

The Effect of Institutional Ownership on Earnings Management and its Reflection in Investment Decisions: Empirical Research on a Sample of Iraqi Banks

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Abstract: The research aimed to measure the level of effect of institutional ownership and test the level of its effect on earnings management and the level of its effect on investment decisions in the environment of Iraq. For this aim to be achieved, the research used a quantitative method for the financial statements of a sample of Iraqi banks listed on the Iraqi Stock Exchange, which numbered (10) banks for the period (2012-2021). The independent variable (institutional ownership) was measured by using the percentage of shares owned by the company to the total number of shares, and the mediator variable (earnings management) was measured using (Kothari et al., 2005) model, while the dependent variable (investment decisions) was measured using on the indicator of earnings per share multiplier, known as the Price-to-Earnings Ratio (PER). The research concluded that there is a negative relationship between institutional ownership and earnings management, when the level of institutional ownership in banks (research sample) increases, this will be accompanied by a decrease in the level of earnings management in those banks. It is also noted that there is a negative correlation between earnings management and investment decisions, meaning that an increase in the earnings management level will be accompanied by a decrease in the level of rationalization of investment decisions in banks (research sample). The research also found that there is a positive relationship between the research variables, as the effect of institutional ownership in enhancing investment decisions increases when earnings management becomes a mediator.

Keywords: Institutional Ownership, Earnings Management, Investment Decisions.

Introduction

Institutional ownership is the most widespread ownership structure in recent decades, in which ownership of company shares is concentrated in the hands of some institutions such as investment funds, insurance companies, and pension funds. The presence of financial institutions in the ownership structure will increase the effectiveness of the control exercised over management, thus reducing abuses, reducing agency problems, and then increasing the quality of earnings management, especially in the long term. Institutional ownership has both positives and negatives, as its presence can fundamentally affect the types and level of risk of investment decisions made by management, which in turn will affect the performance of the company as a whole.

The research consisted of four axes: the first axis dealt with "the research methodology", the second axis included "the theoretical aspect of the research", the third axis was devoted to "the applied side", and the fourth axis dealt with the "conclusions and recommendations".

First axis: Research Methodology

First: Research problem:

Institutional ownership is one of the most important issues facing the company, as it is responsible for the process of raising the funds necessary to finance the various activities of the institution, by determining the amount and nature of the funds it needs to run the business and how to achieve and manage earnings. This relationship will have an impact on the investment decisions of the organization. To solve this problem, the following question is required: "Is there a statistically significant effect of institutional ownership on earnings management and is this reflected in investment decisions?"

The research problem can also be summarized according to the following most prominent questions:

1. Is there a statistically significant correlation relationship between institutional ownership and earnings management?
2. Is there a statistically significant correlation relationship between institutional ownership and investment decisions?
3. Is there a statistically significant correlation relationship between earnings management and investment decisions?
4. Is there a statistically significant effect of institutional ownership on earnings management?
5. Is there a statistically significant effect of institutional ownership on investment decisions?
6. Is there a statistically significant effect of earnings management on investment decisions?
7. Does the effect of institutional ownership on investment decisions differ when earnings management is a mediator?

Second: Research importance:

The importance of the research appears through its focus on the research problem that the researcher seeks to address, and which was the motivation for researching to find solutions to it. The research derives its importance from addressing one of the important and contemporary research topics at the scientific and practical levels. From a practical standpoint, the research contributes to providing an explanation of the economic causes and effects that have increased the demand for institutional ownership because it increases the financial reports quality, by providing realistic evidence regarding the relationship between institutional ownership and its impact on the research variables, to improve the efficiency and effectiveness of investment decisions related to managing earnings and not tampering with them, and it is also considered one of the most important methods of effective external governance. This research represents an extension of accounting studies that were concerned with studying the complementary relationship between research variables and enhancing investment decisions through earnings management.

Third: Research Objectives:

Based on the nature and importance of the problem, this research aims to achieve a main goal, which is the possibility of verifying the extent of the impact of the dimensions of institutional ownership on earnings management and its reflection on the investment decisions of the organization, through an

applied study on a sample of companies listed on the Iraqi Stock Exchange. Including the sub-objectives are divided into:

1. Providing a theoretical framework for research variables - especially in the Iraqi environment - by identifying the concept of institutional ownership and its importance.
2. Explaining the concept and strategies of earnings management.
3. Clarification of the concept and principles of investment decisions.

Fourth: Research Hypotheses:

1. There is a statistically significant correlation relationship between institutional ownership and earnings management.
2. There is a statistically significant correlation relationship between institutional ownership and investment decisions.
3. There is a statistically significant correlation relationship between earnings management and investment decisions.
4. There is a statistically significant effect of institutional ownership on earnings management.
5. There is a statistically significant effect of institutional ownership on investment decisions.
6. There is a statistically significant effect of earnings management on investment decisions.
7. The effect of institutional ownership on investment decisions differs when earnings management is a mediator.

Fifth: Research limits:

The limits of the research were as follows:

- Spatial limits: The research is limited to (10) Iraqi companies listed on the "Iraq Stock Exchange".
- Time limits: The research is based on the "Official Financial Statements and Reports" of these "Ten Companies" during a period (2012-2021).

Sixth: Research method:

The research relied on two of the scientific research methods, the inductive and the descriptive approaches, in order to achieve the research goal because it is the most widely used method in studying social and human phenomena and is compatible with the current research topic. The following figure (1) shows the research variables.

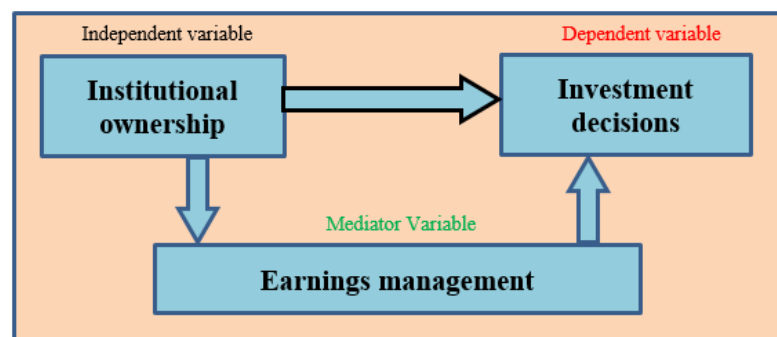


Figure (1): The search variables model

Source: Figure prepared by the researcher.

The second axis: Theoretical framework for research variables and the relationship between them*First: The concept of Institutional Ownership:*

About the last decade of the last century have become institutional investors who have more than 40% of the capital of the institutions listed on the stock exchange, and on this basis, they can direct the policies of those institutions through the size of the authority they possessed, and then the direct or indirect impact on the governance system of the institutions as a whole. The concept of institutional ownership also began to differ with the presence of financial institutions, whether (investment funds, pension funds ... etc.) according to the type and function of financial institutions (Elkhedir & Blhamo, 2022: 4). Institutional ownership is defined by (Cornett et al., 2007: 1773) as "the total percentage of shares owned by companies or institutions to the company's paid capital." These companies are investment companies and banks. Institutional ownership is one of the most important effective external governance methods, and these institutions are characterized by sufficient experience, and individuals are distinguished by experience in using financial reports for purposes of financial analysis. This is a motivation to pay attention to financial reports and their quality. Institutional ownership is also defined by (Al- Rashidat, 2012: 8) as "owning a specific set of people or institutions (such as pension funds) for the largest number of shares in a specific company, where these people or these institutions do the purchase of shares of a specific company, and thus have a significant impact on financial and administrative policies.

According to the above, the researcher believes that institutional ownership is the amount owned by the institutions from the shares of the company, as institutional ownership from outside the company is a ruling tool to monitor the administration's decisions and their actions, as it ensures that limited groups of shareholders (shares campaign) are not controlled on the company's capabilities..

Second: The importance of Institutional Ownership:

Institutional ownership contributed to the support of companies with many benefits, the most important of which are: (Fathy, 2014: 4)

1. Raising the level of companies' performance and the consequent payment of the development wheel and economic progress of the countries to which these companies belong.
2. Increase the ability of national companies to compete globally and opening new markets for companies.
3. Clarity and transparency in what companies publish from financial statements, and which is reflected in an increase in investors' confidence and their reliance on it in making decisions.
4. Attracting foreign investments and encouraging local capital to invest in national projects.
5. The institutional ownership rules provide the organizational framework that cements the company to precisely define its goals and then how to achieve these goals.

Third: The concept of Earnings Management:

Earnings management has witnessed much attention in accounting studies as an ethical issue. Earnings management is considered an unwanted practice and a threat that may lead to negative effects on companies' performance in the long term, due to the importance of this concept and its multiplicity for more than an accounting and administrative direction. So studying earnings management has sought to understand the reasons for managers manipulating earnings and how they do so (Marantika et al., 2021: 5077). Earnings management is defined as the behavior of the opportunistic manager in preparing external financial reports to reduce or increase accounting earnings according to their interests and gain some advantages for the benefit of the individual (Utomo & Pamungkas, 2018: 2). From the above, it

was found that the earnings management is to amend the financial reports to mislead the stakeholders about the company's implicit performance, that is, it affects the contractual results that depend on the reported accounting numbers.

Fourth: The strategies of Earnings Management:

There are three strategies that the company resorted to when it practices earnings management, and these strategies are: (Al-Mashhadani and Al-Fatlawi, 2012: 31-32) (Al-Tamimi and Al-Saadi, 2015: 52) (Abu Arish, 2016: 119)

A- The strategy for increasing earnings:

The companies adopt strategies to increase earnings to reach their target levels, to avoid losses in their financial data, to meet the expectations of financial analysts, and to obtain an increase in the value of their shares in the financial markets, or achieve its special benefits.

B- The strategy for reducing earnings:

There are various reasons that push companies to reduce their earnings, including obtaining tax earnings or avoiding the political costs imposed by governments and unions by raising workers' wages, or there may be an incentive to reduce earnings because companies achieve earnings levels that may be far from the reach of financial analysts. Companies adopt certain policies to reduce earnings and retain part of the current earnings to increase future earnings levels, and these policies aim to save and get rid of all losses in bad years.

C- The strategy for reducing fluctuations and oscillations in income (income smoothing):

The companies resort to this strategy when there is fluctuation or fluctuation in their earnings during financial periods. Management of companies is trying to alleviate these fluctuations and maintain the level of earnings and the degree of its growth by resorting to income smoothing tools, with the aim of reducing the risk and showing the company's financial performance naturally and stable. There are two methods of introducing the income called the first with a real smoothing, which is related to the operational decisions of the administration, while the second method is called a artificial smoothing, which is related to accounting decisions.

Fifth: The concept of Investment Decisions:

Due to the nature of the investment and its association with a high degree of risk and lack of confirmation, the investment decision-making process is one of the most important decisions made by the investor. The diversity of investment options requires the investor to develop appropriate strategies that enable him to compare and choose alternatives that are suitable for his needs. (Al Shabib, 2008: 29) defined the investment decision as making a decision to choose investment options wisely and consciously based on planning and calculating goals and means among the available investment options in a specific position. It is also defined as a decision made by the financial administration to use the company's funds and resources to aggrandize the market capitalization of the company's shares and shareholders' wealth (Fabozzi & Peterson, 2003: 23-24).

From the above, it was found that the investment decision is a process of choosing an alternative to the investment alternative that was identified based on a planned investment project, in exchange for risk with a degree of money to achieve expected future returns during a specific time period.

Sixth: Principles of Investment Decision-Making:

There is a set of principles that the investor must take into account when making the investment decision so that the investor can the comparison between the available investment alternatives and the choice of

the best alternative. These principles are: (Matar, 2009: 39) (Abubakr, 2018: 77) (Kaddawi, 2007: 9) (Yas, 2012: 112) (Muhammad, 2015: 129)

1. The principle of investment options: The decision-maker must take into account that the cash surpluses are scarce and specific and that investment opportunities are many, which requires him to choose the most appropriate alternative after the process of comparison between them.
2. The principle of comparison: This principle requires investors to compare various investment options with varying returns and risks. This comparison is carried out using the analysis and evaluation tools for each available option and comparing the results of the analysis to determine the appropriate option. on the basis of the principle of appropriateness, the method that investors prefer is chosen.
3. The principle of appropriateness: This principle assumes that investors choose the investment fields that suit their desires and inclinations, which are determined by the personal characteristics of age, income, and social status. The investor is concerned with the basic elements of the investment decision, the most important of which are: the return on investment, the risk factors related to investment, and the level of liquidity enjoyed by the investor.
4. The principle of diversification: This principle is based on the fact that financial assets differ in terms of the degree of risk and the returns it achieves. In order for the decision taken by the investor to be sound, this requires diversification of investments from these assets, in order to reduce the risk on the one hand and increase the returns on the other hand.
5. The principle of objectivity: This principle is that the financial indicators that investors use are objective and fair in the measurement process.

Seventh: The relationship between institutional ownership and earnings management and the extent of its reflection in investment decisions:

Institutional investors who have big investments in the company are monitoring the accounting processors taken by managers. The major institutional contribution reduces the ability of the administration to use estimated entitlements, which affects the company's earnings. This is confirmed by the study (Ajay, & Madhumath, 2015: 120) that there is a negative relationship between institutional ownership with earnings management for large and mature companies. The growing companies have a higher earnings management, as investors monitor companies and thus reduce earnings management practices within the company. A study (Ramalingegowda et al., 2021: 208) also indicated that joint institutional ownership reduces earnings management by enhancing the efficiency of institutions monitoring and by encouraging institutions to absorb the negative external factors to manage the company's earnings on the counterpart companies investments.

While the study (Abu Al-Ola, 2019: 1) concluded that there is a significant positive correlation relationship between the structure of the institutional ownership and the earnings management. The study (Sakaki et al., 2017: 227) added that stability in ownership of the shares of institutional investors who are not sensitive to pressure (i.e. investment consultants, retirement funds, and endowments) reduces the use of targeted companies to manage real earnings.

According to the above, it was found that institutional ownership is a ruling tool to monitor the decisions and behaviors of the company management. Institutional ownership ensures that the company's capabilities are not controlled by limited groups of shares. Institutional ownership reduces the management motives to rig earnings and to cancel the contents of financial reports.

The third axis: The practical side of the research

In this axis, the research hypotheses for hypothetical and Elicited relationships are tested in the theoretical and methodological aspects of the research, based on the data collected through analysis of the informational content of banks' financial reports (research sample).

First: Community and Sample of the Research:

The research field was represented by the financial and banking sector in the local environment, given the importance of this sector in moving the wheel of economic development in Iraq, while the community of the research was made up of the banks listed on the "Iraq Stock Exchange", which numbered (47) active banks at the end of 2022. So, 10 banks were selected as a judgmental random sample for ten years (2012-2021), to serve as a basis for providing the necessary data to achieve the research objectives and test its hypotheses. Table (1) shows the banks (research sample).

Table (1): The banks (research sample)

No.	Bank	No.	Bank
1	Ashur Bank	6	United Bank for Investment
2	Bank of Baghdad	7	Sumer Commercial Bank
3	Mosul Bank	8	National Bank of Iraq
4	Gulf Commercial Bank	9	Babylon Bank
5	Investment Bank of Iraq	10	Mansour Bank

Source: The table was prepared by the researcher.

Second: Measuring variables:

The research included three variables as follows:

1. Institutional Ownership (The independent variable): It is measured by using the ratio of shares owned by the institutions for the bank (i) during a period (t) to the total number of shares issued by the company, as follows:

$$\text{Institutional ownership} = \frac{\text{Shares owned by institutions}}{\text{Total number of shares}}$$

2. Earnings Management (The intermediate variable): The model (Kothari et al., 2005) related to measuring the quality of accruals was relied upon, because it is considered one of the most accurate models in revealing the evaluation of the quality of earnings, according to the opinions of most researchers. This model measures performance-adjusted discretionary accruals. This model indicates that the effectiveness of previous models used to measure discretionary accruals can be improved by controlling the return on assets (ROA), which can have an impact on the measurement of discretionary accruals during the research period. The model can be clarified (Kothari et al., 2005) through the following equation:

- A. Calculate the Total Accruals, according to the following equation:

$$TA_{i,t} = NI_{i,t} - CFO_{i,t} \dots\dots\dots (1)$$

($TA_{i,t}$) = Total accruals of the company (i) during a period (t).

($NI_{i,t}$) = Net earnings of the company (i) during a period (t).

($CFO_{i,t}$) = Cash flow from operations of the company (i) during a period (t).

- B. Calculate Non-Discretionary Accruals using the following formula:

$$TA_{i,t}/A_{i,t-1} = a + B_1 (1/A_{i,t-1}) + B_2 [\Delta REV_{i,t} - \Delta REC_{i,t}]/A_{i,t-1} + B_3 (PPE_{i,t})/A_{i,t-1} + B_4 (ROA_{i,t}) + E_{i,t} \dots\dots\dots (2)$$

$(A_{i,t-1})$ = Total assets in the year (1-t) for the bank (i).

$(\Delta REV_{i,t})$ = revenues in the year (t) minus revenues in the year (1-t) for the bank (i).

$(\Delta REC_{i,t})$ = Debtors in the year (t) minus revenues in the year (1-t) for the bank (i).

$(PPE_{i,t})$ = Fixed assets.

$(E_{i,t})$ = Error for the period (t) for the bank (i).

C. Calculate Discretionary Accruals using the following formula:

Non-discretionary accruals are first estimated, and the following model parameters shown in Table (2) are used:

Table (2): Estimation of parameters

Parameters	A	β_1	β_2	β_3	β_4
Value	-0.128	0.000	0.186	0.219	0.975

Source: The table was designed by the researcher through attribution to the results of the statistical program (SPSS).

Non-discretionary accruals are estimated according to the following equation:

$$NDA_{i,t}/A_{i,t-1} = a + B_1(1/A_{i,t-1}) + B_2[\Delta REV_{i,t} - \Delta REC_{i,t}]/A_{i,t-1} + B_3(PPE_{i,t})/A_{i,t-1} + B_4 (ROA_{i,t}) + E_{i,t} \dots\dots\dots (3)$$

The discretionary accruals are then calculated:

$$Da_{i,t} = TA_{i,t} - NDA_{i,t} \dots\dots\dots (4)$$

$Da_{i,t}$ = discretionary accruals of the bank (i) during the period (t).

$TA_{i,t}$ = total accruals of the bank (i) during the period (t).

$NDA_{i,t}$ = non-discretionary accruals of the bank (i) during the period (t).

The positive values and negative values of extraordinary accruals provide an indication of earnings management practices, so the absolute value of extraordinary accruals was used. Therefore, the higher the value, this indicates an increase in earnings management, and the lower the value, this indicates a decrease in earnings management.

3. Investment Decisions (The dependent variable): Investment decisions are measured by using the earnings per share multiplier indicator [Price-to-Earnings Ratio (PER)] through the following equation:

$$\text{Earnings per Share Multiplier} = \frac{\text{Market Price per Share}}{\text{Earnings per Share}}$$

Third: Describing the variables of the research:

The arithmetic mean was used to describe the research variables in the ten banks (research sample) field, which are shown in Table (3).

Table (3): Describing the variables of the research according to the banks

No.	Title	Institutional Ownership	Earnings Management	Investment Decisions
1	Ashur Bank	0.6245	0.0790	37.1585
2	Bank of Baghdad	0.3221	0.2144	16.9093
3	Mosul Bank	0.2983	0.0803	35.6522
4	Gulf Commercial Bank	0.2564	0.0995	27.5275
5	Investment Bank of Iraq	0.4136	0.0832	38.1245
6	United Bank for Investment	0.2808	0.0570	30.7559
7	Sumer Commercial Bank	0.4530	0.0521	36.2816
8	National Bank of Iraq	0.2590	0.0743	26.5062
9	Babylon Bank	0.2813	0.1310	19.1155
10	Mansour Bank	0.2094	0.1169	19.2807

Source: The table was designed by the researcher through attribution to the results of the statistical program (SPSS).

From Table (3), it is outlined that the arithmetic mean for 10 years was calculated for the 10 banks (research sample). Ashur Bank was the highest in terms of institutional ownership, followed by Sumer Commercial Bank, while Gulf Commercial Bank was the lowest. It is also noted that there is a high level of earnings management in the Bank of Baghdad according to the quality of accruals scale, followed by the Babylon Bank and Mansour Bank, while the Sumer Commercial Bank and the United Bank for Investment were the lowest. Also, it is noted that the Investment Bank of Iraq was the highest in terms of rationalizing investment decisions according to the earnings multiplier measure, followed by the Ashur Bank, while the Bank of Baghdad was the lowest in terms of the earnings multiplier.

A descriptive analysis of the three research variables was conducted at the sample level as a whole, as shown in Table (4). The researcher relied on the arithmetic mean (AM), standard deviation (SD), coefficient of difference (CD), lowest value (LV), and highest value (HV) to conduct this analysis.

Table (4): Descriptive analysis of banks (research sample)

Variables	AM	SD	LV	HV	CD	SC
Institutional Ownership	0.339	0.214	0.080	0.857	63.2%	0.661
Earnings Management	0.099	0.101	0.003	0.614	102.5%	0.607
Investment Decisions	29.030	24.152	2.459	75.224	83.2%	0.774

Source: The table was designed by the researcher through attribution to the results of the statistical program (SPSS).

From Table (4), it is outlined that the average institutional ownership for the sample as a whole is (33.9%). However, it is not possible to generalize this percentage at the level of the sample as a whole - which is indicated by arithmetic mean, because there is a high dispersion between the observations, which is indicated by the increase in the standard deviation value, in addition to the calculated value of the coefficient of difference for the institutional ownership variable exceeded the standard value of 50%, which confirms the presence of dispersion and variation in the sample observations, as well as the large differences between the lowest value and the highest value within these observations for the banks (research sample).

Table (4) also shows that there is a somewhat low level of earnings management based on the accruals quality measure. However, this decrease in the level of earnings management cannot be generalized to the sample level as a whole, because there is dispersion and variation in the observations, which is demonstrated by the increase in the standard deviation value, in addition to the increase in the coefficient of difference from the value of 50%, which confirms the presence of dispersion and variation in the observations, therefore, it cannot be generalized the result of the arithmetic mean to represent the sample as a whole in terms of earnings management.

Table (4) also shows that investment decisions - through the earnings multiplier measure - have recorded a somewhat high level in rationalizing investment decisions in terms of the arithmetic mean. However, it is not possible to generalize this level shown by the arithmetic mean at the level of the sample as a whole because of the high standard deviation value. The value of the coefficient of difference is high, which indicates that there is dispersion, variation, and inconsistency in the observations.

Fourth: Test of normality for search data:

Table (4) offers the results of calculating the Skewness Coefficient (SC) value, whose calculated value for the three variables was within the range $[(+1) - (-1)]$, which means that the data is distributed in a normal distribution for the three research variables, and thus scientific statistical tools and methods can be adopted in testing research hypotheses.

Fifth: Testing hypotheses of the relationship between variables:

This paragraph included three hypotheses as follows:

(H1). The first hypothesis:

“There is a significant correlation between institutional ownership and earnings management.”

The researcher tested this hypothesis by calculating the value of the “Pearson correlation coefficient” between institutional ownership and earnings management. Table (5) refers to this test results.

Table (5): Value of the correlation coefficient between Institutional Ownership and Earnings Management

Variables		Earnings Management
Institutional Ownership	Pearson	-0.284 ^{**}
	Sig.	0.004

(*) "It is significant at the 5% significance level." (**) "It is significant at the 1% significance level."

Source: The table was designed by the researcher through attribution to the results of the statistical program (SPSS).

From Table (5), it is outlined that there is a negative significant correlation between institutional ownership and earnings management, meaning that when the level of institutional ownership in banks (research sample) increases, this will be accompanied by a decrease in the level of earnings management in those banks. Based on this, the first hypothesis of the research is accepted.

(H2). The second hypothesis:

“There is a significant correlation between institutional ownership and investment decisions.”

The researcher tested this hypothesis by calculating the value of the “Pearson correlation coefficient” between institutional ownership and investment decisions. Table (6) refers to this test results.

Table (6): Value of the correlation coefficient between Institutional Ownership and Investment Decisions

Variables		Investment Decisions
Institutional Ownership	Pearson	0.410**
	Sig.	0.000

(*) "It is significant at the 5% significance level." (**) "It is significant at the 1% significance level."

Source: The table was designed by the researcher through attribution to the results of the statistical program (SPSS).

From Table (6), it is outlined that there is a positive (direct) significant correlation between institutional ownership and investment decisions, meaning that when the level of institutional ownership in banks (research sample) increases, this will be accompanied by an increase in the level of rationalization of investment decisions in those banks. Accordingly, the second research hypothesis is accepted.

(H3). The third hypothesis:

"There is a significant correlation between earnings management and investment decisions."

The researcher tested this hypothesis by calculating the value of the "Pearson correlation coefficient" between earnings management and investment decisions. Table (7) refers to these test results.

Table (7): The value of the correlation coefficient between Earnings Management and Investment Decisions

Variables		Investment Decisions
Earnings Management	Pearson	-0.420**
	Sig.	0.000

(*) "It is significant at the 5% significance level." (**) "It is significant at the 1% significance level."

Source: The table was designed by the researcher through attribution to the results of the statistical program (SPSS).

From Table (7), it is outlined that there is a negative significant correlation between earnings management and investment decisions, meaning that when the level of earnings management in the banks (research sample) increases, this will be accompanied by a decrease in the level of rationalization of investment decisions in those banks. Accordingly, the third hypothesis of the research is accepted.

Sixth: Testing hypotheses of the overall effect:

The paragraph included three hypotheses as follows:

(H4). The fourth hypothesis:

"There is a statistically significant effect of institutional ownership on earnings management."

The researcher tested this hypothesis by formulating a "simple linear regression equation" to estimate earnings management as a function of institutional ownership, to determine the effect level of institutional ownership on earnings management. Table (8) refers to effect results.

Table (8): Results of Institutional Ownership effect on Earnings Management

Variables	R ²	(Adjusted R ²)	(F)	Sig.
Institutional Ownership	0.081	0.071	8.602	0.004
	Constant	Beta value (β)	(T)	Sig.

	coefficient (β_0)			
	0.144	-0.134	-2.933	0.004

Source: The table was designed by the researcher through attribution to the results of the statistical program (SPSS).

From Table (8), it is outlined that the validity of the regression equation model is consistent. The value of (F) reached (8.602) at a significance level of (5%), which means that it is possible to estimate earnings management in terms of institutional ownership. The value of (T) test of (-2.933) at the level of significance of (5%) indicates the significance of the effect of institutional ownership on earnings management. the negative beta value (β) of (-0.134) indicates that the effect is negative (opposite), that is, increasing the level of institutional ownership will lead to a decrease in earnings management in banks (research sample). The coefficient of determination (R^2) value of (0.081) also indicates that institutional ownership explicates (8.1%) of the changes that take place in earnings management. Therefore, the fourth hypothesis is accepted.

(H5). The fifth hypothesis:

“There is a statistically significant effect of institutional ownership on investment decisions.”

The researcher tested this hypothesis by formulating a “simple linear regression equation” to estimate investment decisions as a function of institutional ownership, to determine the effect level of institutional ownership on earnings management. Table (9) refers to effect results.

Table (9): Results of Institutional Ownership effect on Investment Decisions

Variables	R^2	(Adjusted R^2)	(F)	Sig.
Institutional Ownership	0.168	0.159	19.769	0.000
	Constant coefficient (β_0)	Beta value (β)	(T)	Sig.
	13.368	46.222	3.213	0.000

Source: The table was designed by the researcher through attribution to the results of the statistical program (SPSS).

From Table (9), it is outlined that the validity of the regression equation model is consistent. The value of (F) reached (19.769) at a significance level of (5%), which means that investment decisions can be estimated in terms of institutional ownership. The value of (T) test of (3.213) at a significance level of (5%) indicates the significance of the effect of institutional ownership on investment decisions. The negative beta value (β) of (46.222) indicates that the effect is positive (direct), meaning that increasing the level of institutional ownership will lead to an increase in the level of rationalization of investment decisions in banks (research sample). The value of (R^2) of (0.168) also indicates that institutional ownership explicates (16.8%) of the changes that take place in investment decisions. Therefore, the fifth hypothesis is accepted.

(H6). The sixth hypothesis:

“There is a statistically significant effect of earnings management in investment decisions.”

The researcher tested this hypothesis by formulating a “simple linear regression equation” to estimate investment decisions as a function of earnings management, to determine the effect level of institutional ownership on earnings management. Table (10) refers to effect results.

Table (10): Results of Earnings Management effect on Investment Decisions

Variables	R ²	(Adjusted R ²)	(F)	Sig.
Earnings Management	0.176	0.168	20.935	0.000
	Constant coefficient (β_0)	Beta value (β)	(T)	Sig.
	38.919	-100.386	-4.575	0.000

Source: The table was designed by the researcher through attribution to the results of the statistical program (SPSS).

From Table (10), it is outlined that the validity of the regression equation model is consistent. The value of (F) reached (20.935) at a significance level of (5%), which means that it is possible to estimate investment decisions in terms of earnings management. The value of (T) of (-4.575) at a significance level of (5%) indicates the significance of the effect of earnings management on investment decisions. The negative beta value (β) of (-100.386) indicates that the effect is negative (opposite), that is, increasing the level of earnings management will lead to a decrease in the level of rationalization of investment decisions in banks (research sample). The value of (R²) of (0.176) also indicates that earnings management explicates (17.6%) of the changes that take place in investment decisions. Accordingly, the sixth hypothesis is accepted.

Seventh: Testing the hypotheses of direct and indirect effect:

The paragraph includes one hypothesis as follows:

(H7). Seventh hypothesis:

“The effect of institutional ownership on investment decisions differs when earnings management is included as a mediator variable.”

The researcher used the statistical program (AMOS: Version 20) intending measurement of the "direct" and "indirect" relationships between institutional ownership and investment decisions. The maximum likelihood method was also used to recognize the level of significance and importance of direct and indirect relationships between these variables. Table (1) shows the model's significance:

Table (11): Significance indicators for the model of direct effect relationships between institutional ownership and investment decisions

Indicator	Standard value	Calculated value
Significant Chi-Square (p. value) (X ²)	< 0.05	0.000
Goodness of Fit Index (GFI)	> 0.90	1.000
Square Root Mean Square Residuals (RMR)	< 0.06	0.000
Comparative Fit Index (CFI)	> 0.90	1.000

Source: The table was designed by the researcher through attribution to the results of the statistical program (AMOS).

From Table (11), it is outlined that a decrease in the value of both (X²) and (RMR), which reached (0.000), which indicates an increase in the model's significance and strength. The results also refer to an increase in the value of the (GFI) from the minimum (0.90), as it reached (1.000). The results also reference that the value of the (CFI) was higher than the minimum (0.90), reaching (1.000), which denotes that the indicators were higher than the specified standards. It confirms the model's high quality.

Subsequently, the researcher tests this hypothesis by analyzing the statistical results shown in Table (12) according to the suggested model for the direct and indirect effect relationships between institutional

ownership and investment decisions, knowing that the results of these relationships when earnings management is a mediator.

Table (12): Results of the statistical analysis of the direct and indirect effects of institutional ownership on investment decisions when mediating earnings management

Variables			The value of the direct path coefficient	The value of the indirect path coefficient	The value of the overall path coefficient
Independent	Mediator	Dependent			
Institutional Ownership	Earnings Management	Investment Decisions	35.653**	10.568**	46.222**
**: "It means that the correlation is significant at (0.01)"					

Source: The table was designed by the researcher through attribution to the results of the statistical program (AMOS).

From Table (12), it is outlined that an increase in the positive significant effect of institutional ownership in enhancing investment decisions in the workplace when earnings management is mediated. The value of the increase amounts to (10.568), which is the indirect effect value, therefore, the seventh hypothesis is accepted. That is, the effect of institutional ownership in enhancing investment decisions increases by (10.568) when earnings management is a mediator. Figure (2) shows a model of the direct and indirect effect of institutional ownership in enhancing investment decisions.

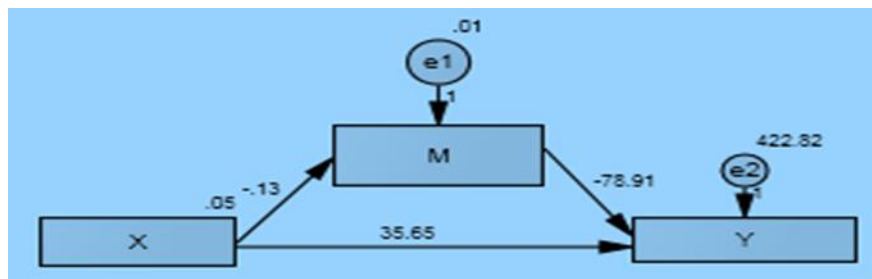


Figure (2): Model of the direct and indirect effect of institutional ownership in enhancing investment decisions

Source: The figure is from the output of the statistical program (AMOS) used by the researcher.

The fourth axis: Conclusions and Recommendations

The researcher arrived at a variety of important conclusions and proposed several recommendations about the research subject, which are as follows:

First: Conclusions:

A set of conclusions were reached in both theoretical and practical aspects, the most important are the following:

1. Institutional ownership is formed by influential parties in the board of directors, which helps enhance the process of monitoring the behavior and performance of managers, thus improving the decision-making process.
2. There is a negative significant correlation between institutional ownership and earnings management, meaning that when the level of institutional ownership in banks (research sample) increases, this will be accompanied by a decrease in the level of earnings management in those banks.

3. The possibility of estimating earnings management in terms of institutional ownership. The value of (T) of (-2.933) at the level of significance (5%) indicates that the effect of institutional ownership on earnings management is significant. A negative beta value (β) of (-0.134) indicates that the effect is negative (opposite). That is, increasing the level of institutional ownership will lead to a decrease in profit management in the banks (research sample). The value of the coefficient of determination (R^2) of (0.081) indicates that institutional ownership explains (8.1%) of the changes that occur in earnings management.
4. The results showed an increase in the value of the GFI above the minimum (0.90), where it reached (1.000). The results also indicate that the value of the CFI was higher than the minimum (0.90), where it reached (1.000), which indicates that the indicators were higher than the specified standards.

Second: Recommendations:

In light of the conclusions reached by the research, the researcher can suggest several recommendations, the most important of which are:

1. It is necessary to conduct future studies on institutional ownership in the Iraqi environment, to increase knowledge of it and the level of its effect on earnings management, which helps banks and companies make good investment decisions.
2. Increasing knowledge of institutional ownership increases the effectiveness of oversight exercised over management.
3. The necessity of obligating Iraqi companies and banks to provide the appropriate environment to enhance institutional ownership, because of its effect on investment decisions when mediating earnings management.
4. It is necessary to direct many applied research and studies to find out the impact of the company's ownership, because it has a significant effect on the decisions that the company makes in the long term.

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