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# THE IMPACT OF RULES BASED VERSUS PRINCIPLES BASED ACCOUNTING STANDARDS ON EARNINGS MANAGEMENT IN LIGHT OF MANAGEMENT'S ETHICAL BEHAVIOR: AN EXPERIMENTAL STUDY IN EGYPT

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## ABSTRACT

*This study examines whether the shift from rules based to principles based accounting standards affects earnings management differently in developing countries than in developed ones, with a specific focus on Egypt. While prior research in the US and Europe suggests that principles based standards reduce earnings management by enabling professional judgment to reflect economic substance, this conclusion rests on an implicit assumption of a high quality financial reporting infrastructure – an assumption that may not hold in emerging economies. To test this proposition, we designed a laboratory experiment based on Egyptian Accounting Standard No. 31 (Impairment of Assets). We reformulated the standard into four rules based and four principles based cases applied to a hypothetical asset impairment scenario. Participants (33 financial managers, 31 external auditors, and 35 academics; total N = 99) were asked to select the impairment loss value under each formulation. Management incentives were structured to encourage earnings increasing choices. We employed descriptive statistics, t tests, Kolmogorov Smirnov tests, and Kruskal Wallis tests. The results reveal a positive and significant relationship between principles based standards and earnings management in the Egyptian context: under principles based formulations, the incidence of earnings management averaged 52–73% across practitioner groups, compared to only 6–8% under rules based formulations. The inverse relationship under rules based standards is also significant. These findings contradict most US and European studies, indicating that in environments with lower professional training, weaker enforcement, and limited institutional infrastructure, the flexibility of principles based standards is exploited opportunistically rather than used to reflect economic substance. We conclude that the literal adoption of IFRS (principles based) in Egypt would likely increase earnings management. Therefore, Egyptian standard setters should adapt international standards by embedding detailed rules and implementation guidance – effectively transforming principles based standards into rules based ones to suit local infrastructure. Recommendations include raising*

*professional education, combining both approaches complementarily, and conducting further research on qualitative characteristics, financial statement quality, and auditor judgment. This study contributes empirical evidence from a developing country to the global debate on rules versus principles in accounting standard setting.*

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**KEYWORDS:** Earnings management, principles based accounting standards, rules based accounting standards, financial reporting infrastructure, developing countries, Egypt, asset impairment, experimental study.

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## 1. INTRODUCTION

In recent years, the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) have increasingly moved toward principles based accounting standards to facilitate convergence and improve financial reporting transparency. Yet, whether this shift from rules based to principles based standards reduces or exacerbates earnings management (EM) remains an open question—particularly for developing countries such as Egypt, where the financial reporting infrastructure differs markedly from that of developed markets. Traditional arguments assume that principles based standards, by emphasizing professional judgment and economic substance, enhance reporting quality. However, this assumption may not hold when institutional safeguards are weak (Ajekwe, 2023; Joshi & Ismail, 2024).

Prior literature reports mixed findings on the effectiveness of principles based versus rules based standards in controlling earnings management. A growing body of evidence suggests that principles based standards improve earnings attributes such as comparability, relevance, and faithful representation (Chen et al., 2025; Folsom et al., 2016), and that they can reduce certain forms of earnings management when accompanied by strong enforcement (Dimitropoulos, 2025). Similarly, some studies find that rules based standards constrain EM by limiting managerial discretion (Mashayekhi et al., 2020; Sundvik, 2019). However, other research warns that principles based standards may create a “slippery slope” to financial reporting fraud in the absence of ethical and governance safeguards (Ajekwe, 2023), and that developing countries face unique barriers—including lack of training, weaker enforcement, and greater ambiguity in applying professional judgment—which can render principles based standards ineffective or even counterproductive (El Halaby et al., 2020; Joshi & Ismail, 2024). Lee and Lee (2020) further show that the benefits of principles depend on contracting environments and litigation risk, conditions that are often less developed in emerging economies.

These inconsistent findings stem from two important gaps. First, most prior studies examine the direct effect of standard setting approaches on earnings management in isolation, without considering how the institutional infrastructure of a specific country—such as Egypt—moderates this relationship. Second, there is a lack of direct, explicit evidence linking the shift from rules to principles to the observed trend of earnings management in

developing countries. This gap is particularly pronounced in Egypt, where the financial reporting environment is characterized by voluntary adoption of international standards, uneven professional training, and a relatively less mature capital market. These institutional features may cause the transition to principles based standards to produce opposite effects from those documented in the United States or Europe.

Grounded in agency theory, information asymmetry, and the professional judgment framework, this paper aims to fill the gap by addressing three research questions: (1) Does the transition to a principles based approach increase or decrease the scope for earnings management? (2) If the transition reduces EM in developed countries, does this finding apply to Egypt and other developing nations, or might the outcome be reversed? (3) If the transition could increase EM in developing countries, what role should Egyptian accounting standard setters play when adopting international accounting standards? The study distinguishes between rules based standards (detailed rules, limited judgment) and principles based standards (flexible, judgment oriented) and situates the analysis within the specific infrastructure of the Egyptian business environment.

This study makes three contributions. First, it extends the accounting standard setting literature by explicitly testing whether the effect of principles based standards on earnings management is conditional on the level of financial reporting infrastructure—a moderating mechanism not previously examined in the context of a developing country. Second, it provides the first empirical synthesis of this issue for Egypt, where voluntary IFRS adoption and nascent enforcement offer a distinctive and policy relevant setting. Third, by drawing on recent evidence from emerging markets (Chandra, 2019; El Halaby et al., 2020; Joshi & Ismail, 2024), it offers practical guidance for Egyptian standard setters on how to adapt international standards to control earnings management, balancing the need for transparency with the realities of local institutional capacity.

The remainder of the paper proceeds as follows. Section 2 reviews the theoretical framework and develops the research hypotheses. Section 3 describes the research methodology. Section 4 presents the analysis and results. Section 5 discusses the findings, and Section 6 concludes with implications, limitations, and recommendations for standard setters in developing countries.

## 2. LITERATURE REVIEW AND THEORETICAL ANALYSIS

### 2.1 *The Relationship Between Earnings Management and Accounting Standards*

Definitions of earnings management (EM) vary across five dimensions: legitimacy (legal vs. illegal), direction (income minimization vs. maximization), effect on cash flow (real vs. accrual based), management's intention (informative/efficiency driven vs. opportunistic), and the tools used. No single definition is universally accepted, but most agree that EM distorts a firm's true performance. The researcher notes that EM reflects management's ethical choices: flexibility in standards can enhance communication and growth, but when used opportunistically for private gain, it harms stakeholders and misallocates resources. Because accounting standards provide the primary vehicle for EM (whether through real activities or accruals), standard setters must narrow the scope for opportunistic behavior.

Recent studies confirm that the effect of standards on EM depends critically on the balance between rules and principles. For instance, Folsom et al. (2016) find that principles based standards improve earnings attributes (persistence, predictability, value relevance), while Mashayekhi et al. (2020) and Sundvik (2019) show that rules based standards constrain EM more effectively in weak enforcement settings. However, Ajekwe (2023) warns that principles based standards can become a "slippery slope" to fraud without strong ethics and enforcement, and Shbeilat (2024) argues that controlling EM requires an integrated framework of standards, governance, and ethics.

Classic empirical studies have consistently demonstrated a fundamental relationship between standard setting quality and EM. Vander (2001) observed that flexibility is not a defect; the problem is inconsistent or improper application. Ashbaugh and Olsson (2002) and Ashbaugh and Pincus (2001) showed that IAS/IFRS produce earnings with higher explanatory power and forecastability than many local GAAP. Ball, Robin, and Wu (2003) concluded that high quality standards are necessary but insufficient: reporting quality also depends on preparers' incentives and legal enforcement. Gassen and Sellhorn (2006) found that IFRS adoption reduced EM and information asymmetry in Germany. Daske, Leuz, and Verdi (2007) cautioned that IFRS alone do not guarantee quality; firm incentives and country level institutions matter. These classic findings are reinforced by newer

evidence: Joshi and Ismail (2024) document that developing countries face unique barriers (lack of training, weak enforcement) that can make principles based standards ineffective or even counterproductive. El Halaby, Albarrak, and Grassa (2020) show that principles based AAOIFI standards affect EM differently in Islamic banks, depending on governance and religious oversight. Dimitropoulos (2025) finds that private hotel firms under principles based standards engage in EM to influence government subsidies. Lee and Lee (2020) demonstrate that the shift to a principles based revenue standard (ASC 606) changes earnings quality and contracting roles. Chen, Gong, and Lu (2025) add that principles based standards improve earnings comparability, but this benefit is moderated by uncertainty and verifiability. Chandra (2019) concludes from the Fijian experience that the rules versus principles debate must be resolved country by country, with attention to local infrastructure.

From the literature, two main conclusions emerge. First, there is a fundamental relationship between the efficiency of standard setting and the quality of accounting information: better standards reduce EM and provide more useful information to investors, whereas weak standards (as seen in the Enron era) facilitate manipulation. Second, since accounting standards are a primary tool for EM, standard setters must re examine why IFRS may outperform U.S. GAAP in some contexts, what the underlying principles based versus rules based foundations are, and how those foundations affect EM.

### 2.2 *Rules Based approach versus Principles Based approach as two frameworks for setting accounting standards*

The literature distinguishes two foundational approaches to accounting standard setting. The principles based (conceptual) approach requires standards to rely on a framework of broad economic concepts and definitions, allowing extensive use of professional judgment to reflect the economic substance of transactions (Ng, 2004; Schipper, 2003; Wallison, 2007). In contrast, the rules based approach relies on detailed, specific rules with step by step procedures, leaving little room for judgment and prohibiting deviation from the rules (Kroeker, 2007; Ng, 2004; Wallison, 2007). However, as Ajekwe (2023) warns, the flexibility of principles based standards can become a "slippery slope" to fraud when professional ethics and enforcement are weak. Shbeilat (2024) adds that controlling earnings management requires an integrated framework of

standards, governance, and ethics-regardless of the chosen approach.

According to the Sarbanes Oxley Act (Section 108(d)), principles based standards should include a statement of core objectives, avoid explicit rules, and provide only appropriate implementation guidance (Herdman, 2002; SEC, 2003). Rules based standards, conversely, aim to provide clear, verifiable, and comparable outcomes by eliminating ambiguity (SEC, 2003), but they can also encourage transaction structuring to avoid recording liabilities (FASB, 2003; Shortridge & Myring, 2004). The objective of principles based standards is faithful representation, not mere compliance (ICAS, 2006). Folsom et al. (2016) provide evidence that principles based standards are associated with higher earnings persistence, predictability, and value relevance-key attributes that reduce opportunistic earnings management. Yet Sundvik (2019) and Mashayekhi et al. (2020) show that the benefits of principles depend on the institutional environment; in weak enforcement settings, rules based standards may constrain earnings management more effectively.

Examples of rules based standards include SFAS No. 133 (Derivatives) and SFAS No. 13 (Leases), which contain numerous bright line rules and extensive guidance. [ ] Examples of principles based standards include SFAS No. 34 (Capitalization of Borrowing Costs), which relies on general concepts such as "when the asset is substantially complete" (FASB, 2003). El Halaby et al. (2020) find that the adoption of principles based AAOIFI standards influences earnings management in Islamic banks differently than conventional rules based regimes, depending on governance and religious oversight. Dimitropoulos (2025) demonstrates that private hotel firms under principles based standards engage in earnings management to influence government subsidies, suggesting that principles do not automatically eliminate manipulation—they shift its form. Chandra (2019) concludes from the Fijian experience that the rules versus principles debate must be resolved country by country, with attention to local infrastructure.

In summary, while principles based standards offer flexibility and economic substance, their effectiveness in controlling earnings management is conditional on the strength of professional judgment, enforcement, governance, and country specific institutional factors. Rules based standards provide clarity and comparability but invite structuring and may sacrifice substance for form. The optimal approach likely lies in a context sensitive hybrid,

particularly for developing economies such as Egypt.

2.3 The relationship between accounting standards-setting basis and earnings management.

Although financial statements are prepared within the framework of financial accounting standards, those standards nonetheless permit the use of different accounting methods and approaches to account for the same economic events and phenomena—thereby providing management with the opportunity to select those accounting methods and alternatives that maximize their current and future personal benefits through what is known as earnings management.

Despite numerous attempts to reduce earnings management by improving the foundations of accounting standard setting, researchers have not yet reached a direct and explicit piece of evidence linking the basis of standard setting (rules versus principles) to the growing trend of earnings management in the business community. Some argue that relying on a rules based approach leads to the structuring of economic events by giving precedence to the superficial form of the standard over its economic substance, whereas relying on a principles based approach provides a wide scope for professional judgment that can be used to satisfy managers' self interests (Ajekwe, 2023; Sundvik, 2019). As Ajekwe (2023) warns, the flexibility inherent in principles based standards may become a slippery slope to financial reporting fraud when not accompanied by strong ethics and enforcement. Conversely, Mashayekhi et al. (2020) find that rules based standards constrain earnings management more effectively in certain contexts, but at the cost of encouraging form over substance structuring—a trade off that lies at the heart of the standard setting dilemma. Shbeilat (2024) argues that no single approach can resolve the problem without an integrated framework that aligns standards, governance, and ethical behavior.

With the increasing convergence between the IASB and the FASB, the elimination of differences between them, the adoption of the principles based approach, and the consequent shift by developing countries (including Egypt) toward principles based standards, the question arises as to whether this transition affects earnings management positively or negatively.

Prior accounting research on whether principles based or rules based standards reduce earnings management has produced mixed findings. To improve readability and avoid narrative repetition, we summarize the direction of evidence from key studies in Table A1 (see Appendix-2). In

brief: studies favoring principles based standards (e.g., Folsom et al., 2016; Psaros & Trotman, 2004) argue that judgment reflects economic substance; studies favoring rules based standards (e.g., Gibbins, Salterio, & Webb, 2001; Mashayekhi et al., 2020) emphasize that explicit rules constrain manipulation; and neutral studies (e.g., Capkun, Collins, & Thomas, 2011; Demski, 2004; Ewert & Wagenhofer, 2005; Ferdy van, 2009; Nelson, Elliott, & Tarpley, 2002, 2003) find that managers adapt their strategies, leading to substitution between accrual based and real earnings management without a net reduction.

It is an established matter that the level of infrastructure in Egypt and developing countries generally is lower than in developed countries, due to the lower level of professional qualification and professional commitment-whether for financial statement preparers or auditors. Given that the results of most American and European studies have indicated that applying a principles based approach may lead to a lower level of earnings management, based on the implicit assumption of a high level of financial reporting infrastructure, the logical question is whether applying that same implicit assumption in the Egyptian practice environment-and in developing countries generally-could lead to results opposite to those reached by most American and European studies. This concern is echoed by El Halaby et al. (2020), who find that the adoption of principles based AAOIFI standards in Islamic banks influences earnings management differently than in conventional settings, depending on governance and religious oversight. Dimitropoulos (2025) demonstrates that even under principles based regimes, managers engage in earnings management to influence government subsidies-and this tendency is likely stronger where monitoring is weaker. Lee and Lee (2020) and Chen et al. (2025) further show that the effects of principles based standards on earnings quality and comparability are contingent on uncertainty, verifiability, and the contracting environment-all of which vary systematically between developed and developing economies. Therefore, the following research hypothesis is derived:

Relying on a principles based approach instead of a rules based approach when adapting international accounting standards in Egypt and developing countries generally leads to an increased level of earnings management.

### 3. RESEARCH METHODOLOGY

The study employed an experimental laboratory approach to determine the relationship

between the foundations of accounting standard setting and earnings management, focusing on Egyptian Accounting Standard No. 31 concerning asset impairment, which is classified as a principles based standard. To test the effect of relying on a principles based approach compared to a rules based approach on the level of earnings management, we formulated a portion of this standard into four rules based cases and four principles based cases, applying them to a hypothetical scenario involving the decline in value of a machine owned by a company. The experiment incorporated variation in the amount of impairment losses according to a set of assumed recoverable amounts, while altering the wording of the standard across cases. In addition, management had an incentive to select the alternative that produced the smallest possible loss in each case, consistent with the standard's wording, in order to increase earnings. It was indicated that management bonuses and share prices are tied to the company's earnings, and that an expected decline in earnings this year compared to the previous year was also noted. This experimental design follows established precedents in the literature, such as Ferdy van (2009), who used a similar experimental task with financial managers to compare earnings management under rules based versus principles based regimes.

#### 3.1 Experiment Design

The experiment consisted of three parts.

Part One: This part provided general information about a company whose shares are listed on the stock exchange, along with strong incentives for management to engage in upward earnings management. These incentives included: (1) the link between share prices and company profitability; (2) the link between management incentives and company earnings; and (3) an expected decline in company earnings of EGP 10 million compared to the previous year. These factors created a strong motivation for management to exploit the wording of the accounting standard to select the smallest possible loss, thereby improving the company's earnings.

Participants were asked to make decisions regarding the determination of impairment losses on one of the company's machines, assuming that each participant acted as the company's financial manager. The concept of fixed asset impairment and related concepts and foundations were explained at the beginning of the experiment to facilitate participants' recall of the standard's wording and enable them to answer questions credibly.

Part Two: This part presented a hypothetical

scenario reflecting a decline in the value of one of the company's machines, with an indication of impairment in the form of technological changes reflected in the emergence of a new model of the machine that could increase production capacity, leading to a decline in the machine's recoverable amount below its carrying amount. Assuming no active market for this type of machine, we provided a set of fair value estimates from two valuation firms—one more experienced than the other. We also assumed a selling price for a similar machine and the present value of future cash flows for the machine using the central bank discount rate. Given the variation among these values, the amount of impairment loss varied accordingly.

Part Three: In this part, we altered the basis used in formulating the accounting standard for asset impairment-concerning the measurement of impairment loss-across four cases. For each case, we formulated the standard as a question once according to a rules based approach and once according to a principles based approach. Thus, there were eight hypothetical questions regarding the standard's formulation. Odd numbered questions (Q1, Q3, Q5, Q7) reflected a rules based formulation, while even numbered questions (Q2, Q4, Q6, Q8) reflected a principles based formulation, without explicitly stating this to participants. Participants were required to answer each question by selecting the value that, from management's perspective, should represent the impairment loss on the machine.

- Case One: The recoverable amount was defined as net fair value. Fair value was tied to the more experienced valuation firm's assessment in Q1, while in Q2 fair value was not tied to any specific assessment and was left to management's judgment based on available information.

- Case Two: Recoverable amount was again defined as net fair value. In Q3, fair value was tied to the last transaction price of similar assets in the same activity. In Q4, fair value was not tied to any assessment and left to management's judgment.

- Case Three: Recoverable amount was defined as the present value of future cash flows. In Q5, this was tied to the central bank discount rate (the prevailing market rate at that date). In Q6, the present value of future cash flows was not tied to any specific discount rate and left to management's judgment.

- Case Four: Recoverable amount was determined by comparing net fair value and present value of future cash flows, selecting the higher. In Q7, fair value was tied to the more experienced valuation firm's assessment and future cash flows were tied to the central bank discount rate. In Q8 (the last

question), neither was tied to any specific assessment or discount rate; both were left to management's judgment.

### 3.2 Experimental Study Variables

The experimental study comprised two variables.

1. Independent Variables: These are the foundations of accounting standard setting, which include two approaches:

1. Rules Based Approach: Under a rules based formulation, the basis or discount rate to be used in selecting the impairment loss value is clearly and explicitly specified, leaving no room for professional judgment. However, an opportunity was given to deviate from this basis or values provided that justifications were given. Participants were not asked to write these justifications because the objective was to identify the intention to manage earnings (or not) through deviation from the literal application of the standard.

2. Principles Based Approach: Under a principles based formulation, the field was left open for professional judgment to choose the basis or discount rate that management considers best for serving its interests. We provided an external benchmark—representing the best basis from the perspective of all parties—which management should ideally follow; deviation from this benchmark would be a clear indication of earnings management. This benchmark was: the more experienced valuation firm's estimate (in Cases One and Two); the value of a similar machine (in Cases Three and Four); the central bank discount rate (in Cases Five and Six); and finally, the more experienced valuation firm's estimate together with the central bank discount rate to determine recoverable amount (in Cases Seven and Eight). As Joshi and Ismail (2024) and Chandra (2019) note, the effectiveness of a principles based approach depends critically on the quality of professional judgment available in the local environment—a condition that this experimental design explicitly tests by varying the presence of clear benchmarks.

2. Dependent Variable: This is the occurrence or non occurrence of earnings management (a dummy variable taking the value 0 if no earnings management occurs, and 1 if earnings management occurs). The occurrence of earnings management was determined based on each participant's choice of the impairment loss value. Earnings management was reflected in the

selection of the smallest possible impairment loss value. As Shbeilat (2024) argues, earnings management is not merely a technical choice but an ethical and governance issue; the experimental design captures the behavioral manifestation of that choice under different standard formulations.

### 3.3. Study Sample

The study population consisted of three categories of participants, from which the study sample was selected as follows.

**First Group: Sample of Financial Managers:** The final sample comprised 33 accountants working in various Egyptian joint stock companies across different sectors (chemicals, health and pharmaceuticals, telecommunications, construction and building, housing and real estate, and paper products). Selection criteria for financial managers were: (1) employed by an Egyptian joint stock company; (2) at least ten years of experience in accounting; (3) holding the position of head of the financial sector, financial manager, or chief

accountant.

**Second Group: Sample of External Auditors:** The final sample comprised 31 external auditors from a number of accounting and auditing firms in Alexandria and Cairo. Selection criteria were: (1) registered in the register of accountants and auditors at the Ministry of Finance; (2) working in a major auditing and accounting firm in Alexandria or Cairo; (3) a minimum of five years of experience to ensure a high degree of expertise and professional performance quality.

**Third Group: Sample of Academics:** The final sample comprised 35 academics working in the faculties of commerce at Alexandria, Tanta, and Damanhour Universities. The selection criteria were: (1) faculty members working in the accounting departments of commerce faculties at Egyptian universities; (2) accessibility and cooperation of faculty members in this regard.

Table 1 presents the distribution of the study sample, the number of questionnaires distributed (containing the different cases of interest), the number received, and the response rates.

**Table (1): Distribution of Questionnaires Distributed, Received, and Valid Response Rates.**

Study Category	Questionnaires Distributed	Questionnaires Received	Response Rate	Valid Questionnaires	Valid / Received (%)
Financial Managers	48	36	75%	33	91.67%
External Auditors	50	33	66%	31	93.93%
Academics	49	36	73.47%	35	97.22%
<b>Total</b>	<b>147</b>	<b>105</b>	<b>71.42%</b>	<b>99</b>	<b>94.28%</b>

The response rates are high compared to most prior studies in this field.

Data for this study were collected through a hypothetical scenario concerning the decline in value of a machine, as shown in the research appendix. The scenario, in the form of a questionnaire, was distributed to study participants either manually in printed form or electronically, with responses sent to the researchers' email address.

## 4. RESULTS

We used both parametric and non parametric statistical methods to test the relationship between the study variables and to infer the significance of that relationship. These methods include: (a) descriptive statistics (arithmetic mean, standard deviation, and frequency of occurrence/non occurrence of earnings management); (b) parametric statistics (the t test to test the significance of the relationship between study variables); and (c) non parametric statistics (the Kolmogorov Smirnov test to test the significance of the relationship, and the Kruskal Wallis test to examine the degree of

difference or agreement among the three groups' responses for each question and to test the research hypothesis).

We used the p value (observed significance level) to judge statistical significance at a 95% confidence level (5% significance level). The observed p value was compared to the assumed significance level, applying the following decision rule:

- If p value < 5%, reject the null hypothesis and accept the alternative hypothesis.
- If p value > 5%, accept the null hypothesis and reject the alternative hypothesis.

Data were processed and statistical analysis was performed using SPSS software.

### 4.1 Descriptive Statistics

The descriptive statistics include the arithmetic mean, standard deviation, and frequency of occurrence/non occurrence of earnings management. These are presented in Tables 2, 3, and 4.

Table 2 shows the arithmetic mean and standard

deviation of the responses of the three participant groups to the eight experimental questions. The table indicates that the highest value is 1 (meaning earnings management occurs) and the lowest value is 0 (meaning no earnings management) for all questions, except for Q5 and Q7 for the financial manager and external auditor groups, where both the highest and lowest values were 0—indicating no earnings management for those two questions. An arithmetic mean exceeding or approaching 50% reflects a high degree of earnings management, while a mean substantially below 50% reflects a low level.

**Table (2) Arithmetic Mean and Standard Deviation of Study Variables (1), (2).**

Case	Financial Managers (n=33)		External Auditors (n=31)		Academics (n=35)		Total (N=99)	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Rules-based Q1	0.12	0.331	0.13	0.341	0.17	0.382	0.14	0.351
Principles-based Q2	0.55	0.506	0.68	0.475	0.37	0.490	0.41	0.490
Rules-based Q3	0.12	0.331	0.19	0.402	0.46	0.505	0.25	0.413
Principles-based Q4	0.58	0.502	0.94	0.250	0.77	0.426	0.76	0.393
Rules-based Q5	0.00	0.000	0.00	0.000	0.23	0.426	0.07	0.142
Principles-based Q6	0.55	0.506	0.77	0.425	0.31	0.471	0.54	0.467
Rules-based Q7	0.00	0.000	0.00	0.000	0.14	0.355	0.05	0.118
Principles-based Q8	0.42	0.502	0.55	0.506	0.31	0.471	0.42	0.493
<b>Total</b>	<b>0.182</b>	<b>0.326</b>	<b>0.31</b>	<b>0.380</b>	<b>0.21</b>	<b>0.371</b>	<b>0.23</b>	<b>0.359</b>

1. Sample size: 33 financial managers, 31 external auditors, 35 academics, total 99.
2. For all questions, the highest value was 1 and the lowest 0, except for Q5 and Q7 for financial managers and external auditors, where both highest and lowest were 0 (not shown in Table 2).

Table 2 also shows that the arithmetic mean for each of the odd numbered questions (Q1, Q3, Q5, Q7)-which represent rules based accounting standards-is low across each group and across all three groups combined, with all means substantially below 50%. This is particularly pronounced for financial managers and external auditors, and relatively higher (though still below 50% for most) for academics. This indicates a decrease in earnings management practices when applying a rules based approach. In contrast, the arithmetic mean for the even numbered questions (Q2, Q4, Q6, Q8)-representing principles based accounting standards-

generally exceeds 50%, especially for financial managers and external auditors, and is relatively lower (but still substantial) for academics. This indicates an increase in earnings management practices when applying a principles based approach, across each group and across all three groups combined.

The table also presents the standard deviations of participants' responses around their means. The standard deviation values are low for the odd numbered questions (rules based) across each group and across all groups combined, especially for financial managers and external auditors, indicating a convergence of decisions toward reduced earnings management practices when applying a rules based approach. The standard deviations are relatively higher for academics. On the other hand, the table shows higher standard deviation values for the even numbered questions (principles based) across each group and across all groups combined, indicating less consensus among participants; nevertheless, the overall tendency is toward a higher level of earnings management practices when applying a principles based approach. Notably, the academic group perceives that both approaches result in earnings management, although the incidence of earnings management is slightly lower under the rules based approach compared to the principles based approach.

Table 3 shows the frequency percentages of earnings management occurrence when applying the rules based approach, while Table 4 shows the frequency percentages when applying the principles based approach.

#### First: Rules Based Approach

Table (3) presents the frequency percentages of earnings management occurrence under the rules based approach as follows:

**Table (3) Frequency Percentages of Earnings Management Occurrence Under the Rules Based Approach.**

Rules-Based Cases	Financial Managers (%)	External Auditors (%)	Academics (%)
Q1	12.1%	12.9%	17.1%
Q3	12.1%	19.4%	45.7%
Q5	0%	0%	22.9%
Q7	0%	0%	14.3%
<b>Average</b>	<b>6.05%</b>	<b>8.075%</b>	<b>25%</b>

Table 3 shows that the percentage of earnings management occurrence was low under the rules based approach, all below 50%, as follows:

- For financial managers: the percentage ranged from 0% (i.e., no earnings management for Q5 and Q7) to 12.1%, with an overall average of

6.05%.

- For external auditors: the percentage ranged from 0% to 19.4%, with an overall average of 8.075%.
- For academics: the percentage ranged from 14.3% to 45.7%, with an overall average of 25%.

This indicates a low incidence of earnings management when applying the rules based approach across all three groups, which supports the research hypothesis. Looking at the overall average incidence across the three groups, the highest percentage under the rules based approach was for the academic sample, while the incidence was low and similar for both financial managers and external auditors. The reason may be that academics tend to exercise professional judgment and rely on their scientific background when analyzing this type of task.

Second: Principles Based Approach

Table (4) presents the frequency percentages of earnings management occurrence when applying principles based standards, as reflected by the even numbered questions (Q2, Q4, Q6, Q8), as follows:

**Table (4) Frequency Percentages of Earnings Management Occurrence Under the Principles Based Approach.**

Principles-Based Cases	Financial Managers (%)	External Auditors (%)	Academics (%)
Q2	54.5%	67.7%	37.1%
Q4	57.6%	93.5%	77.1%
Q6	54.5%	77.4%	31.4%
Q8	42.4%	54.8%	31.4%
<b>Average</b>	<b>52.25%</b>	<b>73.35%</b>	<b>44.25%</b>

Table 4 shows that the incidence of earnings management was high under the principles based approach, with most percentages exceeding or approaching 50%, as follows:

- For financial managers: the percentage ranged from 42.4% to 57.6%, with an overall average of 52.25%.
- For external auditors: the percentage ranged from 54.8% to 93.5%, with an overall average of 73.35%.
- For academics: the percentage ranged from 31.4% to 77.1%, with an overall average of 44.25%.

The above indicates an increase in earnings management occurrence under the principles based approach for financial managers and external auditors, and to a lesser extent for academics-which supports the research hypothesis. Looking at the overall average incidence across the three groups, the

highest percentage under principles was for the external auditor sample. The reason may be that auditors, when playing the role of financial manager (as instructed in the experiment), rely entirely on the literal wording of the standard; thus, when the standard provided an opportunity for earnings management, the auditor group exploited it to maximize the company's profits.

#### 4.2. Parametric Methods

Testing the research hypothesis at the overall level and for each of the three sample groups required the use of the t test to examine the significance of the difference between the mean responses of each group under the two standard setting foundations (rules based vs. principles based) regarding their effect on earnings management, and to determine the acceptance of the research hypothesis.

Table 5 presents the t statistic and p value for testing the research hypothesis for each of the three sample groups and at the overall level.

**Table (5) T Test Results for Each of the Three Groups and at the Overall Level (1) (2) (3).**

Participants	t-test value (2) (Mean under principles - Mean under rules)	p-value	Significance (3)
1. Financial Managers	3.200	0.003	Significant
2. External Auditors	4.487	0.000	Significant
3. Academics	3.431	0.002	Significant
4. Overall	7.411	0.000	Significant

1. Total sample size = 99 (33 financial managers, 31 external auditors, 35 academics)
2. The t test was performed on the difference between each group's mean responses under principles minus each group's mean responses under rules.
3. The accepted significance level is 5% or less.

The table shows the t test results as follows:

First: Financial Managers Sample: The calculated t statistic is 3.200, while the tabulated t value (at 32 degrees of freedom and 5% significance) is 2.042. Thus, the calculated t (3.200) is greater than the tabulated t (2.042). Moreover, the p value is 0.003, which is less than the accepted significance level of 0.05. Therefore, we reject the null hypothesis and accept the alternative hypothesis for the financial managers sample, indicating an increased level of earnings management when applying the principles based approach compared to the rules based approach.

Second: External Auditors Sample: The calculated t statistic is 4.487, while the tabulated t value (at 30

degrees of freedom and 5% significance) is 2.042. Thus, the calculated t (4.487) is greater than the tabulated t (2.042). Moreover, the p value is 0.000, which is less than 0.05. Therefore, we reject the null hypothesis and accept the alternative hypothesis for the external auditors sample.

Third: Academics Sample: The calculated t statistic is 3.431, while the tabulated t value (at 34 degrees of freedom and 5% significance) is 2.03. Thus, the calculated t (3.431) is greater than the tabulated t (2.03). Moreover, the p value is 0.002, which is less than 0.05. Therefore, we reject the null hypothesis and accept the alternative hypothesis for the academics sample.

Fourth: Overall Level: The calculated t statistic is 7.411, while the tabulated t value (at 98 degrees of freedom and 5% significance) is 1.99. Thus, the calculated t (7.411) is greater than the tabulated t (1.99). Moreover, the p value is 0.000, which is less than 0.05. Therefore, we reject the null hypothesis and accept the alternative hypothesis at the overall level.

These results strongly confirm the research hypothesis: relying on a principles based approach instead of a rules based approach when adapting

international accounting standards in Egypt (and developing countries generally) leads to an increased level of earnings management.

**4.3. Non Parametric Methods**

To support the previous parametric tests, we used several non parametric tests, including the Kolmogorov Smirnov test to examine the significance of the relationship between the foundations of accounting standard setting and earnings management, as well as the Kruskal Wallis test to interpret the extent of differences among the three groups' responses to the eight questions.

**4.3.1. Kolmogorov Smirnov Test**

We used the Kolmogorov Smirnov test to examine the significance of the relationship between the foundations of accounting standard setting and earnings management. Because the data are normally distributed, the test statistic reduces to the Z test. Table 6 presents the arithmetic mean, standard deviation, Z statistic, and p value at a 5% significance level for testing the research hypothesis for each of the three sample groups and at the overall level.

*Table (6): Kolmogorov Smirnov Test Results for Each of the Three Groups and at the Overall Level (1), (2).*

Participants	Financial Managers	External Auditors	Academics	Overall
Number of observations	33	31	35	99
Arithmetic mean	0.1818	0.31	0.21	0.2339
Standard deviation	0.326	0.380	0.370	0.403
Z-statistic	2.519	1.883	2.563	2.3217
p-value	0.000	0.002	0.000	0.000

1. Data are normally distributed.
2. The tabulated Z value at the 5% significance level is 1.6449; therefore, any value equal to or greater than 1.6449 is significant.

The table above shows the Kolmogorov Smirnov test results for each of the three groups (financial managers, external auditors, academics) and at the overall level, as follows:

First: Financial Managers Sample: The Kolmogorov Smirnov test was performed to test the research hypothesis for the financial managers sample. The results show that the p value is 0.000, which is less than the accepted significance level of 0.05, and the Z statistic is 2.519, which is greater than the tabulated Z value (1.6449). Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted for the financial managers sample, indicating an increased level of earnings management when applying the principles based approach compared to the rules based approach.

Second: External Auditors Sample: The

Kolmogorov Smirnov test was performed to test the research hypothesis for the external auditors sample. The results show that the p value is 0.002, which is less than 0.05, and the Z statistic is 1.883, which is greater than 1.6449. Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted for the external auditors sample, indicating an increased level of earnings management under principles compared to rules.

Third: Academics Sample: The Kolmogorov Smirnov test was performed to test the research hypothesis for the academics sample. The results show that the p value is 0.000, which is less than 0.05, and the Z statistic is 2.563, which is greater than 1.6449. Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted for the academics sample, indicating an increased level of earnings management under principles compared to rules.

Fourth: Overall Population: The Kolmogorov Smirnov test was performed to test the research

hypothesis at the overall population level. The results show that the p value is 0.000, which is less than 0.05, and the Z statistic is 2.3217, which is greater than 1.6449. Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted at the overall level, indicating an increased level of earnings management when applying the principles based approach compared to the rules based approach.

These non parametric results strongly corroborate the parametric findings. Consistent with Joshi and Ismail (2024) and Chandra (2019), the increased earnings management under principles based standards in the Egyptian context reflects the weaker professional infrastructure and enforcement mechanisms typical of developing countries. Ajekwe (2023) would interpret this as evidence that principles without safeguards become a slippery slope to opportunistic reporting.

**4.3.2. Kruskal Wallis Test**

To interpret the extent of differences among the three groups' responses to the eight questions, we used the Kruskal Wallis test (a non parametric test) to determine the degree of agreement among the three groups on each question. The null hypothesis states that all populations have the same median-i.e., no substantial differences among the opinions of the three groups with respect to each of the eight questions. The alternative hypothesis states that there are substantial differences between the medians of at least two populations.

Given that the sample size exceeds 5 observations, the Kruskal Wallis test statistic follows a chi square ( $\chi^2$ ) distribution with degrees of freedom equal to the number of groups minus one (Aczel, 1989). Table 7 presents the results of applying the Kruskal Wallis test to the mean responses of the three groups for each research question.

*Table (7) Kruskal Wallis Test Results for the Variance Among the Three Groups' Mean Responses for Each Question and for the Research Hypothesis (1), (2).*

Test statistic and p-value	Rules-based Q1	Principles-based Q2	Rules-based Q3	Principles-based Q4	Rules-based Q5	Principles-based Q6	Rules-based Q7	Principles-based Q8
$\chi^2$	0.361	6.126	10.550	11.802	15.520	13.819	9.387	3.693
p-value	0.835	*0.047	*0.005	*0.003	*0.000	*0.001	*0.009	0.158

1. The tabulated  $\chi^2$  value (at 5% significance level, 2 degrees of freedom) = 5.990.
2. The accepted significance level is 5% or less; numbers marked with an asterisk (\*) are significant.

The significant  $\chi^2$  values indicate a significant difference among the mean responses of the three groups for questions Q2, Q3, Q4, Q5, Q6, and Q7, as the  $\chi^2$  values for these questions exceed 5.990, with p values less than 5%. The table also indicates no significant difference for questions Q1 and Q8, where the  $\chi^2$  values are less than 5.990, with p values greater than 5%.

To interpret the Kruskal Wallis results and identify which groups caused the significant differences for questions Q2, Q3, Q4, Q5, Q6, and Q7, we performed pairwise comparisons using the Mann Whitney test. Given that the sample size exceeds 10 observations, the sampling distribution approximates the normal distribution, and the test statistic reduces to the Z test (Aczel, 1989).

*Table (8) Mann Whitney Test Results for Comparing the Mean Responses of Each Pair of Groups on the Study Questions (1), (2).*

Pair wise comparison	Rules-based Q1	Principles-based Q2	Rules-based Q3	Principles-based Q4	Rules-based Q5	Principles-based Q6	Rules-based Q7	Principles-based Q8
<b>Financial Managers vs. External Auditors</b>								
Z-value	-0.065	-0.914	0.504	-2.479	Similar	-1.578	Similar	-0.859
p-value	0.935	0.287	0.436	*0.001		0.057		0.328
<b>Financial Managers vs. Academics</b>								
Z-value	-0.362	1.227	-2.387	-1.393	2.013	1.632	2.112	0.773
p-value	0.569	0.155	*0.003	0.088	*0.003	0.056	*0.011	0.355
<b>External Auditors vs. Academics</b>								
Z-value	-0.302	2.126	-1.844	1.137	2.013	2.621	2.112	1.625
p-value	0.645	*0.014	*0.025	0.067	*0.003	*0.002	*0.011	0.058

1. The accepted significance level is 5% or less; numbers marked with an asterisk (\*) are significant.\*
2. The tabulated Z value at the 5% significance level is 1.6449; therefore, any value equal to or greater than 1.6449 is significant.

Table 8 indicates that the reason for the significant difference in the previous Kruskal Wallis test for Q2 and Q6 is the presence of significant differences between the mean responses of external auditors and academics. For questions Q3, Q5, and Q7, the reason is the presence of significant

differences between the mean responses of financial managers and academics, and between external auditors and academics. Finally, the significant difference for Q4 is attributed to the difference between the mean responses of financial managers and external auditors.

**4.4. Discussion**

The results of this study lead to several key observations, which we discuss below in light of the existing literature and the specific context of developing countries such as Egypt.

**4.4.1 The Egyptian Institutional Context as a Moderator**

The Egyptian financial reporting environment differs from developed markets along five interrelated dimensions, each of which influences how rules based versus principles based standards affect earnings management:

1. Professional training and qualification : Despite recent improvements, a significant portion of accountants and auditors in Egypt lack the continuous professional development required to exercise the high level judgment demanded by principles based standards (Joshi & Ismail, 2024).
2. Enforcement mechanisms : The Egyptian Financial Supervisory Authority (EFSA) and audit oversight bodies have fewer resources and lower sanctioning power compared to the U.S. Securities and Exchange Commission

(SEC) or the Public Company Accounting Oversight Board (PCAOB) (El Halaby et al., 2020).

3. Legal and litigation environment : The threat of shareholder litigation, which disciplines managerial opportunism in the United States, is substantially weaker in Egypt.
4. Cultural and ethical factors : Prior research suggests that uncertainty avoidance and power distance may affect the willingness to exercise judgment independently (Shbeilat, 2024).
5. Market maturity - Egypt's capital market is smaller, less liquid, and has a lower proportion of institutional investors, reducing market based monitoring.

These five dimensions collectively explain why the flexibility of principles based standards is exploited opportunistically in Egypt, whereas the clarity of rules based standards constrains earnings management.

**4.4.2 Linking Empirical Findings to Egyptian Institutional Factors**

Our results demonstrate a clear pattern: under principles based formulations, the incidence of earnings management averaged 52-73% across practitioner groups, compared to only 6-8% under rules based formulations. To interpret this pattern, Table 9 maps each key finding to the specific institutional weakness that drives it.

**Table 9: Linking Empirical Findings to Egyptian Institutional Context.**

Empirical Finding	Egyptian Institutional Factor	Explanation
Principles-based → high EM incidence (52-73% for practitioners)	Low professional training & weak enforcement	Preparers lack the ability and ethical grounding to use judgment faithfully; there is little fear of sanctions.
Rules-based → low EM incidence (6-8% for practitioners)	High rule-clarity reduces judgment load	Explicit guidance compensates for lower training and constrains opportunistic choices.
Academics show lower EM under principles (44% average)	Stronger conceptual training	Academics possess deeper IFRS understanding, suggesting that training matters for the successful application of principles.
External auditors show the highest EM under principles (73.35%)	Role conflict & lack of audit committee strength	When acting as managers, auditors exploit flexibility; real-world safeguards (e.g., independent audit committees) are absent in the experiment.

The table reveals that the inverse relationship between rules based standards and earnings management-which contradicts most U.S. and European studies-is not an inherent property of rules but rather a reflection of Egypt's low infrastructure environment. In the absence of strong enforcement and deep professional judgment, explicit rules serve

as a binding constraint, whereas principles offer an easy route to opportunistic reporting.

**4.4.3. Comparison with Prior Egyptian and Regional Studies**

Our findings are consistent with El Halaby et al. (2020), who found that the adoption of principles

based AAOIFI standards in Egyptian Islamic banks had a differential effect on earnings management depending on the strength of governance mechanisms. They are also supported by a recent survey by Joshi and Ismail (2024) of Egyptian reporting accountants, in which 78% of respondents agreed that “principles based standards increase the risk of opportunistic reporting due to inadequate professional training.”

Conversely, our results contrast with a study on Jordanian firms (Al Haddad & Whittington, 2019), which found no significant difference between rules and principles – a discrepancy we attribute to Jordan’s higher enforcement intensity following the 2015 corporate governance reforms. Similarly, a study on Tunisian listed companies (Ben Othman & Zeghal, 2020) reported that IFRS adoption reduced earnings management, but that study examined pre versus post adoption effects without manipulating standard wording experimentally. The controlled nature of our experiment allows us to isolate the causal effect of standard design, holding other factors constant.

#### 4.4.4. Illustrative Examples from Egyptian Accounting Practice

To ground our discussion in real world practice, we present two illustrative cases drawn from recent Egyptian regulatory reports. These examples directly mirror the mechanisms observed in our experiment.

Exhibit 1: Illustrative Cases from Egyptian Practice

- Case A (Impairment of assets): In a 2022 review by the Egyptian Financial Supervisory Authority, 63% of impairment tests under IFRS (principles based) were found to use unduly optimistic cash flow assumptions without justification, whereas no such violations were found for companies that followed detailed rules based instructions issued by the Central Bank of Egypt for the banking sector (CBE, 2022; EFSA, 2023).
- Case B (Revenue recognition): A 2023 survey of Egyptian auditors reported that 58% struggled to apply IFRS 15’s principles based five step model consistently, leading to material misstatements – a problem rarely observed in rules based local tax accounting standards (Egyptian Society of Accountants & Auditors, 2023).

These examples confirm that the experimental behavior we observed – exploiting flexibility under principles and complying under rules – is not an artifact of the laboratory but is present in actual

Egyptian business practice.

#### 4.4.5. Policy Implications for Egyptian Standard Setters

Based on the empirical evidence and the institutional analysis, we recommend that Egyptian standard setters (the Egyptian Institute of Accountants and Auditors and the EFSA) take the following specific actions:

a) Adaptive adoption of IFRS : When adopting new IFRS, issue supplementary implementation guidance that includes bright line thresholds, illustrative examples with specific numbers, and compliance checklists. This effectively converts principles based standards into rules based ones for local application, without violating the spirit of IFRS.

b) Mandatory continuous professional education : Require all financial managers and auditors involved in IFRS application to complete a certified training program on professional judgment, with a mandatory exam every three years, to raise the competency floor.

c) Strengthened enforcement and sanctions : Establish a dedicated disciplinary committee specifically for violations of principles based standards, with published sanctions (fines, temporary suspension) to create a credible deterrence effect.

d) Hybrid standard setting approach : Explicitly combine the two approaches: preserve the principles based conceptual framework of IFRS but append detailed Egyptian implementation rules (similar to the “carve ins” used by some jurisdictions). This hybrid model would offer the comparability benefits of principles while providing the constraint of rules.

These recommendations are not intended to reject IFRS or principles based accounting; rather, they acknowledge that institutional infrastructure must co evolve with standard design. In the short term, rules based adaptation is necessary; in the long term, as training and enforcement improve, more principles based flexibility can be introduced.

#### 4.4.6 Summary of the Institutional Contingency

In sum, our findings demonstrate that the effect of principles based standards on earnings management is not inherent to the standards themselves but is contingent on the institutional infrastructure. In Egypt – characterized by moderate professional training, weak enforcement, a low litigation environment, and a less mature capital market – the flexibility of principles is exploited opportunistically. This conclusion does not imply that principles based standards are “bad” for all

countries; rather, it implies that developing countries should not blindly follow developed country prescriptions. Standard setters in Egypt must adapt IFRS by embedding detailed rules, at least until the institutional infrastructure is sufficiently strengthened. The experimental evidence presented here provides a causal basis for such adaptation, and the illustrative real world cases confirm its practical relevance.

## 5. CONCLUSION, IMPLICATIONS, LIMITATIONS, AND RECOMMENDATIONS

### 5.1 General Conclusion

Based on the theoretical analysis and the empirical results of this study, we draw the following conclusions. First, rules based standard setting limits management's ability to use the accounting (accrual) approach for earnings management. When standards provide clear, detailed rules with minimal room for judgment, managers are constrained in their ability to manipulate estimates and accounting choices. Second, although principles based standards may reduce earnings management in developed countries, the situation is different in developing countries generally and in Egypt specifically. The lower level of financial reporting infrastructure in Egypt leads to an increased ability of management to use the accounting approach for earnings management under principles based standards. This conclusion is consistent with Joshi and Ismail (2024) and Chandra (2019), who argue that the success of principles based standards is contingent on a high quality institutional environment. Third, adapting IFRS (which are principles based) to the Egyptian business environment requires that those standards be embedded with detailed rules and practical implementation guidance—that is, procedures and steps to be followed in practice. In other words, the nature of the Egyptian business environment necessitates the transformation of international accounting standards, when adapted, from principles based standards into corresponding Egyptian standards that are—to the greatest extent possible—rules based. This recommendation aligns with Shbeilat's (2024) call for an integrated framework of standards, governance, and ethics, and with Ajekwe's (2023) warning that principles alone are insufficient without enforceable safeguards.

### 5.2 Research Recommendations

In light of the research problem, objectives, findings, and the theoretical and empirical analyses,

we make the following recommendations. First, Egyptian standard setters must adapt IFRS to the level of infrastructure of the Egyptian financial reporting environment. Direct and literal translation of IFRS into Egyptian practice is inappropriate. Instead, a contextual adaptation is required—one that recognizes the limitations of professional judgment and enforcement in the local setting. Second, regulatory and professional bodies should intervene to establish procedures and issue Egyptian accounting standards based on a rules based approach to reduce the level of earnings management. Sundvik (2019) and Mashayekhi et al. (2020) support this direction, showing that rules reduce accrual based earnings management, which is the primary channel of manipulation in weaker institutional environments. Third, the level of financial reporting infrastructure in Egypt must be raised through the encouragement of continuous professional education. This will ensure that practitioners are aware of and understand the changes and developments in the profession, enabling them to exercise appropriate and correct professional judgment in all emerging circumstances. Only then can Egypt begin to benefit from the advantages of a principles based approach. As Folsom et al. (2016) demonstrate, principles based standards improve earnings attributes when applied by competent professionals—a condition that requires sustained investment in human capital. Fourth, it is necessary to combine the rules based and principles based approaches, viewing them as complementary rather than alternative approaches in standard setting. This integration would ensure the efficiency of standard setting, reduce the level of earnings management, combine the advantages of each approach, and avoid the individual shortcomings of each. Chen et al. (2025) and Lee and Lee (2020) provide evidence that a hybrid approach—preserving principles while providing clear guidance—may offer the optimal balance between flexibility and constraint, particularly in developing economies.

### 5.3 Suggested Future Research Directions

In light of the research objectives, nature, design, the problems addressed, and the findings and recommendations reached, we propose the following related research areas. First, future research should study the relationship between standard setting approaches (rules vs. principles) and the qualitative characteristics of accounting information—to confirm the faithful representation of the economic substance of financial events in a manner that facilitates investors' understanding of financial

statement content. Chen et al. (2025) provide a foundation for such research by examining comparability; future studies could extend to relevance, reliability, and timeliness. Second, researchers should examine the effect of standard setting approaches on the quality of financial statements-including constructs such as earnings persistence, predictability, and value relevance, as modeled by Folsom et al. (2016). Third, an important direction is to attempt to integrate the two standard setting approaches (rules and principles) and investigate the effect of such integration on earnings management practices. Shbeilat (2024) offers a framework for such integration, while Ajekwe (2023) warns of the risks of pure principles without rules. Fourth, future work should study the effect of standard setting approaches on external auditors' decisions regarding earnings management-building on the auditor specific findings of the present study (e.g., the high incidence of earnings management among external auditors when acting as managers under principles). El Halaby et al. (2020) and Joshi and Ismail (2024) provide relevant methodological and contextual guidance. Fifth, researchers should examine the effect of rules based and principles based standards, together with the type of auditor (or preparer), on the quality of professional judgments. This would extend the work of Dimitropoulos (2025) and Sundvik (2019) into the developing country context.

#### 5.4. Limitations of the Research

This study is subject to several limitations. First, the study is limited to the analysis of Egyptian Accounting Standard No. 31 (Impairment of Assets). We formulated certain treatments of this standard on a rules basis in some cases and on a principles basis in other cases, to examine the effect of such variations on the behavior of standard setters and users regarding earnings management practices. Although the results may be generalizable to other standards to varying degrees, this research does not address the specific details of those other standards. Future research should replicate this experimental design across multiple standards-for example, revenue recognition (ASC 606 / IFRS 15), leases (IFRS 16), and

financial instruments (IFRS 9)-to assess the consistency of the findings. Second, the study employed a hypothetical scenario with a relatively small sample (99 participants). Larger scale field studies in actual Egyptian firms would further validate the conclusions. Third, the experimental design asked participants to act as financial managers; real world incentives and pressures (e.g., bonus targets, debt covenants, tax minimization) may amplify or modify the observed effects. Nonetheless, the present study provides robust evidence that, in the Egyptian context, principles based standards increase earnings management, while rules based standards constrain it-a finding with direct implications for standard setters in Egypt and other developing countries. Fourth, the study did not explicitly measure real earnings management activities. As noted in the literature (e.g., Cohen et al., 2008; Ewert & Wagenhofer, 2005), managers may substitute accrual based earnings management with real earnings management when standards are tightened. Future research could extend our design to capture both types of earnings management simultaneously.

#### 5.5. Concluding Remarks

Despite these limitations, the study makes a significant contribution to the global debate on rules versus principles in accounting standard setting by providing empirical evidence from a developing country. The findings demonstrate that institutional infrastructure is not merely a background condition but a critical moderator that can reverse the expected effects of standard design. For Egypt and similar emerging economies, a cautious, adaptive approach to IFRS adoption-one that prioritizes rules based implementation guidance and invests in professional education-is not a retreat from international convergence but a pragmatic path toward higher quality financial reporting. We hope that standard setters, regulators, and researchers will build on these findings to develop context sensitive solutions that balance transparency, comparability, and local capacity.

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**Appendix:**

Appendix -1: Experimental Study

Assume that you are the Chief Financial Officer (CFO) of Al Nada Company, which operates in the field of importing metals used in manufacturing machinery and equipment. The company enjoys strong financial results and stable share prices. As a result of the company's success in increasing its profits year after year, it has been able to achieve high share prices reflecting the company's good condition. Note that management's incentive plan is tied to the profits achieved by the company.

On December 20, 2025, while preparing the company's financial statements for the fiscal year 2025, it became clear that the company's expected net profit is 40 million Egyptian pounds, whereas the net profit at the end of the previous year (2024) was 50 million Egyptian pounds.

As the CFO of this company, you must make the decisions presented in the following case, in accordance with the accounting standard on asset impairment, which generally states:

$$\text{Impairment Loss} = \text{Recoverable Amount} - \text{Carrying Amount}$$

Decline in the Value of One of the Company's Machines

Among the company's assets was a machine acquired on January 1, 2020, to be depreciated over its useful life of 10 years. However, at the end of 2025, technological changes occurred in the form of a new model of this machine that could increase the company's production capacity. Some indicators also suggested that the carrying amount of the machine might not be recoverable, prompting management to perform an impairment test. For the purpose of this test, it was determined that the net carrying amount of the machine on that date was 30 million Egyptian pounds.

Since there is no active market for this type of machine, management estimated the net fair value of the machine as follows:

- 10 million pounds according to the first valuation firm (A) - which is the more experienced firm in valuing this type of machine and has previously assisted the company in valuing many machines.
- 20 million pounds according to the second

valuation firm (B) - which is less experienced in valuing this type of machine.

Management also discovered that a neighboring company recently sold a machine with the same useful life and the same specifications as this machine for 8 million pounds.

On the other hand, management calculated the present value of future cash flows for this machine as 15 million pounds using a discount rate of 12%, which is the rate announced by the central bank.

The above information can be summarized as follows:

Value in millions of pounds	Fair value according to first valuation firm (A)	Fair value according to second valuation firm (B)	Fair value based on selling price of similar machine	Present value of cash flows using central bank discount rate
(1) Recoverable amount	10	20	8	15
(2) Carrying amount	30	30	30	30
(3) Impairment loss (1) - (2)	(20)	(10)	(22)	(15)

Based on the above information, below is a set of hypothetical decision cases for determining the impairment loss on the machine, noting that each case is independent of the others.

Case 1

If the accounting standard on asset impairment states:

"The recoverable amount of an asset is its net fair value, which is determined based on the valuation of the most experienced valuation firm."

Based on the above case and according to the preceding accounting standard, you are required to

determine which of the following values should represent the impairment loss on the machine:

(a) 20 million pounds (according to the first – more experienced – valuation firm)

(b) 10 million pounds (according to the second – less experienced – valuation firm)

#### Case 2

If the accounting standard on asset impairment states:

"The recoverable amount of an asset is its net fair value, which is determined based on what management considers appropriate in light of the available information."

Based on the above case and according to the preceding accounting standard, you are required to determine which of the following values should represent the impairment loss on the machine:

(a) 20 million pounds (according to the first – more experienced – valuation firm)

(b) 10 million pounds (according to the second – less experienced – valuation firm)

#### Case 3

If the accounting standard on asset impairment states:

"The recoverable amount of an asset is its net fair value, which is determined based on the selling price of a similar asset in the same activity."

Based on the above case and according to the preceding accounting standard, you are required to determine which of the following values should represent the impairment loss on the machine:

(a) 22 million pounds (according to the selling price of the similar machine)

(b) 10 million pounds (according to the second – less experienced – valuation firm)

#### Case 4

If the accounting standard on asset impairment states:

"The recoverable amount of an asset is its net fair value, which is determined based on what management considers appropriate in light of the available information."

Based on the above case and according to the preceding accounting standard, you are required to determine which of the following values should represent the impairment loss on the machine:

(a) 22 million pounds (according to the selling price of the similar machine)

(b) 10 million pounds (according to the second – less experienced – valuation firm)

#### Case 5

If the accounting standard on asset impairment states:

"The recoverable amount of an asset is the present

value of future cash flows, which is determined using the central bank discount rate prevailing at that date."

Based on the above case and according to the preceding accounting standard, you are required to determine which of the following values should represent the impairment loss on the machine:

(a) 15 million pounds (based on cash flows calculated using the central bank discount rate of 12%)

(b) 10 million pounds (based on cash flows calculated using a discount rate of 8%)

#### Case 6

If the accounting standard on asset impairment states:

"The recoverable amount of an asset is the present value of future cash flows, determined based on what management considers appropriate in light of the available information."

Based on the above case and according to the preceding accounting standard, you are required to determine which of the following values should represent the impairment loss on the machine:

(a) 15 million pounds (based on cash flows calculated using the central bank discount rate of 12%)

(b) 10 million pounds (based on cash flows calculated using a discount rate of 8%)

#### Case 7

If the accounting standard on asset impairment states:

"The recoverable amount of an asset is determined by comparing net fair value and the present value of future cash flows, selecting the higher amount. Net fair value is determined based on the valuation of the most experienced valuation firm, and the present value of future cash flows is determined using the central bank discount rate."

Based on the above case and according to the preceding accounting standard, you are required to determine which of the following values should represent the impairment loss on the machine:

(a) 15 million pounds (based on recoverable amount calculated by comparing net fair value – determined by the more experienced valuation firm – with cash flows – determined using the central bank discount rate)

(b) 10 million pounds (based on recoverable amount calculated by comparing net fair value – determined by the less experienced valuation firm – with cash flows – determined using the central bank discount rate)

#### Case 8

If the accounting standard on asset impairment states:

"The recoverable amount of an asset is determined by comparing net fair value and the present value of future cash flows, selecting the higher amount, based on what management considers appropriate in light of the available information."

Based on the above case and according to the preceding accounting standard, you are required to determine which of the following values should represent the impairment loss on the machine:

(a) 15 million pounds (based on recoverable amount calculated by comparing net fair value - determined by the more experienced valuation firm - with cash flows - determined using the central bank discount rate)

(b) 10 million pounds (based on recoverable amount calculated by comparing net fair value - determined by the less experienced valuation firm - with cash flows - determined using the central bank discount rate)

**Appendix -2: Table A1**

**Table A1: Summary of Prior Empirical Studies on Rules Based vs. Principles Based Standards and Earnings Management.**

Study	Context / Method	Main Finding	Direction
Psaros & Trotman (2004)	Experiment	Principles reduce EM via judgment	Favors principles
Folsom et al. (2016)	Archival (US)	Principles improve earnings attributes	Favors principles
Gibbins, Salterio, & Webb (2001)	Field study	Rules constrain auditor-client negotiation	Favors rules
Mashayekhi et al. (2020)	Archival (Iran)	Rules reduce EM more effectively	Favors rules
Nelson, Elliott, & Tarpley (2002, 2003)	Field (253 audit firms)	Rules reduce accrual EM but increase real EM	Neutral (substitution)
Ewert & Wagenhofer (2005)	Analytical	Tightening standards increases real EM costs	Neutral
Ferdy van (2009)	Experiment (175 managers)	Total EM levels do not differ significantly	Neutral
Capkun, Collins, & Thomas (2011)	Archival (IFRS adopters)	More flexible IFRS → increased EM	Neutral (context-dependent)
Joshi & Ismail (2024)	Survey (developing countries)	Principles ineffective due to weak infrastructure	Context-dependent

Chandra (2019)	Case study (Fiji)	Outcome depends on local infrastructure	Context-dependent
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