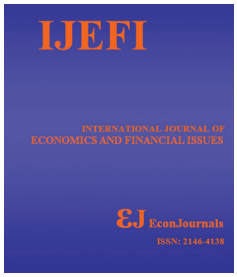

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Monitoring Intensity, Institutional Shareholders, and Earnings Manipulation Engendered Accounting Scandal: The South African Perspective

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ABSTRACT

This study determines the extent to which loosening institutional shareholder monitoring intensity induces earnings management, thereby leading to accounting scandals. When there is intense monitoring of the corporate executives, their opportunistic tendencies would be prevented, and corporate decisions would align with the value-creation target. The study postulates that institutional shareholders' relaxed monitoring role positively and significantly impacts earnings management. The more robust Two-Step System GMM was used to analyse the collected data of companies listed on the Johannesburg Stock Exchange (JSE) for 15 years from 2004 to 2019. The finding revealed that slack institutional shareholders' control affects earnings management positively.

Keywords: Monitoring Intensity, Earnings Management, Accounting Scandal, Institutional Shareholder, Corporate Governance
JEL Classification: G34

1. INTRODUCTION

Accounting scandals constantly attract general interest due to their adverse effects on the trust the public has in relevant institutions like stock markets, auditors, bankers, and corporate managers (Ruiz, 2016; Sanders et al., 1996). The aftermath of earnings management can be seen in previous scandals like Enron and Parmalat (Wu, 2010) and recent instances like Pescanova, Gowex, Steinhoff International, and Tongaat Hallett. However, earnings management appears problematic despite various corporate governance mechanisms (Man and Wong, 2013). Previous research works such as Bansal (2021), Gull et al. (2018), and Badolato et al. (2014) have examined diverse corporate governance methods that can impact earnings management negatively. These include board independence which tends to exert control over manager's opportunistic behavior, female directors with characteristics of leadership trust, demand information sharing from the managers, and risk-averse to earnings manipulations and fraud, an audit committee with strong oversight of internal control, quality financial information, and financial reporting, and financial expert director to increase checks on earnings management. By examining the direct impact of distraction on institutional shareholders' level of monitoring, which is a crucial aspect of corporate governance, this study contributes to the body of knowledge on corporate governance.

Institutional shareholders play a growing predominant role in the stock market globally. Typically, they own above 60% of outstanding shares in each company (Yin, 2018b; Zeng, 2016). The worth of their investment in developed capital markets such as the New York Stock Exchange (NYE), NASDAQ stock exchange, and London Stock Exchange is enormous and significant. In the US equity stock market and the UK (London stock market), they own 80% and 62% respectively (Interactive, 2017; Segerstrom, 2020). Likewise, emerging markets such as the Johannesburg Stock Exchange (JSE) in South Africa, hold 67%

of the JSE listed equities market (including foreign and domestic institutional shareholders) (Treasury, 2017). In terms of assets under management (AUM), institutional shareholders managed $155.8 billion in total as of the end of June 2020 (Glow, 2020). Therefore, compared to individual shareholders, they have the incentive (largeness of their investment) to monitor their investee companies to ensure that business decisions add value to the company (Jabeen and Ali, 2017; Stein and Zhao, 2016). It has been established in the literature that if institutional shareholders effectively utilize their position and monitor executive decisions, they will be able to stop executive opportunistic tendencies (Bharath et al., 2013; Cheung et al., 2021; Edmans and Manso, 2010; Jabeen and Ali, 2017).

Furthermore, the corporate governance guidelines documented in the King Report in South Africa, specifically principle 17 in the recent King IV report indicate that institutional shareholders must ensure that firm operations vis-a-vis business decisions should reflect good corporate governance and the creation of firm value (Governance and King, 2016; Mans-Kemp and Zyl, 2021). But, the majority of South African institutional shareholders openly support responsible investment but in fact, their responses to changes to corporate policies that have implications on the firm's value are often perfunctory (Feront and Bertels, 2021; Mans-Kemp and Zyl, 2021). Therefore, it will be expected that, with an incentive to monitor and sound corporate governance framework, institutional shareholders should effectively ensure the alignment of executive decisions with firm value. However, this seems not the case as evidenced by South Africa's recent accounting scandals that affect some of JSE listed companies (Steinhoff international scandal 2017, Tongaat Hullett scandal 2018, VBS Bank Scandal 2018, EOH Holdings scandal 2018, and Sasol LCCP scandal 2019) (Obagbuwa et al., 2021). This stimulates a debate as to the effectiveness of the monitoring duty of institutional stockholders. Hence, the question of why institutional shareholders' monitoring failed to discover executive activities such as earnings manipulations before resulting in scandals becomes prominent (Obagbuwa et al., 2021). Is it that their attention is limited? In other words, are they distracted? Research studies confirmed that institutional shareholders' attention can be limited when they are distracted thereby reducing their monitoring intensity (Garel et al., 2021; Kempf et al., 2017b; Obagbuwa et al., 2021). This paper's purpose is to establish the distraction effect on institutional shareholders' monitoring intensity as it relates to earnings management.

The study contributes to the literature by evaluating the linkage between institutional shareholders' distraction to the Johannesburg Security Exchange (JSE) listed firms' earnings management. The paper explores an emerging market-South Africa as existing research studies centered on developed economies. Because South Africa's managerial market is still emerging, the research suggests that understanding how managers react to reducing monitoring intensity could help to improve corporate governance and promote continuous value creation in JSE-listed companies. In addition, the analysis was conducted using a more robust generalized method of moments (GMM). It's a dynamic estimator that effectively addresses heteroscedasticity, serial correlation, and cross-sectional dependence, making it more consistent than static models (OLS, fixed effects, and random effects) (Arellano and Bond, 1991; Blundell and Bond, 1998; Tripathi and Leitão, 2013). As far as we know, earlier related studies have used static models for their analysis.

The remaining sections of the study are organized as follows. In Section 2, a summary of the empirical literature is provided. The method is laid forth in Section 3. Section 4 presents the findings. A discussion of the empirical results can be found in Section 5. The investigation results are described in Section 6.

2. REVIEW OF LITERATURE

2.1. Impact of Monitoring Intensity on Corporate Decisions

The influence of effective shareholder oversight on corporate decisions has been discussed extensively in the literature. For instance, a large dynamic shares holding leads to increased firm value evaluated through stock returns and operations performance (Bethel et al., 1998; Yin, 2018a). Kang and Shivdasani (1995) found that when institutional shareholders hold majority shares, management average turnover rises, and managers with poor performance are under pressure to deliver. According to Bertrand and Mullainathan (2001), institutional investors have an impact on remuneration schemes to reward managers who perform effectively and efficiently. Strickland et al. (1996) found a positive connection between institutional shareholders' approved compensation plan for a firm and its market reaction. According to McConnell and Servaes (1990), Tobin's Q is positively impacted by the proportion of shares owned by institutional shareholders. The degree to which institutional shareholders monitor executive managers' decisions, be it their earnings management, has proven to be positively connected with the firm size (Judge et al., 2010; Ng et al., 2009; Rehbein et al., 2004), poor previous firm financial performance (Karpoff et al., 1996) and ineffective organisational governance (Morgan et al., 2011). Likewise, Hartzell and Starks (2003) conclude that active institutional holding enhances the incentive design of executive remuneration.

2.2. Earnings Management

Earnings management, according to Schipper (1989) is a conscious interference with financial reports to external users for personal gain. A more detailed definition is presented by Healy and Wahlen (1999): Earnings management arises when executives decide to order transactions in financial reports in such a way that stakeholders are misled about the firm's genuine performance. Earnings management types and consequences were analyzed by many research studies (Cohen and Zarowin, 2010; Dechow et al., 1995; Jones, 1991; Kothari et al., 2005; Mizik and Jacobson, 2007; Roychowdhury, 2006). Dechow et al. (2010) discovered that managers frequently manipulate real or accrual activities to inflate earnings and skew the firm's financial data. Significantly, both possibly have adverse effects on the long-term performance of the firm. Earnings management debases the quality of information regarding earnings utilized by outside shareholders, resulting in the financing of new projects with higher capital costs (Garel et al., 2021; Kim and Sohn, 2013). Furthermore, earnings management's

prospective earnings and stock returns are negatively affected (Garel et al., 2021).

As regards accruals management, making use of the future period earnings brings about future loss. Teoh et al. (1998) revealed that the initial public offer (IPO) issued with too high accruals makes the firm suffer a miserable decline in its stock returns in the subsequent 3 years. Concerning real earnings management, reducing the discretionary cost of research and development (R&D), employee training, and advertisement can each have a lasting effect on a company's competitive edge and sales prospects. Revenue increases are expected to dissipate once the enterprise switches to its previous price and the excessive production generates unsustainable earnings which results in huge inventories. Several studies have demonstrated that real earnings management has adverse effects on a company's long-term profitability. For instance, Bhojraj et al. (2009) investigated the effects of reduced discretionary costs and accruals' management to surpass analyst forecasts. They discovered that firms that marginally exceed the analyst forecasts with manipulated earnings only enjoy temporary stock price benefits from others with unmanipulated earnings but miss analyst forecasts. However, these temporary benefits regress over 3 years. Likewise, Kothari et al. (2016) and Cohen and Zarowin (2010) connect post-seasoned equity offering (SEO) stock market low performance to real activities earnings management, while Gunny (2010) documents a negative connection between earning management and operating performance. Kothari et al. (2016) document the complexity confronted by shareholders to detect short-run earning management, which requires consistent and robust monitoring from the shareholders. Earnings management has long-run implications for a firm's value. Therefore, understanding the circumstances that induce it becomes imperative to strengthen corporate governance for value creation. Against this background, the paper investigates the influence of institutional shareholders' distraction on earnings management. Hence, the study hypothesizes a positive statistically significant effect on earnings management.

3. DATA SOURCES AND METHODS

3.1. Data Sources

The study used data from two major databases to conduct the analysis. S&P Capital IQ and Bloomberg provided us with financial data, market data, and institutional shareholder data. The study sample period is from 2004 to 2019, and firms listed on the JSE during this period were used to compute the key variables, subject to data availability. For this study, the total number of firm-year observations is 1222 from 159 firms. The data is derived entirely from yearly reports obtained from the S&P Capital IQ database. The appendix has a full discussion of the variables.

3.2. Methods

3.2.1. Measuring institutional shareholders' distraction

The model for measuring shareholders' distraction was formulated by Kempf et al. (2017a) and used by other authors such as Liu et al. (2020), Garel et al. (2021), and Obagbuwa et al. (2021). This model shows the count of institutional shareholders in a certain $firm_f$ that subject to distraction in a given period. The distraction is represented by *D*, and it gives high value to the shareholder that is distracted most. The notion behind *D* is that, a particular shareholder *i* in a certain $firm_f$ get distracted when attenting grabbing incident occurs in an unrelated industry in the shareholder *i*'s portfolio. Thus, the distration mark is calculated for individual shareholder and add up crosswise investments firms. The distraction (*D*) for individual $firm_f$ at period end *t* is depicted in equation 1 below:

$$D_{ft} = \sum_{i \in ft-1} \sum_{IND \neq INDf} w_{ift-1} X w_{it-1}^{IND} X IS_t^{IND} \quad (1)$$

where f_{t-1} denotes institutional stockholders' group of firms at the period-end t-1, IND indicates a given JSE 11 industry, and IND_f connotes firm *f* in the JSE industry, IS_t^{IND} shows if there is a distraction in the industry apart from IND_f (*IS* is the industry shock), and w_{it-1}^{IND} denotes the level of care the shareholder *i* has for the other industry. The weight W_{ift-1} captures how crucial shareholder *i* is for firm *f* at the period-end t-1. Shareholder is crucial in firm *f* if both the market value and proportion of shares held are higher. The variable $W_{i,f,t-1}$ is as defined below:

$$W_{ift-1} = \frac{QPFweight_{ift-1} + QPerOwn_{ift-1}}{\sum_{i \in ft-1}(QPFweight_{ift-1} + QPerOwn_{ift-1})} \quad (2)$$

Where $PFweight_{ift-1}$ is the market value of the firm *f* weighted in the portfolio of the shareholder *i* while $PerOwn_{ift-1}$ is the percentage of shares in firm *f* owned by shareholder *i*. To get rid of anomalies, firms in shareholder *i's* portfolio at period-end t-1, $PFweight_{ift-1}$ are sorted into quintiles and this results in $QPFweight_{ift-1}$. In the same way, $QPerOwn_{ift-1}$ is the quintile value of $QPerOwn_{ift-1}$. As a result, the distraction measure gives institutional shareholders with larger stakes in the firm *i* more weight. This motivates managers to behave in a certain way toward large shareholders because they believe they have an incentive to keep an eye on them (Edmans and Holderness, 2017). Furthermore, it gives more weight to stockholders who own a larger percentage of the company's stock. The fact is that institutional investors give greater attention to their portfolio's top stocks.

3.2.2. Measuring earnings management

The two channels of influencing the management of earnings are maneuvering of real activities and accrual. The study measured the management of earnings (dependent variable) using either the alteration of accruals or real activities. Following Kothari et al. (2005) and Garel et al. (2021), we compute discretionary accruals, which are the residuals of the regression below:

$$Discretionary\ Accruals_{it} = \beta_0 + \beta_1\left(\frac{1}{ASSETS_{it-1}}\right) + \beta_2\left(\Delta SALES_{it} - \Delta REC_{it}\right) + \beta_3 PPE_{it} + \beta_4 ROA_{it} + \epsilon_{it} \quad (3)$$

Where $Discretionary\ Accruals_{it}$ equals total accruals estimated as the change in non-cash current assets less change in current liabilities after deducting the current portion of long-term debt, less depreciation, and amortization, then divided by the previous year's total assets. $ASSETS_{it-1}$ equals total assets for the prior year, $\Delta SALES_{it}$ is current year sales minus prior year sales divided by 1 year lagged total assets, ΔREC_{it} is the current year's account

receivable minus the prior year's account receivable divided by 1-year lagged total assets, PPE_{it} are the current year net property, plant, and equipment scaled by 1-year lagged total assets and ROA_{it} is the income before extraordinary items divided by 1-year-lagged total assets.

Then, a number of real earnings management measures are computed. The study was inspired by Roychowdhury (2006) and Garel et al. (2021) and took into account three different real earnings management strategies: Sales manipulation, which results in an abnormal decrease in operating cash flow, overproduction, which results in an abnormal increase in production costs, and discretionary cost reduction, which results in an abnormal decrease in R&D and marketing expenditures. Sales manipulation is when sales increase during the year by giving a short period of price discounts and soft credit terms. An abnormal decline in cash flow from operating activities will be used to discover sales manipulation (sales revenue becomes lower due to reduced margins caused by the price discount or soft credit terms). Following Roychowdhury (2006) and Garel et al. (2021), we will compute an abnormal decline in operating cash flows (*REM CFO*) as the residues from the regression below:

$$REMCFO_{it} = \beta_0 + \beta_1\left(\frac{1}{ASSETS_{it-1}}\right) + \beta_2 SALES_{it} + \beta_3 \Delta SALES_{it} + \epsilon_{it} \quad (4)$$

Where $REMCFO_{it}$ is the operating cash flows scaled by 1 year lagged total assets, $ASSETS_{it-1}$ is the prior year's total assets, $SALES_{it}$ is the current year sales scaled by 1 year lagged total assets and $\Delta SALES_{it}$ is the current year's sales minus the prior year's sales divided by the previous year's total assets.

The residues will be multiplied by -1 so that the abnormal decline in operating cash flow will be positive.

Overproduction relates to the production of more than enough goods to increase earnings. Production cost is the cost of goods sold plus inventory scaled by lagged total assets. We will detect overproduction through the abnormal favorable cost of production. Following Roychowdhury (2006) and Garel et al. (2021), abnormal production cost (*REM Prod*) is the residual of the regression below:

$$REMProd_{it} = \beta_0 + \beta_1\left(\frac{1}{ASSETS_{it-1}}\right) + \beta_2 SALES_{it} + \beta_3 \Delta SALES_{it} + \Delta LSALES + \epsilon_{it} \quad (5)$$

Where $REMProd_{it}$ is the cost of production scaled by 1 year of total assets with a lag, $SALES_{it-1}$ is the prior year's total assets, $SALES_{it}$ is the current year sales scaled by 1 year lagged total assets, $\Delta SALES_{it}$ is the current year sales minus prior year sales divided by 1 year lagged total assets and $\Delta SALES_{it}$ The disparity between the current year's lagged sales and the lagged sales of the year before is divided by 1 year's total assets.

Research and development (R&D), advertising, maintenance, staff training, and other expenses are examples of discretionary costs. The manager is at the discretion to reduce these types of costs to raise declared earnings. Following Roychowdhury (2006) and Garel et al. (2021), we will calculate the abnormal discretional cost (*REM Disc Cost*) as a residue of the regression below:

$$REMDiscCost_{it} = \beta_0 + \beta_1\left(\frac{1}{ASSETS_{it-1}}\right) + \beta_2 SALES_{it} + \epsilon_{it} \quad (6)$$

(6)

Where $REMDiscCost_{it}$ is the addition of R&D and Advertising expenses divided by lagged total assets, $ASSETS_{it-1}$ is the prior year's total assets and $SALES_{it}$ is the current year's sales divided by 1 year-lagged total assets.

Furthermore, we will compute the total real earnings management (*Total REM*) measure by aggregating the three types of REM activities (an abnormal decrease in operating cash flows, an abnormal increase in the cost of production, and an abnormal reduction in discretionary cost).

$$Total\ REM_{it} = REMCFO_{it} + REMDiscCost_{it} + REMProd_{it} \quad (7)$$

3.2.3. Institutional shareholders' distraction and earnings management

To establish the influence of shareholder distraction on the management of earnings, we follow Garel et al. (2021) and run the baseline regression using the types of earnings management (discretionary accruals and real activities earnings management – REMCFO, REMDiscCost, REMProd, and Total REM) as a surrogate for earnings management.

$$Earnings\ Management_{it} = \beta_0 + \beta_1 D_{it} + \beta_2 Size_{it-1} + \beta_3 Leverage_{it-1} + \beta_4 Book\text{-}to\text{-}market_{it-1} + \beta_5 Profitability_{it-1} + \beta_6 Asset\ Growth_{it-1} + \beta_7 Momentum_{it-1} + \beta_8 Volatility_{it-1} + YearFE_t + \varepsilon_{it-1} \quad (8)$$

where the discretionary accruals, REMCFO, REMDiscCost, REMProd, and Total REM are used to represent earnings management. D_{it} is the distraction measure. Asset growth is the change in total assets over total assets with a lag, profitability is income before extraordinary items divided by total assets, leverage is total debt divided by total assets, the book to market is the firm's book value divided by its market value, momentum is the excess of accumulated monthly returns on the FTSE/JSE all share index for the last 12 months, and volatility is the excess of the standard deviation of the FTSE/JSE all share index for the last 12 months.

The standard corporate policy control variables are size, profitability, and book-to-market. However, we control for leverage because it proxies for limited free cash flow that should repress managerial advantageousness (Garel et al., 2021; Nikolaev, 2010). It will be expected to have a negative effect. According to Aghion and Stein (2008) and Garel et al. (2017), we also control for asset growth; there is a tendency for fast-growing firms to focus on development rather than margins. Therefore, since real activities management diminishes value creation and future growth, fast-growing firms will have less incentive to be involved in real activities management. So, we anticipate a negative association with earnings management.

Moreover, we control for momentum and volatility. Momentum is an indication of the firm's high performance over the market benchmark in the prior year. Therefore, we expect a negative impact on earnings management since an already-performing firm may not overstate share price through earnings management. Regarding volatility, we expect a positive effect on earnings management because a highly volatile share price may result in a share price fall that can stimulate earnings manipulation. Besides, we control for Distracted Shareholders (Kempf et al., 2016) because it captures the institutional shareholders' monitoring impact on earnings management. We expect distracted shareholders to impact earnings management positively.

A firm's fixed effect is included to capture time-invariant firm characteristics and fiscal year fixed effects to control uniform shock across the firms in a given fiscal year. All the control variables were lagged by 1 year to reduce the likely simultaneity bias.

3.2.4. Estimating technique and summary procedure for panel data analysis

This study evaluates the dynamic panel data method put forward by Arellano and Bond (1991) and Eigner and Kunst (2009). This technique is called the Generalized Method of Moments (GMM). There are two types of GMM, the Difference and System GMM. System-GMM was first developed by Blundell and Bond (1998) and Blundell et al. (2001) to solve the issue of weak instrumental variables. Additionally, Difference-GMM lacks invariance to time explanatory variables that are included in System-GMM. In addition to Arellano-Bond's lagged levels, System-GMM employs additional restrictions by utilizing adjusted instruments with lagged discrepancies. Moreover, by properly differentiating variables and their applicability, Sys-GMM ensures orthogonality. Furthermore, Sys-GMM is chosen since our model includes a wide range of sample sizes. Both endogenous and lagged endogenous explanatory variables are included in our calculated equation. As a result, the lagged endogenous variable and the error terms in the differenced equation are connected via simultaneous terms in period t. No unobserved firm fixed effects connected to the explanatory variables were discovered. The effectiveness of the estimator is increased by this method.

Below is a description of the Sys-GMM model that illustrates the link between the management of earnings, distraction measure, and other control variables:

$$Y_{it}=\beta_1 D_{it}+ZY_{it-1}+\beta_2 K_{2it}+\beta_3 K_{3it}\ldots\ldots\ldots\beta_8 K_{8it}+\mu_{it} \quad (9)$$

Equation (9) is the modified dynamic panel data that includes the lagged dependent variable.

4. DATA ANALYSIS AND INTERPRETATION

4.1. Summary Statistics-Earnings Management

Table 1 displays the summary statistics of the factors used to analyze how distraction measures affected discretionary accruals earnings. The characteristics of summary statistics are the mean, standard deviation, minimum, and maximum of the panel data variables.

The descriptive statistics in Table 1 indicate that discretionary accruals (Disc Accruals) are 28% of lagged assets. The distraction measure (D) showed a minimal effect on the discretionary accruals over the sample period because the mean value of 1.37 is closer to the minimum than the maximum value. This implies that when shareholders are distracted, the executive's probability of manipulating earnings through discretionary accruals is low. The standard deviation of the distraction measure displaced higher variability from the mean, indicating widespread data values. The mean value of firm size (8.38) is closer to the maximum (17.94), showing a higher impact on discretionary accruals. While profitability and book-to-market mean values (0.13, 1.31) are close to the minimum values suggesting that their effect on discretionary accruals is minimal.

4.2. Correlation Analysis

To make certain that multicollinearity is not present in our estimation, the model's variables are correlated. It is done to see how closely the variables are related, and the results are displayed in Table 2.

As shown in Table 2, the correlations among the variables are between −0.002 and 0.205, suggesting no multicollinearity problem, but the 0.824 correlation coefficient confirms a strong and positive correlation between volatility and momentum. This did not affect our result and the model used for our analysis (system GMM) controls for collinearity. The analysis demonstrates that the distraction measure positively correlates with earnings management, indicating that shareholders' distraction can stimulate executives into earnings manipulation.

4.3. Two-Step System GMM Analysis

Table 3 shows the findings from the two-step system GMM analysis, which indicate that shareholders' distraction, the variable of interest, has a significantly positive relationship with discretionary accruals earnings. The outcome indicated that the connection between distraction measure and discretionary accruals had a coefficient of 0.1593, which, essentially, meant that a change in the distraction measure would, on average, result in a rise in discretionary accruals of 0.1593 units at a 5% statistically significant level. The consequence is that top managers participate in discretionary accruals earnings management for their benefit when institutional shareholders get preoccupied and their level of oversight declines. This result is consistent with Garel et al. (2021) study, which also reported a positive relationship. Other variables such as leverage and book-to-market negatively correlate with discretionary accruals earnings and are statistically significant. This indicates that executives will not be motivated to manipulate earnings with limited free cash flow (leverage). Likewise, when the firm's value (book to market) is high, earnings management will demotivate.

On the contrary, when it is low, it can encourage earnings management. Profitability reported a positive link with discretionary accruals earnings. It was statistically significant, implying that when the income ratio before the extraordinary item to the total asset is high, it can stimulate earnings management.

Table 1: Summary statistics of earnings management

Variables	Obs	Mean	SD	Min	Max	P25	P75	Skew.	Kurt.
Accruals	2619	0.277	2.625	0	126.61	0.079	0.177	43.23	2053.31
DisEXP	2626	0.225	0.838	0	31.58	0.067	0.203	25.08	827.20
OverProd	2626	0.371	1.515	0	45.52	0.078	0.311	19.45	469.64
Rem CFO	2626	0.307	2.018	0	72.45	0.433	0.221	26.43	816.17
Total REM	2626	0.902	4.129	0	135.15	0.263	0.688	22.38	600.36
Distraction (D)	2282	1.370	6.540	0	3.13	0.002	0.374	47.74	2280
Size	2626	8.382	2.429	−2.042	17.94	6.714	9.919	0.101	3.14
Leverage	2627	0.224	0.45	0	9.50	0.037	0.258	9.02	124.54
Book to Mrk	2454	1.307	7.183	−13.943	269.47	0.310	1.018	27.20	906.77
Profitability	2628	0.129	0.411	−8.203	7.64	0.038	0.158	5.81	201.72
AssetGrowth	2626	2.976	43.158	0	1644.49	0.995	1.217	32.41	1122.14
Momentum	2896	0.117	0.731	−1.594	23.13	−0.132	0.227	14.86	392.24
Volatility	2896	0.057	0.154	−0.078	4.28	0.011	0.069	14.49	312.73

Table 2: Pairwise correlation analysis of earnings management

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Earnings mgt	1.000								
(2) Distraction (D)	0.010	1.000							
(3) Size	0.022	0.008	1.000						
(4) Leverage	−0.090	0.009	−0.048	1.000					
(5) Book to market	0.007	0.008	−0.036	0.011	1.000				
(6) Profitability	−0.157	−0.006	−0.057	0.179	−0.056	1.000			
(7) Asset growth	−0.149	−0.002	−0.104	−0.007	−0.004	−0.002	1.000		
(8) Momentum	0.015	0.036	−0.059	0.067	0.205	−0.079	−0.005	1.000	
(9) Volatility	0.026	0.039	−0.147	0.050	0.159	−0.100	−0.003	0.824	1.000

Table 3: Effect of institutional shareholders' distraction on discretionary accruals

Variables	Two-step sys-GMM
Lagged Accruals	−0.5523***
	(0.1118)
Distraction (D)	0.1593**
	(0.0655)
Size	0.0258
	(0.0540)
Leverage	−1.3983***
	(0.5287)
Book to market	−0.0030***
	(0.0010)
Profitability	0.9483***
	(0.3464)
Asset Growth	0.0759
	(0.0770)
Momentum	−0.0114
	(0.0408)
Volatility	0.0660
	(0.3572)
	(0.0447)
Constant	−0.0825**
	(0.0321)
Observations	1,222
Number of id	159
Year Dummies	Yes
No of instruments/Group	46/159
Arellano-Bond AR (2) P value	0.339
Hansen statistics P value	0.412
F-Statistic/P-value	3.58/0.000

In parenthesis, white heteroscedasticity-consistent standard errors, ***P=0.01, **P=0.05, and *P=0.1 denote statistical significance at the 1%, 5%, and 10% levels, respectively. The instruments' validity is indicated by a P=0.412 in Hansen statistics, while no 2nd order autocorrelation was confirmed by a P=0.339 in Arellano-Bond AR (2). With a P=0.000, the F-statistics revealed that the regressive variables are jointly significant in describing the dependent variable

The validity of the instruments is indicated by Hansen statistics P = 0.491, 0.111, 0.283, and 0.149 for REMCFO, REMDiscCost, a REMProd, and Total REM, respectively, while the Arellano-Bond AR (2) P = 0.677, 0.227, 0.537, and 0.405 for REMCFO, REMDiscCost, REMProd, and Total REM, respectively, confirmed no 2nd order autocorrelation. The F-statistics for all earnings management showed that the independent variables are jointly significant in defining the dependent variable, with a P = 0.000.

Table 4 reports the findings from real activities earning management types. It revealed a favorable and statistically significant association between REMCFO and the shareholders' distraction (P < 0.01). The result indicated that the effect of shareholders' distraction on sales manipulation with a coefficient of 0.0476 means that a unit change in shareholders' distraction will result in a 0.0476 unit increase in sales manipulation, at a 1% statistically significant level. Moreover, the coefficient of 0.0986 REMDiscCost (P < 0.1) indicates that a unit change in distraction measure will lead to 0.0986 units more in a reduction in discretionary expenditures, at a 10% statistically significant level. The coefficient of REMProd (0.2382) with P < 0.1; means that a unit change in distraction measure will result in 0.2382 units increase in overproduction, at a 10% statistically significant level, and the coefficient of Total REM (0.1087) with P < 0.1; indicated that, on average, ceteris paribus, a unit change in the distraction measure causes a 0.1087-unit increase in total real activity earnings at a 10% statistically significant level. However, the result shows how other control variables relate to different types of earnings management and their levels of statistical significance.

Table 4: Effect of institutional shareholders' distraction on real activities earnings management

Variables	Two-step system GMM			
	REMCFO	REMDiscCost	REMProd	Total REM
Lagged values	0.7954***	0.8397***	0.6296***	0.2527**
	(0.0982)	(0.0761)	(0.1227)	(0.1025)
Distraction Measure (D)	0.0476***	0.0986*	0.2382*	0.1087*
	(0.0504)	(0.0511)	(0.1251)	(0.0601)
Size	−0.0080**	0.0013	0.0876	0.0102*
	(0.0034)	(0.0018)	(0.0837)	(0.0054)
Leverage	−0.0454***	0.0018	0.0576**	−0.0684
	(0.0152)	(0.0181)	(0.0270)	(0.1109)
Book to market	0.0007	0.0003**	0.0028	0.0007
	(0.0012)	(0.0002)	(0.0047)	(0.0010)
Profitability	−0.0699*	0.0244*	−0.0071	−0.1285**
	(0.0408)	(0.0128)	(0.0677)	(0.0561)
Asset Growth	−0.0383**	0.0569*	0.0778**	0.0079
	(0.0158)	(0.0336)	(0.0356)	(0.0139)
Momentum	−0.0176	−0.0025	0.0446*	−0.0188
	(0.0146)	(0.0064)	(0.0257)	(0.0122)
Volatility	0.0904	0.0132	−0.2297*	0.1230*
	(0.0578)	(0.0294)	(0.1312)	(0.0667)
Constant	0.0000	−0.0725	0.0126	0.0000
	(0.0000)	(0.0479)	(0.0213)	(0.0000)
Observations	1,555	1,069	1,059	1,393
Number of id	177	155	153	173
Year Dummies	Yes	Yes	Yes	Yes
Arellano-Bond test AR (2)	0.677	0.227	0.537	0.405
Hansen test	0.491	0.111	0.283	0.149
No of Instruments/Groups	34/177	29/155	52/153	50/173
F-Statistics/P-value	15.91/0.000	11.02/0.000	9.48/0.000	4.18/0.000

In brackets, white heteroscedasticity-consistent standard errors, *** P=0.01, ** P=0.05, and * P=0.1 denote statistical significance at the 1%, 5%, and 10% levels, respectively

4.4. Discussion of Findings

Corporate scandals across the globe demanded strong corporate governance processes in which the role of institutional shareholders is crucial. The study expresses a similar perception in the context of South Africa. The findings imply that when institutional stockholders are preoccupied, the intensity of their control decreases, and the executive managers modify the timing of recognizing cash flow in the earnings for personal benefits. And when this slack control persists for a long period, it will result in an accounting scandal. This long-term unchecked manager's manipulation of earnings is a reflection of the scandal at Steinhoff International in South Africa. It is reported that the scandal was due to poor control and governance (Rossouw and Styan, 2019; PwC, 2017). Moreover, Motsoeneng and Rumney (2019) state that Steinhoff's management overstated their profits for a period of 8 years (2009 - 2017) by engaging in earnings management such as failure to recognize bad debts and not disclosing the level of their obligations in their earnings, manipulating the price discount, or change the credit policy to present sales value that is misleading to stakeholders, reduces discretionary expenditures and increases production to reduce fixed cost per unit. All these management actions are designed to deceive the shareholders and subject the firm to a risk of collapse. The findings indicated that managers take advantage of relaxed institutional monitoring intensity caused by distraction to manipulate earnings, leading to scandals.

5. CONCLUSION

This paper investigates how institutional shareholders' limited attention impacts corporate executive decisions on earnings management. Our primary assumption is that institutional stockholders are contingent on limited attention. These limitations prevent them from maintaining the same monitoring intensity for all the companies they invest in simultaneously. At a particular time, institutional shareholders become distracted due to their focus being shifted to a different company in the portfolio they managed, which weakens their control intensity. Following Kempf et al. (2017a), and to identify instances in which institutional stockholders experience shocks in disparate businesses within their portfolios, we employ the firm-level surrogate as a diversionary measure. The study discovered that a manager's opportunistic-seeking actions can be on display when control intensity is relaxed due to distraction. The study documents a statistically significant effect on each element, both discretionary accruals and real activities earnings management. The paper utilised the robust generalized method of moment (sys GMM) to achieve the study's objective. The hypothesis that shareholder distraction has a significant positive effect on earnings management was achieved. The findings were in line with agency theory and empirical studies such as Garel et al. (2021), Cheung et al. (2021), Garel et al. (2021), Obagbuwa et al. (2021), and Kempf et al. (2017a).

Prior research studies document the shapes and implications of earnings management. It particularly discloses that the manipulation of both the discretionary accruals and real activities earnings would have an adverse effect on the creation of firm value in the future (Bhojraj et al., 2009; Cohen and Zarowin, 2010; Gunny, 2010; Kim and Sohn, 2013; Kothari et al., 2016; Li, 2010; Mizik and Jacobson, 2007; Teoh et al., 1998). The adequate monitoring of the institutional shareholders can ensure the report of high-quality

earnings, which eventually raises the worth of the company over time (Hsu and Koh, 2005; Velury and Jenkins, 2006). As a result, our findings suggest that a better understanding of how business managers respond to temporarily reduced monitoring intensity could significantly improve corporate governance mechanisms for maximizing company value. This perception provides an understanding of stimulus for earnings manipulations which has a serious implication in terms of corporate scandals for both the firms and shareholders. The study underlines the necessity for policy reforms that will enhance the capabilities of the institutional shareholders in South Africa to sufficiently cover the distraction period. The paper contributes to corporate governance literature, especially in the emerging market, growing literature relating to changes in monitoring (limited attention), and agency theory.

The general import of this finding is that corporate business decisions under intense institutional shareholders' monitoring should improve the firm's value. However, the study did not cover firm value specifics such as profitability and stock returns. Therefore, examining the direct effect of an earnings management-controlled environment on asset pricing would be an essential continuation of this research.

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APPENDIX

Appendix A: Description of Variables

Variable	Description	Source
Distraction Measure	A firm-level sorogate will be created following Kempf et al. (2017a), recommendations for institutional stockholder distraction. $Dt_{it} = \sum_{i\epsilon\, ft-1} \sum_{IND \neq INDf} w_{ift-1} X\, w_{it-1}^{IND} X\, IS_t^{IND}$ Where the list of businesses owned by institutional stakeholders at the close of $period_{t-1}$ is denoted by f_{t-1}, IND represents JSE eleven industrial categorisation, and IND_f specifies the company's industry category for company f, IS_t^{IND} suggests distraction in the industry apart from IND_f, and w_{it-1}^{IND} represents the proportion of the industry sector IND in the institutional stockholder's i's portfolio. The weight wif$_{t-1}$ determines the importance of stockholder i in firm f at the close of $period_{t-1}$ Intuitively, $stockholder_i$ *is important* if (1) firm f proportion in the stockholder i's portfolio is higher and (2) stakeholder i owns a considerable proportion of the firm f's shares. Hence, we measure wi, f_{t-1} as: $W_{ift-1} = \frac{QPFweight_{ift-1} + QPerOwn_{ift-1}}{\sum_{i\epsilon\, ft-1}(QPFweight_{ift-1} + QPerOwn_{ift-1})}$ Where $PFweight_{ifi-1}$ represents the weighted average market value of f in the stockholder i's portfolio and $PerOwn_{ifi-1}$ represents the stockholder i's ownership stake firm f. To prevent outliers, the portfolio of companies owned by stockholder i in the period t-1 is divided into tranches based on $PFweight_{ifi-1}$ which specifies $QPFweight_{ifi-1}$. The fifth value of $QPerOwn_{ifi-1}$ represented by $PerOwn_{ifi-1}$.	
Earnings management variables		
Discretionary Accruals	The residuals resulting from the regression model based on overall accruals on the inverse of lagged total assets, the variation in sales less the change in accounts receivable adjusted with lagged total assets, the net value of property, plants, and equipment adjusted with lagged total assets, and return on assets, which is calculated as income before unusual expenditures divided by total assets, are all examples of discretionary accruals. $Accruals_{it} = \beta_0 + \beta_1\left(\frac{1}{ASSETS_{it-1}}\right) + \beta_2\left(\Delta SALES_{it} - \Delta REC_{it}\right) + \beta_3 PPE_{it} + \beta_4 ROA_{it} + \epsilon_{it}$ (Garel et al., 2021, Kothari et al., 2005 Where sales, receivables, assets, net property, plants and equipment, and income before extraordinary items are computed from the firm financial statements.	S&P Capital IQ
CFO	The residuals of the subsequent regression are unusual flows of cash from business operations. $CFO_{it} = \beta_0 + \beta_1\left(\frac{1}{ASSETS_{it-1}}\right) + \beta_2 SALES_{it} + \beta_3 \Delta SALES_{it} + \epsilon_{it}$ Where CFO is the cash flow from operations scaled by lagged total assets, SALES is the sales amount divided by lagged total assets and ΔSALES is the change in sales amount scaled by lagged total assets. The amount of money received per sale is lower as margins deteriorate because of price cuts or more relaxed credit conditions, which is used as an indicator of sales trickery when cash flow from activities unusually declines. According to (Garel et al., 2021, Roychowdhury, 2006), we multiply the residuals by $_{-1}$ to get a positive value for an unusual decline in revenue from business operations.	S&P Capital IQ
Prod	Production costs are calculated as lagged total assets scaled by costs of goods sold+inventories. The residuals from the subsequent regression represent unusual manufacturing costs: $Prod_{it} = \beta_0 + \beta_1\left(\frac{1}{ASSETS_{it-1}}\right) + \beta_2 SALES_{it} + \beta_3 \Delta SALES_{it} + \Delta LSALES + \epsilon_{it}$ Where SALES is sales amount divided by lagged total assets, ΔSALES is the variation in sales divided by lagged total assets, and ΔLSALES is the lagged variation in sales divided by lagged total assets (Garel et al., 2021, Roychowdhury, 2006).	S&P Capital IQ
Disc Cost	Discretionary cost is determined by dividing R and D, advertising, and SG and A costs by lagged total assets. The residuals of the subsequent regression are abnormal discretionary costs: $DiscCost_{it} = \beta_0 + \beta_1\left(\frac{1}{ASSETS_{it-1}}\right) + \beta_2 SALES_{it} + \epsilon_{it}$ Where SALES is specified as sales scaled by total lagging assets. To lower declared expenditures and boost earnings, unusual decreases in discretionary spending are utilised. To get a positive figure for an unusual drop in discretionary spending, we multiply the residuals by $_{-1}$ (Garel et al., 2021, Roychowdhury, 2006).	S&P Capital IQ
Total Rem	The total of real activities and income-increasing manipulations. Which is the total of unusual increases in production costs, unusual cuts in discretionary spending, and unusual increases in earnings from operations are as follows: Total REMit=REMCFOit+REMDisc Costit+REMProdit (Garel et al., 2021)	S&P Capital IQ
Size	Natural log of total assets	S&P Capital IQ

(Contd...)

Appendix A: ***(Continued)***

Variable	Description	Source
Leverage	Total liability divided by total assets	S&P Capital IQ
Book to Market	Total assets are divided by market capitalization plus total debt and minus deferred taxes (Garel et al., 2021).	S&P Capital IQ
Profitability	Income excluding unusual items divided by total assets is the definition of profitability. (Garel et al., 2021)	S&P Capital IQ
Asset Growth	Total asset change divided by lag total assets (Garel et al., 2021)	S&P Capital IQ
Momentum	Momentum is the excess of accumulated monthly returns on the FTSE/JSE all-share index for the last 12 months (Garel et al., 2021).	S&P Capital IQ
Volatility	Volatility is the excess of the standard deviation of daily returns over the FTSE/JSE all share index computed for the previous fiscal year (Garel et al., 2021).	S&P Capital IQ