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Institutional Shareholders' Monitoring Intensity and Executive Remuneration in South Africa

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Abstract

This study investigates the effect of distraction measures as a proxy for the intensity of institutional shareholders' monitoring responsibility regarding corporate executive remuneration in the South African context. We employ the more robust Generalised Method of Moments (GMM) estimation approach to analyse the data from firms listed on the Johannesburg Stock Exchange (JSE) covering the period 2004-2019. The results show that distraction has a significant positive impact on corporate executive remuneration. Hence, when institutional shareholders' attention shifts due to distraction, monitoring control is relaxed, and corporate executive officers manipulate remuneration to their advantage. The results are useful for investment managers and prospective investors in their efforts to ensure governance mechanisms that enhance corporate value to the benefit of stakeholders.

Keywords: *Institutional shareholder; Agency theory; Executive remuneration; Institutional shareholder monitoring intensity; GMM; Corporate Managers.*

JEL Classification: *G30, G34.*

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1. Introduction

Institutional shareholders are well-placed to monitor corporate executive managers to ensure that they take decisions that enhance the organisation's growth and benefit shareholders (Cheung, Hasan, & Khoo, 2021; Jabeen & Ali, 2017; Stein & Zhao, 2016). According to agency theory, executive managers have opportunistic tendencies to make decisions in their interests, including those on their remuneration. To address the agency problem, institutional shareholders need to intensify their monitoring role. Adequate monitoring prevents unethical behaviour on the part of managers, thus enhancing the organisation's value (Bharath, Jayaraman, & Nagar, 2013; Cheung et al., 2021; Edmans & Manso, 2010; Jabeen & Ali, 2017). However, while institutional shareholders have sufficient capacity in the form of skills, resources, and substantial incentives – studies show that they pay limited attention to this issue (Cheung et al., 2021; Fich, Harford, & Tran, 2015; Kempf, Manconi, & Spalt, 2017a; Ward, Yin, & Zeng, 2017).

Recent research highlights the fact that the intensity of the institutional shareholders' monitoring role is undermined by their failure to consistently monitor all their shareholdings (Cheung et al., 2021; Garel, Martin-Flores, Petit-Romec, & Scott, 2018; Kempf et al., 2017a). Given that they tend to hold stock in several portfolios (Kempf et al., 2017a), attention-grabbing events cause them to focus on a particular stock at a given time (Garel et al., 2018; Kempf et al., 2017a). Such events include extreme industry returns (positive and negative), trading volume, and news (Barber & Odean, 2008). Distracted by these events, their monitoring intensity of other stocks drops, and executive managers manipulate decisions in their favour. Stein and Zhao (2016) reported a positive and statistically significant relationship between board distraction and total compensation. Likewise, Kempf et al. (2017a) established that managers' probability of receiving their lucky grants[1] increased by 32% when shareholders were distracted. An extreme example of the consequences of shareholders' failure to provide sufficient oversight is the Steinhoff International scandal in South Africa, where the chief executive officer (CEO) paid himself Euro 2.1 million without board approval (PwC, 2017). The lack of effective corporate governance monitoring resulted in the Steinhoff scandal[2] of 2017 (Rossouw & Styan, 2019).

[1] Lucky option is a stock option granted with unusually favourable terms such as opportunistic backdating or an unscheduled grant.

[2] The Steinhoff International scandal was discovered by Deloitte in December 2017 when they refused to sign the annual audit and booked a write-off of $12 billion. PricewaterhouseCoopers did the investigation.

Related studies in mainly developed economies have shown that relaxing institutional shareholders' monitoring intensity affects corporate decisions such as mergers and acquisitions, dividend cuts, lucky option grants, board governance, and earnings management (Cheung et al., 2021; Garel et al., 2018; Kempf et al., 2017a; Liu, Low, Masulis, & Zhang, 2020). There is a dearth of research on the impact of institutional shareholders' limited attention to total executive remuneration[3], especially in emerging markets like South Africa, which is among the countries with enormous pay disparities (Viviers, 2015a). The remuneration of CEOs of firms listed on the JSE is 53 times more than that of an average worker in their firms (Bronkhorst, 2014; Viviers, 2015a). While effective shareholder monitoring has strengthened corporate policies, especially regarding executive remuneration (Del Guercio & Tran, 2012), this vital role is lacking among South African institutional shareholders (Viviers, 2015a). The principles of corporate governance are poorly enforced due to the institutional shareholders' apathy concerning monitoring management and holding them accountable (Harber, 2017), although, King's report on corporate governance[4], particularly principle 17 of King report IV emphasised the important role of institutional shareholders in ensuring that their investments are properly managed to create returns and value for both the shareholders and the firm respectively (I. o. D. S. A. IoDSA, 2016; Mans-Kemp & Zyl, 2021). However, Feront and Bertels (2021); Mans-Kemp and Zyl (2021) report that most institutional shareholders in South Africa publicly endorse responsible investment, but their reactions to wrong corporate decisions are often superficial. Furthermore, Mathews and Hasenfuss (2013); Viviers (2015b) state that South African institutional shareholders have a poor reputation concerning voting and asking questions at annual general meetings (AGMs). Moreover, despite the developments, such as the code of responsible investing in South Africa (CRISA) [5] to encourage shareholders' activism, institutional shareholder indifference is still endemic in the country (Viviers, 2015b). Again, Deloitte (2016) emphasises the importance of shareholder activism as it relates to contentious remuneration issues. It is against this background that our study

[3] Salary, bonuses, director's fee, restricted stock awards, and long-term incentive plan.

[4] The King report on corporate governance is the guidelines for the governance structure and operations of firms in South Africa. So far, four reports have been issued. King I (1994), King II (2002), King III (2009), and King IV (2016). The Institute of Directors in Southern Africa (IoDSA) owns the copyright of the King Report on Corporate Governance and the King Code of Corporate Governance.

[5] CRISA was launched in 2011 to encourage institutional shareholders and service providers to integrate environmental, social and governance (ESG) issues into their investment decisions.

investigated the impact of institutional shareholders' monitoring intensity on executive remuneration among South African listed firms.

This study contributes to the literature by examining the relationship between temporary variation in shareholder monitoring intensity and CEO remuneration. While institutional investors have been widely investigated in the literature, their temporary distraction has not been sufficiently explored, especially in emerging markets. Moreover, shareholder distraction is related to various corporate decisions (Cheung et al., 2021; Garel, Martin-Flores, Petit-Romec, & Scott, 2021; Kempf, Manconi, & Spalt, 2017b; Obagbuwa, Kwenda, & Akinola, 2021), but its effects on CEO remuneration in South Africa have not been studied previously. This study will fill this gap and focus on emerging markets (South Africa) where regulations explicitly call for careful institutional monitoring of corporate decision-making (IoDSA, 2011). Distraction events are not a permanent phenomenon; consequently, managers seize opportunities to impose their own decisions. To the best of the authors' knowledge, the impact of temporary variation in shareholders' monitoring intensity on corporate executive remuneration among JSE-listed companies is not covered in extant literature.

Using GMM to analyse data collected from South African listed firms, the results show that distraction could shift institutional shareholders' attention from monitoring executive managers' competing interests in manipulating their remuneration to the detriment of shareholders. Although this incentive may be temporary, our findings are consistent with agency theory and extant literature on the effect of institutional shareholders' limited attention occasioned by their distraction (Cheung et al., 2021; Garel et al., 2021; Kempf et al., 2017b).

The remainder of this paper is organised as follows: part 2 reviews the theoretical and empirical literature, while part 3 presents the methodology. Part 4 discusses the empirical results, and part 5 concludes the paper.

2. Literature Review

2.1. Theoretical Framework and Hypothesis Setup

The agency theory highlights managers' growing tendency to act contrary to institutional shareholders' best interests (Ang, Cole, & Lin, 2000; Jabeen & Ali, 2017). However, Hartzell and Starks (2003) observed that monitoring by institutional shareholders could alleviate agency problems. Several studies have confirmed that intense monitoring will result in effective and efficient corporate decisions. For example, Garel et al. (2021) and Kothari, Mizik, and Roychowdhury

(2016) noted that the executive manager's disposition in earnings management decisions is detrimental to the firm's performance and institutional shareholders' interests (also see (Cohen & Zarowin, 2010; Dechow, Sloan, & Sweeney, 1995; Gunny, 2010; Jones, 1991; Kim & Sohn, 2013; Kothari, Leone, & Wasley, 2005; Mizik & Jacobson, 2007; Roychowdhury, 2006), among others). Kothari et al. (2016) observed that, in the long run, only greater institutional monitoring can detect such earnings manipulation. Furthermore, Ward et al. (2017), Richardson (2006), and Shleifer and Vishny (1997) affirmed that the agency problem leads to inefficient investment. Thus, sound institutional shareholder monitoring can curb weak investment decisions (Ward et al., 2017). In terms of executive remuneration, Lucian Arye Bebchuk and Fried (2003) disturbing managerial power theory posits that if executive managers are left unmonitored, they will engage in rent extraction by awarding themselves generous remuneration packages which are not commensurate with the company's performance (Lucian Arye Bebchuk & Fried, 2003; Sheikh, Shah, & Akbar, 2018), thereby violating their fiduciary responsibilities and undermining institutional shareholders' interests.

Standard economic models assume that shareholders use all available information to make judicious decisions. However, the literature on psychology and behavioural finance affirms that shareholders' behaviour is dependent on cognitive constraints and psychological tendencies (X. Wang, 2017). The processing capacities of the human brain are limited, so for a large volume of information, substantial intellectual resources, as well as time, are required. Shareholders thus fail to integrate all appropriate information due to limited attention (X. Wang, 2017). This malaise is not confined to individual shareholders but extends to their institutional counterparts. Abarbanell and Bushee (1998) found that analysts could not efficiently use available information on financial ratios. Likewise, they failed to properly discount discretional accruals of the firm's new issue (Teoh & Wong, 2015). Hirst and Hopkins (1998) provided empirical evidence that professional analysts usually fail to react appropriately to complicated financial disclosures.

The Investor Responsibility Research Center (IRRC) conducted a survey in 2011 on barriers to institutional shareholder and company engagement and found that lack of time is the greatest impediment. Thus, institutional shareholders pay limited attention to the companies they hold shares because of time constraints (Goldstein, 2011). The survey documents a direct association between institutional shareholders' lack of attention due to constraints of time and the intensity of their monitoring. It means that the institutional shareholders will not monitor all the firms they invest in with the same zeal. The implication is that they may become distracted at some point in time, and whilst distracted, they

wield less than optimal control (Kempf et al., 2017a). Cheung et al. (2021) empirical study examined the effect of shareholder distraction on changes in corporate cash holdings. They found that companies with distracted shareholders often have low cash holdings. Garel et al. (2018) investigated the impact of investors' distraction on earnings management and found strong evidence that investors' attention influences corporate decisions on earnings management.

Kempf et al. (2017a) and Stein and Zhao (2016) considered the effect of shareholders' distraction on lucky grants and boards' distraction on CEO remuneration. In the sample of 6,207 institutional investors over the 1980-2010 period, Kempf et al. (2017a) found that a one standard deviation change in shareholder distraction resulted in a 32% change in the magnitude of lucky grant stock option awards, and Stein and Zhao (2016) in their research conducted on public firms for 1996-2013 discovered that board distraction is associated with a 2.2% change in total compensation paid to the executive managers. Against this backdrop, we expect the distraction measure, which is the proxy for a distracted institutional shareholder, to positively affect corporate executive remuneration. Hence, we hypothesise a positive relationship between shareholder distraction and CEO remuneration.

2.2. Institutional Shareholders And Executive Remuneration In South Africa

Institutional shareholders account for the large majority of investors on the JSE (Zhang, 2016), and mainly include pension and provident funds, collective investment schemes (CIS), and insurance companies (Nhlapo & Gumata, 2011; Sibanda & Holden, 2014). The institutional shareholders' size and significance have grown considerably. This group of investors constitutes about 67% of the equity market (both foreign and local institutional shareholders) in JSE (Treasury, 2017). Viviers (2015a) reported that few South African shareholders monitor executives' corporate conduct. This could explain the wage gap in South Africa. The literature notes that CEOs of firms listed on the JSE take home approximately 53 times what the average worker in their firm earns (Bronkhorst, 2014; Viviers, 2015a).

South Africa is one of the countries with the largest wage disparities in the world, with the top seven CEOs receiving an astounding 300 times what the average worker earns (Viviers, 2015a). This has a significant impact on socioeconomic development (Viviers, 2015a). Oversight by institutional shareholders is regarded as the most effective way of changing corporate policies, including executive pay (Del Guercio & Tran, 2012; Viviers, 2015a). However,

Viviers (2015a) observes that South African institutional shareholders are renowned for not asking questions and not voting at annual general meetings (AGMs).

Research studies have shown that voting against or not voting at AGMs has failed to control executive remuneration and realign remuneration packages (Armstrong, Gow, & Larcker, 2013; M. Conyon & Sadler, 2010). However, Ferri and Maber (2013) established that several UK firms eliminated questionable executive remuneration practices, like generous severance packages and increased performance-based bonuses by voting against excessive pay. Ertimur, Ferri, and Stubben (2010) and Cheffins and Thomas (2001) found that executive remuneration decreased significantly when institutional shareholders took action. Stein and Zhao (2016), Yermack (2006), and Lucian A. Bebchuk and Fried (2006) highlight the non-alignment of executive and shareholders' interests and add that executives' seeking to increase their remuneration when monitoring by the board is weak.

The King Report on Corporate Governance sets operation guidelines and governance structures for South African firms. It is issued by the King Committee on Corporate Governance established by the Institute of Directors in South Africa. Four reports have been issued to date, namely, in 1994, 2001, 2009, and 2016. The Code for Responsible Investing in South Africa is part of the King lll Report. It seeks to promote sound corporate governance by ensuring that institutional shareholders monitor corporate executive decisions. The King IV principle 17 reinforces institutional shareholders' role in ensuring that beneficial investment is initiated and consummated by the companies where they are shareholders to enhance good governance and the creation of firm value (Harber, 2017; I. o. D. S. A. IoDSA, 2016). It reiterates that institutional shareholders' actions and inaction will either strengthen or weaken good governance (I. o. D. S. A. IoDSA, 2016).

3. Data and Econometric Model

This study focuses on public companies listed on the JSE and covered the period from 2004 to 2019. This process produced 2896 company-year observations in an unbalanced panel. From the 298 public companies listed and classified in the 11-industrial grouping, data for 181 companies were available. A total of 117 companies were discarded due to either having delisted or merged, or having no data on institutional shareholders, which is the variable of interest. Due to the non-availability of data for specific variables for a minimum of three successive years, we discarded 684 observations, bringing the final number of

company-year observations to 2212 from 179 companies. All the data are from companies' annual reports sourced from the S&P Capital IQ database.

3.1. Measuring Institutional Shareholder Distraction

The primary independent variable is institutional shareholder distraction which we denote by D. Following Kempf et al. (2017a), the institutional shareholder's distraction proxy for the firm level was constructed. This indicates the number of institutional shareholders in specified firm *i,* that are distracted in a specified period. This distraction, connoted as (D), implies a temporary relaxation of the monitoring intensity of institutional shareholders:

$$D_{it} = \sum_{i \epsilon f t-1} \sum_{IND \neq INDf} w_{ift-1} * w_{it-1}^{IND} * IS_t^{IND} \quad (1)$$

where f_{t-1} means institutional shareholders' number of firms at the end of period_{t-1}, *IND* means a particular JSE 11 industries categorisation and IND_f means firm *f's* JSE 11 industry. IS_t^{IND} indicates if there is a distraction event in the industry apart from IND_f, and w_{it-1}^{IND} indicates the weight of the industry sector *IND* in the institutional shareholder *i's* portfolio. The weight w_{ift-1} estimates the significance of shareholder *i* in firm *f* at the end of period_{t-1} By intuition, shareholder *i is* significant if 1) $\text{firm } f$ weight in shareholder *I's* portfolio is higher and 2) if the proportion of firm *f's* shares owned by $\text{shareholder } i$ is large. Hence, we estimate $w_{i,f,t-1}$ as:

$$W_{ift-1} = \frac{QPFweight_{ift-1} + QPerOwn_{ift-1}}{\sum_{i \epsilon f t-1}(QPFweight_{ift-1} + QPerOwn_{ift-1})} \quad (2)$$

where PFweight_{ift-1} is the firm *f's* weight in terms of market value in the shareholder *i's* portfolio, while PerOwn_{ift-1} is the level of holdings the shareholder *i* has in firm *f*. To prevent outliers, firms in the shareholder *i* portfolio in the period t-1 are ranked into quintiles on the basis of PFweight_{ift-1} and this indicates $\text{QPF}weight_{ift-1}$. Likewise, QPerOwn_{ift-1} is the quintile value of PerOwn_{ift-1}. Accordingly, the distraction measure gives higher weight to institutional shareholders with a lot of stocks in firm *f* as well as higher market value. Because institutional shareholders pay more attention to the most significant position in their portfolio, this measure records if and when there are shocks in one firm, which capture their attention firms, and whether their monitoring intensity is affected by the firm shocks. The summarised description of the variables is presented in Appendix A.

3.2. Fixed Linear Model for Executive Remuneration

The primary goal of our empirical analysis is to examine the effect of institutional shareholders' inattentiveness occasioned by distraction concerning executive compensation. Based on extant literature (Gallego & Larrain, 2012; Raithatha & Komera, 2016; Sheikh et al., 2018; Sun, Wei, & Huang, 2013; K. Wang & Xiao, 2011), the generic linear CEO remuneration equation is stated below:

$$\ln(ExcRem)_{it} = \alpha_0 + \beta_1 D_{it} + \beta_2 Y_{it} + yZ_{it} + W_t + \epsilon_{it} \quad (3)$$

where Ln(ExeRem) is the log of executive remuneration. In South Africa, CEO remuneration includes salary, bonuses, director's fees, restricted stock awards, long-term incentive plans, and other compensation. These are captured in the accounting head's total cash and non-cash remunerations. The sum of cash and non-cash remuneration is used in this study. The distraction measure, D_{it} is calculated using equations (1 & 2) above. This measure, which indicates that institutional shareholders relax monitoring control and decisions on executive remuneration taken against the interests of institutional shareholders, is expected to be positively related to executive remuneration (Kempf et al., 2017a). Y_{it} represents one of the measures of performance (ROA) which is considered as one of the control variables. Z_{it} represents a vector of firm-specific variables that influence executive remuneration. W_t are the time dummies and ϵ is the error term. Firm-specific variables considered in line with Sheikh et al. (2018) include Firm Size (FSize), Firm Risk (FRisk), Growth Opportunities (GOpp), and Firm Age (FAge). The logarithm of total assets measures the firm size and is broadly considered a determinant of CEO remuneration.

Many studies have confirmed that firm size has a positive relationship with executive remuneration (Devers, Cannella, Reilly, & Yoder, 2007; Gallego & Larrain, 2012; Sheikh et al., 2018). We measured firm risk with the standard deviation of the monthly stock returns for the year. A higher-risk company requires superior managerial skills with commensurate remuneration (M.J. Conyon & He, 2012; Sheikh et al., 2018). The market-to-book ratio measures growth opportunities. A firm with growth potential is expected to employ sound executives to optimise the shareholders' benefit. Therefore, it is expected to positively affect executive remuneration (M. J. Conyon & He, 2012; Sheikh et al., 2018). Moreover, firm age is measured by the natural log of (1 plus the years the company has been listed on JSE from the start of the year) (Ward, Yin, & Zeng, 2018) and the literature notes that older companies develop efficient remuneration negotiations (M. J. Conyon & He, 2012; Sheikh et al., 2018). Other control variables include Return on Assets (ROA), Returns to Shareholders (annual stock returns), and leverage (Jaiswall & Bhattacharyya, 2016; Raithatha & Komera,

2016). We used pooled ordinary least squares (POLS) and panel fixed effect to estimate equation (3)-the fixed effect controls for the unobserved firm-level heterogeneity.

3.3. Executive Remuneration Persistence and Dynamic Panel Model

Earlier research by Bender (2003), Raithatha and Komera (2016) found that remuneration in year t-1 is one factor taken into account by the remuneration committee in deciding remuneration in year t. Thus, the previous year's remuneration is one of the independent variables that render our estimation equation dynamic. Equally, it can be argued that the firm's performance can be affected by past executive remuneration (Raithatha & Komera, 2016). M.J. Conyon and He (2012) reiterated that learning is a crucial factor influencing a firm's wage dynamics. The initial wage decision is usually based on expected performance, while after gradual observation and learning by the employer, subsequent wage decisions are based on actual performance. Shareholder distraction may play a role because executive compensation decisions are dynamic and revised periodically. Therefore, to investigate the impact of shareholders' distraction on CEO remuneration, we extend equation (3) by including the shareholders' distraction measure (D) as one of the independent variables:

$$\ln(ExcRem)_{it} = \alpha_0 + \delta \ln(ExcRem)_{it-1} + \beta_1 D_{it} + \beta_2 Y_{it} + yZ_{it} + W_t + \epsilon_{it} \quad (4)$$

3.4. Estimating Technique

Due to the dynamism of our equation, we estimate model (4) by employing an Instrumental Variable (IV) technique and a GMM estimator. We use GMM estimators as motivated by Blundell and Bond (1998) and Roodman (2009) for efficiency. A GMM estimator employing instrumental variables will effectively resolve the endogeneity problem and remove firm fixed effects (Raithatha and Komera, 2016; Wooldridge, 2002) as well as take care of omitted variable bias. It also reduces the impact of highly persistent corporate governance variables, thus enhancing the estimation power (Nguyen et al., 2015; Sheikh et al., 2018). It transforms the instruments to render them uncorrelated (exogenous) with fixed effects. Furthermore, it uses orthogonal deviations – instead of subtracting the previous observation from the contemporaneous one, it removes the average of all the future available observations of a variable. No matter how many gaps, it is

computable for all observations except the last of each one, thereby minimising data loss.

Moreover, GMM is most suitable for large cross-sectional (N) and short time series (T), which are the study's data characteristics. We also carried out the over-identification test as advised by Sargan (1958) and Hansen (1982) as well as Arellano and Bond (1991) autocorrelation test to determine the suitability and validity of the instrumental variables (Blundell & Bond, 1998).

GMM long-run coefficients

We considered the long-run effect of significant variables at 1%, 5%, or 10% levels in the short run on the dependent variable (executive remuneration). The model below was estimated:

$$\beta_k \div [1 - \Phi]$$

where β_k is the coefficient of the significant regressor(s), and ϕ is the lagged dependent variable.

4. Estimation Results

4.1. Summary Statistics

Table 1 summarises the traits of the sample firms concerning the variables employed. Executive remuneration averaged 15.41 million over the 2004 to 2019 period. The absolute total remuneration for the period 2004 to 2019 is R97.144 billion (log value 25.30). The standard deviation indicated that the variable is midway between the maximum and the minimum value as the dispersion from the mean is minimal. Although the data showed that some directors earn up to 24.06 in million, the majority earn within the range of 14.72 to 16.13 in million. The distraction measure, which is the variable of interest, averaged 2.164. Its effect on executive remuneration among JSE-listed firms is small. Firm size with a mean of 8.382 is skewed to the left indicating a more considerable impact on executive remuneration. Overall, the data showed mixed normality, given the skewness and kurtosis results. This data structure hence influenced the choice of the method of data analysis.

Table 1. Summary Statistics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Variables	**N**	**Mean**	**St.D.**	**Min**	**Max**	**25**	**75**	**Kurtosis**	**Skewness**
Rem	2,425	15.41	1.243	9.16	24.06	14.72	16.13	7.138	0.337
Distract.	2,890	2.164	1.163	0.00	6.253	0.0013	0.0559	2,888	53.73
Firm Risk	2,896	0.095	0.155	0.00	4.320	0.0454	0.1065	309.9	14.41
MTB	2,594	8.430	127.2	-3.75	5,187	0.8324	3.0676	1,124	30.68
ROA	2,626	0.440	7.666	-1.937	300.2	0.0251	0.1887	1,107	32.07
Size	2,627	8.382	2.429	-2.042	17.94	6.7135	9.9192	3.141	0.101
Returns	2,453	12.74	479.9	0.00	23,632	0.8145	1.3412	2,395	48.69
Age	2,896	0.931	0.470	0.00	1.602	0.699	1.2788	2.690	-1.022
Leverage	2,704	0.217	0.445	0.00	9.503	0.0289	0.2541	126.9	9.095

4.2. Correlation Matrix Analysis

Table 2 indicates the correlation matrix of our dependent variables using the transformed values. The data is free from multicollinearity as the absolute value of the correlation coefficients between the regressors is less than 0.70. We confirmed this by a variance inflation factor (VIF) that is less than the limit of 10 in all cases. Distraction measure, the variable of interest, has a negative correlation with executive remuneration, but this is not significant. The negative relationship between these variables does not support the study's hypothesis and prior expectations. The regression result that measured the association assisted with clarification.

Moreover, return on assets (ROA), and returns to shareholders showed a positive correlation, but not a significant one. While the main analysis confirmed the positive relationship between returns to shareholders and executive remuneration, it reported a negative link between ROA and executive remuneration. Size and age showed a negative correlation. However, the GMM results reported a positive relationship, and the relationship between size and executive remuneration is statistically significant. This result is consistent with extant literature (Sheikh et al. (2018)) that found that these variables influence executive remuneration.

Table 2. Pairwise Correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Ln Remuneration	1.000								
(2) Returns	0.011 (0.599)	1.000							
(3) Firm Risk	-0.010 (0.622)	-0.001 (0.954)	1.000						
(4) Mkt to book ratio	0.002 (0.939)	0.000 (0.994)	0.051*** (0.008)	1.000					
(5) Return on Assets	0.019 (0.332)	-0.001 (0.971)	-0.009 (0.646)	-0.002 (0.906)	1.000				
(6) Size	-0.046** (0.021)	-0.003 (0.873)	-0.076*** (0.000)	-0.032* (0.096)	-0.036* (0.065)	1.000			
(7) Distraction	-0.001 (0.972)	-0.001 (0.981)	-0.001 (0.960)	-0.001 (0.958)	0.031 (0.117)	-0.014 (0.488)	1.000		
(8) Age	-0.015 (0.444)	-0.029 (0.159)	0.142*** (0.000)	0.003 (0.882)	-0.043** (0.024)	0.309*** (0.000)	0.004 (0.821)	1.000	
(9) Leverage	0.000 (0.982)	0.002 (0.938)	0.053*** (0.006)	0.112*** (0.000)	0.010 (0.597)	-0.011 (0.564)	-0.003 (0.888)	0.024 (0.219)	1.000

Note: ***, **, * signify significance at 1%, 5%, 10% level of significance.

4.3. Regression Results and Discussion

Table 3 presents the empirical results for pooled ordinary least squares (POLS), panel fixed effects (FE), generalised method of moments (GMM), and GMM long-run coefficients. Executive remuneration is the dependent variable. POLS and FE with the robust standard error were used to estimate equation (3).

However, both POLS and FE are unable to address finite bias. Even though FE with robust standard error eliminates firms' fixed effects, it renders the result unreliable (Baltagi, 2008; Raithatha & Komera, 2016). Therefore, to effectively remove firms' fixed effects and tackle endogeneity, we used system-GMM to

estimate equation (4). Additionally, we used GMM long-run coefficient techniques to estimate the statistically significant variables in the short run. The results of the GMM (short and long run) were what the study interpreted. We also reported Wind-Meijer-corrected SEs for GMM. The serial correlation tests AR (1) and AR (2) and Hansen statistics were also reported. The Hansen statistics p-value of 0.208 validates the instruments used, while the AR (2) p-value of 0.117 confirmed that the model did not suffer 2nd order autocorrelation. The F-statistic p-value of 0.000 also validates that the explanatory variables are jointly significant in describing the dependent variable.

The distraction measure was positively related to executive remuneration and statistically significant in the short and long run. Given the effect of the distraction measure on executive remuneration (0.0778), a unit change in distraction measure is associated with a 7% increase in executive remuneration in the short run, at a 5% level of significance on average, all things being equal. Hence, the distraction measure and executive remuneration exhibit an inelastic relationship. Likewise, a unit change in the distraction measure results in a 6% increase in executive remuneration in the long run, at a 5% level of significance on average, all things being equal. However, the long-run effect (0.0590) shows a decrease in terms of its magnitude. This means that the distraction measure has a larger positive impact on executive remuneration in the short run. This result is consistent with the agency theory and extant literature on the effect of institutional shareholders' limited attention occasioned by distraction[6]. The results support the notion that institutional shareholders' distraction has a positive statistically significant effect on executive remuneration.

Furthermore, firm size, one of the control variables, shows a positive association with executive remuneration. Given the effect of firm size on executive remuneration (0.0950), a unit change in firm size results in a 9% increase in executive remuneration in the short run, at a 5% level of significance on average holding other variables constant. Studies show that firm size is one of the determinants of executive remuneration worldwide; hence, it's a positive relationship with executive remuneration (Devers et al., 2007; Frydman & Jenter, 2010; Sheikh et al., 2018). In terms of its long-run effect on executive remuneration (0.0721), a unit change in firm size is associated with a 7% increase

[6] The study finding (a unit change in shareholders' distraction results in a 7% increase in executive remuneration) is consistent with the studies by Cheung et al. (2021), Stein and Zhao (2016), and Kemp et al. (2017) who found a change in shareholders' distraction resulting in 16.5% reduction in cash holding, 2.2% increase in total compensation, and 32% increase in the chance of a lucky grant.

Table 3. Regression Results

VARIABLES	Model 1 OLS	Model 2 FE	Model 3 GMM	Model 4 GMM Long-Run
Lag Remuneration			-0.3183*** (0.0438)	
Distraction Measure	0.0787 (0.0628)	0.0654 (0.0493)	0.0778** (0.0356)	0.0590** (0.0272)
Firm's Risk	-0.1059 (0.2618)	0.0685 (0.1528)	0.3381 (0.4427)	
Return on Assets	-0.0016 (0.0056)	-0.0002 (0.0008)	0.0002 (0.0007)	
Size	0.0562 (0.0458)	0.0567 (0.0479)	0.0950** (0.0479)	0.0721** (0.0363)
Age	0.0164 (1.1436)	-0.4050 (0.9048)	-0.8616 (0.6800)	
Market-to-book ratio	-0.0014 (0.0022)	-0.0024 (0.0037)	-0.0018 (0.0023)	
Returns to shareholder	0.0000 (0.0000)	0.0000*** (0.0000)	0.0000*** (0.0000)	0.0000*** (0.0000)
Leverage	0.0138 (0.0456)	0.0032 (0.0401)	-0.0099 (0.0336)	
Constant	-0.1133 (0.0925)	-0.1370 (0.1326)	-0.0241 (0.1462)	
R-squared	0.003	0.027		
Observations	1,791	1,791	1,774	
Instruments			59/177	
Year Dummies		Yes	Yes	
Arellano-Bond AR (1)			0.000	
Arellano-Bond AR (2)			0.117	
Hansen statistics p-			0.208	
F-Statistic			7.94	

Note: The standard errors are given in parentheses. The ***, **, * signify significance at 1%, 5%, 10% level of significance. Model 1 represents OLS results, Model 2 is Fixed Effects with robust standard errors, and Model 3 represents GMM results. Model 4 represents the GMM long-run coefficient.

in executive remuneration at a 5% level of significance. It has a greater effect on executive remuneration in the short run. Returns to the shareholder (one of the proxies for firm performance) show a positive link with executive remuneration. However, its impact (magnitude) is relatively insignificant; it is less than 1% and statistically significant at 1%.

We identified a negative relationship between a firm's previous performance proxied by lagged executive remuneration and the current compensation. The impact of executive remuneration (-0.3183) shows that a percentage change in the previous remuneration is associated with a 0.32% decrease in executive remuneration at a 1% level of significance. This is inconsistent with Sheikh et al. (2018) study in Pakistan, which established a positive relationship.

5. Conclusion

In South Africa, institutional shareholders' level of engagement with CEOs regarding corporate decisions, especially executive remuneration, is low despite the provision in the King Report that encouraged them to do so. This exacerbates agency problems. Studies have shown that one reason for institutional shareholders' lack of or minimal engagement is limited attention caused by distraction. This study examined whether shareholders' distraction measures are positively related to executive remuneration decisions taken by firms listed on the JSE. Its hypothesis stated that institutional shareholders' distraction has a significantly positive relationship with executive remuneration. We used the robust generalised method of moment (sys GMM) to analyse data on 179 South African companies over the period 2004-2019. Our findings provide evidence that shareholders' distraction has a significant positive impact on executive remuneration in the short and long run. Moreover, other control variables such as size and returns to shareholders significantly affect executive remuneration. These findings help us understand some of the factors leading to the recent accounting scandals in South Africa where excessive CEO remuneration contributed to the scandal, and ineffective corporate governance was identified as one of the causes.

In general, the findings imply that when institutional shareholders are distracted, monitoring intensity drops, and executives can fix excess remuneration for themselves. Given that one of the reasons for institutional shareholders' distraction is a lack of time, we recommend that they should employ research staff to oversee the other stocks in their portfolio when there is a distraction.

They could also purchase real-time access to news feeds for instant information on developments in firms. This paper provides strong evidence that institutional shareholders could enhance corporate governance, consequently improving shareholders' value. A typical implication of this finding is that value-improving activities should influence the firm's stock price. If trading strategies were formulated about the controlled executive remuneration, would it lead to profitable investment? The asset-pricing effects of institutional shareholders' effective monitoring would be a crucial extension of this study.

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APPENDIX

Variables	Definitions
Distraction Measure	We follow Kempf et al. (2017a), to construct a firm-level proxy for institutional shareholder distraction. $Dt_{it} = \sum_{i \in ft-1} \sum_{IND \neq INDf} w_{ift-1} * w_{it-1}^{IND} * IS_t^{IND}$ where f_{t-1} means institutional shareholders' number of firms at the end of period_{t-1}, *IND* indicates JSE 11 industries categorisation and IND_f indicates firm *f's* JSE 11 industry. IS_t^{IND} indicates if there is a distraction event in the industry apart from IND_f, and w_{it-1}^{IND} indicates the weight of the industry sector *IND* in the institutional shareholder *i's* portfolio. The weight w_{ift-1} estimates the significance of shareholder *i* in firm *f* at the end of $period_{t-1}$ By intuition, shareholder *i is* significant if 1) $\text{firm } f's$ weight in shareholder *i's* portfolio is higher and 2) if the proportion of firm *f's* shares owned by shareholder *i* is large. Hence, we estimate $w_{i,f,t-1}$ as: $$W_{ift-1} = \frac{QPFweight_{ift-1} + QPerOwn_{ift-1}}{\sum_{i \in ft-1}(QPFweight_{ift-1} + QPerOwn_{ift-1})}$$ where PFweight_{ift-1} is the $\text{firm}_{f's}$ market value weight in the shareholder *i's* portfolio while PerOwn_{ift-1} is the proportion of ownership shareholder *I* has in firm_f . To avoid outliers, firms in the shareholder *i's* portfolio in the period t-1 are classified into quintiles based on PFweight_{ift-1} and this connotes QPFweight_{ift-1}. Likewise, QPerOwn_{ift-1} is the quintile value of PerOwn_{ift-1}.
Executive remuneration	Natural logarithm of compensation (S&P Capital IQ database)
Size	Natural logarithm of total assets (firms' financials S&P Capital IQ database)
Leverage	Total debt divided by total assets (firms' financials S&P Capital IQ database)
Market-to-book ratio	Market value per share divided by book value per share (firms' financials S&P Capital IQ database)
Age	The logarithm of one plus the number of years since the firm listed on the JSE
Firm risk	The standard deviation of monthly returns (S&P Capital IQ database)
Return to shareholder	Annual stock returns (S&P Capital IQ database)
Return on assets	Income before extraordinary items divided by the total asset (firms' financials S&P Capital IQ database)