

## Earnings Management Strategies amid Financial Distress: Evidence from Africa with a Focus on Ethiopia.

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**Abstract:** *This paper provides an in-depth review of earnings management during financial distress, specifically focusing on Ethiopia within the African context. It examines the concepts of accrual-based and real earnings management, the relationship between financial distress and earnings manipulation, key determinants, and prevailing methodological approaches. Drawing on a critical narrative synthesis of existing literature, the study finds that financial distress is a significant driver of earnings management, with firms strategically adopting both accrual and real activities depending on regulatory pressure, governance quality, and operational constraints. The evidence further indicates that weak institutional environments in African contexts intensify such practices. However, the Ethiopian literature remains limited and fragmented, with a predominant focus on accrual-based measures and limited integration of real earnings management. The review highlights key research gaps and emphasizes the need for more comprehensive and context-specific empirical investigations to enhance financial reporting quality. The study also provides a synthesized framework for understanding earnings management behavior under financial distress. It offers insights for policymakers and regulators to strengthen governance and reporting practices in emerging economies.*

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**Key words:** Earnings management; Financial distress; Accrual earnings management; Real earnings management; Corporate governance; Emerging markets; African evidence; Ethiopia

### 1. Introduction

#### 1.1 Background and Justification

Earnings management (EM) has become a grave topic in financial reporting, particularly under conditions of financial distress, where firms face heightened pressure to present favorable financial performance. According to [1], earnings management refers to the deliberate use of managerial discretion in financial reporting to influence reported earnings, often to meet benchmarks, smooth income, or shape stakeholder perceptions. [1] comprehensive review highlights that such manipulation occurs through two primary methods: accrual-based earnings management (AEM) and real earnings management (REM). Financial distress, commonly defined as a firm's inability to meet its financial obligations, exacerbates such behavior due to survival incentives, debt covenant pressures, and reputational concerns [2]. At the global level, a substantial body of literature demonstrates that financially distressed firms are more likely to engage in earnings manipulation as a strategy to avoid bankruptcy, maintain investor confidence, and comply with contractual obligations. Empirical evidence suggests that managers often rely initially on accrual-based techniques due to their flexibility and lower immediate operational impact. However, as regulatory scrutiny intensifies, firms may shift toward real earnings management, which involves altering actual business activities and is more difficult to detect [3], [4]. This strategic substitution between AEM and REM reflects managerial attempts to balance detection risk and economic costs. In the African context, the prevalence of earnings management is further intensified by structural and institutional factors. Weak regulatory frameworks, limited enforcement of accounting standards, and underdeveloped capital markets create an environment conducive to opportunistic financial reporting. According to [5], firms operating in African economies often face severe

financing constraints and governance challenges, which increase their incentives to manipulate earnings to secure external funding and sustain operations. Additionally, lower transparency and weaker investor protection mechanisms amplify agency problems, thereby encouraging managerial opportunism.

In Ethiopia, the issue of financial distress is particularly pronounced across various sectors, especially in manufacturing and financial industries. Firms frequently encounter liquidity shortages, high leverage, and operational inefficiencies, all of which contribute to financial vulnerability [6]. Empirical studies further indicate that firm-specific characteristics such as profitability, firm size, and leverage significantly influence the likelihood of financial distress and related reporting behavior. Moreover, recent evidence suggests that both accrual-based and real earnings management practices are present among Ethiopian firms, with corporate governance mechanisms playing a critical role in shaping such behavior [7].

Despite these emerging insights, the existing literature in Ethiopia remains limited in scope and fragmented in approach. Most studies focus on isolated aspects of earnings management or financial distress, often employing single-method analyses and small samples. There is a lack of comprehensive frameworks that integrate both AEM and REM within the context of financial distress. This gap underscores the need for a critical and integrative review that synthesizes global, regional, and local evidence to provide a clearer understanding of earnings management practices in financially distressed firms. Accordingly, this study is justified in addressing these gaps by offering a structured and context-specific analysis of the phenomenon.

## 1.2. Objectives

The primary objective of this review is to examine earnings management practices amid financial distress in Ethiopia. Specifically, it aims to:

- Analyze the concepts of REM and AEM
- Examine the relationship between financial distress and EM
- Identify determinants of EM
- Review methodological approaches
- Highlight research gaps

## 2. Methodology

This study adopts a critical narrative review approach, synthesizing evidence from journal articles, reports, and academic literature. To address the limited and heterogeneous nature of evidence in the Ethiopian context, this study employs a qualitative, funnel-based thematic synthesis. The approach systematically narrows the focus from the broad African landscape to specific regional studies, ultimately focusing on Ethiopian literature to identify contextual trends, inconsistencies, and evidence gaps.

## 3. Review of the Literature

### 3.1. Definition and Concepts of Earnings Management

Earnings management is the deliberate, strategic manipulation of financial reports by management to obscure a company's true economic performance, aiming to present an artificially stable or overly positive image to stakeholders [8]. It involves intentional actions by management during the financial reporting process to influence reported earnings. This is done with the goal of either misleading stakeholders or achieving specific contractual objectives. It is generally categorized into accrual earnings management (AEM) and real earnings management (REM). According to [1], AEM involves the use of accounting discretion, such as adjustments in provisions,

depreciation policies, and revenue recognition, without directly affecting underlying cash flows. In contrast, REM involves altering actual business activities, including overproduction, offering excessive price discounts, or reducing discretionary expenditures such as research and development and [3].

While AEM is often considered less costly in the short term due to its reliance on accounting estimates, it is more likely to be detected by auditors and regulators. REM, on the other hand, directly affects operational decisions and may have long-term economic consequences, but it is relatively more difficult to detect. As a result, firms may strategically choose between AEM and REM depending on the level of scrutiny and regulatory pressure they face. Financial distress refers to a situation in which a firm is unable to generate sufficient cash flows to meet its financial obligations. It is commonly measured using financial ratios or composite indices, most notably the Altman Z-score model developed by [9]. Distress conditions often arise from high leverage, declining profitability, and liquidity shortages. Under such circumstances, firms experience increased pressure to present favorable financial performance, thereby creating strong incentives for earnings manipulation.

### **3.2 Financial Distress and Earnings Management**

A substantial body of empirical literature establishes a strong and positive association between financial distress and earnings management. Firms experiencing financial difficulties face heightened pressure to present favorable financial performance in order to avoid adverse consequences such as debt covenant violations, loss of investor confidence, credit downgrades, or even bankruptcy. Under such conditions, managers are incentivized to manipulate reported earnings as a strategic tool to maintain the firm's perceived financial stability. According to [4], financially distressed firms are more likely to engage in income-increasing accrual manipulation to conceal poor performance and meet contractual obligations. This behavior is particularly evident when firms are close to breaching debt covenants or facing refinancing constraints.

The relationship between financial distress and earnings management is further supported by agency theory, which suggests that managers may act opportunistically to protect their personal interests, such as job security and compensation, especially during periods of financial instability [10]. In distressed firms, the divergence between managerial and shareholder interests becomes more pronounced, increasing the likelihood of earnings manipulation. Managers may prioritize short-term financial appearance over long-term firm value, thereby engaging in aggressive reporting practices.

Empirical evidence also indicates that the choice between AEM and REM is influenced by the level of external monitoring, regulatory enforcement, and audit quality. In environments characterized by stringent regulatory oversight and effective auditing mechanisms, accrual-based manipulation becomes more detectable and thus riskier. Consequently, firms may shift toward real activities manipulation, which involves altering operational decisions and is relatively more difficult to detect [3]. This substitution effect reflects a strategic trade-off, where managers balance the risk of detection against the economic costs associated with manipulating real business activities.

Moreover, financially distressed firms often exhibit a greater reliance on AEM due to its flexibility and lower immediate impact on cash flows and operations. Accrual-based techniques allow managers to adjust accounting estimates within the boundaries of generally accepted accounting principles, making them a convenient tool for short-term earnings smoothing. However, as scrutiny intensifies either through regulatory pressure, audit interventions, or market monitoring firms may increasingly adopt REM strategies. These include overproduction to reduce cost per unit, cutting

discretionary expenditures such as research and development, or accelerating sales through discounts, all of which can artificially inflate current earnings at the expense of future performance. The extent and nature of earnings management are also shaped by firm-specific characteristics. As highlighted by [2], factors such as firm size, leverage, profitability, and corporate governance structures play a critical role in influencing managerial behavior. Highly leveraged firms, for instance, face greater pressure to meet debt obligations and are therefore more likely to engage in earnings manipulation. Similarly, firms with weak governance mechanisms or less independent boards may provide greater discretion to managers, increasing the likelihood of opportunistic reporting.

In addition to firm-level factors, institutional and environmental conditions significantly influence earnings management practices. In developing economies, where regulatory enforcement is often weak and financial markets are less developed, the incentives and opportunities for earnings manipulation are amplified. Limited transparency, inadequate investor protection, and weak auditing standards create an environment in which managers can more easily engage in opportunistic reporting. These contextual factors are particularly relevant in resource-constrained settings, where firms may lack the operational flexibility required to implement real earnings management strategies effectively.

Despite the general consensus on the positive relationship between financial distress and earnings management, some studies argue that the use of REM may be constrained by operational limitations. Real activities manipulation often requires adjustments in production, pricing, or investment decisions, which may not be feasible for financially constrained firms. In such cases, firms may rely more heavily on accrual-based techniques due to their relative ease of implementation and lower immediate cost. This suggests that the dominance of AEM or REM is not only a function of managerial incentives but also of operational capacity and resource availability.

Furthermore, the dynamic interaction between financial distress and earnings management highlights the importance of considering both short-term and long-term implications. While earnings manipulation may provide temporary relief by improving reported performance, it can ultimately exacerbate financial distress by distorting resource allocation and reducing future profitability. For example, excessive reliance on REM, such as cutting essential expenditures or overproducing inventory, may undermine the firm's long-term competitiveness and financial sustainability.

Overall, the literature underscores that financial distress serves as a significant driver of earnings management, with firms strategically employing both accrual-based and real methods depending on their specific circumstances, institutional environment, and regulatory pressures. The choice and intensity of these strategies reflect a complex interplay between managerial incentives, firm characteristics, and external monitoring mechanisms. Understanding this relationship is particularly important in emerging economies, where structural and institutional constraints may further shape earnings management behavior.

### **3.3. Earnings Management in Financially Distressed Firms - African and Ethiopian Context**

#### **3.3.1. Central African Evidence**

The literature on earnings management in financially distressed firms within Central Africa remains relatively sparse; however, existing studies consistently indicate that weak institutional environments significantly shape managerial reporting behavior. Empirical research suggests that financial distress intensifies incentives for opportunistic earnings manipulation, particularly through discretionary accruals, as firms attempt to avoid covenant violations and maintain

organizational legitimacy [11]. The limited enforcement of accounting standards and underdeveloped capital markets reduce the likelihood of detection, thereby lowering the cost of manipulation. Moreover, studies highlight that governance mechanisms, such as board oversight and audit quality, are often ineffective in constraining such behavior due to structural weaknesses [12]. Critically, the literature suggests that EM in this region is not merely opportunistic but also survival-driven, reflecting broader institutional deficiencies rather than purely firm-level incentives. Nonetheless, the lack of longitudinal and distress-focused empirical models limits the robustness of conclusions, indicating a need for more dynamic and context-sensitive research designs.

### **3.3.2. West African Evidence**

In contrast, West African literature particularly within more empirically active research environments provides stronger evidence on the relationship between financial distress and EM. Studies consistently demonstrate that distressed firms engage in both accrual-based and real earnings management to mitigate financial pressure and avoid negative market perceptions [13], [14]. The evidence suggests that while accrual manipulation remains dominant, increasing regulatory scrutiny has led firms to substitute toward real activities manipulation, especially when accounting-based adjustments become more detectable [15]. Importantly, governance structures such as audit committees and board independence have been shown to partially constrain EM; however, their effectiveness is contingent on enforcement quality and institutional maturity [16]. A critical insight emerging from this literature is that financial distress does not only increase EM but also alters its form, indicating a strategic adaptation by managers to changing regulatory pressures. Despite this, inconsistencies in measurement approaches and limited integration of dynamic models weaken the comparability of findings across studies.

### **3.3.3. North African Evidence**

The North African literature reflects relatively more developed financial and regulatory systems, which significantly influence EM practices in distressed firms. Empirical studies suggest that while financial distress continues to be a key driver of earnings manipulation, the nature of such manipulation shifts toward more sophisticated and less detectable forms, particularly real earnings management [17]. This shift is attributed to stronger enforcement mechanisms and higher audit quality, which increase the cost of accrual-based manipulation. Furthermore, the presence of more active capital markets enhances external monitoring, thereby constraining extreme opportunistic behavior [18]. However, the literature also highlights that even in relatively stronger institutional settings, distressed firms continue to engage in EM to smooth earnings and maintain financial stability signals. Critically, while these studies provide valuable insights, they often fail to explicitly model financial distress as a dynamic process, limiting the understanding of how EM evolves over time under sustained financial pressure.

### **3.3.4. Southern African Evidence**

The Southern African body of literature, particularly from more institutionally developed contexts, offers a nuanced understanding of EM in financially distressed firms. Research indicates that while financial distress increases incentives for earnings manipulation, the extent and aggressiveness of such practices are significantly constrained by strong corporate governance frameworks and high-quality auditing standards [11]. Distressed firms in this region are more likely to engage in income smoothing rather than aggressive earnings inflation, reflecting a balance between opportunistic incentives and regulatory compliance. Moreover, studies suggest that real earnings management

is increasingly used as a substitute for accrual manipulation, particularly in environments with stringent reporting standards. A critical contribution of this literature is its emphasis on the interaction between institutional quality and managerial behavior, demonstrating that strong governance can mitigate, but not entirely eliminate, EM in distressed firms. However, the generalizability of these findings to less developed African contexts remain limited.

### **3.3.5. Sub-Saharan African Evidence**

Across Sub-Saharan Africa, the relationship between financial distress and earnings management is consistently positive, though shaped by varying institutional conditions. The literature broadly indicates that distressed firms rely heavily on accrual-based earnings management due to its flexibility and lower immediate operational costs [19]. Weak regulatory enforcement, limited investor protection, and high information asymmetry further exacerbate this behavior [20]. Importantly, studies highlight that governance mechanisms while theoretically effective often fail to function optimally in practice due to structural and institutional limitations [21]. A critical insight from this body of work is that EM in distressed firms is not solely driven by firm-level incentives but is deeply embedded in broader institutional environments. Nevertheless, the literature is characterized by methodological limitations, including reliance on static models and insufficient consideration of dynamic interactions between distress and EM.

### **3.3.6. Ethiopian Context**

Within Ethiopia, the empirical literature on earnings management remains limited and is still developing, with only a small number of studies directly or indirectly addressing the behavior of firms under financial pressure. Existing Ethiopian research largely examines earnings management in relation to firm characteristics and governance factors, while the explicit linkage between financial distress and earnings management is often not the primary focus but rather inferred from related variables such as leverage, declining profitability, or liquidity constraints. Available evidence from Ethiopian firm-level studies suggests that managers may engage in earnings management practices when firms experience financial pressure, particularly to avoid reporting poor performance or to maintain external credibility. However, this relationship is not consistently or explicitly modeled across studies, and therefore the strength and direction of the association between financial distress and earnings management should be interpreted with caution [22].

The Ethiopian literature predominantly relies on accrual-based measures of earnings management, with most studies employing discretionary accrual models using financial statement data from manufacturing and financial sectors. As a result, the evidence base is heavily skewed toward accrual manipulation, while real earnings management remains largely unexplored. This imbalance reflects both data limitations and methodological preferences rather than conclusive evidence that firms do not engage in real activities manipulation. Furthermore, studies examining corporate governance and audit-related variables in Ethiopia indicate that weaker oversight structures may be associated with higher levels of earnings management. However, these findings are not always robust or consistent, as governance variables are often included as control factors rather than being theoretically or empirically central to the analysis [23]. Consequently, their role in moderating earnings management under financial distress remains insufficiently established.

Importantly, the Ethiopian literature does not yet provide strong, direct, and consistent empirical evidence specifically focusing on earnings management in financially distressed firms. Instead, it offers indirect insights suggesting that financial pressure may create incentives for earnings manipulation, but without systematically isolating or testing this relationship. In addition, institutional factors such as regulatory enforcement, audit quality, and reporting standards are

acknowledged in a general sense but are rarely incorporated into rigorous empirical frameworks. Overall, the Ethiopian evidence base is fragmented, methodologically constrained, and limited in scope, making it difficult to draw definitive conclusions about the behavior of financially distressed firms. This highlights a clear gap in the literature and underscores the need for more focused research that explicitly examines the interaction between financial distress and both accrual and real earnings management within the Ethiopian context.

In sum, the reviewed literature across African regions demonstrates that financial distress is a significant driver of earnings management, though the nature and extent of such practices vary according to institutional strength. While stronger regulatory environments shift manipulation toward real activities, weaker systems such as those observed in Ethiopia facilitate greater reliance on accrual-based strategies. Importantly, the Ethiopian evidence

### **3.4 Determinants of Earnings Management**

The determinants of earnings management (EM) in African contexts reflect a complex interaction between firm-level incentives and broader institutional conditions. Among these, financial distress is widely recognized as a critical driver of managerial reporting behavior. Prior literature suggests that firms experiencing financial difficulties are more likely to engage in earnings manipulation to avoid covenant violations, maintain investor confidence, or delay recognition of poor performance [24]. Evidence from African settings supports this argument, indicating that periods of financial pressure are associated with increased discretionary accounting practices and earnings smoothing, particularly in banking and financially [25], [26]. However, the extent of this relationship varies depending on the strength of monitoring mechanisms and institutional constraints.

Another important determinant is leverage and liquidity, which directly influence managerial incentives to manipulate earnings. Highly leveraged firms face pressure to meet debt covenants and sustain access to external financing, thereby increasing the likelihood of income-increasing earnings management. Empirical studies in emerging and African markets demonstrate that leverage is positively associated with discretionary accruals, as managers attempt to present a stronger financial position to creditors [10], [27]. Similarly, liquidity constraints can exacerbate earnings manipulation, as firms seek to signal short-term financial stability in environments with limited access to capital markets.

Firm-specific characteristics such as firm size and profitability also play a significant role in shaping earnings management behavior. Larger firms are generally more visible and subject to greater scrutiny, which may either constrain or incentivize earnings management depending on political and regulatory pressures [28]. At the same time, profitability influences managerial incentives, as firms with declining performance may engage in income-increasing manipulation to meet benchmarks or avoid losses. Evidence from emerging markets suggests that both highly profitable and poorly performing firms may engage in earnings management, albeit for different strategic reasons [2].

Corporate governance structures represent another critical determinant of earnings management across African contexts. Governance mechanisms such as board independence, audit committees, and ownership structure are intended to monitor managerial behavior and enhance financial reporting quality. Empirical evidence indicates that stronger governance structures are associated with lower levels of earnings manipulation, although their effectiveness depends on enforcement and institutional quality [29], [30]. In many African countries, however, governance mechanisms are often weakened by political interference, concentrated ownership, or limited regulatory oversight, reducing their ability to constrain opportunistic reporting [12], [21].

At a broader level, the institutional environment plays a decisive role in shaping earnings management practices. Weak legal systems, limited investor protection, and low enforcement capacity create conditions that enable managerial discretion in financial reporting. Comparative studies show that earnings management is more prevalent in countries with weaker institutional frameworks, where external monitoring is limited and accountability mechanisms are less effective [20]. In the African context, these institutional weaknesses amplify the effects of firm-level determinants such as financial distress and leverage, leading to higher levels of earnings manipulation.

In Ethiopia, these determinants are evident but have not been examined in a systematic and integrated manner within the empirical literature. Existing studies generally indicate that firm-specific characteristics such as leverage, profitability, firm size, and elements of corporate governance play a role in shaping earnings management behavior, aligning with broader evidence from African contexts. Firms with higher leverage, for instance, may face greater pressure to meet contractual obligations, thereby increasing incentives to engage in earnings manipulation, while profitability and governance structures influence both the motivation and the capacity to manage reported earnings. Despite these insights, the empirical treatment of these variables is often partial and lacks a comprehensive framework that simultaneously captures their interactive effects.

However, financial distress, which is theoretically a central driver of opportunistic financial reporting, is rarely modeled explicitly in Ethiopian studies. Instead, it is frequently proxied indirectly through variables such as declining profitability or high leverage, which do not fully capture the multidimensional nature of distress. This indirect measurement limits the ability of researchers to draw robust and causal inferences about the extent to which financial distress influences earnings management practices. Furthermore, key institutional dimensions particularly regulatory enforcement, audit quality, and the effectiveness of oversight mechanisms are acknowledged in the literature but are seldom rigorously operationalized or incorporated into empirical models. As a result, the Ethiopian evidence base remains fragmented and somewhat descriptive, offering limited direct insight into how firm-level and institutional determinants jointly shape earnings management behavior, especially under conditions of financial distress. This gap in the literature highlights the need for more comprehensive and methodologically robust research that explicitly integrates financial distress measures with firm characteristics and institutional variables within a unified analytical framework

### **3.5 Methodological Approaches in Earnings Management Studies**

The methodological approaches employed in earnings management research across Africa reflect both advancements in empirical techniques and persistent challenges related to data and model specification. The majority of studies rely on panel regression models, particularly fixed effects and random effects estimators, to analyze firm-level data over time. These models are widely used because they allow researchers to control for unobserved heterogeneity and capture temporal variations in earnings management behavior. Panel-based approaches have been extensively applied in both African and emerging market contexts to examine the relationship between financial variables and discretionary accruals [31].

In addition to standard panel models, more advanced techniques such as the Generalized Method of Moments (GMM) have been increasingly adopted to address endogeneity and dynamic relationships. Earnings management behavior is inherently persistent, as past reporting practices may influence current decisions, and GMM provides a framework for capturing such dynamics while controlling for simultaneity bias [32], [33]. While these methods are gaining traction in

African research, their application remains uneven, with many studies continuing to rely on simpler estimation techniques due to data limitations.

Another methodological approach observed in the literature is the use of Seemingly Unrelated Regression (SUR) and multi-equation models, particularly in studies examining multiple forms of earnings management simultaneously. These models allow researchers to capture the interdependence between accrual-based and real earnings management, providing a more comprehensive understanding of managerial behavior [34]. Such approaches are especially relevant in contexts where firms may substitute between different earnings management strategies depending on regulatory and economic conditions.

Despite these methodological developments, a major limitation of the literature is methodological inconsistency, which affects the comparability of findings across studies. Differences in model specification, variable measurement, and proxies for earnings management such as variations of the Jones model or alternative real activities measures lead to divergent results and reduce the robustness of conclusions [35]. Furthermore, the reliance on secondary financial data limits the ability to capture qualitative aspects of managerial behavior, such as motivations and decision-making processes.

In the Ethiopian context, methodological approaches are relatively basic compared to broader African studies. Most research relies on panel regression techniques using firm-level financial data, with limited adoption of advanced econometric methods. Earnings management is typically measured using accrual-based proxies, while real earnings management remains largely unexplored due to data constraints. Additionally, inconsistencies in variable definitions and model specifications further limit the comparability of findings across Ethiopian studies. As a result, the methodological limitations of the Ethiopian literature mirror broader African challenges but are more pronounced due to data availability and research capacity constraints.

### **3.6 Research Gaps**

Despite the growing body of literature on earnings management across Africa and other emerging economies, several important gaps remain, particularly in relation to Ethiopia. First, there is a clear scarcity of Ethiopian-focused empirical studies that explicitly examine the relationship between financial distress and earnings management. While existing studies provide insights into general determinants of EM, they rarely isolate financial distress as a central explanatory variable. This limitation contrasts with broader international evidence, where financial distress has been extensively analyzed as a key driver of managerial reporting behavior [24]. Consequently, the Ethiopian literature lacks depth in understanding how distressed conditions shape earnings manipulation strategies.

Second, there is a notable absence of integrated analysis of AEM and REM. Most Ethiopian studies focus predominantly on accrual-based measures, typically derived from discretionary accrual models [35], while largely neglecting real activities manipulation. This creates an incomplete picture of managerial behavior, as prior research demonstrates that firms often substitute between AEM and REM depending on constraints and monitoring intensity [36]. The lack of integrated frameworks in the Ethiopian context therefore limits the ability to capture the full spectrum of earnings management strategies, particularly under financial distress.

Third, the literature exhibits insufficient application of advanced econometric techniques, which constrains the robustness of empirical findings. While African studies increasingly employ dynamic panel models and techniques designed to address endogeneity and persistence in earnings management behavior [32], Ethiopian research largely relies on basic panel regression models. This methodological limitation reduces the capacity to capture complex relationships, such as

feedback effects between financial distress and earnings management, and may lead to biased or incomplete conclusions.

Finally, there is a lack of sector-specific investigations, which limits the generalizability and contextual relevance of findings. Much of the Ethiopian literature relies on aggregated samples, often dominated by manufacturing or financial firms, without adequately accounting for sectoral differences in incentives, regulatory exposure, and operational characteristics. Evidence from broader African studies suggests that earnings management behavior varies significantly across industries, particularly in sectors such as banking, where regulatory scrutiny and risk profiles differ substantially [37]. The absence of such disaggregated analysis in Ethiopia represents a critical gap, as it obscures important variations in how financial distress influences earnings management across sectors. Taken together, these gaps highlight the need for more comprehensive, methodologically rigorous, and context-specific research in Ethiopia. Addressing these limitations would not only enhance the empirical understanding of earnings management but also contribute to the development of more effective regulatory and governance frameworks.

Table 1 reveals the key insights from the literature on earnings management under financial distress, showing that financially distressed firms have stronger incentives to manipulate earnings to avoid bankruptcy and maintain stability. The evidence indicates that firms typically rely first on accrual-based earnings management (AEM) and may shift toward real earnings management (REM) under greater regulatory scrutiny. Managerial agency motives further drive these practices, while firm-specific factors such as leverage, liquidity, size, and profitability significantly influence the extent of manipulation. Although strong corporate governance can help limit earnings management, its effectiveness is often weakened in environments with poor enforcement. Overall, the literature highlights those weak institutional settings particularly in many African contexts facilitate earnings management, while evidence from Ethiopia remains limited, fragmented, and largely focused on AEM, leaving notable gaps in integrated and distress-focused research. Moreover, existing studies largely adopt traditional panel approaches, with limited application of advanced methodologies, which constrains deeper empirical insights.

Overall, the literature highlights those weak institutional settings particularly in many African contexts facilitate earnings management, while evidence from Ethiopia remains limited, fragmented, and largely focused on AEM, leaving notable gaps in integrated and distress-focused research. Moreover, existing studies largely adopt traditional panel approaches, with limited application of advanced methodologies, which constrains deeper empirical insights.

Furthermore, the synthesis of the literature underscores that the interaction between financial distress, governance quality, and institutional strength plays a critical role in shaping firms' choice between AEM and REM strategies, as firms strategically adjust their reporting behavior in response to both internal pressures and external monitoring mechanisms. This interaction suggests that earnings management is not only a firm-level decision but also deeply embedded within the broader regulatory and economic environment. In particular, weak enforcement regimes and information asymmetry intensify opportunistic behavior, while stronger oversight can shift manipulation from accrual-based to more complex real activities. Consequently, there is a clear need for more context-specific and methodologically robust studies that integrate these dimensions simultaneously. In the Ethiopian context, addressing these gaps would significantly enhance empirical understanding by incorporating both AEM and REM within a unified framework, while also applying advanced econometric techniques to capture dynamic relationships and provide more reliable and policy-relevant insights.

**Table 1:** Summary of Key Findings from the Literature

Theme	Key Insights	Supporting Evidence
Financial Distress ~ EM	Financial distress increases incentives for earnings manipulation to avoid bankruptcy and maintain financial stability	[2], [4], [24]
AEM vs REM Strategy	Firms initially rely on AEM but shift to REM under higher regulatory scrutiny	[1], [3], [36]
Agency Motivation	Managers engage in EM to protect personal interests under distress conditions	[10]
Firm Characteristics	Leverage, liquidity, size, and profitability significantly influence EM behavior	[2], [28]
Governance Effects	Strong governance reduces EM, but weak enforcement limits its effectiveness in Africa	[7], [29], [38]
Institutional Environment	Weak regulatory frameworks increase EM practices, especially in developing economies	[5], [20]
African Evidence	EM is widespread and driven by institutional weaknesses and financial pressure	[13], [21], [37]
Ethiopian Evidence	Limited and fragmented; mainly focuses on AEM with weak integration of REM	[5]–[7]
Methodological Approaches	Panel models dominate; advanced methods exist but are inconsistently applied	[32], [33], [39]
Research Gaps	Lack of integrated AEM–REM studies and limited distress-focused research in Ethiopia	[3], [35], [36]

**Sources:** Author's compilation based on literature, 2026

#### 4. Conclusion

This review offers a thorough synthesis of the literature on earnings management during periods of financial distress within various African contexts, with a particular focus on Ethiopia. The evidence consistently demonstrates that financial distress serves as a significant driver of earnings management behavior, as firms facing financial pressure seek to influence reported performance in order to maintain credibility, avoid contractual violations, and secure continued access to external resources. Across Africa, the interaction between firm-level incentives such as leverage, profitability, and governance structures and broader institutional conditions shapes the extent and nature of earnings manipulation. However, while the African literature provides relatively well-established evidence on these dynamics, the Ethiopian context remains comparatively underexplored and fragmented.

Existing studies offer only partial insights, often focusing on general determinants of earnings management rather than explicitly examining financial distress as a central factor. Moreover, the dominance of accrual-based measures, combined with limited methodological diversity and insufficient sectoral analysis, constrains the depth and reliability of conclusions that can be drawn. In light of these limitations, strengthening regulatory frameworks, enhancing corporate governance mechanisms, and improving audit quality are essential for mitigating earnings management practices and improving financial reporting transparency in Ethiopia. At the same time, there is a pressing need for more rigorous empirical research that integrates multiple dimensions of earnings management, employs robust methodological approaches, and situates firm behavior within the broader institutional environment. Such efforts are critical for advancing

both academic understanding and policy development in the Ethiopian financial reporting landscape.

### **5. Limitations**

This review raised several limitations that should be acknowledged. First, the analysis is constrained by the limited availability of Ethiopian-specific literature on earnings management, particularly studies that explicitly address financial distress. As a result, the review necessarily draws on broader African and emerging market evidence to contextualize the discussion, which may not fully capture the unique institutional and economic characteristics of Ethiopia. Second, the review relies primarily on secondary sources, including published journal articles and working papers. While these sources provide valuable insights, they may be subject to publication bias and may not fully reflect unpublished or context-specific evidence. The absence of primary data analysis also limits the ability to validate or extend existing findings.

Third, there is a lack of methodological uniformity across the studies reviewed, which poses challenges for comparison and synthesis. Differences in model specification, measurement of earnings management, and proxies for key variables such as financial distress contribute to inconsistencies in findings and limit the generalizability of conclusions. This issue is particularly pronounced in the Ethiopian context, where variations in research design further complicate the interpretation of results. Overall, these limitations underscore the need for more standardized, transparent, and context-specific research approaches in future studies on earnings management, particularly within Ethiopia.

### **6. Future Research Directions**

Future research on earnings management, particularly within Ethiopia, should move toward more comprehensive and context-sensitive empirical designs. There is a clear need for firm-level studies that explicitly examine the role of financial distress as a central determinant of earnings management rather than treating it indirectly through related financial indicators. In addition, future studies should adopt integrated frameworks that jointly analyze accrual-based and real earnings management, as treating these strategies in isolation provides only a partial understanding of managerial behavior. Methodologically, greater use of advanced econometric techniques especially those capable of addressing endogeneity and capturing dynamic relationships would improve the robustness and credibility of findings. Finally, deeper examination of corporate governance mechanisms and the broader institutional environment is essential, as these factors shape both the incentives for and constraints on earnings management. Collectively, such efforts would contribute to a more coherent and policy-relevant body of evidence.

### **Author Contributions Statement:**

*Habib Endris was responsible for conceptualizing the study, systematically identifying and synthesizing relevant literature, and preparing the original draft of the manuscript. He also conducted a critical review and synthesis of the selected literature, edited and refined the manuscript to enhance its overall quality, and served as the corresponding author for all communications related to the research. Professor N. Kishore Babu, as the academic advisor, provided continuous supervision and expert guidance throughout the development of the study, provided helpful insights regarding the structure and methodology of the review.*

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