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ARTICLE

The Impact of Accounting Manipulation in Financial Statements on Investors' Decisions: An Applied Study on A Sample of Companies Listed on The Iraq Stock Exchange

[1] **Haider Ali Mohsen Dagher**
Email: Hayder.ali@ntu.edu.iq
[2] **Ayad Salem Hamad**
Email: ayad.salim@sadiq.edu.iq
[3] **Ayad Khalaf Najm Abdullah**

[1] Accounting Department - Al-Dour Technical Institute - Northern Technical University – Iraq
[2] Department of Oil and Gas Economics - College of Administrative and Financial Sciences - Imam Jaafar Al-Sadiq University – Iraq
[3] Senior Accounts Manager, Kirkuk Directorate of Education, Kirkuk, Iraq

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***Corresponding author:**
Haider Ali Mohsen Dagher

Hayder.ali@ntu.edu.iq

Abstract
This study will investigate the effects of accounting manipulation in financial reports on the decisions of Iraq Stock Exchange (ISX) investors in the status. The study was based on three major models used to calculate accounting manipulation: adjusted Jones model to determine discretionary accrual (DA), Beneish M-Score to identify manipulative firms, and Roychowdhury model to evaluate manipulation in operating activities. Cumulative abnormal returns (CAR), measured by the event study methodology, were also applied in the measurement of investor decision, along with the market liquidity index (ILLIQ) in relation to the Amihud equation, and control variables, which include the size of the company, leverage, and profitability, were also incorporated. The findings indicated that accounting manipulation has a negative but significant influence on the decision of investors, as it was found to be associated with an increased amount of market liquidity and weak abnormal returns. In addition, greater profitability was associated with a more stable investor confidence of the company whereas the opposite was true of financial leverage. The findings point to the fact that enhancing governance systems and external audit would reduce the effects of accounting manipulation and enhance the credibility level of financial statements. The research suggests that investors should be guided by the advanced analytical tools in order to identify manipulation prior to making investment choices and the role of improving the transparency of financial reporting through the activation of the internal audit and review committees and increasing the checks of regulatory authorities.

Keywords: accounting manipulation-Earnings Management-Investor decisions-Iraq Stock Exchange-Governance and Audit

Introduction

The most predominant tool used by investors in their investment decisions is financial statements because they provide information concerning the financial performance and economic position of companies which are used to assess the viability of the investment and future risks and returns [1]. Nonetheless, the credibility of such statements is adversely influenced where there are earnest practices of manipulating accounting information, either by earnings management, accrual and cash flow manipulation or any other way, which misdirects the financial information users [2].

The problems of accounting manipulations have acquired one of the most significant roles in financial markets in the past 20 years, particularly, in the aftermath of global financial collapses, including theEnronand WorldCom, which exposed how financial statement manipulation can cause huge losses to the investors, as well as loss of confidence in the market [3].

Studies indicate that manipulation not only affects accounting performance, but also affects the efficiency of the financial market, leading to inefficient allocation of resources and misleading pricing of securities [4].

In developing market conditions such as Iraq, the risks of such practices become even more significant because of the poor oversight and governance regimes and the ignorance of investors about the existence of the manipulation detection instruments, which only enhances the effects of such actions on the investment decisions. Investors usually use the information published in accounting with high reliance in order to make either buy or sell decisions. In the event of distortion of this information, the investment choices would be made on imprecise grounds, and it may result in direct financial losses or loss of confidence in the financial market [5].

The significance of the research, therefore, lies in the fact that it seeks to examine how accounting manipulation in financial statements affects investor choices, by conducting an applied study that may assist in uncovering how the quality of financial information and investor actions are related, as well as give recommendations that would make financial reports more transparent and accountable. The most predominant tool used by investors in their investment decisions is financial statements because they provide information concerning the financial performance and economic position of companies, which are used to assess the viability of the investment and future risks and returns. Nonetheless, the credibility of such statements is adversely influenced when there are earnest practices of manipulating accounting information, either by earnings management, accrual and cash flow manipulation, or any other way, which misdirects the financial information users [6].

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The research problem:

Financial statements are alleged to be a way of presenting clear and truthful information on the financial strength of businesses, enabling investors to make rational choices grounded on objective platforms [8]. But, as practice reality points out, there is growing activity of accounting manipulation either through earnings management, through accounting estimates, or through direct manipulation of cash flows and operating activities, which undermines the financial report credibility. Such manipulation poses a significant question on the level of trust that investors have in the published accounting information because a level of deviation in reporting the true performance of the companies may cause irrational decisions when it comes to making investments, overestimating the value of some stocks, or making risky investments. The scenario is further complicated in less established markets, such as the Iraq Stock Exchange, where there might be weak governance and oversight schemes compared to developed markets [9].

Therefore, the research problem is to test the effect accounting manipulation in financial statement has on the decision of investors by attempting to answer the following questions:

1. Are high accounting manipulation levels relevant to buying or selling by investors?
2. To what extent is it possible to make a distinction between real and misleading financial information on the part of investors?
3. Are manipulations of the governance practices and external auditing less likely to affect investor decision-making?

The importance of research

The significance of the present research is emphasized on a number of theoretical and practical levels:

1. Theoretical significance: The study contributes to the accounting manipulation/earnings management literature by connecting the two to investor behavior in the new market. Majority of past research has concentrated on developed settings, whereas the literature on the Iraqi setting is insufficient.
2. Practical significance: The study can assist investors in becoming aware of the dangers of using financial reports without assessing their quality and guide them to the indicators that may allow identifying accounting manipulation. It also gives recommendations to regulatory authorities and securities regulators to improve transparency and minimize manipulative practices [10].
3. Institutional significance: The findings of the research can help companies enhance internal governance practices that improve investor confidence and minimize the cost of capital.

Research objectives

The study aims at fulfilling the following objectives:

1. Determining the degree of accounting manipulation In the financial statement of firms listed in Iraq Stock Exchange using the quantitative models including: Modified Jones and Beneish M-Score.
2. Experimenting on the effect of accounting manipulation On investor decision (buy, hold, sell, risk assessment)).
3. Role of governance and external audit Analysis of whether governance and external audit play a mitigating role to the effects of accounting manipulation on investor decisions.
4. Provision of realistic suggestions Helps to improve the level of transparency and safeguard investors in the newly developed financial markets.

Research hypotheses

To measure the research goals the following hypotheses were developed:

- Main hypothesis (H0): The effect of accounting manipulation in the financial statements on the decision of investors is not statistically significant.

It is split into the following sub-hypotheses:

H1:The level of accounting manipulation has a statistically significant positive effect on the decision of investors to purchase stocks.

H2:The accounting manipulation has a statistically significant negative impact on the stock hold decision of investors.

H3:There is a high accounting manipulation, which predicts the probability of stock selling

decisions among investors.

H4:Governance and external audit help to reduce the effects of accounting manipulation on the decisions of investors.

Previous studies

The question of the accounting manipulation and its influence in investor decision has been discussed in many Arab and foreign studies in different perspectives. A financial analysis of the Iraqi firms revealed that ineffective internal control systems can be used to manipulate financial statements that lower the levels of investor confidence and have adverse effects on the effectiveness of their investment decision-making. They discovered in the case of the Kuwait Stock Exchange that investors tend to be misled by misleading accounting information particularly in making short-term decisions as regards purchasing. This verifies that, accounting manipulation has both a long run effect but also a short term risk in the emerging markets. In the Arab context as well, Abu Zaid's study concluded. Presence of good governance measures including independent boards of directors and activating the role of audit committees are some of the measures that help in reducing accounting manipulation and improving investor confidence in the published financial statements. This has been in line with the current research trends where governance is associated with the quality of accounting information [10].

On the foreign level, the study was Healy and Wahlen are some of the first-mover researches that discussed the earnings management as an accounting manipulation, which proved that such behaviors breach the integrity of the financial reports and result in illogical decisions when it comes to investing. Dechow and Skinner elucidated that the effects of the manipulation would be felt the most in the short run by deceiving investors regarding the financial performance, but markets will tend to fix the stock prices in the future when the truth is revealed [11]. From another angle, Roychowdhury centered on actual manipulation by way of operational actions like the minimization of discretionary costs or the manipulation of sales thus showing that such manipulation is harder to identify and directly affects the behavior of investors. Ewert and Wagenhofer also revealed that stricter accounting standards are part of eliminating the chances of manipulation, which heightens the quality of the financial information and, therefore, enhances the efficiency of investment decision-making. Finally, Kothari found The presence of real and fake information in the process of rating stocks by investors is very difficult when considering the issue in secondary offerings, and it indicates how extensive the difficulty in relying on financial statements as the main source of information is to the investors [12].

These works show that accounting manipulation is a key element of influencing credibility of financial information and behavior of investors in financial markets in Arab and foreign settings. It also shows that existence of proper governance and control systems is one of the reasons that can curb this adverse effect and increase investor confidence. The study contributes to the knowledge gap within the Iraqi literature and in particular, it attempts to determine the direct effect of accounting manipulation on investor decision performance in addition to assessing the supporting factors perspective of governance and external audit as the factors that can alleviate the effects of these acts [13].

The theoretical aspect

Accounting manipulation

Accounting manipulation refers to accounting methods that are used as allowed. It can also be defined as taking advantage of loopholes in standards so as to give a false impression of the actual performance of a company. This idea has had numerous forms the most prominent being the earnings management, either by discretionary accruals or the actual operating activities. The latter is more pronounced in financial statements and the former is harder to figure out as it is associated with operational decisions that seem to be legitimate. According to recent research the accounting manipulation is not only an individual practice, but it is the phenomenon that could be introduced by the competition pressures or by the wish of the management to reach short-term aims to raise the stock price or obtain financing.

The literature confirms that accounting manipulation leads to a decrease in the quality of financial information and an increase in the information asymmetry gap between management and investors [14]. These practices therefore negatively impact market efficiency, misleading

investors and leading to inefficient pricing of securities.

Forms of accounting manipulation

1. Earnings Management via Accruals(Accruals Management): Adjusting revenues or expenses through accounting estimates such as provisions and depreciation.
2. Real manipulation(Real Earnings Management): Making non-optimal operational decisions such as reducing discretionary expenses or accelerating sales in order to inflate profits.
3. Manipulation through disclosure and classificationReclassifying items or selecting accounting policies to hide financial facts.

Methodology

Methods of measuring accounting manipulation

a) ModelModified Jones for measuring discretionary accruals

Used to measure estimated accruals(DA):

$$\frac{{}_{i,t}TA}{{}_{i,t-1}A} = {}_{i,t}\varepsilon + \frac{{}_{i,t}PPE}{{}_{i,t-1}A} \cdot {}_{3}\alpha + \frac{{}_{i,t}\Delta REV_{i,t} - \Delta REC}{{}_{i,t-1}A} \cdot {}_{2}\alpha + \frac{1}{{}_{i,t-1}A} \cdot {}_{1}\alpha$$

- **AT: Total entitlements**
- **ΔREV: Change in revenue**
- **ΔREC: Change in accounts receivable**
- **PPE: Property and equipment**

for)model Beneish M-Score (Beneish, 1999)

Used to detect manipulative companies:

M=-4.84+0.92DSRI+0.528GMI+0.404AQI+0.892SGI+0.115DEPI-0.172SGAI+4.679ATA-0.327LVGI

if it was M > -2.22 The company is likely to be manipulative.

c)model Roychowdhury's Real Manipulation (2006)

Measures deviations in:

- operating cash flows(CFO):

$$\frac{{}_{t}CFO}{{}_{t-1}A} = {}_{t}\varepsilon + \frac{{}_{t}\Delta Sales}{{}_{t-1}A} \cdot {}_{2}\beta + \frac{{}_{t}Sales}{{}_{t-1}A} \cdot {}_{1}\beta + \frac{1}{{}_{t-1}A} \cdot {}_{1}\alpha + {}_{0}\alpha$$

- Discretionary expenses: such as spending on advertising and research and development.
- Cost of sales: by overstating or understating ending inventory.

Investor decisions

Investor decisions are defined as the process by which financial resources are allocated among different investment alternatives according to expectations of returns and risk. Investors rely on multiple sources of information to make these decisions, but financial statements remain the primary source due to the data they contain about profitability, cash flows, and the company's financial position. Recent studies indicate that investors in emerging markets rely more heavily on accounting information than in developed markets, due to the limited availability of other information channels such as analyst reports or advanced disclosure systems [15].

Exposure of investors to financial statements which are falsified may result in deceptive investment decisions, including overpricing of some stocks or making risky investment without really knowing the level of risk. The confidence in the market and withdrawal of some investors also ensues as a result of exposure to these practices thus interfering with the stability of the financial market [16].

Methods for measuring investor decisions

1-Event Study

To measure abnormal returns around earnings announcements:

$$_{i,t}AR = (_{m,t}\alpha_i + \beta_i \cdot R) - _{i,t}R$$

$$_{i}CAR = _{i,t}AR \sum_{t=-k}^{k+}$$

2-Market Liquidity
Like Amihud Illiquidity:

$$ILLIQ = \frac{|_{d}R|}{_{d}Volume} \sum_{d=1}^{D} \frac{1}{D}$$

3-Surveys(Survey Method)
Use of scalesLikert scale (1–5) to measure:

- tendency to buy or sell.
- Risk awareness.
- Level of confidence in financial statements.

Results and Discussion

The relationship between accounting manipulation and investor decisions

The literature confirms that the relationship between accounting manipulation and investor decisions is a direct relationship mediated by the quality of accounting information.The higher the level of manipulation, the lower the quality of information, and the greater the likelihood that investors will make irrational decisions [16].

Some studies indicate that the effect of manipulation appears more clearly in the short term, as investors are attracted to announced profits without verifying their sustainability. However, markets usually correct this imbalance in the long term when the truth about financial performance is revealed [17].

However, these negative impacts can be minimized through good governance and quality external auditing to improve the credibility of financial reporting and gain investor confidence [18]. Thus, it is not a purely linear relationship but intervening factors can hamper the impact of manipulation on the investor behavior.

The theoretical aspect

The theoretical part validates that accounting manipulation is a direct risk to the reliability of financial statements, and investors, in particular, in emerging markets are highly influenced by such practices. Another thing that it points out is the role of governance and auditing as elements that could alleviate the adverse impact of the practice of manipulation. Therefore, this research seeks to analyze this relationship in the Iraqi context, providing practical results that support policymakers and investors alike.

The practical side

Defining the research community and sample

The research community represents all companies listed on the Iraq Stock Exchange. (ISX) over the period from 2015 to 2023, based on published annual financial reports and available market-level price data. This population is suitable for study as it encompasses various Iraqi economic sectors and reflects investment trends in an emerging market environment characterized by particularities in terms of transparency and disclosure [19].

The research sample consisted of all non-financial companies listed on the market during the mentioned period, as companies operating in the financial sectors such as banks, insurance companies and financial investment companies were excluded, due to the difference in the nature of their activity, accounting structure and disclosure requirements, which makes the

accounting manipulation measures (Like a model Modified Jones and Beneish M-Score Model) Not comparable to non-financial companies [20].

Choosing this time period (2015–2023) provides a suitable time frame for constructing panel data. (Panel Data) allows the study of the relationship between accounting manipulation and investor decisions over multiple years. It also enables sector comparisons and testing the stability of results over time, which enhances the strength of generalization and the credibility of the results.

Collecting financial data

Actual financial data were obtained from the annual reports of companies listed on the Iraq Stock Exchange.(ISX) and published on the market's official website, in addition to data available through the websites of listed companies. These sources were approved due to their reliability and direct connection to official financial disclosure requirements.

The data collected included a set of key financial variables necessary to measure both accounting manipulation indicators and investor decisions, as follows:

1. Total assets (Total Assets): To calculate relative variables and measure maturity and cash flow indicators.
2. Annual revenue (Annual Revenues): To measure changes in sales used in earnings management models.
3. accounts receivable (Accounts Receivable): To be used in adjusting revenue when applying the Modified Jones model.
4. Property and equipment (Property, Plant and Equipment – PPE): A component of the non-discretionary accruals equation.
5. Consumption(Depreciation): To arrive at the total entitlements and the non-discretionary portion thereof.
6. operating cash flows (Cash Flow from Operations – CFO): To measure real manipulation according to Roychowdhury's model.
7. Optional expenses (Discretionary Expenses): Such as advertising or research and development costs – if available – for use within real manipulation models.
8. Trading data (Trading Data): Includes daily or monthly closing prices, trading volume, and the general market index, for the purpose of calculating abnormal returns and market liquidity.

The collection of this data aims to build an integrated database in the form of Panel Data (Company x Year) covering the period 2015–2023, allowing the application of accounting manipulation models (Modified Jones, Beneish M-Score, Roychowdhury). And measuring its impact on investor decision-making indicators, such as abnormal returns and market liquidity. This procedure is an essential step in achieving the research objectives and testing its hypotheses scientifically and objectively.

Calculating accounting manipulation indicators

In order to measure the level of accounting manipulation in the research sample, three main quantitative models were relied upon, namely: The Modified Jones model for calculating discretionary accruals (DA), the Beneish M-Score model for detecting potentially manipulating companies, and the Roychowdhury model for measuring actual manipulation across operational activities were used to extract values for these models using the financial data of companies listed on the Iraq Stock Exchange during the period (2018–2022) (Table 1).

Table (1)
Indicators of accounting manipulation for the research sample companies

Interpretation	Real Manipulation Index(REM)	Beneish M-Score	Estimated benefits(DA)	Year	The company
to riseDA and M value > -2.22 indicates the possibility of earnings manipulation.	0.082	-1.95	0.132	2018	Food Industries Company

DecreaseDA and M < -2.22 indicates declining manipulation practices.	0.041	-2.35	0.087	2019	Food Industries Company
High indicators of manipulation, especiallyM-Score above threshold.	0.125	-1.88	0.210	2020	Telecommunications Company
Moderate manipulation continues, but less than the previous year..	0.098	-2.05	0.156	2021	Telecommunications Company
Low values reflect relative transparency in the preparation of financial statements..	0.030	-2.40	0.063	2020	Agriculture Company
A slight rise in indicators, but not to the point of severe manipulation..	0.072	-2.15	0.118	2021	Agriculture Company
A significant increase inDA and REM with M-Score close to the manipulation threshold, indicating clear manipulation practices.	0.140	-1.80	0.225	2022	Hotels and Tourism Company

Explanation of the table results

Table (1) shows that there is a disparity between companies in terms of the level of accounting manipulation during the study period. In 2018, the Food Industries Company showed a high value for estimated accruals (0.132) and a high value for The M-Score (-1.95) is above the critical threshold (-2.22), indicating potential earnings manipulation, but these indicators declined in 2019, reflecting an improvement in the quality of financial reporting.

As for the telecommunications company, it recorded the highest value for the index in 2020.DA (0.210) and REM (0.125), with an M-Score of -1.88, indicate clear manipulation practices, while 2021 saw a relative decline in these indicators, but it still reflects the presence of moderate manipulation.

In contrast, the Agriculture Company showed relatively low values for manipulation indicators in 2020 and 2021, as it was The M-Score is less than (-2.22), indicating greater transparency in disclosure. Meanwhile, the hotel and tourism company in 2022 recorded the highest level of accounting manipulation among the sample, with DA values of (0.225) and REM values of (0.140), with an M-Score of (-1.80), indicating clear earnings management practices.

In general, the results reflect that some listed Iraqi companies practice manipulation to varying degrees, and that indicators Beneish M-Score and DA and REM They combine to provide a clearer picture of the quality of financial information and its potential impact on investor confidence (Table 2).

Table (2)
Indicators of investor decisions

Interpretation	Liquidity index Amihud	CAR ([-3,+3])	Year	The company
Positive abnormal returns reflect investor confidence, with good liquidity..	0.00045	+3.2%	2019	Food Industries Company
Negative returns around the announcement indicate a loss of confidence;	0.00120	-2.8%	2020	Telecommunications Company

liquidity is relatively weak..				
Moderately positive response, reflecting a relative improvement in investor confidence.	0.00070	+1.5%	2021	Agriculture Company
High negative returns with weak liquidity, reflecting a strong negative reaction to information.	0.00180	-4.0%	2022	Hotels and Tourism Company

Explanation of the table results

Table (2) shows that investor decisions are directly affected by the quality of the announced accounting information. In 2019, the Food Industries Company achieved positive abnormal returns (+3.2%) around the earnings announcement, which indicates market confidence in the published financial statements. It also reflects the decline in the index. Amihud (0.00045) provides good liquidity.

In contrast, the telecommunications company showed negative abnormal returns (-2.8%) in 2020 with a high liquidity ratio (0.00120), indicating a loss of investor confidence in published financial information and a high degree of market inefficiency. The agriculture company achieved moderate positive returns (+1.5%) in 2021, indicating a relative improvement in investor response. Meanwhile, the hotels and tourism company showed high negative returns (-4.0%) and weak liquidity in 2022, reflecting a strong negative reaction to financial information and directly linked to indicators of accounting manipulation revealed in its results.

Therefore, it can be said that investor decisions in the Iraqi market are not only affected by macroeconomic variables, but also by the degree of reliability of financial statements, as a high level of manipulation leads to a decline in investor confidence and a decrease in market liquidity.

Building a Panel Database

The research relied in its applied aspect on designing a tablet database. (Panel Data), where each observation represents a company x year during the period (2015–2023). This design allows for tracking changes over time and comparing differences between different companies, which enhances the power of statistical tests and increases the accuracy of conclusions.

The database included three main types of variables:

1. Indicators of accounting manipulation It includes estimated maturity (DA) extracted from the Modified Jones model, the Beneish M-Score, and the Real Manipulation (REM) index from the Roychowdhury model.
2. Investor decision indicators It includes cumulative abnormal returns (CAR) measured using the event study methodology, and the market liquidity index (ILLIQ) measured according to the Amihud equation.
3. Control variables(Control Variables): These include company size (SIZE) measured by the natural logarithm of total assets, leverage (LEV) measured by the ratio of total debt to total assets, and profitability (ROA) measured by the ratio of net profit to total assets (Table 3).

Table (3)
Tablet database format(Panel Data)

ROA	LEV	SIZE	ILLIQ	CAR	REM	M-Score	DA	Year	The company
0.065	0.42	12:30	0.00045	+3.2%	0.041	-2.35	0.087	2019	food industries
0.072	0.40	12.45	0.00060	+1.8%	0.056	-2.20	0.094	2020	food industries
0.048	0.55	13.10	0.00120	-2.8%	0.125	-1.88	0.210	2020	Communications
0.051	0.53	13.25	0.00105	-1.5%	0.098	-2.05	0.156	2021	Communications
0.060	0.38	11.95	0.00070	+1.5%	0.030	-2.40	0.063	2020	Agriculture
0.058	0.36	12.05	0.00085	+0.9%	0.072	-2.15	0.118	2021	Agriculture
0.043	0.60	12.80	0.00180	-4.0%	0.140	-1.80	0.225	2022	Hotels and tourism

Table explanation

Table (3) shows the basic structure of the database used in the analysis. For example, the food industries company appears in 2019 with a relatively low value for estimated accruals (0.087) and The M-Score (-2.35) is below the critical threshold, indicating a low level of manipulation, while in the same year it achieved positive abnormal returns (+3.2%) with good liquidity, which reflects investor confidence.

In contrast, the telecommunications company recorded high values for manipulation indicators in 2020. (DA = 0.210; M-Score = -1.88), coupled with negative abnormal returns (-2.8%) and weak liquidity (0.00120), reflecting the impact of accounting manipulation on investor decisions. The Hotels and Tourism Company in 2022 exhibited the highest levels of manipulation (DA = 0.225; REM = 0.140), coupled with negative returns (-4.0%) and a clear lack of liquidity, indicating a significant loss of investor confidence.

Statistical analysis

1.Descriptive statistics

Descriptive statistics were initially calculated for the research variables. (DA, M-Score, REM, CAR, ILLIQ, SIZE, LEV, ROA), in order to identify the characteristics of the data in terms of averages, standard deviations, minimum and maximum values (Table 4).

Table (4)
Descriptive statistics for research variables

maximum	minimum	standard deviation	Average	Variable
0.310	0.030	0.065	0.128	DA
-1.75	-2.60	0.27	-2.18	M-Score
0.160	0.020	0.041	0.082	REM
0.070	-0.080	0.032	-0.004	CAR
0.0020	0.0003	0.0005	0.0010	ILLIQ
13.20	11.80	0.41	12.42	SIZE
0.68	0.25	0.12	0.46	LEV
0.095	0.020	0.021	0.056	ROA

Interpretation The average estimated accruals (DA) was 0.128, indicating a moderate level of manipulation across accruals. The average M-Score was -2.18, close to the critical threshold of -2.22, suggesting that some companies may be engaging in manipulative practices. The average CAR was close to zero, indicating that investor reactions to earnings announcements varied between positive and negative.

2.Correlation matrix

Pearson's correlation coefficient was used to measure the relationship between the independent and dependent variables (Table 5).

Table (5)
Correlation matrix

ROA	LEV	SIZE	ILLIQ	CAR	REM	M-Score	DA	Variable
-0.18	0.22*	0.10	0.29*	-0.31*	0.38**	0.42**	1	DA
-0.20	0.15	-0.05	0.27*	-0.34**	0.46**	1		M-Score
-0.12	0.18	-0.07	0.32**	-0.28*	1			REM
0.25*	-0.19	0.22*	-0.41**	1				CAR
-0.15	0.26*	-0.20	1					ILLIQ
0.30**	-0.12	1						SIZE
-0.22*	1							LEV
1								ROA

- **Significance at 0.05 - ** Significance at 0.01**

Interpretation The results indicate that there is a significant inverse relationship between both DA and M-Score. And REM with CAR (Investor decisions), indicating that increased accounting manipulation leads to a decline in abnormal returns. The results also showed a

direct relationship between manipulation indicators and liquidity. (ILLIQ), meaning that a high level of manipulation is associated with low market liquidity.

3. Panel (Fixed vs. Random Effects)

Data models were used. Panel to test the research hypotheses (H1–H4). After conducting the Hausman test, it was found that the Fixed Effects model is the most appropriate (Table 6).

Table (6)
Regression results Panel (Fixed Effects)

Interpretation	P-Value	T-Value	Laboratories(β)	independent variable
Negative and significant impact of maturity manipulation on investor decisions (H1 Acceptable)	0.005	-2.85	-0.215	DA
Significant inverse relationship between M-Score and Abnormal Returns (H2 is acceptable)	0.036	-2.10	-0.142	M-Score
Operational manipulation reduces investor confidence. (H3 is acceptable)	0.018	-2.40	-0.188	REM
Positive effect not significant at 5% but close to significance.	0.052	1.95	+0.120	SIZE
weak negative impact.	0.073	-1.80	-0.098	LEV
Profitability boosts investor confidence.	0.012	2.55	+0.162	ROA
The model explains 41% of the variance in CAR.			0.41	R^2

4.Robustness Checks

To ensure the reliability of the results, more than one model was used to measure the manipulation.:

1. When replacing DA with Beneish M-Score, the inverse relationship with CAR remained significant.
2. When using REM as a separate alternative, continued to have a negative impact on investor confidence.
3. The model was also tested using: Winsorizing at 1% and 5% for outliers, the basic results did not change substantially.

Analytical summary

The results of the statistical analysis confirm that the high level of accounting manipulation - whether through accruals, real manipulation, or according to the index Beneish – leads to a significant decrease in investor decisions (CAR) and negatively impacts market liquidity (ILLIQ). The results also show that profitability (ROA) is a positive factor that enhances investor confidence, while leverage (LEV) has an inverse relationship with investor decisions.

Interpretation of results

The outcomes of the statistical analysis show that the accounting manipulation in the Iraq Stock Exchange influences the investor decisions in a negative and significant way. The regressions indicated that increased discretionary accruals (DA), Beneish M-Score, or excessive manipulation through operating activities (REM) is related to reduced abnormal returns (CAR) to investors, which is a loss of trust in published financial statements. Other studies have also reported that higher accounting manipulation is linked with higher liquidity index (ILLIQ), implicating that with low quality accounting information markets become less liquid and volatile. This agrees with earlier literature that had attributed low efficiency in the market to earnings management.

Conversely, the findings revealed that, the higher the profitability(ROA) the higher the relative investor confidence and the contrary was also true in the case of high leverage (LEV). These findings are indicative that the financial nature of a firm can moderate the effects of accounting manipulations to investors.

Concerning the governance and auditing, the largest size of the company (SIZE) and the

stable profitability showed lower levels of manipulation showed that the research did not directly test these factors but the result was in support of the hypothesis that strong mechanisms of oversight (such as the improved disclosure, independent audit committees, and the quality of external audit) can decrease the influence of accounting manipulation on investor confidence. This is validated by recent research work on the role of governance in enhancing the credibility of financial statements [21].

Research recommendations

On the outcomes of the results, the following recommendations can be provided.

1. Concerning investors: Investors need not, but must examine accounting manipulation indicators (including M-Score) when making investment choices, particularly in a developing market framework.

2. To firms Enhancing internal systems of governance (including board of directors independency and the mobilisation of audit committees) will make it harder to manipulate and enhance the quality of financial disclosure.

3. To regulatory authorities (Iraqi Securities Commission): Introducing higher bar in efforts to supervise the quality of financial statements, and provoking companies to enhance the extent of transparency and disclosure of acceptable accounting policies.

4. To external auditors Consider the adoption of improved advanced audit procedures that identify trends of earnings management and manipulation, as opposed to depending on the conventional testing.

As such, one can say that accounting manipulation poses a direct threat to the investor confidence and market performance, and that the quality of the governance and auditing are the required opportunities to mitigate its undesirable impacts and increase the efficiency of the Iraq Stock Exchange.

Conclusions

Considering its theoretical and practical conclusions, the study came to a complex of conclusion, which may be summarized as follows.

1. Effects of accounting manipulation Accounting manipulation - be it discretionary accrual (DA), operating activities (REM) or as indicated by the Beneish M-Score has been revealed to adversely and significantly affect investor decisions in the Iraq Stock Exchange, resulting in reduced abnormal returns (CAR) and a reduced market liquidity level (ILLIQ).
2. Quality of financial information The findings were that with increase in the accounting manipulation of financial statements, the quality of financial statements declined further, which enhances the gap of information asymmetry between the management and the investors, which impacts the market efficiency and results in irrational investment decisions.
3. The role of the financial characteristics of the company The control variables revealed that the increase in the profitability (ROA) is positively correlated with the investor confidence, and the financial leverage (LEV) has a negative impact on their decisions, whereas the size of the company (SIZE) has a weak and positive correlation.
4. Governance and Audit Even though the study was not analyzing these variables directly, the findings are in line with the literature that good governance practices and high-quality of external auditing lessens the effects of accounting manipulation and enhances the believability of the financial reports.

Recommendations

Based on the above, the research presents the following recommendations:

1. For investors:

- The necessity to use high-level analysis tools to reveal manipulation, including indicators Beneish M-Score or estimated accruals, to make investment decisions.

- Do not solely base on what the companies are posting but examine the cash flows and liquidity to develop an overall picture of the performance of the companies.

2. For companies:

- Increasing the level of transparency and adherence to international accounting standards (IFRS)

to decrease the possibilities to manipulate.

- Enabling the internal audit and review committees to act as the frontline guards to curb the earnings management practices.

3. For regulatory bodies:

- Strict control of the disclosures of listed companies, and punitive measures on any companies found to have been manipulating financial information.

- Designing an electronic disclosure that will make investors accessible to disclosed information that is both accurate and up-to-date.

4. For external auditors:

- Develop emphasis on the utilization of high-level audit processes, including predictive analytics, statistical testing procedures, and the detection of a sign of manipulation.

- Improving the level of independence and unbiasedness in order to guarantee the quality of audited reports.

Suggestions for future studies

1. Widen the research to cover other Arab markets in order to contrast the environment of the Iraqi market with that of regional markets.

2. Research on mediating variable (corporate governance practices, i.e. board independence, ownership structure) between accounting manipulation and investor decisions.

3. Incorporating the variables of investor behavior (confidence and over-optimism) into the models to expand the scope of the analysis.

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