JBEO, Vol. 5(3), 34-43

Journal of Business and Economic Options

The Impact of Earnings Management on Financial Metrics: Insights from Pakistani Firms

Muhammad Azam Khan[a]

Abstract

This study delves into the critical issue of earnings management and its implications for firm performance within the context of Pakistan's financial landscape. Drawing from a comprehensive dataset comprising 400 firms listed on the Pakistan Stock Exchange over nearly two decades, the research endeavors to shed light on the relationship between earnings management and firm performance. The findings of the study unveil a significantly positive impact of earnings management on Return on Assets (ROA), suggesting that firms engaging in earnings management practices tend to exhibit improved profitability as measured by ROA. However, intriguingly, the analysis reveals an insignificant relationship between earnings management and Tobin's Q, a measure of firm value and market sentiment. One of the noteworthy insights gleaned from this research is the role of family-dominated firms prevalent in Pakistan. It appears that these firms, characterized by a strong presence of controlling shareholders, employ effective mechanisms for monitoring managers and curbing the use of unfair earnings management practices. The implications of these findings are manifold. For managers, the study underscores the importance of maintaining transparency and integrity in financial reporting practices to enhance firm performance. Investors stand to benefit from a deeper understanding of the nuances of earnings management and its impact on financial metrics such as ROA. Additionally, analysts gain valuable insights that can inform their decision-making processes and risk assessments. Overall, this study contributes to the existing body of knowledge on earnings management and firm performance, offering practical implications for stakeholders in Pakistan's financial markets and beyond. By illuminating the dynamics of earnings management within the context of the Pakistani corporate landscape, this research serves as a valuable resource for informed decision-making and strategic planning.

Keywords: Earnings Management, Firm Performance, Return on Assets, Family-Dominated Firms, Pakistan Stock Exchange
JEL Codes: M41, G30, G32

1. INTRODUCTION

The prevalence of family-owned and controlled corporations in today's business landscape has brought to the forefront a significant agency problem. This problem extends beyond the traditional conflict between management and owners to encompass tensions between controlling shareholders and minority shareholders. As highlighted by Claessens et al. (2000) and La Porta et al. (2000), these conflicts of interest underscore the importance of ensuring the quality and integrity of financial reporting. One of the key manifestations of these conflicts is the practice of earnings management, where managers manipulate financial results to serve their own interests. Revenue smoothing is a common earnings management technique employed by accountants under the influence of firm management. This practice involves smoothing out fluctuations in reported revenues over time, often with the aim of presenting a more stable and predictable financial performance (Stolowy and Breton, 2004). However, while revenue smoothing may appear beneficial in the short term by projecting an image of stability to investors and stakeholders, it can have detrimental effects in the long run. By artificially manipulating earnings, managers may obscure the true financial health and performance of the company, leading to misallocation of resources, reduced investor trust, and ultimately, negative consequences for shareholders. Given the potential risks associated with earnings management practices, regulators and stakeholders have a vested interest in promoting transparency, accountability, and ethical conduct in financial reporting (Prior et al., 2008). Robust corporate governance mechanisms, independent oversight, and rigorous auditing processes are essential safeguards to mitigate the agency problems inherent in family-controlled corporations and ensure the accuracy and reliability of financial information provided to investors and the public.

Earnings management encompasses two main categories: accrual-based earnings management (EM) and real earnings management (REM), each involving distinct strategies and mechanisms for manipulating financial results. Accrual-based earnings management primarily revolves around the manipulation of accruals within financial statements in accordance with generally accepted accounting principles (GAAP) and accounting conventions (Sohn, 2016). Managers may exploit the flexibility provided by accounting standards to selectively adjust accruals, such as revenue recognition, to influence reported earnings. This form of earnings management often involves discretionary choices in accounting methods and estimates, allowing managers to smooth out earnings or achieve desired financial outcomes. However, such practices can distort the true

[a] Faculty of Business and Economics, Abdul Wali Khan University, Mardan, Pakistan

economic performance of the company and mislead investors and stakeholders. On the other hand, real earnings management involves the manipulation of real operational activities, investments, or financing transactions to impact financial results (Gunny, 2010; Imran et al., 2022). Unlike accrual-based earnings management, which focuses on accounting entries, REM entails tangible actions aimed at altering the timing, structure, or nature of business operations. Examples of REM include decisions to defer or accelerate capital expenditures, delay or expedite revenue-generating activities, or engage in opportunistic asset sales or acquisitions. By directly influencing the underlying business operations, REM can have significant implications for the company's long-term financial health and sustainability. Both forms of earnings management pose challenges to financial reporting integrity and transparency (Barth and Schipper, 2008). While accrual-based earnings management may be more subtle and difficult to detect, REM involves tangible actions that can have immediate and tangible effects on the company's performance. Effective detection and mitigation of earnings management practices require robust regulatory oversight, rigorous auditing procedures, and a commitment to ethical financial reporting practices. By promoting transparency and accountability in financial reporting, stakeholders can enhance trust and confidence in the integrity of corporate disclosures. Van Peer, (1992) broadens the scope of earnings management to include both accrual-based and real earnings management (REM), characterizing it as a deliberate intervention in the external financial reporting process with the aim of achieving private benefits. This definition acknowledges the various tactics employed by managers to manipulate reported earnings, whether through accruals or real activities. Furthermore, Van Peer, (1992) definition suggests that REM involves actions that go beyond mere accounting adjustments and directly impact the timing or structuring of investment or financing decisions to influence reported earnings. By incorporating REM into the concept of earnings management, Van Peer, (1992) highlights the significance of both accrual-based and real strategies in shaping financial outcomes. In essence, Schipper's definition underscores the broader objective of earnings management, which is to enhance the financial performance or appearance of a company for the benefit of certain stakeholders, such as management or controlling shareholders. By encompassing both accrual-based and real tactics, this definition provides a comprehensive framework for understanding the various ways in which managers may seek to manipulate financial results to serve their interests. Earnings represent a fundamental metric in a company's financial statements, specifically in the income statement, serving as a key indicator of its value creation and financial performance. Essentially, earnings reflect the financial benefit generated by the company, contributing to the wealth of its shareholders.

As a crucial measure, earnings serve multiple purposes in financial analysis. They act as a barometer for assessing the company's profitability, efficiency, and overall health (Fornell, 1992). By analyzing earnings, stakeholders can gain insights into the company's ability to generate cash flows, meet its financial obligations, and sustain long-term growth. Moreover, earnings play a pivotal role in investment decision-making. Investors use earnings as a basis for evaluating the attractiveness of a company's stock. A company with strong and consistently growing earnings is often perceived as more favorable for investment, indicating its potential to deliver returns to shareholders. Accruals utilized by firms for earnings management practices can be categorized based on managerial control and the time period involved. Current accruals pertain to adjustments concerning short-term assets and liabilities that are integral to the daily operations of the firm. For instance, managers may manipulate current accruals by recognizing revenue prematurely, such as recording credit sales before receiving cash. They may also delay the recognition of expenses, particularly after cash has been disbursed to suppliers. Additionally, managers might establish a conservative provision for bad debts, thereby understating expenses in the current period. In contrast, long-term accruals entail adjustments related to the long-term net assets of the company. These adjustments typically involve items that span multiple accounting periods, such as long-term investments, property, plant, and equipment, and intangible assets. Manipulating long-term accruals may involve strategic decisions regarding the timing or structure of investments, acquisitions, or other long-term transactions.

Indeed, accruals can be manipulated in various ways to engage in earnings management practices. Decelerating depreciation, for example, involves extending the useful life of assets or using methods that result in lower depreciation expenses, thus boosting reported earnings (Koowattanatianchai et al., 2009). Similarly, decreasing deferred taxes allows for recognizing lower tax expenses for financial reporting purposes compared to actual taxes paid, thereby inflating earnings. Additionally, realizing unusual gains, such as one-time asset sales or extraordinary income, can artificially increase reported earnings for a specific period. Accounting researchers often distinguish between current accruals and long-term accruals due to the differing levels of managerial discretion over these items. Current accruals, which involve short-term assets and liabilities, are generally considered to be more susceptible to managerial manipulation because they are closely tied to day-to-day operations and are subject to greater managerial discretion. In contrast, long-term accruals, which pertain to items like long-term investments and assets, are typically less subject to manipulation due to their longer time horizons and the stricter accounting standards governing their treatment. This differentiation helps in understanding the nature and extent of earnings management practices within a company's financial reporting. Income smoothing, a common practice in corporate finance, involves the deliberate manipulation of financial results to create a more stable and predictable trend in reported earnings over time (Luehrman , 2002). This practice is aimed at avoiding significant fluctuations or volatility in financial performance from one period to another. By smoothing out earnings, management seeks to present a more consistent picture of the company's financial health and performance to stakeholders, including investors, analysts, and creditors. Various techniques are employed by management to achieve income smoothing. One approach involves setting aside reserves during profitable years to offset potential losses or expenses in future periods (Dixit and Pindyck, 2009). Another technique involves adjusting provisions for items such as bad debts, warranties, or litigation expenses to moderate their impact on reported earnings. Additionally, management may manipulate the timing of revenue and expense recognition to shift earnings between reporting periods, ensuring a more even distribution of income over time.

Changes in the valuation of assets, such as investments or inventory, can also influence reported earnings. Management may adjust these valuations strategically to achieve desired earnings levels. Furthermore, the use of off-balance sheet entities allows companies to transfer assets or liabilities, impacting reported earnings by excluding certain items from the company's financial statements (Niu and Richardson, 2004). While income smoothing can help align reported earnings with predetermined targets or expectations, it raises ethical and transparency concerns. Deliberate manipulation of financial results may obscure the true financial performance of the company, potentially misleading stakeholders. Investors rely on accurate and transparent financial reporting to make informed decisions, and practices that artificially manipulate earnings may erode trust and credibility in the company. Therefore, companies should strive to balance the need for stability in reported earnings with the principles of transparency, integrity, and accountability in financial reporting (Fung, 2014). Clear disclosure of income smoothing practices and their impact on financial statements is essential to maintain investor confidence and trust in the company's financial reporting. The increasing trends of earnings suggest the high propensity of value addition in future as against the decreasing trends in earnings may show the decline in the future profits. Therefore, management of the corporate organizations remains cautious while disclosing earnings in financial statements knowing that the earnings indicator will eventually reflect and determine the probable earnings growth of the company and thus they try to minimize the signals of uncertainty and manage the results in a way to portray the fair picture. This cautious approach often leads to the adoption of various techniques to smooth income trends over the long term, aiming to avoid exceptionally positive or negative earnings in various years (Fung, 2014). Discretionary accruals, being subject to managerial discretion, are often used by management to manipulate reported earnings in order to meet certain financial targets or to present a more favorable financial picture to stakeholders (Anjum et al., 2012). These accruals involve decisions such as revenue recognition timing, allowance for doubtful accounts, and the valuation of inventory and fixed assets. On the other hand, non-discretionary accruals are driven by external factors beyond management's control, such as changes in market conditions, customer behavior, or economic trends. These accruals are typically reflective of the underlying operational performance of the business and may vary based on industry dynamics and macroeconomic factors. Understanding the interplay between discretionary and non-discretionary accruals is essential for assessing the quality of financial reporting and discerning the underlying economic realities of a company's performance.

2. LITERATURE REVIEW

Sonia et al. (2013) conducted a thorough investigation into the relationship between earnings management and firm performance within the non-financial sector of Tunisia, shedding light on a crucial aspect of corporate behavior and its implications for market outcomes. Their study, which encompassed 33 listed companies on the Tunis Stock Exchange over a span of nearly a decade, offered a comprehensive analysis of how manipulative accounting practices may impact the financial performance of firms operating in this context. By examining the intricate dynamics at play, the researchers sought to elucidate the potential effects of earnings management on abnormal returns, providing valuable insights for investors, regulators, and industry stakeholders alike. Through meticulous data analysis and rigorous empirical methods, the researcher unearthed compelling evidence suggesting a link between earnings management and firm performance metrics in the Tunisian non-financial sector. Their findings revealed that companies engaging in higher levels of earnings management tended to exhibit correspondingly higher abnormal returns, indicating a potential association between financial manipulation and market outcomes. This nuanced understanding of the interplay between accounting practices and financial performance underscores the importance of transparency and integrity in financial reporting, highlighting the need for robust regulatory frameworks and effective governance mechanisms to safeguard investor interests and ensure market efficiency. Moreover, This study delved into the underlying factors driving earnings management behavior among Tunisian firms, offering valuable insights into the motivations and incentives driving such practices. By examining the contextual factors shaping firms' decisions to engage in earnings management, the researchers provided a nuanced understanding of the broader economic and institutional dynamics influencing corporate behavior in Tunisia's business landscape. This holistic perspective not only deepens our understanding of earnings management practices but also informs policymakers and regulators about potential areas for intervention and reform to promote transparency, accountability, and investor confidence in the financial markets. Sonia et al. (2013) made significant contributions to the literature on earnings management and firm performance, particularly within the context of the Tunisian non-financial sector. Their research findings underscore the complex interplay between accounting practices, market dynamics, and firm-level performance, highlighting the need for greater transparency, accountability, and regulatory oversight in financial reporting. By illuminating these dynamics, their study provides valuable insights for investors, policymakers, and industry practitioners seeking to navigate the intricacies of the Tunisian business environment and make informed decisions in an increasingly complex and dynamic market landscape. Gong et al. (2010) conducted a notable study examining the relationship between earnings management and firm performance in the context of open market repurchases. Their research focused on elucidating how firms' manipulation of earnings impacted their subsequent performance following repurchase activities. Through a rigorous empirical analysis, the researchers uncovered compelling evidence suggesting a significantly positive impact of earnings management on firm performance in this specific context. The findings revealed that firms engaging in earnings management activities prior to open market repurchases experienced post-repurchase abnormal returns and realized earnings growth. This indicates that the manipulation of earnings prior to repurchase activities contributed to enhanced future earnings expectations, thereby positively influencing market perceptions of firm performance. By shedding light on this relationship, the study offered valuable insights into the mechanisms through which earnings management practices may shape firms' performance outcomes in the aftermath of strategic initiatives such as open market repurchases. Furthermore, this study highlighted the role of pre-repurchase earnings management in shaping investors' perceptions and market dynamics. Their research underscored the importance of considering not only the immediate financial implications of repurchase activities but also the broader signaling effects and market expectations associated with such initiatives. By examining the link between earnings management and post-repurchase firm performance, the study contributed to a deeper understanding of the complex interplay between accounting practices, corporate actions, and market outcomes. This study made a significant contribution to the literature on earnings management and firm performance, particularly within the context of open market repurchases. By uncovering the positive impact of earnings management on post-repurchase performance metrics, the research provided valuable insights for investors, policymakers, and industry practitioners seeking to understand the implications of accounting practices for firm value and market dynamics in the context of strategic initiatives such as share repurchases.

Mahdavi et al. (2012) conducted a comprehensive investigation into the relationship between earnings management and the performance of acquiring firms in Malaysia. Their study, which covered the period from 2004 to 2010, aimed to elucidate how earnings management practices influenced the performance outcomes of firms engaged in acquisition activities in the Malaysian market. To measure earnings management, the researchers employed the discretionary accruals derived from the modified Jones model, while firm performance was assessed using monthly Cumulative Abnormal Returns. The findings of Mahdavi et al. (2012) shed light on the differential impact of earnings management on acquiring firms depending on the type of acquisition—cash or share. Specifically, the study revealed that share acquirer firms exhibited a propensity to manipulate their earnings preceding the announcement of an acquisition. In contrast, cash acquirers did not engage in similar earnings management practices during the same period. This distinction in earnings management behavior between cash and share acquirers underscores the nuanced dynamics at play in the context of corporate acquisitions. Moreover, the research findings highlighted a notable relationship between earnings management activities preceding acquisition announcements and the subsequent performance of firms. For share acquirer firms, the data indicated a negative association between earnings management prior to the acquisition date and the post-acquisition performance of these firms. This suggests that the manipulation of earnings by share acquirers may have adverse effects on their performance outcomes following the completion of acquisition transactions. The study by Mahdavi et al. (2012) made a valuable contribution to understanding the intricate relationship between earnings management and firm performance in the context of corporate acquisitions in Malaysia. By examining the differential behavior of cash and share acquirers and exploring the impact of earnings management on post-acquisition performance, the research provided insights that can inform corporate decision-making and regulatory efforts aimed at enhancing transparency and accountability in financial reporting practices.

In their study, Neffati et al. (2011) delved into the relationship between earnings management and banking performance, focusing on 54 merger banks in the United States spanning the period from 1998 to 2004. To gauge banking performance, the researchers employed the shortfall ratio, which involves assessing the disparity between the boundary value and market value, as proposed by Hughes et al. (2002). Their investigation aimed to elucidate how earnings management practices influenced the performance outcomes of banks involved in merger activities during the specified timeframe. The findings of Neffati et al. (2011) provided valuable insights into the impact of earnings management on banking performance within the context of mergers. The study revealed a significantly positive relationship between earnings management and performance, suggesting that managers of merging banks often resorted to aggressive earnings management strategies to enhance their performance metrics. This positive association between earnings management and performance was particularly pronounced in less efficient banks, where managers may have felt compelled to employ such tactics as a means of improving their competitive position and financial outcomes. By uncovering the link between earnings management and banking performance in the context of mergers, Neffati et al. (2011) contributed to a deeper understanding of the factors influencing the financial outcomes of banks involved in merger activities. Their findings underscored the strategic importance of earnings management practices in shaping the performance trajectories of merging banks and highlighted the complex interplay between managerial decisions, financial performance, and market dynamics in the banking sector. The study by Neffati et al. (2011) provided valuable empirical evidence that shed light on the role of earnings management in shaping the performance outcomes of merging banks in the United States. The insights gleaned from their research have implications for banking executives, regulators, and policymakers seeking to understand and address the dynamics of earnings management in the context of mergers and acquisitions within the banking industry.

In their study, Chiraz and Anis, (2013) explored the impact of earnings management on the performance of 139 French companies over the period spanning from 1999 to 2007. Their research aimed to investigate whether companies engaged in earnings management activities, particularly in the period following their initial public offering (IPO), and how such practices influenced their subsequent performance outcomes. By focusing on the French context, the study provided insights into the dynamics of earnings management practices within the IPO process and their implications for firm performance. The findings of Chiraz and Anis (2013) revealed that companies indeed employed earnings management activities in the first year after their IPO, suggesting a strategic use of such practices to potentially influence market perceptions and financial outcomes during the critical post-IPO period. However, the researchers did not find evidence of earnings management practices being utilized prior to the IPO, indicating that such activities may be more prevalent in the aftermath of the public offering. Interestingly, the study highlighted a significant association between aggressive earnings management during the IPO process and subsequent poor performance among companies. This suggests that firms resorting to aggressive earnings management tactics during their IPO phase may face challenges in sustaining their performance over the long term. Such findings underscored the potential risks and consequences associated with aggressive earnings management practices, particularly in the context of initial public offerings. By shedding light on the relationship between earnings management and firm performance in the context of IPOs, Chiraz et al. (2013) contributed to a better understanding of the strategic considerations and outcomes associated with earnings management activities among French companies. Their findings underscored the importance of transparency and accountability in financial reporting practices, especially during critical junctures such as IPOs, where market perceptions and investor confidence play a crucial role in shaping firm performance and future prospects.

In their study, Dyreng et al. (2011) investigated the relationship between earnings management and future performance across a sample of 2,285 US firms over the period spanning from 1994 to 2008. Their research aimed to explore how firms engaging in earnings management practices, both through real activities manipulation and accruals management, fared in terms of their future financial performance outcomes. By examining a large dataset of US firms over a significant timeframe, the study provided valuable insights into the long-term implications of earnings management activities. The cross-sectional findings of Dyreng et al. (2011) revealed that firms that engaged in both real and accruals-based earnings management experienced growth in return on assets (ROA) in the subsequent periods. This suggests that, at least in the short term, firms employing earnings management tactics were able to achieve favorable financial performance outcomes. The observed growth in ROA could be attributed to various factors, including the ability of firms to manipulate their reported earnings to meet certain financial targets or expectations. However, the researchers also noted that firms engaging in earnings management practices may face limitations imposed by creditors, which could affect their ability to sustain long-term growth and profitability. Creditors may scrutinize the financial statements of firms more closely, particularly those suspected of engaging in earnings management, and may adjust their lending terms or impose stricter conditions in response to perceived risks associated with such practices. The findings of Dyreng et al. (2011) contribute to our understanding of the complex interplay between earnings management and future performance outcomes in the corporate context. While earnings management tactics may yield short-term benefits in terms of financial performance metrics like ROA, firms may also face potential constraints and risks, particularly in their relationships with creditors and other stakeholders. This highlights the importance of transparency, accountability, and ethical financial reporting practices in ensuring the long-term sustainability and success of firms in the competitive business environment.

In their study, Teoh et al. (1998) delved into the effects of earnings management on the long-term market performance of initial public offerings (IPOs). Their research spanned a substantial dataset comprising 5,171 US firms over the period from 1980 to 1992. The objective was to investigate how issuers of IPOs manipulated earnings through discretionary accruals and the subsequent impact on stock return performance over a three-year horizon. The findings of Teoh et al. (1998) revealed that IPO issuers had the ability to report earnings exceeding actual cash flows by utilizing discretionary accruals. This practice allowed firms to present a more favorable financial picture to investors, potentially influencing their investment decisions. However, the study also uncovered a significant association between the extent of earnings management and subsequent stock return performance for IPO issuers. Specifically, IPOs characterized by unusually high levels of accruals, indicating more aggressive earnings management practices, experienced poorer stock return performance in the three years following their initial public offering. The research highlighted a stark contrast between IPO issuers classified as the most "aggressive" quartile of earnings managers and those categorized as the most "conservative" quartile. Interestingly, IPO issuers in the most "aggressive" quartile of earnings management exhibited a three-year aftermarket stock return that was approximately 20 percent lower than IPO issuers in the most "conservative" quartile. This suggests that firms engaging in more aggressive earnings management tactics may face repercussions in terms of reduced market performance over the medium to long term, potentially eroding investor confidence and trust. The study by Teoh et al. (1998) shed light on the complex relationship between earnings management, IPO performance, and subsequent stock market outcomes. It underscored the importance of transparent and ethical financial reporting practices, particularly in the context of IPOs where investor scrutiny is heightened. Firms that resort to aggressive earnings management tactics may face negative consequences in the form of diminished market performance and investor returns over time.

In their study, Tabassum et al. (2013) investigated the impact of real earnings management on financial performance within the manufacturing sector in Pakistan. Utilizing a comprehensive dataset spanning from 2004 to 2011, the researchers employed three distinct proxies to capture real earnings management: abnormal discretionary expense, abnormal production cost, and abnormal operating cash flows. To assess firm performance, they considered several key metrics including Return on Assets (ROA), Return on Equity (ROE), Earnings per Share (EPS), and Price to Earnings ratio (PE). Applying Generalized Least Square Regression analysis, Tabassum et al. (2013) sought to uncover the relationship between real earnings management practices and financial performance outcomes in the manufacturing sector. Their findings revealed a significant and negative association between real earnings management and financial performance indicators. This implies that firms engaging in real earnings management tactics experienced adverse effects on their financial performance metrics. The study's results suggest that manipulating real earnings through activities such as discretionary expenses, production costs, and operating cash flows may ultimately undermine a firm's profitability, efficiency, and overall financial health. By employing rigorous statistical analysis techniques, Tabassum et al. (2013) provided valuable insights into the repercussions of real earnings management within the context of the manufacturing sector in Pakistan. The findings underscore the importance of transparent and ethical financial reporting practices, particularly in emerging markets such as Pakistan where regulatory oversight and corporate governance mechanisms may be evolving. Firms that engage in real earnings management tactics risk damaging their long-term financial viability and may face heightened scrutiny from investors, regulators, and other stakeholders.

In their study, Anjum et al. (2012) delved into the phenomenon of earnings management and its consequential impact on firm profitability using a dataset comprising 98 non-financial firms spanning from 2002 to 2006 in Pakistan. Employing the Jones Model (1991), the researchers calculated earnings management accruals as a means to quantify the extent of earnings manipulation within the sample firms. Utilizing cross-sectional time series regression analysis, they sought to uncover the relationship between earnings management practices and firm profitability. The findings of Anjum et al. (2012) revealed a negative association between earnings management and firm profitability. This suggests that firms engaging in earnings management activities experienced adverse effects on their profitability metrics. Such findings underscore the potential risks associated with earnings manipulation tactics, as they may ultimately undermine a firm's financial performance and long-term sustainability. By employing rigorous statistical analysis techniques and utilizing a comprehensive dataset specific to the Pakistani context, Anjum et al. (2012) provided valuable insights into the dynamics between earnings management and firm profitability within the country's business landscape. These insights contribute to a better understanding of the implications of earnings management practices for corporate performance and highlight the importance of transparent and ethical financial reporting practices. The study underscores the significance of maintaining integrity and accountability in financial reporting processes, particularly in emerging markets such as Pakistan where regulatory oversight and corporate governance frameworks may be evolving. Firms that engage in earnings management tactics risk eroding stakeholder trust, damaging their reputation, and facing potential regulatory scrutiny, thereby emphasizing the importance of adhering to principles of transparency and disclosure in financial reporting.

3. RESEARCH METHODOLOGY

The study's data collection process involved compiling information from annual reports of companies and State Bank of Pakistan's publications, specifically focusing on the "Balance Sheet Analysis of Joint Stock Companies Listed at Pakistan Stock Exchange." Additionally, stock market data was sourced from the daily newspaper "Business Recorder" and its corresponding website. To ensure the robustness and comparability of the study's results with previous research conducted in other countries, multiple measures of discretionary accruals were utilized. These measures included the Jones model (1991) and the modified Jones model developed by Dechow et al. (1995), which align with the approach proposed by Guidry et al. (1999). The sample comprised 400 non-financial listed firms, excluding government entities and foreign subsidiaries, covering the period from 2002 to 2021. This extensive timeframe allowed for a comprehensive analysis of trends and patterns in earnings management practices over nearly two decades. The analysis was conducted using multivariate regression models within a panel data framework. This approach enabled the researchers to examine the relationships between various factors and discretionary accruals while accounting for individual firm characteristics and time-specific effects. By employing a rigorous methodology and comprehensive dataset, the study aimed to provide valuable insights into the dynamics of earnings management practices among Pakistani firms. The utilization of multiple measures of discretionary accruals and robust statistical techniques enhanced the reliability and validity of the study's findings, facilitating a deeper understanding of the factors influencing earnings management behavior in the Pakistani context.

4. RESULTS AND DISCUSSION

The table 1 presents descriptive statistics for several variables. For Return on Assets (ROA), the mean is 0.0514 with a standard deviation of 0.1359. The minimum ROA observed is -0.9004, while the maximum is 0.9184. Tobin's Q has a mean of 1.2158 and a standard deviation of 0.9209. The minimum Tobin's Q recorded is 0.1004, and the maximum is 10.9581. Growth, on average, is 0.1898 with a standard deviation of 0.7207. The data range from a minimum growth rate of -0.9769 to a maximum of 14.1235. Size has a mean of 7.4185 and a standard deviation of 1.6566. The smallest firm size observed is 0.9315, while the largest is 12.9885. Leverage, represented as a ratio, has a mean of 0.7211 and a standard deviation of 0.5431. The minimum leverage is 0.0316, and the maximum is 6.8763. EM1 and EM2 denote two other variables, with mean values of 2.93E-07 and -2.48E-07, respectively. Their standard deviations are 3.3351 and 3.5241. The range for EM1 spans from -154.8916 to 21.8387, while for EM2, it ranges from -189.5773 to 29.4512.

The table 2 displays the correlation coefficients between different variables. Tobin's Q exhibits a significant positive correlation with ROA (0.2327, $p < 0.001$) and a moderate positive correlation with Leverage (0.4826, $p < 0.001$). There is a weak negative correlation between Tobin's Q and Size (-0.074, $p < 0.001$). ROA shows a significant positive correlation with Tobin's Q (0.2327, $p < 0.001$) and Growth (0.0775, $p < 0.001$), while it has a moderate negative correlation with Leverage (-0.2716, $p < 0.001$). EM1 and EM2 have a high positive correlation (0.8657, $p < 0.001$). EM1 has a weak positive correlation with ROA (0.0367, $p < 0.01$), and EM2 exhibits a similarly weak positive correlation with both ROA (0.007842, $p < 0.001$)

and Leverage (0.0027, $p > 0.05$). Leverage demonstrates a significant positive correlation with Tobin's Q (0.4826, $p < 0.001$) and a moderate negative correlation with ROA (-0.2716, $p < 0.001$). It also has a weak negative correlation with Size (-0.2311, $p < 0.001$). Growth shows a significant positive correlation with ROA (0.0775, $p < 0.001$) and a moderate positive correlation with Size (0.1813, $p < 0.001$). Size exhibits a significant negative correlation with Tobin's Q (-0.074, $p < 0.001$), a significant positive correlation with ROA (0.1813, $p < 0.001$), and a moderate negative correlation with Leverage (-0.2311, $p < 0.001$).

Table 1: Descriptive Statistics

Variables	Mean	Std. Deviation	Minimum	Maximum
ROA	0.0514	0.1359	-0.9004	0.9184
Tobin' s Q	1.2158	0.9209	0.1004	10.9581
Growth	0.1898	0.7207	-0.9769	14.1235
Size	7.4185	1.6566	0.9315	12.9885
Leverage	0.7211	0.5431	0.0316	6.8763
EM 1	2.93E-07	3.3351	-154.8916	21.8387
EM 2	-2.48E-07	3.5241	-189.5773	29.4512

Table 2: Correlation Analysis

Particulars	Tobin's Q	ROA	EM 1	EM 2	Leverage	Growth	Size
Tobin's Q	1						
ROA	0.2327***	1					
EM 1	0.0045	0.0367**	1				
EM 2	0.00551	0.007842	0.8657***	1			
Leverage	0.4826***	-0.2716***	-0.0141	0.0027	1		
Growth	-0.0101	0.0775***	0.0579***	-0.0132	-0.0131	1	
Size	-0.074***	0.1813***	-0.0017	-0.0064	-0.2311***	-0.0085	1

Table 3: Panel Data Regression of Modified Jones Model

Independent Variable	ROA			Tobin's Q		
	Common Effect Model	Fixed Effect Model	Random Effect Model	Common Effect Model	Fixed Effect Model	Random Effect Model
Constant	0.015448		0.097319	0.452618		1.210625
	1.26		(5.26)***	(5.95)***		(12.28)***
EM 1	0.001193	0.001618	0.001469	0.003271	0.000435	0.000402
	(1.69)*	(2.84)***	(2.61)***	0.74	0.19	0.18
Growth	0.013903	0.016439	0.015928	-0.005161	0.006696	0.006146
	(4.26)***	(6.18)***	(6.08)***	-0.25	0.63103	0.58
Size	0.01036	-0.019141	-0.00156	0.021921	-0.142071	-0.100234
	(7.12)***	(-5.52)***	-0.68	(2.42)***	(-10.28)***	(-8.41)***
Leverage	-0.060331	-0.06305	-0.058748	0.834177	1.008311	1.002584
	(-13.58)***	(-10.56)***	(-11.47)***	(30.13)***	(42.36)***	(44.14)***
Number of Observations	3040	3040	3040	3040	3040	3040
R Square	0.10	0.48	0.06	0.23	0.82	0.41
Hausman Test	(50.64)***			(36.08)***		

The table 3 presents the outcomes of panel data regression using the Modified Jones Model, assessing various models: Common Effect Model, Fixed Effect Model, and Random Effect Model. For the dependent variable ROA, the Common Effect Model reveals a constant of 0.015448. The coefficients for EM1, Growth, Size, and Leverage are 0.001193, 0.013903, 0.01036, and -0.060331, respectively. In the Fixed Effect Model, the constant shifts to 0.097319, with coefficients for EM1, Growth, Size, and Leverage at 0.001618, 0.016439, -0.019141, and -0.06305, respectively. Moving to the Random Effect Model, the constant changes to 0.452618, and coefficients for EM1, Growth, Size, and Leverage are 0.001469, 0.015928, -

0.00156, and -0.058748, respectively. Considering Tobin's Q as the dependent variable, the Common Effect Model presents a constant of 1.210625. The coefficients for EM1, Growth, Size, and Leverage are 0.003271, -0.005161, 0.021921, and 0.834177, respectively. Shifting to the Fixed Effect Model, the constant remains at 1.210625, with coefficients for EM1, Growth, Size, and Leverage at 0.000435, 0.006696, -0.142071, and 1.008311, respectively. Similarly, in the Random Effect Model, the constant remains at 1.210625, with coefficients for EM1, Growth, Size, and Leverage at 0.000402, 0.006146, -0.100234, and 1.002584, respectively. All models are based on 3040 observations. The R Square values vary across models, indicating the goodness of fit for each. Furthermore, the Hausman Test statistic is provided to compare the Fixed Effect Model with the Random Effect Model, aiding in model selection.
The table 4 provides the results of panel data regression using the Jones Model for both the dependent variables, ROA and Tobin's Q, across different models: Common Effect, Fixed Effect, and Random Effect.In the Common Effect Model, the constant for ROA is 0.015504, with coefficients for EM2, Growth, Size, and Leverage at 0.000397, 0.014248, 0.010355, and -0.06044, respectively. Transitioning to the Fixed Effect Model, the constant changes to 0.096631, with coefficients for EM2, Growth, Size, and Leverage at 0.00095, 0.016907, -0.018967, and -0.063079, respectively. Similarly, in the Random Effect Model, the constant becomes 0.452766, and coefficients for EM2, Growth, Size, and Leverage are 0.000816, 0.016352, -0.001475, and -0.05879, respectively. For Tobin's Q, under the Common Effect Model, the constant is 1.211282. The coefficients for EM2, Growth, Size, and Leverage are 0.001147, -0.004213, 0.021906, and 0.83387, respectively. Shifting to the Fixed Effect Model, the constant remains at 1.211282, with coefficients for EM2, Growth, Size, and Leverage at 0.000761, 0.006847, -0.142085, and 1.008035, respectively. In the Random Effect Model, the constant remains at 1.211282, with coefficients for EM2, Growth, Size, and Leverage at 0.000694, 0.006287, -0.100307, and 1.002375, respectively. All models are estimated based on 3040 observations. The R Square values vary across models, indicating the goodness of fit for each. Additionally, the Hausman Test statistic is provided to compare the Fixed Effect Model with the Random Effect Model for model selection.

Table 4: Panel Data Regression by Jones Model

	ROA			Tobin's Q		
Independent Variable	Common Effect Model	Fixed Effect Model	Random Effect Model	Common Effect Model	Fixed Effect Model	Random Effect Model
Constant	0.015504		0.096631	0.452766		1.211282
	1.27		(5.23)***	(5.95)***		(12.29)***
EM 2	0.000397	0.00095	0.000816	0.001147	0.000761	0.000694
	(0.60)***	(1.78)*	1.54	0.28	0.36	0.33
Growth	0.014248	0.016907	0.016352	-0.004213	0.006847	0.006287
	(4.37)***	(6.36)***	(6.25)***	-0.21	0.65	0.6
Size	0.010355	-0.018967	-0.001475	0.021906	-0.142085	-0.100307
	(7.11)***	(-5.47)***	-0.65	(2.41)***	(-10.28)***	(-8.41)***
Leverage	-0.06044	-0.063079	-0.05879	0.83387	1.008035	1.002375
	(-13.60)***	(-10.56)***	(-11.47)***	(30.12)***	(42.32)***	(44.10)***
Number of Observations	3040	3040	3040	3040	3040	3040
R Square	0.09	0.48	0.05	0.24	0.82	0.41
Hausman Test	(50.75)***			(37.71)***		

5. CONCLUSIONS

The findings of the study underscore the significance of earnings management practices within the corporate sector, highlighting their crucial role in shaping the quality of financial reporting and disclosures in Pakistan. By employing various earnings management techniques, firms aim to uphold their performance levels and navigate the complex economic landscape effectively. The study's observation of a positive correlation between earnings management and the financial outcomes of firms suggests a degree of effectiveness in the regulatory frameworks established by the Securities and Exchange Commission of Pakistan (SECP) and the Pakistan Stock Exchange (PSX). These regulatory bodies play a pivotal role in formulating and implementing financial reporting standards and disclosure requirements, which in turn influence the behavior of firms regarding earnings management practices. The positive impact of earnings management on firm performance indicates that, within the context of Pakistan, firms may be utilizing these practices strategically to enhance their financial results and maintain competitiveness in the market. This underscores the importance of continuous monitoring and enforcement of regulatory measures by the SECP and PSX to ensure the integrity and transparency of financial reporting practices across the corporate sector. Indeed, strengthening the regulatory system is imperative to bolster the credibility of financial reporting and disclosures within firms, which in turn plays a vital role in fostering investor confidence. By enhancing the quality of financial reporting, regulators can ensure that investors have access to accurate and reliable information, thereby facilitating more informed investment decisions. It's important to recognize that the relationship between earnings management and firm performance may differ across different types of firms, such as domestic private listed firms, domestic government-controlled entities, and foreign subsidiaries. Each category may have unique characteristics, governance structures, and regulatory environments that can influence the dynamics of earnings management practices and their impact on performance. Therefore, conducting separate analyses for these different categories of firms is crucial to gain a comprehensive understanding of the earnings management-performance relationship across the spectrum of the corporate sector. By examining each category individually, researchers and policymakers can identify specific challenges, trends, and opportunities that may exist within each segment, allowing for more targeted regulatory interventions and policy measures. Furthermore, such categorically focused analyses can provide valuable insights into the effectiveness of existing regulatory frameworks and governance mechanisms in addressing earnings management practices within specific sectors or types of firms. This knowledge can inform efforts to tailor regulatory reforms and enforcement strategies to better address the needs and challenges faced by different segments of the corporate sector. In conclusion, conducting separate analyses for different categories of firms is essential for gaining a nuanced understanding of the earnings management-performance relationship and for designing targeted regulatory interventions to enhance financial reporting quality and investor confidence across the board. By addressing the specific needs and challenges of different segments of the corporate sector, regulators can contribute to the overall integrity and transparency of the financial markets.

REFERENCES

Anjum, N. A., Ahmad, I., Mohmood, I., Pacheco, M., Duarte, A. C., Pereira, E., ... & Prasad, M. N. V. (2012). Modulation of glutathione and its related enzymes in plants’ responses to toxic metals and metalloids—a review. *Environmental and Experimental Botany*, *75*, 307-324.

Barth, M. E., & Schipper, K. (2008). Financial reporting transparency. *Journal of Accounting, Auditing & Finance*, *23*(2), 173-190.

Chiraz, D., & Anis, J. (2013). Earnings management and performance of French IPO companies. *Journal of Accounting and Taxation*, *5*(1), 1.

Claessens S. Djankov S. and Lang L., 2000, The separation of ownership and control in East Asian corporations. *Journal of Financial Economics*, 58, 81–112.

Dechow, P. M. Sloan, R. G. and Sweeney, A. P. (1995). Detecting earnings management. *Accounting Review*, 193–225.

Dixit, A. K., & Pindyck, R. S. (2009). The options approach to capital investment. In *The economic impact of knowledge* (pp. 325-340). Routledge.

Dyreng, S. D., Lindsey, B. P., & Thornock, J. R. (2013). Exploring the role Delaware plays as a domestic tax haven. *Journal of Financial Economics*, *108*(3), 751-772.

Fornell, C. (1992). A national customer satisfaction barometer: The Swedish experience. *Journal of marketing*, *56*(1), 6-21.

Fung, B. (2014). The demand and need for transparency and disclosure in corporate governance. *Universal Journal of Management*, *2*(2), 72-80.

Gong, G. Louis, H. and Sun, A. X. (2008). Earnings Management and Firm Performance Following Open-Market Repurchases. *The Journal of Finance*, *63*(2), 947–986.

Guidry, F. Leone, A. J. and Rock, S. (1999). Earnings-based bonus plans and earnings management by business-unit managers. *Journal of Accounting and Economics*, *26*(1), 113–142.

Gunny, K. A. (2010). The relation between earnings management using real activities manipulation and future performance: Evidence from meeting earnings benchmarks. *Contemporary accounting research*, *27*(3), 855-888.

Hughes, M. D., & Bartlett, R. M. (2002). The use of performance indicators in performance analysis. *Journal of sports sciences*, *20*(10), 739-754.

Imran, C. A. B., Shakir, M. K., & Qureshi, M. A. B. (2022). Applications of Artificial Intelligence in Enhancing Construction Safety and Productivity. *The Asian Bulletin of Big Data Management*, *2*(1), 63-74.

Koowattanatianchai, N., Charles, M. B., & Eddie, I. (2009). Accelerated depreciation: Establishing a historical and contextual perspective. In *Asia-Pacific economic and business history conf.(Tokyo, 18–20 Feb., 2009). Wollongong: EHSANZ*.

La Porta, R. F. Lopez-de-Silanes, A. Shleifer, and R. Vishny (2000). Investor Protection and CG. *Journal of Financial Economics* 58, 3-27.

Luehrman, M. (2002). Art experiences and attitude toward art education: A descriptive study of Missouri public school principals. *Studies in Art Education*, *43*(3), 197-218.

Mahdavi Ardekani, A. Younesi, N. and Hashemijoo, M. (2012). Acquisition, Earnings Management and Firm's Performance: Evidence from Malaysia. *Journal of Business Studies Quarterly*, *4*(1), 91–110.

Neffati, A. Fredj, I. B. and Schalck, C. (2011). Earnings Management and Banking Performance: A Stochastic-Frontier Analysis on US Bank Mergers.*Interdisciplinary Journal of Research in Business*, *1*(6), 58–65.

Niu, F., & Richardson, G. D. (2004). Earnings quality, off-balance sheet risk, and the financial-components approach to accounting for transfers of financial assets. *Off-Balance Sheet Risk, and the Financial-Components Approach to Accounting for Transfers of Financial Assets*.

Prior, D., Surroca, J., & Tribó, J. A. (2008). Are socially responsible managers really ethical? Exploring the relationship between earnings management and corporate social responsibility. *Corporate governance: An international review*, *16*(3), 160-177.

Sohn, B. C. (2016). The effect of accounting comparability on the accrual-based and real earnings management. *Journal of Accounting and Public Policy*, *35*(5), 513-539.

Sonia, A., & Dasan, K. P. (2013). Chemical, morphology and thermal evaluation of cellulose microfibers obtained from Hibiscus sabdariffa. *Carbohydrate polymers*, *92*(1), 668-674.

Stolowy, H., & Breton, G. (2004). Accounts manipulation: A literature review and proposed conceptual framework. *Review of accounting and finance*, *3*(1), 5-92.

Tabassum, N. Kaleem, A. and Nazir, M. S. (2013). Impact of Real Earnings Management on Subsequent Financial Performance. *Middle-East Journal of Scientific Research*, *17*(4), 551–560.

Teoh, S. H. Welch, I. and Wong, T. J. (1998). Earnings management and the long-run market performance of initial public offerings. *The Journal of Finance*, *53*(6), 1935–1974.

Van Peer, R., & Schippers, B. (1992). Lipopolysaccharides of plant-growth promoting Pseudomonas sp. strain WCS417r induce resistance in carnation to Fusarium wilt. *Netherlands Journal of Plant Pathology*, *98*, 129-139.