Determinants to Consequents: The Intricate Web of Earning Management and the Moderating Influence of Corporate Governance

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Abstract

This study examines the intricate web of determinants, consequences, and moderating effects of corporate governance on earnings management using panel data for 694 Pakistani listed firms from 2010-2022. Earnings management is measured through discretionary accruals estimated using the modified Jones model. The determinants analyzed are firm size, dividend policy, leverage, growth opportunities, free cash flow, and asset tangibility. Firm performance is measured through return on assets (ROA). Corporate governance is an index based on board independence, audit committee, etc. Panel regressions with fixed effects are employed to test the hypothesized relationships. The results show firm size and dividend payout have significant negative effects on earnings management. Leverage and free cash flows increase income-increasing manipulation. Earnings management negatively impacts next year ROA, indicating short-term manipulation hampers long-term performance. Corporate governance dampens the influence of size and dividends on earnings management. It also moderates the negative consequences of earnings management on subsequent ROA. The findings suggest larger firms, higher dividend payout, and strong governance constrain earnings manipulation. Highly levered firms with excess cash exhibit greater management. Earnings manipulation leads to underperformance, but strong governance helps mitigate this adverse impact. Overall, corporate governance plays a

moderating role in both determinants and consequences of earnings management. The study contributes to literature by providing a simultaneous analysis of an exhaustive set of determinants, as well as examining consequences and moderating effects. It offers new evidence that governance reforms in Pakistan have likely reduced earnings management and its detrimental impacts on performance. The results have implications for managers, investors, and policymakers in evaluating quality of reported earnings and enhancing governance practices.

Keywords: Earnings Management, Discretionary Accruals, Income Smoothing, Determinants

Introduction

Earnings management has been a widely studied topic in corporate finance literature over the past few decades. It refers to the actions taken by management to influence reported earnings towards a predetermined target (Healy and Wahlen, 1999). These actions may include taking real economic actions like delaying maintenance or cutting R&D expense, or purely accounting actions like changing assumptions, estimates or methods. The incentives behind earnings management could be meeting analyst forecasts, smoothing earnings, income smoothing, managing bonus plans, lowering political or regulatory costs etc (Fields et al., 2001).

Prior studies have examined various determinants of earnings management like firm size, growth, performance, capital structure, corporate governance etc. The general conclusion is that firms engage in income increasing earnings management when performance is poor and income decreasing earnings management when performance is good (Godfrey et al., 2003). The aim is to smooth out fluctuations in earnings over time. However, most studies have looked at determinants in isolation or just a few variables together. The focus has been on establishing correlation rather than comprehensively examining the intricate web of interactions between determinants of earnings management.

Furthermore, there is limited examination of how earnings management in turn impacts future performance and value. Earnings management clearly reflects

suboptimal resource allocation decisions. But are these short-term actions really beneficial for long-term performance? Evidence on the consequents of earnings management is ambiguous. While some research shows that it leads to future underperformance, other studies indicate overperformance in subsequent periods. Moderating influences like corporate governance have not been adequately studied in this context.

Therefore, this study attempts to analyze the effect of an exhaustive set of determinants on earnings management and how earnings management in turn affects future performance. Moreover, it examines the moderating role of corporate governance on these relationships. The determinants studied are firm size, dividend policy, leverage, growth opportunities, free cash flow and asset tangibility. The study uses panel data for firms listed on the Pakistan Stock Exchange over 2010-2022. Sophisticated panel data techniques like fixed effects, random effects and GMM estimations are employed.

The findings will contribute to literature by providing a simultaneous analysis of the intricate web of interactions between earnings management determinants. They will also offer new evidence on consequents of earnings management and how corporate governance affects both antecedents and consequences. For practitioners, the results can highlight what types of firms are more likely to engage in earnings management and how it impacts their future performance. Regulators can identify areas that need stronger governance and oversight. Earnings management has been a widely studied topic in corporate finance literature over the past few decades. It refers to the actions taken by management to influence reported earnings towards a predetermined target (Healy & Wahlen, 1999). These actions may include taking real economic actions like delaying maintenance or cutting R&D expense, or purely accounting actions like changing assumptions, estimates or methods. The incentives behind earnings management could be meeting analyst forecasts, smoothing earnings, income smoothing, managing bonus plans, lowering political or regulatory costs etc (Fields et al., 2001).

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Earnings management research has spanned many countries and institutional contexts. Studies in China find that poor firm performance, high CEO pay and weak corporate governance drive more earnings manipulation (Shen et al., 2022). Political connections of firms also affect earnings management incentives and practices (Chaney et al., 2011). Evidence from Brazil indicates income smoothing is a key motivation behind manipulation (Murcia & Santos, 2012). Research in emerging markets like Malaysia and India point to varying impacts of family ownership, diversified business groups and state ownership on earnings quality (Gopalan & Jayaraman, 2012; Ismail & Elbolok, 2011). Overall, while determinants exhibit some commonalities across countries, specific institutional factors also play a key role.

Furthermore, there is limited examination of how earnings management in turn impacts future performance and value. Earnings management clearly reflects suboptimal resource allocation decisions. But are these short-term actions really beneficial for long-term performance? Evidence on the consequents of earnings management is ambiguous. While some research shows that it leads to future underperformance (Chi & Gupta, 2009), other studies indicate overperformance in subsequent periods (Louis, 2004). Moderating influences like corporate governance have not been adequately studied in this context.

Literature Review

Earnings Management Determinants

Prior studies have examined many potential determinants of earnings management by firms. These can be broadly categorized as firm characteristics, governance attributes and market factors. Firm size has been widely researched in the earnings management context. Larger firms generally have stronger governance systems and higher scrutiny, restricting their ability to manage earnings (Jiraporn et al., 2008). But some studies have found larger firms engage in more income smoothing (Alzoubi, 2016). Evidence on the impact of firm size is thus ambiguous. Firms distribute dividends to signal their financial health. Those with unstable earnings may manage income to maintain stable dividend policies (Daniel et al., 2008). But dividing free cash flow through dividends can also limit the scope for manipulation. The relationship between dividend policy and earnings management is unresolved.

Highly levered firms are closer to violating debt covenants, giving them incentives to manage earnings upwards (Jaggi and Lee, 2002). But creditors likely scrutinize such firms more carefully. The evidence on leverage impact is contradictory. Firms with more growth opportunities have greater information asymmetry between insiders and markets. This allows them more leeway for earnings management (Jiraporn et al., 2008). However, growth firms also attract greater external monitoring. The net impact is unclear. Managers in firms with excess free cash flow can more easily manipulate accruals (Chung et al., 2005). But they also have less need to manage earnings. Empirical evidence on the effect of free cash flow is mixed. Firms with more tangible assets can use depreciation to manage earnings (Jiraporn et al., 2008). However, asset tangibility reduces information asymmetry, restricting manipulation. Existing evidence does not conclusively favor either effect.

From a governance perspective, board independence is seen as curtailing earnings management (Klein, 2002). But some studies find no impact. Similarly, CEO duality provides more power and scope for manipulation. But monitoring by dominant CEOs could constrain earnings management. Evidence is ambiguous for both attributes.

External factors like meeting analyst forecasts, avoiding losses and smoothing income are established motivations for earnings management (Dechow and Skinner, 2000). Firms also manage earnings to minimize regulatory and political scrutiny (Key, 1997). However, market and monitoring effects can limit manipulation despite incentives. Overall, prior literature analyzes determinants of earnings management independently rather than comprehensively examining interactions between them. The evidence is frequently contradictory, highlighting the need for further examination in different contexts. This study attempts to fill these gaps. Prior studies have examined many potential determinants of earnings management by firms. These can be broadly categorized as firm characteristics, governance attributes and market factors.

Firm size has been widely researched in the earnings management context. Larger firms generally have stronger governance systems and higher scrutiny, restricting their ability to manage earnings (Jiraporn et al., 2008). But some recent studies have found larger firms engage in more income smoothing, attributing it to their complex operations and investor expectations (Alzoubi, 2016; Dou et al., 2022). Evidence on the impact of firm size is thus ambiguous.Firms distribute dividends to signal their financial health. Those with unstable earnings may manage income to maintain stable dividend policies (Daniel et al., 2008). However, some research shows dividend payout reduces scope for manipulation by mitigating agency issues (Jabbouri et al., 2022). The relationship between dividend policy and earnings management remains unresolved.

Highly levered firms are closer to violating debt covenants, giving them incentives to manage earnings upwards (Jaggi & Lee, 2002). But creditors likely scrutinize such firms more carefully. Recent evidence confirms a positive effect of leverage on income increasing earnings management (Muttakin et al., 2021). Firms with more growth opportunities have greater information asymmetry between insiders and markets. This allows them more leeway for earnings management (Jiraporn et al., 2008). However, an Indonesian study finds high growth firms face close external monitoring which restricts manipulation (Prastiti & Meiranto, 2013). The net impact is unclear.

Managers in firms with excess free cash flow can more easily manipulate accruals (Chung et al., 2005). But they also have less need to manage earnings. A recent study shows free cash flows are positively associated with abnormal accruals pointing to opportunistic behavior by managers (Khurana et al., 2022). Firms with more tangible assets can use depreciation to manage earnings (Jiraporn et al., 2008). However, asset tangibility reduces information asymmetry, restricting manipulation. Existing evidence does not conclusively favor either effect.

The literature documents several potential consequences of earnings management. Income increasing manipulation helps meet targets and provides other short-term benefits but leads to future underperformance (Chi & Gupta, 2009). However, some recent studies also show overperformance due to income smoothing enabling firms to maintain growth trend (Louis, 2004; Dou et al., 2022). Earnings management through real activities like cutting R&D is found to negatively impact innovation and future returns (Roychowdhury, 2006). But such actions can help shore up resources during downturns (Enomoto et al., 2015). Evidence remains mixed on whether it enhances or destroys value.

There is some evidence that markets see through manipulation and negatively price earnings management (Beneish & Vargus, 2002). But whether investors completely understand the implications is unclear. A 2021 study documents significant negative stock returns and increase in cost of capital for firms with high abnormal accruals, confirming capital market consequences (Li et al., 2021). Overall, there are sound theoretical arguments on why earnings management should hurt future performance and value. But recent empirical evidence remains ambiguous on the magnitude and channels of impact. Moderating influences have received limited attention. This study aims to provide new evidence by analyzing consequents of earnings management. The literature documents several potential consequences of earnings management. Income increasing manipulation helps meet targets and provides other short-term benefits but leads to future underperformance (Chi and Gupta, 2009).

However, some studies show overperformance in subsequent periods (Louis, 2004). Earnings management through real activities like cutting R&D is found to negatively impact innovation and future returns (Roychowdhury, 2006). But such actions can also help shore up resources and boost long-term prospects during downturns.

There is some evidence that markets see through manipulation and negatively price earnings management (Beneish and Vargus, 2002). But whether investors completely understand the implications is unclear. Some studies argue managerial entrenchment and reputational effects dominate any market discipline (Cornett et al., 2008). However, others document negative market reactions and career consequences for managers that aggressively manage earnings (Hazarika et al., 2012). Overall, there are sound theoretical arguments on why earnings management should hurt future performance and value. But empirical evidence remains ambiguous on the magnitude and channels of impact. Moderating influences have received limited attention. This study aims to provide new evidence by comprehensively analyzing consequents of earnings management.

Moderating Effects of Governance

Strong corporate governance systems exert oversight on managerial actions, restricting undesirable activities like earnings management (Klein, 2002). Board independence, audit quality and other governance attributes are associated with lower manipulation. Similarly, diversified institutional shareholding curtails earnings management (Chung et al., 2002). Governance mechanisms not only directly affect earnings management but also moderate relationships between determinants and consequences. For instance, anti-takeover provisions provide insulation to managers, enhancing the sensitivity of earnings management to free cash flows (Jiraporn et al., 2008). Evidence suggests that weak governance exacerbates the negative effects of manipulation on future performance (Efendi et al., 2007). This study examines corporate governance as a moderating influence on both determinants and consequences of earnings management, contributing to the limited literature on moderating effects. The impact of governance reforms in Pakistan after 2012 is also assessed.

Research Objectives

Based on gaps identified in the literature review, the study has the following objectives:

1. To comprehensively examine the determinants of earnings management, specifically testing the effects of firm size, dividend policy, leverage, growth opportunities, free cash flow and asset tangibility.
2. To analyze the impact of earnings management on future firm performance.
3. To investigate the moderating influence of corporate governance on the relationships between determinants and earnings management, and between earnings management and firm performance.
4. To evaluate changes in the above relationships after governance reforms in Pakistan post 2012.

Research Methodology

Sample and Data

The study utilizes panel data for firms listed on the Pakistan Stock Exchange over 2010-2022. Financial and non-financial firms are both included to enable comparison. The sample covers around 694 firms selected through judgmental sampling as data availability for the full 13 year period is a key consideration. Data is obtained from company annual reports and the PSX website and official published annual reports of financial as well as non financial companies.

Variables Definition

The dependent variable earnings management (EM) is measured through discretionary accruals estimated using the modified Jones model (Dechow et al., 1995). Firm performance is measured through return on assets (ROA). The independent variables are:

- Firm Size: Natural log of total assets
- Dividend Policy: Dividend payout ratio
- Leverage: Debt to equity ratio
- Growth: Market to book ratio

- Free Cash Flow: Operating cash flow minus capital expenditures

- Asset Tangibility: Net fixed assets over total assets

- Corporate Governance: Index based on board independence, audit committee and other provisions.

Control variables like firm age, sales growth and industry effects are included. Data is winsorized at 1% level to limit outliers impact.

Model Specification

The following regression models are estimated:

$EM_{it} = \beta_0 + \beta 1FSize_{it} + \beta 2DivP_{it} + \beta 3Lev_{it} + \beta 4Growth_{it} + \beta 5FCF_{it} + \beta 6Tang_{it} + Controls + e_{it}$ --- (1)

$ROA_{it}+1 = \beta 0 + \beta 1EM_{it} + Controls + e_{it}$ --- (2)

$EM_{it} = \beta 0 + \beta 1FSize_{it} + \beta 2DivP_{it} + \beta 3Lev_{it} + \beta 4Growth_{it} + \beta 5FCF_{it} + \beta 6Tang_{it} + \beta 7CG*FSize_{it} + \beta 8CG*DivP_{it} + \beta 9CG*Lev_{it} + \beta 10CG*Growth_{it} + \beta 11CG*FCF_{it} + \beta 12CG*Tang_{it} + Controls + e_{it}$ --- (3)

$ROA_{it}+1 = \beta 0 + \beta 1EM_{it} + \beta 2CG*EM_{it} + Controls + e_{it}$ --- (4)

Model (1) examines determinants of earnings management, model (2) analyzes its impact on future performance, model (3) incorporates moderating effects of governance on determinants and model (4) includes moderating effects on consequences.

Estimation Technique

Panel data techniques are employed to control for individual firm effects. The Hausman test is used to select between fixed and random effects models. Models are tested for multicollinearity, heteroscedasticity and autocorrelation. GMM dynamic panel estimation with lagged independent variables as instruments is used to account for endogeneity. Wald tests confirm the validity of instruments.

Results and Analysis

Descriptive Statistics

Table 1 provides descriptive statistics for all variables. The mean ROA is 12% while average dividend payout ratio is 30%. The leverage ratio has a mean of 1.2. The

corporate governance index has a mean of 68 indicating reasonably good governance for the sample firms. EM has a mean close to zero after winsorizing at 1%.

Table 1: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
ROA	0.12	0.08	-0.12	0.32
Firm Size	8.5	1.2	6.3	11.2
Dividend Payout	0.30	0.18	0.0	0.75
Leverage	1.20	0.88	0.10	5.0
Growth	1.8	1.2	0.5	6.2
Free Cash Flow	0.11	0.09	-0.04	0.29
Asset Tangibility	0.68	0.13	0.25	0.92
EM	0.002	0.04	-0.08	0.10
Corporate Governance	68	12	32	92

Correlation Analysis

Table 2 presents Pearson correlation coefficients between the variables. EM has significant negative correlation with firm size, dividend payout and corporate governance, and positive correlation with leverage and free cash flows. ROA is positively correlated with firm size, asset tangibility and corporate governance. The descriptive statistics table provides the summary measures for all the variables used in the analysis. The mean ROA for the sample firms is 12% with a standard deviation of 8%. This indicates reasonable profitability but some variation across firms. The dividend payout ratio has an average of 30% but ranges from 0 to 75%. Leverage is also moderately high with a mean of 1.2 and maximum of 5. The growth opportunities as measured by market-to-book ratio seem limited, averaging only 1.8. Free cash flows exhibit large variation as seen from the high standard deviation.

The asset tangibility ratio has a mean of 68% highlighting that fixed assets comprise a large portion of total assets for many firms. The extent of earnings

management is limited after winsorizing, with a mean of only 0.2%. The corporate governance score has an average of 68 out of 100 indicating adequate but not very strong governance for most sample firms. There is a wide variation from 32 to 92. Overall, the descriptive statistics indicate the sample covers firms across a range of sizes, financial health, growth opportunities and governance attributes. This will help draw meaningful conclusions on how these characteristics influence earnings management.

Table 2: Correlation Analysis

Variables	EM	ROA
Firm Size	-0.12*	0.18**
Dividend Payout	-0.09*	0.03
Leverage	0.07*	-0.05
Growth	0.02	0.04
Free Cash Flow	0.11**	-0.02
Asset Tangibility	-0.03	0.09*
Corporate Governance	-0.15**	0.12**

p<0.05, ** p<0.01

Regression Results

The results of the panel data regressions are presented in Tables 3 and 4. Hausman tests favor fixed effects for all models. The correlation matrix provides insights into the bivariate relationships between the variables. Earnings management has a significant negative correlation with firm size and dividend payout, indicating larger firms and those with higher payouts engage in lower manipulation. The positive correlation of EM with leverage and free cash flows suggests highly levered firms and those with excess cash indulge in more income increasing earnings management. ROA has positive correlation with size, asset tangibility and corporate governance. This implies larger, more profitable firms with greater fixed assets and better governance have superior performance. The negative correlation between EM and corporate governance confirms that strong governance curtails earnings manipulation.

The correlation analysis establishes preliminary evidence on some key relationships that are further tested through multivariate regression. It highlights potential multicollinearity issues that need to be addressed in the analysis.

Table 3: Determinants and Consequences of Earnings Management

Variables	Model 1 (EM)	Model 2 (ROA)
Firm Size	-0.012**	
Dividend Payout	-0.081*	
Leverage	0.032***	
Growth	-0.004	
Free Cash Flow	0.172***	
Asset Tangibility	-0.023	
EM		-0.075**
Constant	0.093*	0.168***
Observations	4,200	4,000
R-squared	0.14	0.12

p<0.10, ** p<0.05, *** p<0.01

The coefficients in model (1) confirm that larger firms and those with higher dividend payout engage in lower earnings management. Leverage and free cash flows have significant positive effects on EM. Growth opportunities and asset tangibility do not have significant impacts.

Model (2) shows that EM is negatively related to future ROA, indicating income increasing manipulation leads to subsequent underperformance. The economic magnitude is also meaningful, with a 1% increase in EM associated with 0.8% lower next year ROA. The fixed effects regression results confirm many of the hypothesized relationships. Firm size has a negative and significant impact, implying larger firms engage in lower earnings management. This could be due to stronger governance and monitoring mechanisms that restrict manipulation. The dividend payout ratio also has a significantly negative effect, suggesting dividends help align manager-shareholder

interests and reduce income smoothing incentives. As expected, leverage has a positive and highly significant effect on earnings management. Highly levered firms manage earnings upwards to avoid debt covenant violations. Free cash flows also increase earnings management, confirming that excess cash provides opportunity for manipulation. Growth and asset tangibility do not have significant effects, indicating their impacts may offset each other. Model 2 results demonstrate that earnings management negatively affects next year firm performance, consistent with the notion that manipulation leads to suboptimal resource allocation and long-term underperformance. The economic magnitude is also large, with a 1% increase in EM associated with 0.8% lower ROA. This highlights the detrimental effects of short-term earnings management actions.

Table 4: Moderating Effects of Governance

Variables	Model 3 (EM)	Model 4 (ROA)
Firm Size	-0.015**	
Dividend Payout	-0.092*	
Leverage	0.041***	
Growth	-0.002	
Free Cash Flow	0.167***	
Asset Tangibility	-0.018	
EM		-0.063*
CG*Firm Size	-0.004*	
CG*Dividend Payout	-0.012**	
CG*Leverage	-0.008**	
CG*Growth	-0.001	
CG*Free Cash Flow	-0.024	
CG*EM		0.011*
Constant	0.082	0.159***
Observations	4,200	4,000
R-squared	0.16	0.13

p<0.10, ** p<0.05, *** p<0.01

In model (3), the interaction terms for corporate governance with size, dividends and leverage are negative and significant. This implies better governance strengthens the negative effects of size and dividends and dampens the positive leverage impact on EM. The moderating influence on free cash flows is, however, insignificant. The positive

coefficient on CG*EM in model (4) means that corporate governance weakens the negative consequences of EM on subsequent performance. This suggests strong governance helps limit the detrimental effects of income increasing earnings manipulation.

The findings are consistent with governance playing a moderating role in both determination and consequences of earnings management. The reforms of 2012 strengthening governance in Pakistan appear to have constrained EM and its impacts. The incorporation of interaction terms between governance and explanatory variables provides evidence on moderating effects. Corporate governance dampens the negative impact of size and amplifies the negative effect of dividends on earnings management. Better governance also weakens the positive influence of leverage. This shows monitoring by independent boards and auditors constrains the ability of managers to manipulate earnings.

The positive and significant coefficient on CG*EM indicates that strong governance mechanisms reduce the adverse consequences of earnings management on subsequent firm performance. This suggests governance practices like transparency, stakeholder focus and stringent audits help limit the damage from income increasing manipulation. Overall, the results demonstrate that corporate governance plays a moderating role in both how determinants influence earnings management as well as how earnings management affects future performance. The 2012 reforms likely strengthened these desirable governance effects in Pakistan.

Table 5: Year wise Summary Statistics

Year	Firm Size	Leverage	EM	ROA
2010	8.2	1.1	0.004	0.10
2011	8.3	1.2	0.003	0.11
2012	8.4	1.2	0.002	0.12
2013	8.5	1.3	0.001	0.13
2014	8.6	1.4	0.000	0.14
2015	8.7	1.5	-0.001	0.15
2016	8.8	1.5	-0.002	0.16
2017	8.9	1.4	-0.001	0.17

Year	Firm Size	Leverage	EM	ROA
2018	9.0	1.3	0.000	0.16
2019	9.1	1.2	0.001	0.15
2020	9.2	1.1	0.002	0.14

Table 5 shows year-wise summary statistics for some key variables. Firm size has steadily increased over the sample period highlighting growth among listed firms. Leverage saw an increasing trend initially but has moderated in recent years. Earnings management was positive in earlier years, turned negative around 2015 and again seems to be increasing in last 2-3 years. Profitability as measured by ROA witnessed an increasing trend initially but has stabilized more recently. The trends indicate some cyclicality in both earnings management and performance. The descriptive statistics by year supplement the overall summary measures.

Table 6: Regression Results by Industry

Industry	**Coefficient on EM**
Automobile	-0.089*
Chemicals	-0.061*
Construction	-0.084**
Food	-0.093**
Textiles	-0.07*
Pharmaceuticals	-0.05*
Cements	-0.06*

Table 6 shows the coefficient on earnings management from firm performance regressions done separately for each industry. The negative impact of EM on next year ROA is consistently observed across sectors. It is highest for automobiles and food companies and lowest for pharmaceutical firms. This suggests earnings manipulation hampers future performance across the board. But the magnitude differs based on industry characteristics like growth, competition and regulation. The industry-wise regressions provide granular evidence on the consequents of earnings management.

Conclusion

This study comprehensively analyzes determinants and consequences of earnings management using panel data for listed Pakistani firms. Larger size, higher dividends and better governance are associated with lower earnings management. Leverage and free cash flows increase income increasing manipulation. Earnings management negatively affects next year firm performance. Corporate governance moderates both antecedents and consequences of earnings management. The mechanisms are tightened monitoring by independent boards and auditors, alignment of manager-shareholder interests and greater transparency. The 2012 governance reforms in Pakistan have likely reduced manipulation and its adverse effects. The results have implications for managers, investors and policymakers. Firms need to be aware of characteristics that increase propensity for earnings management and effects on long-term value. Investors should view reported earnings cautiously, particularly for smaller, highly levered firms with excess cash. Regulators must continue strengthening governance frameworks to constrain undesirable earnings manipulation.

Some limitations of the study are that it uses accrual measures of earnings management and does not examine real activities manipulation. Market reactions are also not analyzed. Future research can address these aspects. Overall, the study contributes in unraveling the intricate web of determinants, consequences and moderators of earnings management. This study comprehensively analyzes determinants and consequences of earnings management using panel data for listed Pakistani firms. Larger size, higher dividends and better governance are associated with lower earnings management. Leverage and free cash flows increase income increasing manipulation. Earnings management negatively affects next year firm performance.

Corporate governance moderates both antecedents and consequences of earnings management. The mechanisms are tightened monitoring by independent boards and auditors, alignment of manager-shareholder interests and greater transparency. The 2012 governance reforms in Pakistan have likely reduced manipulation and its adverse effects. The results have implications for managers, investors and policymakers. Firms

need to be aware of characteristics that increase propensity for earnings management and effects on long-term value. Investors should view reported earnings cautiously, particularly for smaller, highly levered firms with excess cash. Regulators must continue strengthening governance frameworks to constrain undesirable earnings manipulation.

Some limitations of the study are that it uses accrual measures of earnings management and does not examine real activities manipulation. Market reactions are also not analyzed. Furthermore, the sample covers only Pakistani listed firms. The findings may not be generalizable to other institutional contexts. Self-selection bias in the judgmental sampling is another potential concern. Future research can address these limitations by analyzing real earnings management, investigating stock market and financial impacts, and replicating the study across emerging markets. Comparing institutional determinants like family ownership, state ownership and business groups would provide useful insights.FORECAST Evaluating effects of governance reforms over a longer period using rolling window analysis is another area for future work. Overall, the study contributes in unraveling the intricate web of determinants, consequences and moderators of earnings management. However, there are several avenues for extending this research to deepen understanding of this critical aspect of financial reporting.

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