

The Role of Adopting IAS 33 in Reducing Creative Accounting Practices: An Empirical Study of a Sample of Iraqi Banks Listed on the Iraq Stock Exchange

Ghofran Mahdi Saleh¹, Muhammed Ali Musa¹ and Abbas Hashem Muhalhal²

¹Technical College of Management - Baghdad, Middle Technical University, 10047 Baghdad, Iraq

²Technical Institute of Kut, Middle Technical University, 52001 Al-Kut, Iraq

ghofran.mahdi@gmail.com , al.mamoory@yahoo.com , abbs.alshmousy@mtu.edu.iq

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Abstract: This study investigates the role of International Accounting Standard 33 (IAS 33) - Earnings per Share - in limiting creative accounting practices within the Iraqi banking sector. Earnings per share (EPS) and average market value were employed as indicators of IAS 33 adoption (independent variable), while Benford's Law was applied as an analytical tool to detect irregularities associated with creative accounting (dependent variable). The study sample comprised four private commercial banks listed on the Iraq Stock Exchange for the period 2012–2021. Quarterly financial data were collected from the published financial reports of the sampled banks and analyzed using descriptive statistical methods. To assess the impact of standard adoption, the study period was divided into two sub-periods: pre-adoption (2012–2016) and post-adoption (2017–2021). The empirical findings indicate that deviations from Benford's Law distribution decreased for most sampled banks in the post-adoption period, suggesting a reduction in the intensity of creative accounting practices. However, the effects were heterogeneous across banks, reflecting differences in implementation quality and financial management practices. The study concludes that IAS 33 plays a meaningful role in improving financial reporting transparency and reducing manipulative accounting behavior, although its effectiveness depends on the rigor of application within individual institutions.

1 INTRODUCTION

Creative accounting methods are of utmost importance in the rapidly changing environment. It enables the company to adapt to these changes and ensures its continuity [1]. It is worth mentioning that market value is one of the most important financial indicators used by investors to identify the performance of business organizations. Since international accounting standards contribute to limiting the evil practices of creative accounting and unifying accounting practices that comply with legal accounting procedures and serve stakeholders' interests and market value, this study will examine the role of International Accounting Standard No. (33) Earnings per Share in limiting these practices and measuring the extent of their adoption by the listed companies on the Iraq Stock of Exchange [2].

The research is divided into four sections to reach the research objective and cover all its aspects. The first deals with the research methodology, the second covers the theoretical aspect of the study, and the

third addresses the practical aspect of the research, including financial and accounting analysis. The fourth covers the most important conclusions and recommendations of the research.

2 RESEARCH METHODOLOGY

2.1 Research Problem

The basic idea of creative accounting depends on finding loopholes in accounting laws and standards to enhance financial statements and present their activities in a way that serves stakeholders' interests. Therefore, the research problem is represented by answering the following questions:

- 1) Do listed companies in the Iraqi Stock Exchange practice creative accounting methods and procedures in preparing their financial statements?

- 2) Does adopting International Accounting Standard 33 (Earnings per Share) affect creative accounting practices?

2.2 Research Objective

The main objective of this study is to examine the role of International Accounting Standard 33 in addressing creative accounting practices and to evaluate its effectiveness in improving financial reporting quality:

- 1) Provide a theoretical framework on International Accounting Standard 33 and creative accounting methods.
- 2) Highlight the importance of applying Accounting Standard 33 in limiting the adverse effects of creative accounting.

2.3 Research Hypothesis

The research hypothesis focuses on the following assumptions:

- 1) Companies on the Iraq Stock Exchange practice creative accounting methods when preparing their financial statements.
- 2) Adopting International Accounting Standard 33 (Earnings per Share) helps limit creative accounting practices.

2.4 Research Importance

This research stems from the increasing interest in the subject of creative accounting practices and ways, as this topic is considered one of the main issues at both international and local levels, especially after the increase in cases of financial bankruptcy of companies, and the role of accounting standards, particularly after their application by banks following the Central Bank's mandate.

2.5 Research Hypothesis Diagram

The hypothesis diagram illustrates the research idea within the framework of the relationship between the two research variables, represented by International Accounting Standard 33 as an independent variable and creative accounting as a dependent variable, as shown in Figure 1.

2.5.1 Research Population and Sample

The research population consists of all private commercial banks in Iraq, while the research sample included private commercial banks listed on the Iraq Stock Exchange that use International Accounting Standard 33 in preparing their financial statements

and also have financial data available for the banks during the study period as shown in Table 1:

Table 1: Banks in the research sample.

Bank	Symbol
Iraqi Commercial Bank	BCOI
Bank of Baghdad	BBOB
Middle East Bank	BIME
Sumer Commercial Bank	BSUC

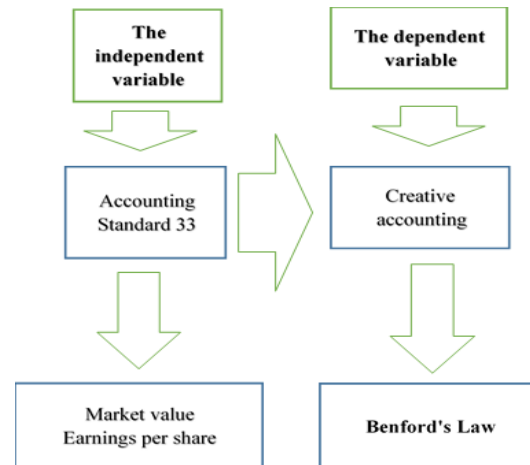


Figure 1: The hypothetical research diagram.

2.5.2 Data and Information Collection Methods

To achieve the objectives of the study and ensure the reliability of the collected data, the following methods were adopted:

- 1) Reliance was placed on Arabic and foreign research published on reliable websites to support the theoretical aspect with data and information.
- 2) Quarterly financial statements published by Iraqi banks listed on the Iraq Stock Exchange for the period (2012-2021) were used to obtain data for the practical aspect.

2.5.3 Financial and Statistical Methods used in the Research.

The following indicators were adopted to measure the dimensions of the independent variable represented by Accounting Standard 33:

- Average market value;
- Earnings per share.

Benford's Law indicator was adopted to measure the dependent variable represented by creative accounting.

3 THE THEORY OF THE STUDY

$$EPS = \frac{NI}{\text{Total shares outstanding}} \quad (1)$$

3.1 International Accounting Standard 33

Where:

- EPS = Earnings Per Share;
- NI = Net Income.

3.1.1 Concept of Accounting Standards

Accounting standards are a fundamental framework designed to unify accounting practices and enhance the comparability and transparency of financial reporting. Their adoption improves the quality of financial information, reduces reporting costs, and ensures that investors and other stakeholders receive reliable and relevant data for decision-making [1], [2].

3.1.3.2 Market Value Average

Market value has received significant attention from researchers in recent years. When investors wish to invest in stocks listed on the financial market, some procedures must be carried out before investing to help determine the value of shares and provide a mental image of their future expectations. Consequently, its importance emerges in providing the necessary information to decide whether to invest [9]. The average market values are measured through the following equation [10]-[12]

3.1.2 Concept of IAS 33 (Earnings per Share)

$$U = \frac{\sum X}{N} \quad (2)$$

Earnings per share (EPS) is one of the most widely used indicators for assessing the profitability of an economic entity. It represents the portion of net income attributable to each outstanding ordinary share and serves as a key measure for investors when evaluating financial performance. Due to its importance, EPS is mandatorily disclosed in the income statement in accordance with International Accounting Standard 33 [3].

Where:

- U = Average market values;
- $\sum X$ = Sum of values;
- N = Number of values.

Unlike simple financial ratios that reflect a specific aspect of performance, EPS provides a more comprehensive view by incorporating both the profitability and the scale of the entity's operations. Therefore, it is considered a critical indicator for investment decision-making and financial analysis [4].

3.2 Creative Accounting

Creative accounting refers to the use of accounting flexibility, loopholes, and discretionary choices to present financial statements in a manner that serves specific interests rather than reflecting the true economic reality of an entity.

3.1.3 Indicators Used to Measure IAS 33

3.2.1 Concept of Creative Accounting

The assessment of IAS 33 implementation in the banking sector relies on a set of financial indicators that reflect both performance quality and market perception. These indicators are used to evaluate how effectively the standard contributes to improving financial reporting and limiting creative accounting practices.

Although creative accounting may initially appear to be a modern phenomenon, its roots extend throughout the history of financial reporting. It involves the deliberate application of accounting techniques to manipulate financial figures within the boundaries of existing standards and regulations [13], [14].

3.1.3.1 Earnings per Share (EPS)

3.2.2 Measurement of Creative Accounting: Benford's Law

It is a financial indicator used to measure company earnings per issued share. EPS is calculated by dividing the company's net profits by the number of shares issued from a specific period [5]-[7]. Earnings per share is calculated using the following (1) [8].

Benford's Law is a statistical tool used to detect anomalies in numerical datasets [15]. It operates on the principle that in naturally occurring financial data, the leading digits follow a predictable logarithmic distribution. Deviations from this distribution may indicate data manipulation or fraud.

Benford's Law is expressed through the following (3) [16]-[17]:

$$p(d) = \log_{10} \left(1 + \frac{1}{d} \right) \quad (3)$$

Where:

- $p(d)$ - expected probability of digit d appearing as the first digit;
- d = digit (1 through 9).

When financial data deviate significantly from the expected Benford distribution, this suggests that figures may have been manipulated, making Benford's Law particularly valuable for detecting creative accounting practices in the Iraqi banking sector.

4 PRACTICAL APPLICATION OF THE STUDY

4.1 Earnings Per Share Analysis (IAS 33)

To test the research hypothesis that the adoption of IAS 33 contributes to reducing creative accounting practices, earnings per share (EPS) was used as a key measurement indicator. The analysis compares two periods: pre-adoption (2012–2016) and post-adoption (2017–2021). The results are presented in Tables 2 and 3.

The findings reveal mixed trends across the sampled banks. For example, Iraqi Commercial Bank shows a slight decrease in average EPS (from 16.59 to 16.04), while Bank of Baghdad demonstrates a noticeable increase (from 9.01 to 23.20). In contrast, Middle East Bank and Iraqi National Bank experienced declines in average EPS during the second period.

Additionally, the results indicate significant variability in EPS values, as reflected in changes in maximum, minimum, and dispersion measures (see Tables 2 and 3). In some cases, negative values were

observed in the post-adoption period, suggesting instability in financial performance.

Overall, the results do not indicate a consistent improvement in EPS following the adoption of IAS 33. Instead, they highlight heterogeneous effects across banks, which may be attributed to differences in implementation practices and financial management efficiency.

4.2 Creative Accounting Analysis (Benford's Law)

To evaluate the presence of creative accounting practices, Benford's Law was applied to the financial data of the sampled banks for two periods: pre-adoption (2012–2016) and post-adoption (2017–2021). The results are presented in Tables 4 [1] and 5.

The findings indicate that the financial data of all sampled banks deviate from the expected Benford distribution, suggesting the presence of creative accounting practices in both periods. However, a general reduction in dispersion measures is observed after the adoption of IAS 33. For example, Iraqi Commercial Bank shows a decrease in range from 0.43 to 0.38 and a slight decline in standard deviation from 0.110 to 0.108. Similarly, Bank of Baghdad demonstrates a reduction in range (from 0.50 to 0.45) and standard deviation (from 0.15 to 0.13).

In contrast, Middle East Bank exhibits an increase in both range (from 0.35 to 0.43) and standard deviation (from 0.12 to 0.15), indicating higher variability in the second period. Iraqi National Bank shows a slight decrease in range (from 0.30 to 0.27), while the standard deviation remains stable.

Overall, these results suggest that although creative accounting practices persist, their intensity has decreased for most banks following the adoption of IAS 33, thereby providing partial support for the research hypothesis.

Table 2: Results of financial analysis for earnings per share of the banks in the research sample for the period (2012-2016).

National	Middle East	Baghdad	Commercial	Bank
54.2603	19.2315	9.0052	16.59	Mean
174.9059	161.8819	40.3226	132.2	Maximum value
6.1577	0.0006	0.0071	0.7	Minimum value

Source: Prepared by the researcher based on data published in the Iraq Stock Exchange.

Table 3: Results of the financial analysis of earnings per share for the banks in the research sample for the period (2017-2021).

National	Middle East	Baghdad	Commercial	Bank
134219	166800	304769	134925	Mean
55567.8	56044.7	89376	27701.1	Standard deviation
150000	157500	316295	92500	Range

Table 4: Results of the financial analysis using Benford’s law for the banks in the research sample for the period (2012-2016).

Actual ratios for Ahli	Actual ratios for The Middle East	Actual ratios for Baghdad	Actual ratios for Commercial	Benford's Law ratios
18%	10%	70%	10%	30%
15%	8%	13%	18%	18%
8%	13%	5%	8%	12%
15%	5%	0%	33%	10%
25%	5%	5%	10%	8%
18%	20%	5%	5%	7%
3%	20%	3%	8%	6%
0%	20%	0%	5%	5%
0%	0%	0%	5%	5%
0.09	0.12	0.15	0.110	Standard deviation
0.30	0.35	0.50	0.43	Range

Table 5: Results of the financial analysis using Benford’s law for the sample banks during the period of (2017-2021).

Actual ratios for Ahli	Actual ratios for The Middle East	Actual ratios for Baghdad	Actual ratios for Commercial	Benford's Law ratios
26%	13%	65%	18%	30%
6%	13%	13%	20%	18%
6%	3%	3%	5%	12%
3%	0%	3%	35%	10%
23%	3%	3%	10%	8%
20%	32%	5%	10%	7%
6%	29%	5%	0%	6%
6%	6%	0%	3%	5%
6%	0%	5%	0%	5%
0.09	0.15	0.13	0.108	Standard deviation
0.27	0.43	0.45	0.38	Range

5 CONCLUSIONS

The findings of this study indicate that creative accounting practices are present in the financial data of the sampled banks, as evidenced by deviations from Benford’s Law distribution. However, a general reduction in dispersion measures in the post-adoption period suggests that the implementation of IAS 33 has contributed to limiting the intensity of such practices.

The analysis of earnings per share reveals mixed results, with some banks experiencing improvements while others show declines, indicating that the impact of IAS 33 is not uniform across the sample. Similarly, the analysis of average market values demonstrates variability, with a general downward trend for most banks, which may reflect differences in implementation effectiveness and market conditions.

Overall, the study concludes that IAS 33 plays a role in reducing creative accounting practices, although its effectiveness depends on the quality of application and internal financial management mechanisms within banks.

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