets Ratio	$\frac{Non-current\ Assets}{Total\ Assets}$	Hazam & Mansor (2020)
Firm Value	Dependent	Market to Book Ratio	$\frac{Total\ Market\ value}{Total\ Asset\ Value}$	Husna & Satria (2019)

DATA ANALYSIS, RESULTS AND DISCUSSION

Declaring Data as Panel Data

Data were first declared panel data, commonly known as 'xt data'. Xt is typically used to reference the combination of cross-sectional data relating to firm-level and time-series data, which takes care of the temporal aspect. The xt data was used to address firm-specific variations in integrated reporting and the corresponding temporal variations expected of such longitudinal data. The panel structure output on declaration is displayed in Table 1.2. Results show that panels were strongly balanced using the firm as the panel variable. These strongly balanced panels confirm that all firms involved had data for all variables in the stated time interval (2015 to 2022).

Table 1. 2: Panel Data Declaration

Panel variable:	FIRM (Strongly balanced)
Time variable:	Year, 2015 to 2022
Delta:	1 unit

Panel Summary Statistics

Panel summary statistics were generated to explore the overall distribution of study variables and establish the between and within firm variations. The statistics covered included the overall means, standard deviations, minimum and maximum values, number of observations, firms,

and periods. Results presented in Table 1.3 indicate the overall moderate temporal variations within and between firms. However, variations within firms appeared to be larger than between firms, suggesting that within-firm dynamics were critical to observed variations in firm value and integrated reporting.

Table 1. 3: Panel Summary Statistics

Variable		Mean	Std. Dev.	Min	Max	Observation
Firm Value	Overall	.539	.221	.012	.986	N = 184
	Between		.106	.326	.710	n = 23
	Within		.195	.063	1.04	T = 8
Man. Capital Reporting	Overall	.469	.215	.013	.973	N = 184
	Between		.087	.298	.604	n = 23
	Within		.198	-.017	.932	T = 8

Specific results show that firm value, measured through market-to-book ratio, averaged a ratio of 0.539 with a moderate variation across firms demonstrated by a standard deviation of 0.221. Firm value in the stated period ranged between 1.2% and 98.6% of the expected maximum firm value across the 23 firms over the eight years. During the same period, manufactured capital reporting measured through fixed assets ratio achieved 46.9% of the expected maximum reporting and ranged between 1.3% and 97.3% across the firms over the eight years. While there were some fluctuations, manufactured capital reporting was consistent within and between the firms listed.

Diagnostic Tests

Data diagnostic tests involved testing for serial correlation, unit root, fixed or random effects, and heteroskedasticity in the case of fixed effects (FE) models.

Testing for Serial Correlation

The presence of serial correlation in panel data was tested using the Wooldridge test for autocorrelation used in panel data. Under this test, the errors were presumed independent across the eight time periods. If the Wooldridge F-statistic were significant at the 5% level, then a correlation between error terms would be inferred. The test results provided in Table 1.4 revealed the following. The F-statistic was 2.97, with a p-value = 0.099 above 0.05, indicating no evidence of first-order autocorrelation.

Table 1. 4: Wooldridge test

H_0: no first-order autocorrelation	**score**
F(1, 22)	2.972
Prob>F	0.099

Testing for Unit Roots

Considering the strongly balanced panels, unit root tests were conducted using the Levin-Lin-Chu approach. Under this approach, the assumption was that all panels contained unit roots, indicating not being stationary. Therefore, a p-value less than 0.05 (5% significance level) would imply stationarity in at least one panel. As shown in Table 1.5, all the variables had very low values, p indicating all data sets were stationary over the eight-year period.

Table 1. 5: Stationarity test results

H_0: Panels contain unit roots		Number of panels	= 23	
Ha: Panels are stationary		Avg. number of periods	= 8	
		Stat.	p-value	Conclusion
Firm value	Unadjusted t	-9.02		
	Adjusted t*	-4.11	.000	Stationary
Manufactured capital reporting	Unadjusted t	-16.8		
	Adjusted t*	-11.1	.000	Stationary

Inferential Data Analysis

The inferential analysis involved testing the direct effects of each integrated reporting variable on the firm value of listed firms that have adopted integrated reporting, followed by a panel multiple regression for model specification.

Direct Effect of Manufactured Capital Reporting on Firm Value

The objective of this research explored the direct effect of manufactured capital reporting on the firm value of listed companies that have adopted integrated reporting. The non-significant Hausman test results ($\chi^2(1) = 3.27$, p=0.070) confirmed the suitability of the RE model for the effect of manufactured capital reporting on firm value (Table 4.7)

Table 1. 6: Hausman Test Results for Manufactured Capital Reporting

	Coefficients		(b-B)	Sqrt(diag(V_b-V_B
	(b)	(B)	Difference	S.E.
	fe	Re		
Manufactured capital reporting	.468	.507	-.039	.022

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(1) = (b-B)'[(V_b-V_B)^(-1)](b-B)

= 3.27

Prob>chi2 =	0.070

The significant Breusch-Pagan LM likelihood ratio (Chibar^2 (01)= 2.59, p= 0.047) confirmed that the time-random effects could not be ignored and that coefficients for all years were not jointly equal to zero. The panel regression coefficients in Table 4.8 indicated that manufactured capital reporting positively and significantly affected firm value (b=0.519, p<0.001). Therefore, a unit increase in manufactured capital reporting was associated with an increase of 0.519 units in firm value. The non-significant year coefficients confirm that none of the years significantly affected firm value at the 5% significance level. However, the decline in firm value in 2022 was marginally significant at the 10% significance level. Variability across firms was relatively low (Sigma_u = 0.047). Approximately 18.2% of the variation in firm value was not explained by either manufactured capital reporting or year effects (Sigma_e = 0.182). Meanwhile, only 6.2% of the total variance in firm value was explained by unobserved effects related to the firms (rho = 0.062).

Table 1. 7: Manufactured capital reporting and firm value

Firm Value	Coef.	Std. Err	z	p>|z|
Manufactured capital reporting	.519	.066	7.83	0.000
YEAR				
2016	-.061	.055	-1.11	0.266
2017	-.022	.054	-.40	0.686
2018	.041	.055	.75	0.452
2019	-.022	.054	-.40	0.691
2020	-.061	.055	-1.11	0.266
2021	-.0001	.054	-0.00	0.998
2022	-.101	.054	-1.86	0.063
Intercept	.324	.046	7.00	0.000
Sigma_u	.047			
Sigma_e	.182			
rho	.062	(fraction of variance due to u_i)		

These results confirm that manufactured capital reporting as an element of integrated reporting holds the potential to unlock the value of listed companies. In essence, firms that adopt and improve their manufactured capital reporting stand to raise the value of their firms. Still, the

non-significant coefficients of the years, albeit with minimal losses, show that firm value in the context of manufactured capital reporting is independent of the temporal variation, which is a new contribution to existing literature. The low rho values imply that firm-specific factors that may not be visible contribute a tiny proportion to the variance in firm value. It is, therefore, prudent to argue that manufactured capital reporting steers firm value in this context.

Through these findings, this study contributes to the new knowledge regarding the minimal contribution of temporal variation and centrality of manufactured capital reporting to drive firm value, reflecting and resonating with other findings in existing discourse. For instance, the findings showing the positive effect of manufactured capital reporting on firm value extend the work of Zaw (2019). In a study conducted in organizations in Australia and New Zealand, Zaw (2019) extensively explored manufactured capital investment disclosures in organization's annual and integrated reports. However, the study failed to enumerate how such disclosures impacted the value of these disclosures. The findings in this study explicitly show that such manufactured capital reports ultimately lead to improved firm value, justifying their disclosure. Moreover, while this study's findings resonate with Akpan et al., (2022), which confirmed the positive effect of manufactured capital reporting on financial performance from a Nigerian securities exchange perspective, this study brings in the firm value dimension that transcends financial performance. Financial performance measures a firm's ability to use assets and generate revenues, while value reflects its economic performance and prosperity through share prices. Therefore, by focusing on firm value, this research increased the scope of existing research. Still, it is worth noting that Akpan et al., (2022) used the OLS regression, which may not have addressed the endogeneity issue in panel data. Using a random effects model, this study ensured that the issue of the idiosyncratic error correlating with the regressor did not arise.

The findings of this study contradict the findings of other existing research. For example, Lambe et al. (2022) used multinational companies listed on the Nigerian stock exchange to demonstrate that manufactured capital reporting had a non-significant inverse effect on financial performance. Two issues are, however, noted that could be attributed to the contradiction. First, these scholars used firm financial performance as the criterion variable, and secondly, they used multiple regression in a study comprising 25 panels (firms). This goes on to show that findings from a study are both variable and methodology-sensitive. The multiple regression approach may not adequately cater to observed firm-specific factors and the between-firm dynamics.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary of Findings

The objective of this study was to establish the effect of manufactured capital reporting on the firm value of listed companies. Panel summary statistics revealed that from 2015 to 2022, manufactured capital reporting measured through fixed assets ratio achieved 46.9% of the expected maximum reporting and ranged between 1.3% and 97.3% across the firms over the eight years. While there were some fluctuations, manufactured capital reporting was consistent

within and between firms listed, following the minimal between-firm and within-firm standard deviations.

The non-significant Hausman test results confirmed the suitability of the RE model for the effect of manufactured capital reporting on firm value. Meanwhile, the significant Breusch-Pagan LM likelihood ratio confirmed that the time-random effects could not be ignored and that coefficients for all years were not jointly equal to zero. The study found that manufactured capital reporting positively and significantly affects firm value, with a unit increase in reporting resulting in a 0.519 unit increase in firm value. No significant year effects were found at the 5% significance level, but a decline in firm value in 2022 was marginally significant at the 10% level. Variability across firms was low, with 18.2% of variation not explained by manufactured capital reporting or year effects and only 6.2% of total firm value variance explained by unobserved effects.

Conclusions

Robust, manufactured capital reporting practices play a critical role in value creation by influencing firm value positively and significantly. The minimal within and between firm standard deviations confirm that listed firms exhibited consistency in manufactured capital reporting within and between firms from 2015 to 2022. The Breusch-Pagan LM likelihood ratio was significant, underscoring the need to factor in the potential contribution of time-random effects. However, individual year effects were not jointly equal to zero. Consistent and elaborate manufactured capital reporting transcends unobserved effects and remains a key driver of firm value. Improving manufactured capital reporting is a strategic lever through which listed firms can increase their value amid minimal variations in economic conditions.

Recommendations of the Study

Firms listed on the NSE should take advantage of the positive influence of manufactured capital reporting on firm value to strengthen strategies for manufactured capital reporting. The reported consistency within and between firm manufactured capital reporting should compel firms to maintain and modify practices used in manufactured capital reporting to file comprehensive and robust reports. Moreover, listed firms should prioritize manufactured capital reporting in the knowledge that it is safe for minimal effects of non-observable firm-specific factors, and they are likely to boost their market valuation.

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