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A Review of Earnings Management Literature

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Abstract

This review seeks to provide an overview of the earnings management literature, synthesizing a wide array of studies spanning several years. Earnings management, a critical aspect of financial reporting, has been extensively examined in accounting and finance due to its implications for stakeholders, including shareholders, creditors, regulators, and analysts. By systematically reviewing a diverse body of research, this study aims to uncover underlying patterns, theoretical frameworks, methodological approaches, and key empirical findings within the earnings management research stream. The main contributions of the review are (1) its evaluation of the extant earnings management literature, (2) at least two testable earnings management propositions, and (3) the suggestions for future research. Overall, earnings management research has made significant strides in unraveling the complexities surrounding financial reporting behaviors and practices. By continuing to building upon this foundation, future research can enhance further the transparency and integrity of financial markets, thus ultimately fostering greater trust and confidence among investors, creditors, and other stakeholders in the corporate ecosystem.

1. Introduction

Earnings management (EM), a phenomenon characterized by the strategic manipulation of financial reports to influence stakeholders' perceptions of a firm's financial health, has been a subject of considerable interest and scrutiny within the fields of accounting and finance for several decades. It is now largely viewed as a major concern by many in the corporate ecosystem. According to Healy and Wahlen (1999, p. 368), EM "*occurs when managers use judgment in financial reporting and in structuring transactions to alter financial report to either mislead some stakeholders about the underlying economic performance of the company or influence contractual outcomes that depend on reported accounting numbers*." Over the years, a wealth of research (Dechow et al., 1995; DeFond and Subramanyan, 1998; Becker et al., 1998; Dechow and Dichev, 2002; Francis et al, 2004; Roychowdhury, 2006; Rountree et al., 2008; Gunny, 2010; Roy and Alfan, 2022) has emerged to dissect, understand, and ultimately mitigate this troubling corporate behavior. Instances of EM involve stock issues (Teoh et al., 1998), management buyouts (Wu, 1997), corporate takeovers (Easterwood, 1997), auditor change (DeFond and Subramanyan, 1998), and auditor selection (Becker et al., 1998), among others.

This introduction sets the stage for an in-depth review of the EM literature, aiming to provide a comprehensive overview of the key themes, methodologies, and finding that have shaped our understanding of this critical area of financial reporting and corporate governance. Through a careful examination of studies conducted in this stream, we seek to shed light on the commonalities, divergences, and unresolved questions that continue to stimulate academic discourse and inform practical implications for regulators, auditors, and investors alike.

In this review, we will delve into the evolution of EM research, providing a brief background and context, highlighting conceptual frameworks, empirical findings that have significantly contributed to our comprehension of this multifaceted phenomenon. Further, we will address the methodological nuances inherent in this stream, offering insights into the challenges and limitations researchers have encountered when synthesizing studies from diverse empirical investigations. Finally, we will present a nuanced discussion of the major findings and trends that have emerged from the earnings management literature, offering a valuable perspective on the state of current knowledge, and some propositions and avenues for future research.

Through this review, we aim to provide a holistic understanding of the EM landscape, emphasizing the contributions of review in consolidating and advancing our knowledge in this vital area of accounting and financial research. Synthesizing the collective wisdom derived from numerous research studies, this review aims to offer fresh insights, identify gaps, and inspire further exploration in the ongoing quest to unravel the intricacies of EM behavior.

2. Background and Context

Earnings management (EM) refers to the strategic manipulation of a company's financial statements, typically with the aim of presenting a more favorable picture of its financial wealth than what might be the case. This can be done through various accounting practices, such as revenue recognition, expense accruals, and the use of reserves. EM has been a topic of significant interest and concern within the fields of accounting, finance, and corporate governance for several decades. It has gained prominence in the 1980s through the 2000s due to some high-profile corporate scandals like Adelphia, Enron, and WorldCom. These scandals highlighted the destructive consequences of aggressive EM, which ultimately led to the collapse of these once-prominent companies.

In trying to understand EM, it should be indicated that the regulatory environment plays a crucial role. Indeed, accounting standards, such as the Generally Accepted Accounting Principles (GAAP) in the United States or the International Financial Reporting Standards (IFRS) outside the United States, provide guidelines for how companies should prepare their financial statements. However, there can be areas of discretion within these standards or rules that allow for some level of interpretation, which can potentially be exploited for EM purposes. Companies may have various incentives for engaging in EM, including meeting or exceeding analysts' expectations, influencing stock prices, avoiding covenant violations with lenders, or even trying to secure favorable terms for potential mergers and acquisitions deals. EM can have significant implications for a company and its stakeholders. In fact, when companies are suspected of engaging in EM, investors may become skeptical about the reliability of their financial statements. This can then lead to decrease investors' confidence and, in some cases, legal consequences for the company and its executives. Effective corporate governance mechanisms are therefore crucial in mitigating the risks associated with EM. For example, strong boards of directors, independent auditors, and regulatory oversight bodies play a critical role in monitoring and ensuring the accuracy of financial reporting.

With the advancement in technology and the increasing complexity of financial transactions, new challenges and opportunities for EM have emerged. For example, the use of complex financial instruments and valuation of intangible assets have introduced additional complexity in financial reporting, providing opportunities for EM. EM raises important ethical questions about transparency, accountability, and the fiduciary responsibility of corporate leaders. Striking a balance between presenting a company's financial performance accurately and meeting stakeholders' expectations is a continuous challenge. In response to the 2000s high-profile corporate scandals, regulators have implemented measures aimed at curbing EM, including stricter accounting standards, enhanced audit requirements, and increased penalties for financial misconduct. Thereby, understanding the background and context of EM is crucial for investors, creditors, regulators, corporate leaders, and other stakeholders. This review highlights the need for transparency, ethical behavior, and effective governance mechanisms in the financial reporting process. Moreover, staying informed about evolving accounting standards and regulatory changes is essential for all stakeholders involved in the corporate ecosystem.

3. Trends and Patterns in Earnings Management Research

3.1. Evolution of EM Research Over Time

EM research has evolved significantly over time, reflecting changes in accounting practices, regulatory environments, and academic perspectives. In its early stages between the 1960s and 1980s, EM research primarily focused on detecting and measuring earnings manipulation.

Scholars then were interested in identifying instances where companies manipulated financial statements to meet certain benchmarks or to present a more favorable image to stakeholders. Researchers therefore relied heavily on financial ratios and statistical techniques to identify potential cases of EM. Subsequently, the 1990s and early 2000s saw the introduction of significant regulatory changes, such the Sarbanes-Oxley Act of 2002. These regulations aimed to enhance corporate governance, financial reporting, and auditing standards in response to then high-profile corporate scandals. EM research in this period began to incorporate a broader consideration of corporate governance mechanisms and their impacts on financial reporting quality.

Between the 2000s and the 2010s, there has been a growing interest in understanding the behavioral aspects of earnings management. Researchers thereby started to examine the psychological and organizational factors that influence managerial decisions related to financial reporting. For example, some studies explored the role of executives' compensations, career concerns, and cognitive biases in shaping EM behavior. Also, during this period, a significant shift occurred towards studying "*real EM*" (Roychowdbury, 2006; Cohen et al., 2008), which involves actual operational decisions that affect reported earnings. Real EM includes activities like discretionary expenses, production or sales volume, and research and development expenditures manipulations. Researchers therefore began to employ more sophisticated methodologies, including event studies and econometric models, to identify and analyze real EM activities.

Beyond the 2010s to the present, EM research has emphasized understanding the contextual factors that influence EM. For example, studies during this period consider industry-specific characteristics, market conditions, and firms-specific attributes in assessing the extent and motivations behind EM behavior. Researchers also started investigating during this period the impact of EM on various stakeholders, including shareholders, creditors, and regulators. Moreover, since the 2010s, advances in technology, such as the availability of big data and machine learning techniques, have enabled researchers to conduct more sophisticated analyses of financial data and EM. These technological advances allow a deeper understanding of EM behavior and its implications for accounting theories and practices. As a result, future EM research is likely to continue leveraging these technological advancements to gain new insights into the complexities EM behavior.

3.2. Geographic and Industry Variations

Earnings management (EM) refers to the discretionary window-dressing of earnings and financial statements by managers to achieve specific objectives, such as meeting earnings targets or portraying a more favorable financial picture of a company than its true financial state. Research on EM has been conducted across different geographic regions and industries. However, the large proportion of the EM research has been carried out in the United States (US), given the country's significance in global financial markets. Studies in the US have examined various factors influencing EM practices, including regulatory environment, legal enforcement, and market competition. The Sarbanes-Oxley Act of 2002 introduced stricter regulations, which have had a significant impact on EM behavior.

In Europe, EM research has generally explored differences in accounting standards and regulatory frameworks across countries. The adoption of the International Financial reporting Standards (IFRS) has influenced the prevalence and nature of EM practices and research. Additionally, cultural, and institutional factors have played a role in shaping management behavior. Finally, in Asia-Pacific region, EM research has often focused on emerging economies with distinct regulatory environments. For example, research in China has examined the impact of government ownership and political connections on EM. Japan, with its unique corporate governance structure, has also carried out some of EM research.

As related to industry variations, first, EM research within the financial services sector has often centered on issues related to risk-taking behavior and the management of loan provisions. Regulatory changes and economic conditions can significantly impact EM practices in this industry. Second, in the manufacturing and retail industry, EM studies have generally focused on production, inventory valuation, and the use of discretionary expenses. Third, high-growth industries like technology and information technology have often faced unique challenges related to revenue recognition, intangible asset valuation, and R&D expenses. EM practices in these sectors are influenced by factors such as market expectations and competitive pressures. Fourth, in energy and utility industry, EM research has investigated issues related to assets impairment, revenue recognition, and environmental liabilities. Regulatory requirements and commodity price fluctuations are critical factors influencing EM behavior. Thereby, EM studies in this industry are influenced largely by factors like regulatory compliance, patent expirations, and clinical trial outcomes.

Overall, EM research on geographic and industry variations provides valuable insights into the factors that influence managerial behavior in different contexts. Understanding these variations is crucial for regulators, investors, and practitioners in assessing the quality and reliability of financial information across diverse settings.

4. Conceptual Framework Utilized in EM Research Stream

Earning management (EM) refers to the manipulation of a company's financial statements to present a more favorable picture of its financial wealth than the reality. There are several theories and frameworks that attempt to explain why and how EM occurs, namely the positive accounting theory (PAT) and the agency theory (AT). PAT (Watts and Zimmerman, 1978; Watts and Zimmerman, 1986; Watts and Zimmerman, 1990; Jones, 1991; Healy and Wahlen, 1999; Dechow and Skinner, 2000) seeks to explain why companies choose certain accounting policies over others and to predict accounting practices based on economic and social factors, with a focus on understanding how individuals and firms make accounting choices. PAT framework assumes that companies are rational, profit-maximizing entities, and that managers will choose accounting methods that align with their self-interest. Further, it assumes that managers are motivated by self-interest in maximizing their own wealth at the detriment of other stakeholders. Thus, the contracting environment is characterized by information asymmetry and agency conflicts. Indeed, PAT suggests that managers may engage in EM to align reported earnings with their own interests or to meet contractual obligations with shareholders or other stakeholders. Specifically, EM may be influenced by factors such as bonus plans, debt covenants, and regulatory requirements. However, critics have argued that PAT may oversimplify managerial behavior and assume a narrow focus on short-term wealth maximization, thus neglecting other important corporate objectives.

The other theoretical framework often used in trying to understand EM is agency theory (Ross, 1973; Jensen and Meckling, 1976; Fama, 1980; Fama and Jensen, 1983; Demsetz, 1983; Healy and Palepu, 1993, Dechow et al., 1995; Burgstahler and Dichev, 1997; Becker et al., 1998; Erickson et al., 2006). Agency Theory (AT) focuses on the relationships between principals (e.g., shareholders owners) and agents (e.g., managers) and the potential conflicts of interests between them. This theoretical framework "*is concerned with resolving two problems that occur in agency relationships*" (Eisenhardt, 1989). The first is the agency problem, which arises when (a) the desires or goals of the principal and the agent conflict and (b) it is difficult and/or expensive for the principal to verify what the agent is doing an/or reporting.

The second problem that AT tries to resolve is the problem of risk sharing that arises when the principal and the agent have different attitudes or aversions toward risk. As a premise, AT assumes that there is a separation of ownership and control (Fama and Jensen, 1983) in corporations. Further, it assumes like PAT that agents may have their own interests that may not align with the interests of the principals. AT has been widely used in research streams like accounting (Demski and Feltham, 1978, Demsetz, 1983; Healy and Palepu, 1993, Dechow et al., 1995; Burgstahler and Dichev, 1997; Becker et al., 1998; Erickson et al., 2006), economics (Spence and Zeckhauser, 1971), finance (Fama, 1980; Fama and Jensen, 1983), marketing (Basu et al., 1985), political science (Mitnick, 1992), organizational behavior (Eisenhardt, 1985; Eisenhardt, 1988; Kosnik, 1987), and sociology (Eccles, 1985; White, 1985). According to AT, managers may engage in EM to meet or beat performance benchmarks set by the board of directors or to maintain or enhance their reputational capital. Nonetheless, critics (e.g., Perroux, 1986, p. 235; Hirsch and Friedman, 1986) have argued that AT may not fully capture the complexity of the relationships and motivations within companies. For example, the theory may not adequately address the ethical dimensions of EM.

Thus, from AT perspective, the following propositions can be formulated.

Proposition 1: When the contract between the principal and the agent is outcome based, the likelihood of earnings management is lower.

Additionally,

Proposition 2: When the principal is able and/or has information to verify the agent behavior, the likelihood earnings management is lower.

To sum up, PAT primary focuses on explaining the choice of accounting policies and their impacts on reported earnings while AT centers its efforts on the relationship and potential conflicts between principals and agents, and how contracts and incentives can be structured to align their interests.

Further, PAT following the theory of the firm, assumes that managers are rational and motivated by self-interest while AT assumes conflicts of interest between principal-owners and agent-managers. However, both theories acknowledge that EM may occur due to conflicts of interest, contractual obligations, and managerial incentives. Overall, AT tends to be broader in scope, addressing various aspects of the principal-agent relationship beyond just accounting policies. However, both theories have faced criticisms for potentially oversimplifying EM, a complex managerial behavior, and for not fully accounting for ethical considerations. Thereby, in practice, companies may engage in EM for a variety of others reasons apart from those explained by PAT and AT. In addition, a combination of factors from both theories may influence EM behavior. Thus, future theories and models may further contribute to our understanding of EM.

5. Methodological Approaches Used in EM Research Stream

Earnings management (EM) is a complex area of study within accounting, finance, corporate governance that investigates how managers may use their discretionary reporting flexibility to manipulate financial statements to influence earnings. Various research methods have been employed to examine this phenomenon. This section compares some of the common research methods used in EM studies. First, archival analyses (Jones, 1991; Dechow, et al., 1995; Burgstahler and Dichev, 1997; Healy and Wahlen, 1999; Kothari et al., 2005; Roychowdbury, 2006; Cohen et al., 2008) have been extensively used and involves the examination of historical financial data to identify patterns or anomalies that may suggest EM. Its main advantage is to allow for the analysis of large datasets over an extended period. Further, it provides a comprehensive view of financial reporting practices. Furthermore, it can identify trends and correlations. However, as disadvantages, it generally lacks the ability to provide insights into the motivations or intentions behind EM. Further, it may be unable to capture real time or qualitative EM information. Furthermore, it relies heavily on the quality and availability of data.

Experimental analysis (Baldenius and Reichelstein, 2006; Bonner et al., 2006; Irani and Oesch, 2016) is less common than archival analysis in EM research stream. It involves controlled experiments to simulate specific scenarios or conditions in which EM may occur. As advantages, this method provides control over variables, allowing for causal inferences. Further, it can isolate specific factors influencing EM behavior. Furthermore, it allows for the manipulation of independent variables to observe their impacts. Nevertheless, as disadvantages, this method may lack external validity, as lab settings may not fully replicate real-world conditions. Further, ethical concerns may arise when manipulating financial data for experimental purposes. Moreover, this method is generally limited to the specific conditions set in the experiment.

Case studies (Sack, 2002; Maleki and Sarfi, 2017; Guo et al., 2019; Nurbaiti and Salilla, 2022) have been used in EM research and involve in-depth examination of specific companies or events to understand the context, motives, and methods of EM. As advantages, they provide detailed, contextual insights into specific cases. They also allow for a qualitative analysis of motives and decision-making processes. Further, case studies can be used for illustrating complex real-world scenarios. Notwithstanding these advantages, their findings may not be generalizable to broader populations. Further, case studies are generally limited to the availability of relevant cases and access to information. Furthermore, case studies are generally subject to potential bias in data selection. Maleki and Sarfi (2017) used the case of companies accepted in Tehran Stock Exchange to investigate the relationship between the disclosures of social responsibility in the population of accepted companies on the exchange. Guo et al. (2019) used also a case study approach to document how a Chinese corporation reclassified its available for sale equity investments as long-term equity investments to decrease the volatility of the company’s earnings. Further, Sack (2002) asked student teams to make several accounting decisions in the context of a single company to illustrate the way differing personal judgements regarding both facts and principles enter the determination of net income.

While archival, experimental analyses, and case studies are relatively more common in EM research stream, surveys and questionnaires have occasionally been used as well to gather information directly from individuals involved in financial reporting and decision-making (Healy, 1985; DeFond and Jiambalvo, 1994; Fields et al., 2001). Surveys and questionnaires involve collecting self-reported data from individuals, often managers or accounting professionals, about their perceptions, attitudes, and behaviors related to EM. As advantages, these methods can capture subjective information about beliefs, intentions, and attitudes. They also allow for a direct assessment of individuals’ perspectives.

Moreover, they can be used to study a wide range of participants across different settings. Nevertheless, as drawbacks, surveys and questionnaires are generally subject to response bias and self-reporting inaccuracies. In addition, they rely a lot on the honesty and accuracy of respondents. Moreover, they may not capture actual EM behavior, as they are generally designed to capture only perceived behavior. Still, some EM researchers use qualitative interviews.

EM studies that have utilized qualitative interviews (Hribar and Jenkins, 2004; Christensen et al., 2007; Bédard and Gendron, 2010; Ramanna and Watts, 2012) are less common. However, they can provide valuable insights into the motivation and decision-making processes behind financial reporting practices. This is because qualitative interviews involve in-depth, open-ended conversations with individuals who have relevant experience and/or expertise on EM. They generally allow for rich, detailed information about motives, strategies, and decision-making processes. They also provide a deeper understanding of the subjective aspects of EM. Moreover, qualitative interviews studies can uncover insights not captured by quantitative EM methods. Nonetheless, they can be more time-consuming and resource-intensive. Additionally, their findings may be context-specific and not easily generalizable. Finally, qualitative interviews generally rely heavily on the quality of the interviewees' recollections and insights, a potential source of bias.

To sum up, it is important to note that each of the methods reviewed above has its strengths as well as weaknesses. Thereby, the choice of any given method should depend on the research question, available resources, and the desired level of depth and breadth in the analysis. It is also worthwhile noting that a EM researcher can use a combination of these methods to provide a more comprehensive understanding of EM behavior.

6. Some Empirical Findings of EM Research

6.1. Key Variables and Measures

Earnings management (EM) research focuses on the manipulation of earnings and related financial statements to either inflate or deflate reported earnings, often with the aim of influencing stakeholders' perceptions about the company's financial performance and health. To study this phenomenon, researchers have employed various variables and measures. First, accruals have been extensively used. Accruals are accounting entries recorded in the financial statements to recognize revenues or expenses before cash is exchanged. Researchers have examined in particular "*abnormal accruals*," which are the portion of accruals that cannot be explained by normal business operations. Second, some researchers have used "*discretionary accruals*," which constitute a subset of accruals that are under the control of management, thereby potentially subject to manipulation. Discretionary accruals are used to isolate the portion of accruals that may be indicative of EM. Third, "*earning quality metrics*" (EQM) have been used to assess the reliability and informativeness of reported earnings. Common metrics include measures of earnings persistence, smoothness, and timeliness or earnings reports. Higher-quality earnings are less subject to manipulation. In contrast to discretionary accruals, non-discretionary accruals (NDA) are accruals that are not considered to be under direct control of management, such as those related to changes in accounting standards or economic conditions. By isolating NDA, researchers have been able to focus on the portion of accruals that may be subject to manipulation. Researchers have also used discretionary expenditures to examine expenses that can be influenced by management decisions, such as research and development expenditures, advertising expenses, or other discretionary expenses as well as provisions for bad debts.

Fourth, "*abnormal cash flows*" (ACF) have been used to assess deviations in cash flows from what would be expected given a company's operating, financing, and investing activities. ACF can be indicative of EM. Fifth, some EM researchers have also used "*income smoothing indicators*" (ISI). Income smoothing refers to the practice of reducing the variability or volatility of reported earnings over time. Researchers have used statistical techniques to identify patterns of income smoothing to capture EM. Sixth, "managerial compensation structure" (MCS) has been used as EM variable. Indeed, the structure of executive compensation, including the use of stock options or performance-based bonuses, can influence managerial incentives to engage in EM. Seventh, other researchers have often considered the effectiveness of corporate governance mechanisms, such as the composition of the board of directors, the presence of independent directors, and the existence of audit committees, in mitigating or facilitating EM. Still, the legal and regulatory framework in which a company operates can significantly impact the incentives and opportunities for EM, and thereby has been another variable used. Researchers have considered factors such as accounting standards, enforcement mechanisms, and penalties for financial misconduct to investigate EM.

Finally, differences in industry dynamics, firm size, leverage, and growth opportunities can affect the likelihood and extent of EM. Thereby, few researchers have used these factors as control variables in their analyses. To sum up, it is important to note that researchers may use a combination of the variables and measures identified in this review to gain a more comprehensive understanding of EM behaviors. Moreover, the choice of variables and measures may evolve over time as new research methods, data sources, and research technologies evolve and become available.

6.2. Synthesis of Empirical Results

Again, earnings management (EM) is the behavior of deliberately manipulating a company's earnings and/or related financial statements with the intent of presenting a more favorable picture of its financial performance and health than its true financial state. Research on EM has yielded various findings, which can be contrasted in terms of motivation, methods, and consequences. First, on contracting and governance, research has found that firms often engage in EM to meet or beat earnings benchmarks set by contracts, debt covenants, or analyst expectations. This behavior helps them to avoid penalties or negative consequences associated with failing short of these targets. Second, as related to tax minimization, it was found that companies may engage in EM to minimize their tax liabilities by, for example, deferring revenue recognition or accelerating expense recognition. Third, regarding firm's perception management, it was found that companies often engage in EM to signal their expected although not true financial health to the market, and thereby attract investors. Finally, it was found that some companies use EM to meet regulatory requirements or to avoid violating accounting standards, thereby avoiding potential legal or reputational consequences.

Regarding the methods of EM, the research found that accruals have been most often used to manipulate the timing or the number of accruals (e.g., revenue recognition, expense accruals) in the financial statements. For example, a company may engage in aggressive revenue recognition or delay recognizing expenses to inflate reported profits. Real activities manipulations (Roychowdhury, 2006; Cohen et al., 2008), involving actual operational decisions and transactions that affect the firm's economic activities, have also been used with different findings. It was found for instance that cutting discretionary expenses, changing production schedules, or altering investment decisions can contribute to EM. Finally, it has been found that companies can manage earnings through selective disclosure or omission of information in financial statements or footnotes to the financial statements.

In terms of the consequences of EM, research has found that market generally react negatively to instances of EM once the manipulation is discovered, as EM erodes trust and credibility. This then can lead to a decline in stock price, increased cost of capital, and potential bankruptcy. Studies have also shown that companies engaging in aggressive EM tend to experience lower long-term performance compared to those companies that maintain more transparent and conservative accounting practices. EM also attracts regulatory attention and potential enforcement actions. Indeed, regulatory bodies like the Security and Exchange Commission (SEC) in the United States actively monitor financial statements for signs of earnings manipulations. Finally, there is a consensus that EM erode the credibility and the reputation of a company. Stakeholders, including investors, creditors, and employees, may become skeptical or lose trust in the company's financial reporting. Research on EM has highlighted the various motivations, methods, and consequences associated with this corporate behavior. It has also emphasized the importance of transparent and conservative financial reporting aimed at maintaining trust and credibility with stakeholders and the financial market in the long-term. While managers may have some degree of discretion in financial reporting, crossing ethical and legal boundaries in pursuit of short-term gains can lead to detrimental consequences for companies and financial markets in the long run.

7. Implication for Practice and Policy

Earnings management (EM) refers to the intentional manipulation of earnings and/or related financial statements by companies' managers to achieve specific financial or reporting objectives. While it may not be necessarily illegal, it is truly unethical since it can distort a company's true financial performance and conditions, thereby misleading investors, creditors, and other stakeholders. Research conducted to understand EM behavior can have several practical implications for various stakeholders. First, for investors, understanding the potential for EM schemes can help to assess the reliability of the financial statements, which can greatly influence investment decisions and portfolio diversification strategies. Further, with that understanding, investors may adjust their valuation models and metrics to account for the possibility of earnings manipulations.

Second, because creditors and lenders rely on financial statements to assess a company's creditworthiness, EM research can help them identify potential risks associated with lending to a particular company. Lenders may also include, for example, stricter covenants in loan agreements to mitigate the risks associated with EM. Third, for regulators, EM research can inform about the effectiveness of existing accounting standards and regulations and lead to changes in reporting requirements or implementation of additional controls. Indeed, regulators, based on the accumulated EM research, can use insights drawn to enhance their enforcement efforts and target industries or companies more prone to earnings manipulation.

Fourth, for auditors, EM research findings can inform about areas of financial reporting that are more susceptible to manipulation and thereby to audit risks. This understanding can then guide audit planning and audit resources allocation. Specifically, understanding the techniques and motivations behind EM can help auditors identify potential red flags during the audit process. Fifth, financial analysts, drawing on this research, can adjust their financial models and projections to account for the possibility of EM. Financial analysts can also incorporate additional qualitative assessment into their analysis using the accumulated EM research. Sixth, for companies' managers and executives, the awareness of potential consequences of EM can influence their ethical behavior. Indeed, informed by EM research, companies' managers and executives may be more inclined to prioritize long-term sustainable performance over current short-term profit maximization. Further, understanding the risks associated with EM may lead to improvements in corporate governance practices, including stronger internal controls and independent oversights. For academics and researchers, ongoing research in the field of EM can lead to the development of more sophisticated models and methodologies for detecting and mitigating financial statements manipulations. Overall, research on EM is important at various level and for various stakeholders since it plays the crucial role in enhancing the transparency and integrity of financial reporting.

8. Research Gaps and Future Directions

There have been some emerging trends in EM research in the aftermath of COVID-19 pandemic. First, as related to behavioral aspects of EM, researchers have been increasingly exploring the psychological and behavioral factors that influence EM decisions. This research includes studies on cognitive biases, overconfidence, and the role of individual executives in the manipulation of financial statements. Further, the integration of machine learning techniques in EM research is gaining traction. Also, researchers have been using advanced statistical models to predict and detect instances of EM, as well as to understand the factors that contribute to it. Further, with the advent of powerful Natural Language Processing (NLP) techniques and models, researchers have been using text analytics to analyze more efficiently and effectively financial reports, press releases, and management discussions and analysis to gain quickly insights of potential EM activities. Furthermore, the availability of large datasets and advancements in data analytics tools have been enabling researchers to conduct more comprehensive studies on EM. This includes the analysis of financial data from a wide range of sources and industries. Studies have additionally been focusing recently on the impact of regulatory changes, such as new accounting standards or changes in enforcement policies on EM behaviors. This includes the effects of regulations like Sarbanes-Oxley Act and Dodd-Frank Act. Still, researchers have been more recently delving into industry-specific nuances in EM practice. Different industries may have unique characteristics that affects EM practices and behaviors. There is also ongoing research into the role of corporate governance mechanisms (e.g., board independence, CEO duality, audit committee effectiveness, etc.) in mitigating or exacerbating EM activities. Finally, while much of the traditional EM research has focused on for-profit firms, there have been recently a growing interest in understanding EM practices in nonprofit organizations and governmental entities as well.

From an international perspective, researchers have increasingly been looking at EM from a global point of view, considering cross-country variations in accounting standards, cultural influences, and regulatory environments. Further, as related to environmental, social, and governance (ESG) factors, as sustainability and responsible business practices gain prominence, there has been a growing interest in understanding how ESG factors may influence EM behaviors. Furthermore, studies are now examining how investors react to instances of EM and how it may impact their perception of a company's financial health and prospects. Finally, with an increased emphasis on corporate ethics and integrity, there has been an increased focus on the ethical implications of EM practices and their impacts on stakeholders. Future research therefore should consider focusing on these recently emerging areas of the EM research.

9. Conclusion

The study of EM is a critical area of accounting and finance research inquiry that holds significant implications for various stakeholders in financial ecosystems or even the broader economic systems. Over the years, through rigorous empirical analysis and theoretical frameworks, scholars have shed light on the motivations, methods, and consequences of EM behaviors and practices. The accumulated body of knowledge has contributed to a deeper understanding of the complex interplay between managerial discretion, financial reporting, and corporate governance. The findings of the research underscore the importance of vigilant regulatory oversight and robust corporate governance mechanisms to mitigate the potential adverse effects of EM on financial markets and its participants. However, the evolving landscape of accounting standards and reporting requirement continue to provide fertile ground for further exploration and/or refinement of EM theories. Thus, it is imperative for researchers, practitioners, and policymakers to collaborate to address emerging challenges and to develop effective countermeasures against EM behaviors and practices. Further, exploring the nuanced interactions between economic, regulatory, and behavioral factors in this research stream will be crucial in advancing further our understanding of this troubling but dynamic phenomenon.

Overall, EM research has made significant strides in unraveling the complexities surrounding financial reporting behaviors and practices. By continuing building upon this foundation, future research can enhance the transparency and integrity of financial markets, thus ultimately fostering greater trust and confidence among investors, creditors, and other stakeholders in the financial ecosystem.

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