

# The Impact of the Practice of Earnings Management on Financiers' Decisions and the Role of Audit Quality as a Moderator Variable: Evidence from Manufacturing Companies Listed on Amman Stock Exchange

**Mohammad Nassar**

Head of Accounting Department in Private Company

E-mail: mohammadnassar1991@yahoo.com

**Lina Hani Warrad**

Accounting Department, Applied Science Private University, Amman, Jordan

Email: l\_warrad@asu.edu.jo

**Mahmoud Nassar**

Accounting Department, Applied Science Private University, Amman, Jordan

Email: m\_nassar@asu.edu.jo

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## **Abstract**

The current study aimed to identify the impact of Earnings Management on Financiers' decisions, either those financiers are creditors or investors, and the role of the mediator variable, the Audit Quality, on the relationship between the independent and dependent variables. The study population consisted from manufacturing companies in Amman Stock Exchange for the period 2005-2009. In order to address the study aims, the researcher used descriptive statistical methods for all variables of the study and tested the hypotheses of the study using the multiple regression models. The study results revealed that there is no impact of earning management on financier decisions and there no impact for the mediator variable on the relationship between the independent and dependent variables. In regards to the control variables, we found that there is an impact of earning per share percentage on investor decision; in contrast there is no impact of growth and the firm size. In addition, there is an impact of growth percentage in creditor's decision, while there is no impact on firm size or growth percentage.

**Keyword:** Earning management, financiers' decisions, Audit Quality, Firm size, Earning per share percentage, growth percentage.

## **1. Introduction**

Companies depend on two types of financing methods regardless to the type of company, in order to carry out their operations and keep them continuous. These two financing methods

are the issuance of new shares, borrowing or through using a mix of both methods. The company may practice earning management through these items specifically in order to obtain this funding, and as the management department would expect manipulated items, earning management done to the company's own advantage, and therefore mislead the decision maker. Furthermore, if the financier seeks high earnings in order to make a financing decision, the earning item may be increased or seek a slight fluctuation in the earning figure. The company will therefore work to reduce or increases the earning figures whilst maintain a constant level of fluctuation. The financier may highly base their decision on the opinion of the external auditor. Therefore, it is necessary to know the degree of impact of the auditor's opinion on the financing decision maker opinion, and if there is any impact on the company's earning management practices. The objective of this study is to measure the impact of earning management practice on investment or lending decision-making and to research if the size of the external audit firm has an impact on these practices. Finally, to consider the impact of the size, earning and company growth variables on the company.

Furthermore, the following points can formulate the objectives of the study:

- 1- Measuring the impact of the earning management practice on the financing decision made by investors.
- 2- Measuring the impact of the earning management practice on the financing decision made by lenders.
- 3- Measuring the impact of the size of external audit firm on earning management practices and on the financing decision made by investors and lenders together.

## **2. Literature Review**

In the study of (Fadawi, 2015), the earning management practice was measured for the shareholding companies listed on the Stock Exchange in Algeria. The study showed that the earning management practice is one of the forms of accounting manipulation without violating any laws or accounting standards, this is done by manipulating the earning figure by increasing or reducing the figure manually.

The researchers (Ronen and Yaari, 2008) pointed out that it is realistic for companies to manipulate the earning figure before issuing new shares or borrowing due to the importance of the earning item to the decision maker whether a lender or an investor. The study also emphasized that companies manipulate the earning figure by increasing or reducing it. However, the study of (Rochardson ,2002) was conducted on a number of American companies and aimed at identifying the corporate motivation of earning management practices said that the main motive for earning manipulation was the desire to attract external financing at a lower cost.

In the study of (Miloud, 2014) conducted on French companies that manipulated earnings ahead of the issuance of shares attracted investors without noting the quality of managed earnings, as the performance of companies with higher entitlements was weaker compared to the performance of other countries. In addition, although the results of this study agreed with the results of previous studies in (proving that companies had manipulated earnings before the issuance of shares), the results from this study differed in the ability of investors to read and

understand the quality of earnings presented. In the study on Iranian companies (Gholamreza, et al. 2014) which aimed to know the extent of the earning management practice prior to the issue of shares where the researchers did not find any manipulations of earnings for companies before the issuance of shares. This indicated that investors give greater credit to the value and size of the company rather than to the earning quality.

As for the earning management practices purposed for borrowing, the studies indicated that there is a relationship between the size of borrowing and the earning management. The study of (Goodman, 2007) is of the studies that separated between the ability of lenders and shareholders to read and understand the quality of earnings where each of which analysed the quality of managed earnings and made their decisions based on this analysis. The study concluded that lenders have the ability to distinguish between managed earnings that have the ability to achieve future cash flows and earnings that will not achieve future cash flows. Based on this ability, the decision whether to finance companies is took. Shareholders were less able to distinguish between the two types of financing companies regardless of expected future performance.

In examining the impact of external auditing on earning management operations, (Isa, 2008) noted that investors are increasingly concerned about some earning management practices that undermine confidence in financial statements and impede the efficient flow of capital into financial markets. He also stressed the existence of managers who violate accounting standards and principles through the manipulation of estimates and misrepresentation of financial reports. He also pointed out that a conflict between shareholders and management led to management earning practices that affect the interests of shareholders. The study also showed that the quality of external audit positively affects the disclosure of earning management practices.

In the study of (Connie, et al., 1998) in which examined the impact of external auditing on the practice of earning management, the study assumed that there is a higher audit quality in the six largest audit firms than the rest of companies. In this study, it found that the companies audited are by the six non-major external audit firms. This study is consistent with the results of the study conducted by (Krishnan, 2003) which studied the impact of the six major companies to audit the external accounts too.

The financial leverage relationship entitles companies to trade in large sums of capital appeared in the study (Norhayaty, et al., 2013) which found that leveraged companies are lessearning able and practice less earning management. The study confirmed Norhayaty's opinion that financial leveraging limits the earning management practice in companies.

### **3. Methodology**

#### **3.1. Study Population, Study Sample and period:**

The study population consists of the Jordanian industrial companies listed on the Amman Stock Exchange; excluding the mining sector due to the size of the companies in this sector and the difference in the composition of capital in these companies to the rest of the industrial companies in other sectors. Therefore if included this sector will strongly affect the results of

this study, where the objective is to create harmonization amongst the accounts of the remaining company sectors (Idris, 2012).

The study is applied to those companies that meet the conditions of continuity and disclosure of their annual financial reports during the period 2005 – 2009, this is because the companies in the study sample increased their capital by issuing new shares for trade by a vast percentage. Unlike in the period of 2011 – 2015 where no companies raised their capital using the issuance of new shares method significantly due to the global financial crisis in the late year of 2009, in which led to the departure of investors from investing in the stock market. In contrast to the period 2005 – 2009 that witnessed a sudden boom in the stock market and the attraction of a segment of investors to this market. The following table shows the number of companies during the periods of 2005 – 2009 and 2011 – 2015, which increased the capital by issuing new shares for subscription and by end clarifying the final study sample.

### 3.2. Study Variables

The study included a number of independent, dependent, control and modified variables. These variables are measured as follows:

<b>Table Number (1)</b>		
<b>The companies in which capital was raised through subscription and the study sample</b>		
<b>Period</b>	<b>Number of companies in industrial sector</b>	<b>Number of companies that increased shares through subscription</b>
2011 – 2015	70	6
2005 – 2009	77	35
<b>Study Sample</b>		
<b>Number of companies in industrial sector in study period</b>	77	
<b>Number of companies excluding mining sector</b>	63	
<b>Number of companies that performed full disclosure throughout the study period</b>	48	

#### Independent Variables:

Earning Management: the modified Jones model will measure this variable by the following equation:  $TA_t/A_{t-1} = \alpha_0 + \alpha_i (1/A_{t-1}) + \beta_{1i} [(\Delta REV_t - \Delta REC_t)/A_{t-1}] + \beta_2 [PPE_t/A_{t-1}] + \beta_3 ROA_{it}$

Where:  $TA_t$  = total receivables

$A_{t-1}$  = total assets for the previous year

$\alpha_0$  = constant

$\Delta REV$  = change in Revenue

$\Delta REC$  = change in Debt

$PPE$  = total property, plant and equipment

ROA = return on assets

**Dependent Variables:**

**Issuance of new shares:** the variable will be tested by calculating the percentage change in the issued shared divided by the total assets for the previous year.

**Borrowing:** the variable will be tested by calculating the percentage of change in long-term liabilities divided by total assets for the previous year.

**Modified Variable:**

**Quality of Audit:** this variable will be tested by the change in the size of the audit company. All companies will be divided into two groups; the first group have been audited by one of the four large auditing firms and the later by other auditing firms.

**Control Variables:**

**Company Size:** this is the size of the company’s assets and measured by the natural logarithm of assets.

**Growth of Company:** this is the earnings growth rate, and is measured by the earning for the current year minus the previous year’s earning divided by the previous year.

**Earningsper share:** the company’s earning divided by the number of shares subscribed.

**The Descriptive Statistics of the Study and its Variables:**

The following table shows; the mean, standard deviation, lowest observation value and the highest observation value for the independent, dependent, modified and controlled study variables:

**Table (2)** shows the value of the lowest values in the ratio of capital change, which is -1.023.

Table Number (2)				
Statistical description of the study and its variables				
Variable	Mean	Standard Deviation	Lowest Value	Highest Value
Changes in Capital	0.03563	0.260302	-1.023	2.806
Change in Long-term debt	0.01663	0.235951	-1.423	2.236
Earning Management	0.00000	0.118577	-0.348	0.351
Earnings per share	0.03069	0.202674	-0.615	0.551
Company Size	7.14354	0.433725	5.989	8.629
Growth Rate	-0.73105	16.621545	-143.482	157.841
Quality of External Auditor	0.13	0.341	0	1

This indicates that at least one company reduced the capital and that one company increased the capital by approximately three times. The table also shows that the standard deviation of this ratio reached 26%, which is a large proportion due to the significantly small number of

companies in the study sample of 48 companies, furthermore meaning the increase and dispersion rates were high in the study sample. When examining the lowest and highest view of the earning management variable, it shows that the lowest view was -0.34% and the highest view was 35%. This proves the existence of two types of earning management, where the negative value indicates the manipulation by reducing the earnings and the positive value indicates the manipulation by increasing earnings. In regards to the control variables, the table shows that at least one view in the earnings per share ratio is negative; this indicates that the company has achieved a loss of earning in the year by this view. The growth rate variable column shows that the average observations are negative, meaning that more than half views have shown a decline in growth during the study period. As for the modified variable, it is a nominal variable and only has two values, where number one is given to the company that has been audited by one of the four major auditing firms and the zero number is for the companies that have been audited by regular auditing firms.

#### **4. Testing the Study Questions:**

The researcher depended on the multiple regression method to either accept or reject the study hypotheses. The Fisher model (**F**) was used to judge the explanatory model as a whole, and the degree of appropriateness of the proposed model to represent the relationship between the independent and dependent variables in the presence of the modified and control variables. This depended on the (**Sig**) figure resulted as it determined the existence of the effect and the relationship between the variables at the confidence level of 95%, where if the result was less than 5% the hypothesis is accepted.

The (**Adjusted R Square**) value was used to indicate the accuracy of the interpretation of all independent, control and modified variables of the dependent variables. Two models were prepared to measure the hypotheses of the study in the presence of the modified and control variables. In the first model, the dependent variable was used to decide the financing by the investors where in the second model the dependent variable was used to decide the financing by the lenders.

- **HO<sub>1</sub>: There is no effect created by earning management practices on the decision of financing by investors.**
- **HO<sub>3</sub>: There is no trace created by the quality of the audit as a modifier on the relationship between earning management practices and investment decisions.**

<b>Table No (3) – Multiple Regression Test Results for the First Model</b>			
<b>Model</b>	<b>Coefficients</b>	<b>T</b>	<b>Sig</b>
Constant		-1.101	0.274
EM	-0.070	-0.660	0.511
Big-4	0.220	2.066	0.042
EPS	0.231	2.139	0.036
Size	0.1030	0.956	0.3420
Growth	0.031	0.299	0.766
Sig = 0.005		F = 3.057	
Adjusted R Square = 0.171			
Dependent Variable = The decision to finance by investors			
Where; EM = Earning Management BIG-4 = Largest Four External Audit Firms EPS = Earnings per share Size = Size of company Growth = Growth rate of company			

**Table (3)** presents the results of the multiple regression tests for the first model related to the first and third hypotheses. In this table, the results of (F) and (Sig) respectively are (3.057 and 0.005) at the confidence level of 95%, this means accepting the model as a whole. As for the relationship between the dependent and the independent variable, the result of (Sig) for change shows the earning management practices as the figure of (0.511). This means there is no relationship between the independent and dependent variable, furthermore implicating that earning management practice does not affect the decision of financing by the investors. In addition, this could be due to the fact that investors are aiming to speculate and not invest and therefore do not have interest in viewing, reading or analysing the financial statements. Alternatively, this can be explained as that the investors have the ability to discover these practices and hence are not affected by these practices when making the investment decision.

As for the modified variable quality of external audit, the (Sig) result was (0.042) which is less than 5% therefore proving there is a relationship and impact caused by the quality of the external audit on the decision to finance by investors. This impact may explain that the managed profits have been imposed on the external audit companies and nothing yet has been discovered, or that the external auditors have disclosed the existence of such earnings but have information that proves that such earnings will be realised in the future and have been therefore approved by or accepted.

The table also shows that the result of (**Adjusted R Square**) is 17.1%. This means that the independent variable (earnings management) and control variable (size of company, earnings per share and growth ratio) and the modified variable (external audit quality) account for 17.1% of the dependent variable (decision to be financed by investors).

In regards to the control variables, the percentage of earnings per share affected the decision of financing by investors as the result of Sig=0.036. This indicates that the investor is looking for the company that achieves the highest probability rate on its share regardless of whether the



earnings are managed or real. The table showed that there was no effect created by the control variables (size of company and growth rate) on the decision of financing by the investors where the result of (Sig) was respectively (0.342 and 0.766).

As for the coefficients, there was a positive correlation between the quality of the audit and the dependent variable (decision of funding by investors) i.e. the higher quality of audit, the greater the impact on the decision of being financed by investors.

- **HO<sub>2</sub>: There is no effect created by earning management practices on the decision of financing by lenders.**
- **HO<sub>4</sub>: There is no trace created by the quality of the audit as a modifier on the relationship between earning management practices and lending decisions.**

<b>Table No (4) – Multiple Regression Test Results for the Second Model</b>			
<b>Model</b>	<b>Coefficients</b>	<b>T</b>	<b>Sig</b>
Constant		-1.338	0.185
EM	0.289	2.670	0.009
Big-4	0.305	2.777	0.007
EPS	0.059	0.540	0.591
Size	0.102	0.917	0.362
Growth	0.222	2.114	0.038
Sig = 0.012		F = 2.691	
Adjusted R Square = 0.146			
Dependent Variable = The decision to finance by lenders			
Where; EM = Earning Management BIG-4 = Largest Four External Audit Firms EPS = Earnings per share Size = Size of company Growth = Growth rate of company			

**Table (4)** presents the results of the multiple regression tests for the second model related to the second and fourth hypotheses. In this test, the results of (F) and (Sig) respectively were (2.691 and 0.012); this indicating we accept the model as a whole. In regards to the independent variable (earning management practices) and its impact on the dependent variable (decision to finance by lenders), the results showed that Sig=0.009 furthermore implicating that earning management practices does affect the decision of financing by the lenders. In other words, companies practice earning management and therefore influence the decision of financing by the lenders with this practice. This may be because lenders do not care about the earning figure and do not make the decision to lend based upon it, or lenders are not able to detect these managed earnings.

As for the modified variable, the quality of the external audit showed a result of Sig = 0.007 which is less than 5% i.e. meaning there is a relationship and impact caused by the quality of the external audit on the decision of financing by lenders. This effect may be explained as that



the managed earnings have been outsourced on the external auditing companies and were not discovered, or the external auditors have disclosed the existence of such earnings and have information proving that such earnings will be realised in the future and therefore have been approved of and accepted.

In regards to the control variables, there was no effect caused by the variable earning per share which had results of (Sig=0.591) and the adjusted variable size of company which had results of (Sig=0.362). There is an effect caused by the adjusted variable, growth ratio as it resulted with (Sig=0.038). This indicated that the lenders decision is influenced by the growth ratio of the company and this was proved by the coefficients, hence a positive correlation of (0.222) was shown i.e. the higher the growth rate of the company the more the lenders decision will be affected.

Finally, the results showed that the adjusted R square value is 14.6% indicating that the independent variable (earning management) and the control variables (company size, earnings per share and growth rate) and adjusted variable (external audit quality) account for 14.6% of the dependents variable (decision of financing by lenders).

## **5. Study Results:**

The study concluded that there is no relationship between earning management and investor decision making. The practice of earning management does not affect investor's decision, this result is due to that, the investors have the ability to disclosure managed earnings or that investors are in more interested in speculating in the market regardless to the company's performance. The study also confirmed that there is a relationship between the earning management and the decision of financing by investors in companies that are audited by one of the four largest external auditing firms. This indicates that the external audit companies either have not been able to detect the existence of earning management practices in the company or that the managed earnings have been disclosed by the external auditor and have gained the confidence that these earnings will be realized in the future and therefore approved by and accepted. Furthermore, there is a relationship and influence created by earning management on the decision of financing by lenders, this shows that the lender does not have the ability to disclose managed earnings or that it is possible that lenders do not care about the amount of company's earnings as much as other possible factors that affect the lenders decision-making.

According to the study results, there is impact of the modified variable (quality of the external audit) on the relationship between the practice of earning management and the decision of financing by lenders. Therefore, indicating that the lender is interested in the opinion of the external auditor or that the external auditor was either unable to disclose the managed earnings or that the auditor revealed the existing managed earnings and have approved of them based on that they will be realized in the future. The study also confirmed that the investor is interested in the percentage of earnings per share and its affect, as the higher the EPS the greater the impact created on the investors decision and therefore do not take into account the company size or growth rate. The investor also takes into consideration the growth rate and its affect as the higher the growth rate the greater impact on the investor's decision, and does not take into account company size or the earnings per share. Finally, the study

confirmed that there is no effect at all caused by the company size due to that companies in the industrial sector listed on the Amman Stock Exchange are all significantly large companies.

Based on the results above, the study concluded the following recommendations; the need to increase the quality of external audit in order to improve its ability in detecting earning management practices. Investors should be made aware of the importance of analysing the status and performance of an entity before investing into it in order to be able to detect the existence of managed earnings that may possibly affect their investment decision.

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