Global Journal of Management and Business Research: C
Finance
Volume 25 Issue 1 Version 1.0 Year 2025
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Temporal Dynamics of Internal Financing on Financial Performance within a Corporate Governance-Sustainability Framework. Evidence from Listed Real Sector Non-Financial Firms at the Nairobi Securities Exchange (NSE)

By Akali James Agembe, Dr. Francis Nyarombe & Prof. Christopher Ngacho
Kisii University

Abstract- There is growing recognition of the central role corporate governance plays in providing specialized services that align firms towards accountable and transparent financial practices. What is not clear, however, is the conditional effect of corporate governance on the causal link involving internal financing and financial performance. Therefore, this study exploits the principles underlying the Agency and Pecking Order Theories to probe how corporate governance conditions the effect of retained earnings, a popular internal financing source, on the financial performance of real-sector non-financial firms listed at the Nairobi Securities Exchange (NSE). The study employs a causal-explanatory design that targets 51 real-sector non-financial firms listed at the NSE. A sampling frame defined for the period 2016 to 2022 inclusive is used to identify 42 firms with complete and suitable financial records that constituted the secondary data.

Keywords: internal financing, corporate governance, financial performance, retained earnings, sustainability framework.

GJMBR-C Classification: JEL Code: G30, G32

Strictly as per the compliance and regulations of:

Temporal Dynamics of Internal Financing on Financial Performance within a Corporate Governance-Sustainability Framework. Evidence from Listed Real Sector Non-Financial Firms at the Nairobi Securities Exchange (NSE)

Akali James Agembe [α], Dr. Francis Nyarombe [σ] & Prof. Christopher Ngacho [ρ]

Abstract- There is growing recognition of the central role corporate governance plays in providing specialized services that align firms towards accountable and transparent financial practices. What is not clear, however, is the conditional effect of corporate governance on the causal link involving internal financing and financial performance. Therefore, this study exploits the principles underlying the Agency and Pecking Order Theories to probe how corporate governance conditions the effect of retained earnings, a popular internal financing source, on the financial performance of real-sector non-financial firms listed at the Nairobi Securities Exchange (NSE). The study employs a causal-explanatory design that targets 51 real-sector non-financial firms listed at the NSE. A sampling frame defined for the period 2016 to 2022 inclusive is used to identify 42 firms with complete and suitable financial records that constituted the secondary data. After running the relevant diagnostic tests, retained earnings had a positive and significant direct effect on financial performance ($b=0.653$, $p<0.001$). This effect, however, diminishes on introducing corporate governance. The interaction between retained earnings and corporate governance was positive and significant ($b=0.263$, $p<0.05$), an indication that corporate governance strengthened the dynamics of internal financing on financial performance. However, on its own, corporate governance impacted financial performance negatively, showing that embracing corporate governance may be counterproductive in the short term, depending on the firm's context. This study concludes that sustainable financial performance among real-sector firms is conditional on strong corporate practices infused within internal financing mechanisms. For long-term causality, future research should endeavor to use dynamic panel models.

Keywords: internal financing, corporate governance, financial performance, retained earnings, sustainability framework.

I. Introduction

In recent times, the concept of corporate financing has transcended the hitherto traditional focus on capital cost and profitability. Questions are now emerging questioning the potential contributions of internal financing options available to firms, such as retained earnings, towards sustainability within the corporate governance framework, a reflection of the emerging need for responsible financing alongside efficiency (Zhang & Chen, 2017). In a sustainability landscape that favours flexible and autonomous financing decisions, retained earnings have emerged as a fitting internal funding source across firms. Evidence highlights the advantages, such as minimal environmental risks and maintenance of internal control, associated with funds acquired from retained earnings as opposed to funds accrued from debt or equity (Akhtar et al., 2021). Moreover, scholars posit that strong governance is the impetus that internal financing across firms requires for sustainability, given its potential to impact accountable and strategic reinvestment mechanisms (Herman & Zsido, 2023).

However, it is also important to acknowledge the dynamism that occurs in the relationship between internal financing and financial performance across non-financial firms. Studies, mostly employing econometric models, have demonstrated the temporal nature of such relationships, requiring that they are given ample time to evolve (Rijanto, 2018). Yet, not much evidence has been shared to show how the link between retained earnings as an internal funding source and financial performance is moderated by the quality of governance, particularly when the temporal variations are factored. Retained earnings as an internal mode of financing are particularly pertinent to firms in the Sub-Saharan Africa region. In most cases, firms in this region are constrained by their sizes and the sectors in which they operate, and are, as such, often excluded from capital markets, leaving retained earnings as the only viable source of financing (Wambua & Ariemba, 2018).

Still, research continues to show that the implications of retained earnings for firms in the region may vary depending on factors such as the period, the nature of the firm, and the specific sector. For instance, in a study conducted in manufacturing firms drawn from the Kenyan context, it was demonstrated that whereas retained earnings impacted financial performance positively, firms that had been in operation longer and had better internal controls outperformed newer firms (Oganda et al., 2020). Similarly, evidence from Morocco revealed that despite leveraging retained earnings, firms would need to re-look at governance quality in order to

Corresponding Author α: Department of Accounting & Finance, Kisii University. e-mail: James.akali@gmail.com
Author σ: Lecturer in Accounting & Finance, Kisii University. e-mail: Kisiiuniversity.ac.ke
Author ρ: Associate Professor in Operations Management, Kisii University. e-mail: Kisiiuniversity.ac.ke

maximize the effectiveness of such funding (Amarhyouz & Azegagh, 2025).

In Kenya, despite the evolving policy infrastructure seeking to align listed non-financial firms with corporate sustainability, most of these firms, especially from the real sector, rely mainly on internal borrowing. This is notwithstanding the fact that shifts in regulations for capital markets advocates for external borrowing through transparency and environmental, social, and governance (ESG) disclosure (Akenga & Mukaria, 2020). Compelling evidence from the Kenyan listed non-financial firms' context points to factors such as investment strategies, internal governance, multiple operational years, and consistent reporting as critical to the eventual effectiveness of retained earnings as a source of internal funding (Agembe, 2024; Oganda et al., 2022).

Although sufficient interest among scholars focuses on internal financing solutions that leverage retained earnings, most of the studies ignore the temporal and firm-specific nature of the effectiveness of retained earnings. While econometric models have attempted to explore internal financing across diverse African contexts, they have largely failed to account for the governance–sustainability angle. Understanding the conditional effect of corporate governance on the temporal dynamics of internal financing and financial performance across listed real sector non-financial firms remains a gap whose resolution can guide financial strategy across these firms, particularly in an ensuing sustainability framework. Retrospectively, this study fills this gap by employing the panel econometric framework to explore how the effect of internal financing, facilitated through retained earnings, on the financial performance of real sector non-financial firms is conditioned by corporate governance.

II. Literature Review

a) *Theoretical Underpinnings*

This study was anchored in the Pecking Order and Agency Theories. The Pecking Order Theory proposed by Myers and Majluf was particularly relevant for this study due to its lineage towards internal financing, believing that optimal allocation of internal funds, such as retained earnings, ultimately allows for sustained performance, devoid of investor scrutiny and information asymmetry issues (Zhang & Chen, 2017). Therefore, in an emerging market such as Kenya, the relevance of the pecking order theory in the link between internal financing and financial performance is strengthened by the over-reliance on retained earnings among firms to oversee operational and expansion obligations.

In contrast, Agency Theory as an anchor to this study brought the requisite balance that would mitigate internal funding risks, most significantly, the potential for managerial opportunism. The theory subtly references strong governance as an avenue to suppress free cash flows likely to arise from accumulation of retained earnings (Ghofar et al., 2022). Therefore, by leaning towards the Agency Theory, this study took cognizance of the understanding that corporate governance could offer a conditioning effect that would maximize ethical and strategic use of retained earnings to occasion satisfactory financial outcomes across the firms (Herman & Zsido, 2023).

b) *Internal Financing and Financial Performance*

Scholars have been showing growing interest towards the question of how internal funding sources, such as retained earnings, have been contributing towards firm performance and its sustainability among non-financial firms. Among scholars who have shown such interest includes Oganda et al (2022). These scholars demonstrated that in manufacturing firms, financial performance, proxied through ROA, was influenced by retained earnings. Similarly, Agembe et al. (2024) employed the fixed effects model within the panel regression approach to demonstrate the significant effect of retained earnings on financial performance, particularly among firms with strategic reinvestment policies.

Despite the above studies adding weight to traditional beliefs highlighted in the pecking order theory advocating for internal findings towards financial performance, the universality of such beliefs has, however, been questioned by other scholars. For instance, from industrial firms in the Indonesian context, evidence suggested that retained earnings only impacted profitability positively in firms that paired them with other proactive capital strategies (Ryanto, 2018). Similarly, using firms drawn from North Africa, Amarhyouz and Azegagh (2025) showcased the non-significant effect of retained earnings on financial performance in firms without strong governance structures.

Given such inconclusive findings relating retained earnings to financial performance, together with failure to consider sectoral variations, we question the viability of internal sources of financing to impact financial performance across listed real sector non-financial firms in Kenya over time. We therefore postulate thus:

$H_0 1$: Performance of Kenya's listed real-sector non-financial firms is independent of retained earnings.

c) *The Moderation Potential of Corporate Governance*

The context of the Agency Theory has triggered interest among scholars on the potential of corporate governance to moderate the influence of a firm's internal financing and its financial performance. Scholars reference the agency conflict prospect that retained earnings can cause, especially if managerial interests differ from stakeholders' interests, to champion the moderating potential of corporate governance by halting the misuse of funds generated within firms.

For instance, using listed firms drawn from Morocco's bourse, commonly known as the Casablanca Stock Exchange (CSE), Amarhyouz and Azegagh (2025) highlighted the conditional influence of governance systems in the nexus between retained earnings and financial performance of the firms. They established that firms with weak governance structures often failed to transform retained earnings into sustainable tangible gains. Using SMEs drawn from the European context, Herman and Zsido (2023) also raised the possibility of corporate governance moderating the relationship between internal financing and firms' financial performance. They concluded that governance tended to condition financing efficiency, having observed that firms with strong governance structures posted better financial performance outcomes. Similar findings showing moderating potential of corporate governance were demonstrated by Kamau et al. (2023). Using firms listed at the Nairobi Securities Exchange (NSE), they demonstrated that firms with strong governance systems were able to maximize sustained profitability by minimizing misuse of retained earnings.

Yet, even with the significant evidence showing the role that corporate governance can play in the link between internal financing and financial performance, empirical research has in recent times posted contradictory findings. For instance, Nzau (2021) used a master's dissertation focusing on listed manufacturing firms in Kenya to show that governance structures may not be enough to mitigate management and insider control. Similarly, in panel data approach research involving three countries, Ghana, Nigeria, and Kenya, Okyere and Fidor (2021) demonstrated that moderation of the influence of internal funding on financial performance by corporate governance was not explicit. The moderating potential of corporate governance has also been called to question by Dawuah (2024), who reckoned that the diverse governance proxies often employed in studies fail to show the contribution that power dynamics taking place in African firms make to corporate governance. Collectively, the existing research does not provide a conclusive picture regarding the potential for corporate governance to moderate the relationship between internal financing and firm performance. The contradictory findings imply that the moderating effect of corporate governance on the relationship between retained earnings and financial performance in the context of Kenya's listed real-sector non-financial firms needs not be assumed but should be tested empirically. Therefore, we postulate that

> *$H_0$2:* Corporate governance does not significantly moderate the effect of retained earnings on financial performance across listed real-sector non-financial firms in Kenya.

III. Methodology

a) *Research Design*

This study adopted a causal-explanatory design, which, as noted by Dudovskiy (2012), seeks to establish the extent and nature of cause-and-effect relationships. In retrospect, the design was used to explain the effect that retained earnings have on financial performance and how corporate governance influences this cause-effect relationship. A longitudinal panel data structure was employed to examine the temporal and sector-specific effects. Grill (2017) observes that the longitudinal panel data structure enables determination of temporary and lag structure effects while controlling for unobserved heterogeneity.

b) *Target Population and Sampling*

The study targeted real-sector non-financial firms listed at the NSE as of 2016. Therefore, a target population of 51 non-financial firms drawn from sectors such as manufacturing, construction, energy, and agriculture was identified through a reconnaissance study conducted at the Bourse. The sampling frame was defined as the period spanning 2016-2022. Because of the countable nature of these real-sector firms, a census survey was used to identify them.

c) *Data Sources and Ariable Operationalization*

Data sources were mainly secondary and included annual reports and annual statements of the respective firms, downloaded from the company websites and the Capital Markets Authority (CMA) databases. Three variables were central to this study. Financial performance (FP) was the dependent variable, retained earnings (RE) was the independent variable, and corporate governance (CG) was the moderator. Considering the different units of measurement where FP was measured in percentage, RE in Kenya shillings, and CG in number of individuals, the logarithmic transformation was used to operationalize the variables, yielding results in Table 1.

Table 1: Variable Operationalization

Study Variable	Initial measure	Absolute measure	Operational variable
Financial Performance (FP)	Percentage	$\lvert FP \rvert$	Ln$\lvert FP \rvert$
Retained Earnings (RE)	Kenya Shillings (Ksh)	$\lvert RE \rvert$	Ln$\lvert RE \rvert$
Corporate governance (CG)	Number of individuals	$\lvert CG \rvert$	Ln$\lvert CG \rvert$

d) Model Specification

Andrew Hayes' moderation model 1 was used to establish both the baseline and moderation model.

Therefore, Figure 1 gives the conceptual form of the model with Figure 2 giving the statistical form employed.

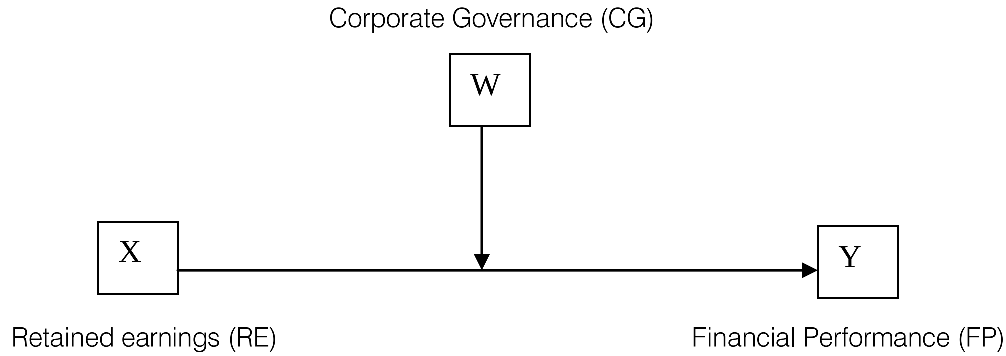

Figure 1: Conceptual Form

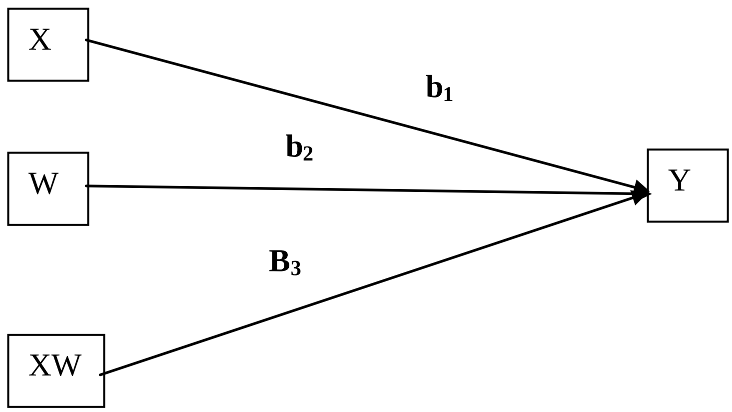

Figure 2: Statistical Form

The baseline model involving the direct effects only was therefore specified as presented in equation 1.

$$FP_{it} = b_0 + b_1 RE_{it} + \mu_i + \varepsilon_{it} \qquad \text{Equation 1}$$

Where

FP_{it} = Financial performance for the ith firm in the year t
RE_{it} = Retained earnings for firm i in the year t
μ_i = Unobserved firm–specific effects
ε_{it} = Error term representing unexplained firm-specific and time oriented variations

Meanwhile, the moderation model, involving the effects of retained earnings, corporate governance, and the interaction between retained earnings and corporate governance was specified as presented in equation 2.

$$FP_{it} = b_0 + b_1RE_{it} + b_2CG_{it} + b_3 (RE_{it} * CG_{it}) + \mu_i + \varepsilon_{it} \qquad \text{Equation 2}$$

Where RE_{it} * CG_{it} represented the conditional effect of corporate governance on retained earnings as a form of internal financing.

IV. Results

a) Descriptive Statistics

After cleaning the data by omitting firms with incomplete data and unsuitable financial reports, data for 42 firms were processed and analyzed with the help of the Stata Version 15 software, suitable for panel data analysis. The descriptive statistics presented in Table 2 revealed the following. Basing on LnFP, firms were on average relatively profitable, with the standard deviation suggesting heterogeneity in financial performance outcomes, which corroborated the need to explore firm-specific variations. With the mean score of 0.77, the InRE results reflected positive retained earnings among most of the firms. However, the high variance implicit in the standard deviations referenced a potential for the differential effect of retained earnings on financial performance. The small variance in corporate governance (*SD=0.82*) justified its use as a moderator given its stability.

Table 2: Descriptive Statistics

Variable	Observations	Mean	Std. Dev.	Min	Max
LnFP (Log of Financial Performance)	294	2.37	1.42	-2.21	8.16
LnRE (Log of Retained Earnings)	294	0.77	1.73	-4.61	4.51
LnCG (Log of Corporate Governance)	294	2.18	0.82	0.09	7.16

b) Diagnostic Tests

Diagnostic tests were conducted to test for multicollinearity, unit root, and whether to use the fixed effects (FE) model was indeed suitable. To test for multicollinearity, variance inflation factors (VIFs) were used. Both the transformed retained earnings (lnRE) and corporate governance (lnCG) had VIF values of 1.05, indicating adequate statistical independence among the two variables, and justifying their inclusion in the same model. Meanwhile, the panel data was unbalanced across firms. Therefore, the Fisher test was used to test for unit root or stationarity in the transformed financial performance, retained earnings, and corporate governance variables. Results presented in Table 3 confirm that all three variables were devoid of unit roots and were stationary across panels.

Table 3: Unit Root Test Results

H0: All panels contain unit roots			Number of panes	= 42
Ha: At least one panel is stationary			Avg. number of periods	= 6.95
			Stat.	p-value
Ln FP	Inverse chi-squared (84)	P	208.3	0.0000
	Inverse normal	Z	-4.334	0.0000
	Inverse logit L*	t(214)	-5.991	0.0000
	Modified inv. Chi-squared	Pm	9.589	0.0000
Ln RE	Inverse chi-squared (84)	P	149.882	0.0000
	Inverse normal	Z	-3.481	0.0002
	Inverse logit L*	t(214)	-3.983	0.0000
	Modified inv. Chi-squared	Pm	5.083	0.0000
Ln CG	Inverse chi-squared (84)	P	150.365	0.0000
	Inverse normal	Z	-2.347	0.0095
	Inverse logit L*	t(144)	-5.053	0.0000
	Modified inv. Chi-squared	Pm	5.120	0.0000

The final diagnostic test run was the Hausman test aimed to identify whether the fixed (FE) panel data model was an ideal one for this research. Results of the Hausman tests ($\chi^2(2)$ = 22.44, p=0.000) presented in Table 4 confirmed that data exhibited firm-specific heterogeneity requiring the use of the FE model which is capable of controlling for firm-specific aspects that could be time-invariant.

Table 4: Hausman Test Results

Variable	FE Coefficient (b)	RE Coefficient (B)	Difference (b-B)	S.E. of Difference
LnRE (Log of Retained Earnings)	0.6509	0.5701	0.0808	0.0187
LnCG (Log of Corporate Governance)	-1.1139	-0.7530	-0.3608	0.3848
$Chi^2(2)$ = 22.48				
p-value = 0.0000				

V. Regression Results

a) *Direct Effects*

The Panel FE regression was therefore run to determine the baseline model. The regression output (Table 5) revealed the following results: Retained earnings had a positive and highly significant effect on financial performance (b_1=0.653, t=13.32, p<0.001), such that a unit percentage increase in retained earnings led to a 0.653 percentage increase in financial performance. The statistical power of retained earnings was strong as indicated by a t-value of 13.32. The rho value of approximately 0.682 implies that close to 68% of the variance in financial performance was a result of firm-specific factors that may not have been observed, including but not limited to management quality, organizational culture, and operational strategy among others.

Table 5: Direct Effects of Retained Earnings on Financial Performance

Ln FP	Coef.	Std. Err	t	p>|t|
Ln RE	0.653	0.049	13.32	0.000
Intercept	1.506	0.055	27.33	0.000
R-sq	0.1715			
rho	0.682			

b) *Moderation Effects*

The panel FE model was again used to test the moderation effect with corporate governance interaction. Results presented in Table 6 confirmed the following. On introducing corporate governance, retained earnings had no significant effect on financial performance across the firms in questions (b_1=0.115, t=0.47, p=0.636). Standing alone, corporate governance had a negative but significant effect on financial performance (b_2=-1.321, t= -2.66, p = 0.008). Corporate governance positively and significantly moderated the relationship between retained earnings and financial performance (b_3 = 0.263, t = 2.26, p = 0.025).

Table 6: Moderation Effects of Corporate Governance

Ln FP	Coef.	Std. Err	t	p>|t|
Ln RE	0.115	.242	0.47	0.636
Ln CG	-1.321	0.497	-2.66	0.008
LnRE*LnCG	0.263	0.116	2.26	0.025
Intercept	4.186	1.022	4.10	0.000
R-sq	0.1755			
rho	0.697			

Therefore the moderation model involving corporate governance in the relationship between retained earnings and financial performance was as presented in equation 3.

$$FP_{it} = 4.186 + 0.115\, RE_{it} - 1.321CG_{it} + 0.263(RE_{it} *CG_{it}) + \mu_i + \varepsilon_i \qquad \text{Equation 3}$$

VI. Discussion of Findings

The purpose of this study was to explore the time and firm-specific dynamics of internal financing referenced through retained earnings, and the role it plays in the financial performance of real sector non-financial firms listed at the NSE, under the conditioning of corporate governance. Using the fixed effects panel regression, the study first revealed that retained earnings positively and significantly directly impacted financial performance. In doing so, the study resonated with previous findings showing that in underdeveloped capital markets contexts, firm resilience alongside ambitious investment were facilitated by internal financing (Essel, 2025).

Moreover, by depicting retained earnings as critical buffers for real sector non-financial firms in current uncertain business environments, these results align with the Pecking Order Theory ideals of internal funds as an avenue for control retention. Indeed evidence shows that firms trading at the NSE used retained earnings to maintain stability in the post Covid-19 years (Kamau & Murori, 2024). This study however, also revealed that in the presence of corporate governance and the interaction term, the effect of retained earnings on financial performance was not statistically significant, indicating the importance of the firm context in maximizing retained earnings.

Using the fixed effects panel regression, the study also revealed a significant interaction term, an indication that corporate governance moderated the effect of retained earnings on financial performance of real sector non-financial firms. In this moderation, the effect of retained earnings on financial performance was increased by robust corporate governance structures. Therefore, the study joins other studies such as Bawuah (2024) and Nguyen et al. (2024) in showing that corporate governance links with internal capital to enhance financial decisions and ultimately yield improved financial outcomes. Besides moderating the effect of retained earnings on financial performance among the firms in question, this research reinforces the Agency Theory's assertion that efficiency in resource allocation, a key element of financial performance, is enhanced through governance mitigation of managerial opportunism (Onjewu et al., 2023).

The paradox in this study was that corporate governance had a negative yet substantial effect on financial performance in the moderation model. However, this conclusion is consistent with suggestions that early-stage corporate governance may hinder short-term profitability, particularly in emerging economies (Amarhyouz & Azegagh, 2025). Additionally, the pace in form of governance reforms is not matched by enforcement in the Kenyan context. Research has shown that the hybrid regulatory nature of the environment in which the NSE-listed companies operate requires informal control approaches that are not supportive of formal governance (Anyanzwa, 2023; Rosana 2024).

Meanwhile, the study demonstrated temporal and firm-specific dynamics. For example, the lagged impacts shown by retained earnings have been linked to accumulating capital reserves (Fernando, 2025). Besides, the moderation model's non-significant influence on retained earnings highlighted the temporal dependency on the evolution of governance systems. The essence being that given time, improvement in governance structures would lead to better use of retained earnings. The strong rho output in the moderation model approximating 0.70, vindicated the existence of firm-specific dynamics, showing a high proportion of variance in financial performance attributed to unobserved firm-specific factors.

Through the reported and discussed findings, this study highlighted several practical implications and made critical contributions to existing knowledge. Firstly, the study underscored the need for firm managers and other stakeholders to strengthen governance structures, knowing clearly that retained earnings on their own may fall short in securing financial performance. Secondly, the study findings challenge policy makers and industry regulators to not only strengthen corporate governance among real-sector non-financial firms listed at the NSE, but also enforce them in order to tap into internal financing for long term sustainability. Meanwhile, investors ought to take cognizance of sustainable practices by integrating ESG principles alongside internal funding.

The study contributes to existing knowledge by, among other ways, showing that corporate governance is not only a variable in study contexts but also stands as a force in moderation. The study also shows that scholars and firms seeking to exploit internal funding for future financial gains, may do so by integrating internal financing decisions with governance quality. Moreover, the study adds the knowledge that use of fixed effects models loaded with temporal considerations is a sure way of avoiding the dangers of spurious correlations and endogeneity often panel data studies.

VII. Conclusion

Internal financing engages financial performance of listed real sector non-financial in a dynamic but far from linear relationship. The relationship is inundated with varying terrains, including firm maturity, governance structure enforcement, and intra-and inter-firm dynamics only observable with time. Therefore, application of internal funding mechanisms in emerging markets may not feasibly be undertaken from a universal standpoint, but rather through a conditional lens provided by corporate governance. Suffice to say, however, secondary data, though useful in such econometric studies, fail to capture corporate governance exhaustively, missing out on qualitative aspects. Besides, the robust nature of the FE model may not guarantee long term dynamic interactions lasting beyond the seven year study period designed for this study.

Conflicts of Interest

The authors declare no conflicts of interest.

References Références Referencias

1. Agembe, A.J. (2024). Granger Causality Model of Retained Earnings and Financial Performance of Non-Financial Firms Listed on the Nairobi Securities Exchange (NSE), Kenya. *European Scientific Journal, ESJ*, 20 (16), p.95. doi: https://doi.org/10.19044/esj.2024.v20n16p95
2. Agembe, A. J., Chesoli, J. W. and Ngacho, C. (2024). The Relationship between Retained Earnings and Financial Performance of Listed Non-Financial Firms: An Econometrics Examination. *Journal of Finance and Accounting*, 8 (7), pp.64–75. doi: https://doi.org/10.53819/81018102t4285
3. Akenga, G. M. and Mukaria, H. K. (2020). Internal Financing and Shareholder Wealth Maximization of Firms Listed At the Nairobi Securities Exchange. *Journal of Environmental Sustainability Advancement Research (JESAR*, 6, pp.34–42).

4. Akhtar, M., Yusheng, K., Haris, M., Ain, Q.U. and Javaid, H.M. (2021). Impact of financial leverage on sustainable growth, market performance, and profitability. *Economic Change and Restructuring*, 55 (2). doi: https://doi.org/10.1007/s10644-021-09321-z
5. Amarhyouz, A. and Azegagh, J. (2025). Financial Performance of Moroccan Listed Companies: A Multidimensional Analysis of Internal, Macroeconomic, and Institutional Determinants Using Dynamic Panel Data. *Qubahan Academic Journal*, 5 (2), pp.402–419. doi: https://doi.org/10.48161/qaj.v5n2a1528
6. Anyanzwa, J. (2023). *A quarter of NSE listed firms have negative working capital*. [online] The East African. Available at: https://www.theeastafrican.co.ke/tea/business-tech/a-quarter-of-nse-listed-firms-have-negative-working-capital-4268210 [Accessed 2 Jul. 2025].
7. Bawuah, I. (2024). The moderator role of corporate governance on capital structure-performance nexus: Evidence from Sub-Saharan Africa. *Cogent Business & Management*, 11 (1). doi: https://doi.org/10.1080/23311975.2023.2298030
8. Dudovskiy, J. (2012). *Causal Research (Explanatory research) - Research-Methodology*.[online] Business Research Methodology. Available at: https://research-methodology.net/causal-research/.
9. Essel, R. E. (2025). Financial Management Practices and Corporate Performance in an Emerging African Capital Market: A Moderation Analysis. *Journal of African Business*, pp.1–44. doi: https://doi.org/10.1080/15228916.2025.2505359
10. Fernando, J. (2025). *Understanding Retained Earnings*. [online] Investopedia. Available at: https://www.investopedia.com/terms/r/retainedearnings.asp
11. Ghofar, A., Muhammad, M., Rasli, A., Narullia, D. and Prestianawati, S.A. (2022). An investigation into factors affecting corporate risk management in ASEAN-4 countries. *Cogent Business & Management*, 9 (1). doi: https://doi.org/10.1080/23311975.2022.2135204
12. Grill, C. (2017). Longitudinal Data Analysis, Panel Data Analysis. *The International Encyclopedia of Communication Research Methods*, pp.1–9. doi: https://doi.org/10.1002/9781118901731.iecrm0134.
13. Herman, E. and Zsido, K.-E. (2023). The Financial Sustainability of Retail Food SMEs Based on Financial Equilibrium and Financial Performance. *Mathematics*, [online] 11 (15), p.3410. doi: https://doi.org/10.3390/math11153410
14. Kamau, C. G. and Murori, C. K. (2024). Pre- and Post-Covid Analysis of Earnings Management and Financial Distress among Nairobi Securities Exchange-Listed Firms. *South Sahara Multidisciplinary Journal*, 2 (1), pp.31–48. doi: https://doi.org/10.61250/ssmj/v1.i2.3
15. Kamau, C. G., Oyoti, R. and Muzungu, B. K. (2023). Effect of Corporate governance on Financial Distress among the Firms Listed at Nairobi Securities Exchange. *South Sahara Multidisciplinary Journal*, 1 (1), pp.1–7. doi: doi:%2010.61250/ssmj/v1.i1.1.
16. Nguyen, Q.M. and Nguyen, C.V. (2024). Corporate governance, audit quality and firm performance – an empirical evidence. *Cogent economics & finance*, 12 (1). doi: https://doi.org/10.1080/23322039.2024.2334128
17. Nzau, S. K. (2021). *Effect of Ownership Structures on Financial Performance of Listed Manufacturing Firms in Kenya*. Masters Dissertation. pp. 1–90.
18. Oganda, A. J., Museve, E., and Mogwambo, V. A. (2020). Analysis of retained earnings financing on financial performance of listed manufacturing and allied firms: A dynamic panel approach. *International Journal of Economics, Commerce and Management*, 10 (2), pp.37–62.
19. Okyere, S.A., Fiador, V. and Sarpong-Kumankoma, E. (2021). Earnings management, capital structure, and the role of corporate governance: Evidence from sub-Saharan Africa. *Managerial and Decision Economics*, 42 (6), pp.1525–1538. doi: https://doi.org/10.1002/mde.3324
20. Onjewu, A.-K.E., Walton, N. and Koliousis, I. (2023). Blockchain agency theory. *Technological Forecasting and Social Change*, [online] 191, p.122482. doi: https://doi.org/10.1016/j.techfore.2023.122482
21. Rijanto, A. (2018). Innovation Driven Enterprise, Sustainable Business and Firm Financial Performance. *The Asian Journal of Technology Management (AJTM)*, 11 (1), pp.10–25. doi: https://doi.org/10.12695/ajtm.2018.11.1.2
22. Rosana, D.M. (2024). Financial Structure Annual Volatility, Stock Liquidity, and Ordinary Equity Security Returns of Public Limited Companies in Kenya. Doctoral Thesis. pp. 1–236.
23. Wambua , M.M. and Ariemba, J. (2018). Effect of Capital Structure on Financial Sustainability of Deposit-Taking Microfinance Institutions in Kenya. *Business, Management and Economics Research, Academic Research Publishing Group*, [online] 4(1), pp.1–10. Available at: https://ideas.repec.org/a/arp/bmerar/2018p1-10.html
24. Zhang, K. Q. and Chen, H. H. (2017). Environmental Performance and Financing Decisions Impact on Sustainable Financial Development of Chinese Environmental Protection Enterprises. *Sustainability*, 9 (12), p.2260. doi: https://doi.org/10.3390/su9122260