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# A COMPARATIVE STUDY TO REVEAL EARNINGS MANAGEMENT IN EMERGING MARKETS: EVIDENCE FROM TUNISIA AND IRAQ

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ACCESS

| ARTICLE INFO                                      | ABSTRACT   |  |  |  |  |
|---|--|--|--|--|--|
| Article history:                                  | <b>Purpose</b> : The purpose of the study is to compare and evaluate Earnings  |  |  |  |  |
| Received 04 October 2022                          | Management in Tunisia and Iraq.<br><b>Theoretical framework</b> : Earnings Management is an important topic that has been  |  |  |  |  |
| Accepted 06 December 2022                         | studied by a significant number of researchers, as well as those who are interested in<br>the accounting profession. Earnings Management has gotten a lot of attention from<br>academics, professionals, and other interested parties in recent years (e.g. Kliestik et<br>al., 2020; Rahman et al., 2021; Gamra &Ellouze, 2021)   |  |  |  |  |
| Keywords:   |  |  |  |  |  |
| Earnings Management;<br>Emerging Markets;<br>ISE. | <b>Design/methodology/approach</b> : The sample includes ten banks listed on the Bourse of Tunisia and Iraq Stock Exchanges for the year 2017. We have used a model of Kothari et al., (2005) as a tool to measure Earnings Management in both markets.  |  |  |  |  |
| $\bigcirc$  | <b>Findings</b> : The result of the study indicates that companies listed in the two markets exercise Earnings Management. Practices for managing earnings are used to either enhance, decrease, or balance out earnings.  |  |  |  |  |
| OPEN DATA   | <b>Research, Practical &amp; Social implications</b> : the approaches to Earnings<br>Management take considerably different directions. As a result, the trend in Tunisia<br>was among of profit growth. in contrast, the companies listed in (ISE) engage in<br>Earnings Management with the intent of cutting profits. The evident indecait that<br>taxation on businesses, political pressure from governments, and other factors may<br>all be contributing factors to rising or falling earnings management practies. |  |  |  |  |
|   | Originality/value: the fact, our current study is the first to compare earnings  |  |  |  |  |

**Originality/value:** the fact, our current study is the first to compare earnings management in companies operate in both the markets of Tunisia and Iraq.

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#### UM ESTUDO COMPARATIVO PARA REVELAR A GESTÃO DE RESULTADOS EM MERCADOS EMERGENTES: EVIDÊNCIAS DA TUNÍSIA E DO IRAQUE

#### RESUMO

**Objetivo**: O objetivo do estudo é comparar e avaliar o Gerenciamento de Resultados na Tunísia e no Iraque.

**Referencial teórico**: A gestão de resultados é um tema importante que tem sido estudado por um número significativo de pesquisadores, bem como por aqueles que estão interessados na profissão contábil. O gerenciamento de resultados recebeu muita atenção de acadêmicos, profissionais e outras partes interessadas nos últimos anos (por exemplo, Kliestik et al., 2020; Rahman et al., 2021; Gamra & Ellouze, 2021).

**Desenho/metodologia/abordagem**: A amostra inclui dez bancos listados nas bolsas de valores da Bolsa da Tunísia e do Iraque para o ano de 2017. Utilizamos um modelo de Kothari et al., (2005) como ferramenta para medir o Gerenciamento de Resultados em ambos os mercados.

**Resultados**: O resultado do estudo indica que as empresas listadas nos dois mercados exercem a Gestão de Resultados. As práticas de gerenciamento de lucros são usadas para aumentar, diminuir ou equilibrar os lucros.

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**Pesquisa, interpretações práticas e sociais**: as abordagens ao Gerenciamento de Resultados tomam direções consideravelmente diferentes. Como resultado, a tendência na Tunísia foi de crescimento dos lucros. em contrapartida, as empresas listadas no (ISE) praticam a Gestão de Resultados com o intuito de reduzir os lucros. O declínio evidente de que a tributação sobre as empresas, a pressão política dos governos e outros fatores podem ser fatores que contribuem para aumentar ou diminuir as práticas de gerenciamento de resultados.

**Originalidade/valor**: o fato, nosso estudo atual é o primeiro a comparar o gerenciamento de resultados em empresas que operam nos mercados da Tunísia e do Iraque.

Palavras-chave: Gestão de Resultados, Mercados Emergentes, ISE.

#### UN ESTUDIO COMPARATIVO PARA REVELAR LA GESTIÓN DE GANANCIAS EN MERCADOS EMERGENTES: EVIDENCIA DE TÚNEZ E IRAK

#### RESUMEN

**Propósito:** El propósito del estudio es comparar y evaluar la Gestión de las Ganancias en Túnez e Irak. **Metodología:** La muestra incluye diez bancos que cotizan en la Bolsa de Valores de Túnez e Irak para el año 2017. Hemos utilizado un modelo de Kothari et al., (2005) como herramienta para medir la gestión de ganancias en ambos mercados.

**Conclusiones:** El resultado del estudio indica que las empresas que cotizan en los dos mercados ejercen Earnings Management. Las prácticas para administrar las ganancias se utilizan para aumentar, disminuir o equilibrar las ganancias.

**Implicaciones de la Investigación:** los enfoques de la gestión de ganancias toman direcciones considerablemente diferentes. Como resultado, la tendencia en Túnez fue de crecimiento de las ganancias. por el contrario, las empresas que cotizan en (ISE) se dedican a la gestión de ganancias con la intención de reducir las ganancias. La indecaibilidad evidente de que los impuestos sobre las empresas, la presión política de los gobiernos y otros factores pueden contribuir al aumento o la disminución de las prácticas de administración de ganancias.

Palabras clave: Gestión de Resultados, Mercados Emergentes, ISE.

## **INTROUDUCTION**

Earnings Management is an important topic that has been studied by a significant number of researchers, as well as those who are interested in the accounting profession. Earnings Management has gotten a lot of attention from academics, professionals, and other interested parties in recent years. In which managers estimate their accounting estimates when practicing Earnings Management (Myers et al., 2007; Filip & Raffournier, 2012; Altameemi & Al-Saadi, 2013). (Babalyan, 2004) believes that at the time I started working on his study, the researcher was surprised since he couldn't find anyone with media access and hadn't heard about the accounting crises that rocked American institutions. The main reason for these accounting scandals was Earnings Management practices. While studies have dealt with several topics related to Earnings Management practices since the 1980s, the number of studies and literature dealing with this topic has increased since those scandals. These practices have had a clear impact on the economies of many developing and developed countries alike.

Earnings Management has become a very important issue in capital markets (Mohanram, 2003). Before the issue of accounting manipulation became one of the central problems of the financial community, the phenomenon of Earnings Management drew the

attention of academic researchers and regulators of the accounting profession. Despite the fact that the concept of Earnings Management has grown in the accounting literature over the last two decades of the twentieth century, researchers' interest, in researching and investigating it, has grown due to its connection to several problems caused by the bankruptcy of a large number of institutions at the start of the third millennium. The most notable of which is the collapse of the Enron Corporation, which is one of the greatest energy businesses in the United States of America. It followed by the failure of a number of institutions in various countries throughout the world, including the United States, Australia, Europe, and Asia (Al-Saadi, 2016).

The asymmetry of information between the administration and the rest of the stakeholders in the institutions' activity was one of the problems that led to their bankruptcy (SAEED et al., 2022). It caused a significant harm to a large number of stakeholders, including investors, creditors, and other parties involved in the institutions' activity. On the other hand, it hurt the economies of the countries where these institutions went bankrupt. The accounting profession was not immune to these issues because some of them were affiliated with auditing firms. Manipulation of financial statements, for which the US Congress passed a law known as Sarbanes-Oxley Act 2002, encouraged researchers to study and investigate other topics mainly concerned with the availability of appropriate and reliable information for decision makers, whether investment decisions or credit decisions, and the extent of the ability of the accounting and auditing profession in limiting the manipulation of financial statements (Abass et al., 2022).

The subject of Earnings Management has caught the interest of many scholars in emerging markets, particularly those in the Arab world. It has been investigated from several angles in order to identify the factors that influence such topic, significantly, as a result of the global economic problems. Five economic crises afflicted the financial markets during the first and second decades (Altameemi & Flayyih, 2021), affecting a large number of companies and having a significant impact on the activities of various companies, particularly in those countries whose economies are often rentier or dependent on specific resources. This prompted many of these companies' management to begin altering actual activity in order to provide readers of accounting information with a reassuring picture of their ability to continue operating during those crises. that is what motivates companies to implement Earnings Management.

## EARNINGS MANAGEMENT IN THE ACADEMIC LITERATURE

Earnings Management was first employed by Hepworth in 1953, and since then, various other studies on the subject have been published (Kliestik et al., 2020). In fact, when it comes to Earnings Management, there are two distinct trends in the financial and accounting literature. The first trend focuses on the models for revealing Earnings Management practices and how they affect other factors in financial statements on the one hand, or those that study the reasons behind Earnings Management practices in financial statements on the other hand. The second tendency is reflected in research tendencies that focus on the variables and factors that influence Earnings Management or those that constrain such operations. Following the financial collapse of a large number of institutions in the first decade of the third millennium, the focus shifted to the second research trend, with fingers of accusation pointing at management because of those practices. In this section, we focus on the first trend of the research direction regarding the selection of the most important previous literature that specialize in Earnings Management disclosure models or those that have dealt with how the management of institutions exploits financial items in order to practice Earnings Management.

The studies of (Healy, 1985; DeAngelo, 1986) are two key studies that dealt with Earnings Management. They resulted in the Healy and DeAngelo Earnings Management models, respectively. The Jones model is the cornerstone of accounting measurement for Earnings Management through the measurement of voluntary and non-voluntary receivables. It is one of the most prominent studies that dealt with Earnings Management (Jones, 1991). Other measurement models based on this model have emerged as a result of the model's criticisms. The study of (Dechow et al., 1995) attempted to analyze Earnings Management models, and tried to improve the Jones model of 1991 for Earnings Management. It concluded by modifying Jones' mathematical model, which has become what is known in the relevant accounting literature. The earnings were then managed using the modified Jones model, which was based on criticisms levelled against the Jones model in 1991, namely the inclusion of sales revenue within non-optional accruals, whereas the modified model only considered forward sales that result in Earnings Management rather than total sales.

The study of (Ress et al., 1996) used the measurement of operating Earnings Management by introducing the element of change in cash flows emerging from operating activities. It is assuming that the flows constitute a major predictor of receivables, as is the case with what was done by the study of (Dechow et al., 1996). Ress et al., (1996) suggested a new model for estimating voluntary benefits based on integrating cash flows from operating

activities (CFO) for the rest of the modified Jones model and assessing voluntary benefits by updating the 1990 Jones model.

According to a study of (Kothari et al., 2005), a new way to assessing voluntary benefits was established by developing an element of control for prior performance utilizing voluntary benefits that matched the institution's performance. The study found that when the sample is non-random, models for estimating voluntary benefits in the modified Jones model reject the null hypothesis, as well as the characteristics of optional accruals models over time and their sensitivity to sample size. It suggested a model through which to address the previous problems faced by voluntary accruals estimation models. The study concluded that the accrual measures corresponding to performance (Performance- matched) do not reject the null hypothesis if the sample is not random.

A study of (Beneish, 1999) presented a mathematical model for measuring Earnings Management, which has the advantage that does not take into account the requirements that other statistical models need when measuring Earnings Management. It was adopted in measuring Earnings Management on the basis of nine financial indicators that depend on financial statements and income statements. The model is characterized by the ease of extracting operations in a simple mathematical way far from complexity. At the same time, it can be used to reveal the Earnings Management of the organization for one single year or for several years.

A study of (Höglund, 2010) used neural networks to detect Earnings Management, and its research began with a criticism levelled at models for disclosing voluntary receivables. The voluntary receivable models assume a linear relationship between receivables and cash. The study was based on the idea that cells neuroscience is used to allocate resources in an optimal way in order to achieve the highest possible earnings. It is known as networks for the exploitation of private resources.

Studies of Johnson (2009), Jordan & Clark (2011), and Flayyih (2013) used Benford's law to measure Earnings Management. Benford's law is a mathematical model named after its discoverer in 1938 by testing a sample of 20,229 that included a set of numbers such as stock market price statistics, city population, death rates, cost data, and other data in which a law of probability was discovered. Benford made some assumptions about the geometric pattern of natural phenomena and formulated the expected patterns of the numbers in a spreadsheet.

In this section, we present the findings of the most important studies that investigated the issue of Earnings Management and measured Earnings Management using previous studies' models. According to a study of (Dye, 1988), there are reasons for not excluding shareholders

from managers' tendency to practice Earnings Management, with the key motivation being the importance of accounting information supervision. The study outlined the conditions for Earnings Management to occur, as represented by internal and external demand for Earnings Management. It is linked to the optimal earnings distribution policy on the one hand, and the benefits and costs borne by shareholders as a result of earnings manipulation on the other. A research paper of (McNichols & Wilson, 1988) was conducted for 16 years (1969-1985). Gannettett Corporation chose a research community, and the study revealed the existence of Earnings Management practices involving the manipulation of bad debts, which is accomplished through the use of accounting applications in accordance with generally accepted accounting principles (GAAP).

While the study of (Schipper, 1989) aimed to frame the implications of Earnings Management, it showed that Earnings Management was one of the main questions faced by accountants, whether they are professionals or academics, about the impact of accounting accruals in arriving at a summary measure of the performance of institutions, although the variety of discretionary accurals is made under the GAAP.

Both studies of (Perry & Williams, 1994) dealt with the concern about conflicting managerial duties and incentives as a result of administrative acquisitions of institutions. The research sample included 175 acquisitions between1981-1988. The study concluded that institutions use Earnings Management prior to submitting an offer of control and acquisition of another institution. A study of (Teoh et al., 1998) looked at 1682 public offerings between 1980 and 1990 and found evidence that the institutions that offer the initial public offering (IPO) have high positive earnings in the year of issuance and unusual accruals, followed by weak long-term earnings and negative abnormal accruals.

A study of (McNichols, 2000) looked at three major issues in Earnings Management that have been researched in the accounting literature: Earnings Management under aggregate accruals (Aggregate Accruals), specific accruals of a specific type (Specific Accruals), and earnings distribution after management (Earnings After Management). The study came to the conclusion that according to the findings, Earnings Management is derived from earnings distribution after Earnings Management, and the receivables stipulated by certain types of goods are more than those derived through optional accruals.

After a large number of German institutions adopted these standards before 2005, the study (Van Tendeloo & Vanstraelen, 2005) looked into the role of voluntary adoption of international financial reporting standards (IFRS) at a low level for Earnings Management. The study used a comparison of the level of Earnings Management for institutions that adopted

financial reporting standards versus institutions that adopted reporting in accordance with generally accepted accounting principles (GAAP). The sample included 636 samples of financial statements from 1999 to 2001, and the study discovered that institutions that adopt standards (IFRS) do not provide a different behaviour for managing earnings than institutions that have prepared their financial reports in accordance with (GAAP).

The study of (Bergstresser & Philippon, 2006) aimed to investigate the relationship between CEO incentives (CEO) and Earnings Management for a group of organizations in the 1990s. It was discovered that voluntary accruals are used to manipulate reported earnings when directors' incentives are linked to the value of available stock and options. It was also discovered that when the payouts are high, managers and insiders sell a large number of stock options.

A study of (Ma & Hu, 2008) aimed to measure the impact of the control of large investors in Chinese institutions on the stock price. The sample included 397 institutions for the year 2005 listed on the Shenzhen Stock Exchange in China. The study relied on the modified Jones model, and concluded that there is a correlation between Earnings Management through voluntary accruals and positive control of major shareholders, the aim of which is to influence share prices.

A study of (Johnson, 2009) aimed to reveal Earnings Management using a statistical law known as Benford's law, and a number of institutions were chosen for the period 1999 to 2004. The study concluded that Earnings Management is practiced by institutions with capital less than 45 billion dollars and a level of internal trading of information higher than 3%.

A study of (Amar & Abaoub, 2010) focused on measuring Earnings Management for institutions aiming to achieve targeted earnings for companies listed on the Tunisia Stock Exchange from 1997 to 2004. It concluded that Tunisian institutions managed earnings to avoid losses and lower earnings rather than avoiding achieving the targeted earnings. Financial analysts' expectations are not met by non-target earnings. A of study (Peni & Vähämaa, 2010) looked into the relationship between Earnings Management and corporate executive gender. The study revealed that institutions with female finance managers (CFOs) are strongly related with optional benefits that reduce earnings, implying that female financial managers use more cautious Earnings Management tactics. The purpose of the study (Filip & Raffournier, 2012) was to assess the influence of the 2008-2009 Financial Crisis on Earnings Management behaviour in a group of 16 European countries. The researchers discovered a link between Earnings Management and economic growth. It became evident that market factors influenced the smoothing of income rather than the quality of receivables.

A study of (Hamza & Bannouri, 2015) investigated the management of real earnings in a sample of 76 Tunisian institutions before and after the application of the financial guarantee law for a period of ten years from 2013 to 2021. The results showed that after the implementation of the financial system reform law in 2005, due to a tight regulatory environment, managers in Tunisian firms began to manipulate real activities by manipulating sales as Earnings Management tools. A study of (Attia et al., 2016) sought to examine the idea of political costs in developing nations with government interference in economic activity and insufficient property rights protection. Executives' political ties to the government and state control of economic activities have an impact on an organization's sensitivity to political pressure and Earnings Management methods.

A study of (Talab et al., 2017) in which (Beneish, 1999) model was used in revealing the Earnings Management in 23 Iraqi banks listed in (ISE) for the year 2014-2015. The study found that most of the banks listed in the market practice Earnings Management. The study of (Rahman et al., 2021) aimed to analyze studies that dealt with Earnings Management for the period from 2017 to 2019. The study found that there is great agreement among most researchers that Earnings Management methods are used in order to mislead shareholders. Users of financial statements. Gamra and Ellouze (2021) conducted research on the relationship between family-type institutions and their CEOs, as well as their impact on Earnings Management. For the period 2007-2017, the sample included 37 non-financial institutions listed on the Tunis Stock Exchange. The study's findings revealed that the institutions owned by the existence of an executive director from these families is linked to Earnings Management practices, and the findings also revealed that these families' domination over large shares of stock and the CEO post could lead to poor financial reporting of earnings.

Previous studies were chosen in order to provide a literary presentation of the subject of Earnings Management and the stages of development of detection methods that can be clarified and historically presented. This topic, which can be discussed for a long time because to its association with agency issues (Flayyih & Khiari, 2023). It is also of enormous relevance because it is linked to difficulties in both countries' macro and micro economies. The attempt to manage institutions or other parties with influence within those institutions from manipulating the real activity of performance. The basic goal of these parties is linked to achieving special advantages and benefits at the expense of other parties, appears to be a very dangerous trend. As evidenced by what has been presented from previous literature, it can be said that these problems can be exacerbated in light of the crises facing the financial markets, the most prominent of which was the bankruptcy of a large number of institutions at the

beginning of the first decade of the third millennium, in which the management of earnings played a prominent role, and then the mortgage crisis and the problem of the drop in oil prices, leading to the Corona virus crisis. The importance of our current study on the previous studies is that it is a comparative study between the Tunisia Stock Exchange and (ISE).

# METHODOLOGY

There are several reasons to study Earnings Management in Tunisia and Iraq. We can attribute this to the striking similarities between the two countries in terms of economic crises and political instability, as well as the failure of a number of banks to carry out their functions as a result of these issues.

#### **Research Hypothesis**

Earnings Management is one of the most important issues in accounting. The relevance of the research originates from the researcher's endeavour to identify the topic's major features. The study is based on two hypotheses in light of the research variables and the sample selected according to the following: relevance to the research issue, and the research is based on three hypotheses in light of the research variables and the sample selected according to the following:

H1: there are significant differences for the statistical evidence of the regression coefficient model for the Earnings Management scale in banks listed on the Tunisia Stock Exchange and (ISE).

H2: there are statistically significant differences in the Earnings Management practices in banks listed on the Tunisia Stock Exchange and (ISE).

#### Sample

The number of banks listed on the Iraq Stock Exchange was 44, while, the number of banks listed on the Tunisia Stock Exchange was 11. So, a sample of secondary data for 10 commercial banks listed on the Tunisia Stock Exchange and (ISE) for the year 2017 is selected to test the research assumptions. The data was gathered from periodicals announced on both markets.

#### **Mathematical Research Model**

Several investigations found that the model of Kothari et al. (2005) outperformed the earlier models by adding the return on assets as a control variable in addition to the other

dimensions in the model of Dechow et al., (1995) as stated in the equation below (Al-khoury et al., 2022):

$$\frac{^{TA}_{i,t}}{^{A}_{i,t-1}} = \beta_1 \left(\frac{1}{^{A}_{i,t-1}}\right) + \beta_2 \left(\frac{^{\Delta Sale}_{i,t} - ^{\Delta RAC}_{i,t}}{^{A}_{i,t-1}}\right) + \beta_3 \left(\frac{^{PPE}_{i,t}}{^{A}_{i,t-1}}\right) + \beta_4 \text{ ROA}_{i,t-1} + \epsilon_{i,t} \dots (1)$$

Where:

TA: change in non-cash current asset minus change in current liabilities excluding current portion of long-term debt minus depreciation and ammonization scaled by lagged total assets.

 $\Delta REV$ : change in sales  $\Delta$ REC: change in receivables PPE: net property, plant and equipment scaled by lagged total asset ROA: lagged return on assets  $E_{i,t} = Error term$ 

The optional part of the total receivables, which reflects Earnings Management, is represented by the absolute value of the remainder of equation (1). The SPSS statistical program is also used to measure Earnings Management in the research sample banks. Descriptive and inferential statistics tools were used such as arithmetic averages, standard deviation coefficients, coefficients of variation, ratios, frequencies, relative importance, correlation and regression values.

# **RESULTS AND DISCUSSION**

The first step in determining the suitability of data is to determine whether it has a normal distribution. If it does not, then we convert the data into logarithms in order to test the regression and suitability of all the results of each model for data listed on the Tunisia Stock Exchange and (ISE). So this is a test. According to the following hypothesis, the approved research variables have a normal distribution:

Null hypothesis: The data are normally distributed. Alternative Hypothesis: The data are not normally distributed. If the P-value > 0.05, the null hypothesis is accepted.

Through the tests that were conducted, it was found that the data of the companies listed on the Tunisia Stock Exchange have a normal distribution. On the contrary, the data of the

companies listed in (ISE) do not have a normal distribution. Figure 1. Displays the results of the normal distribution test for the data of companies listed on the Tunis Stock Exchange.

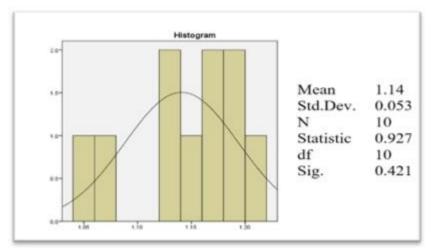
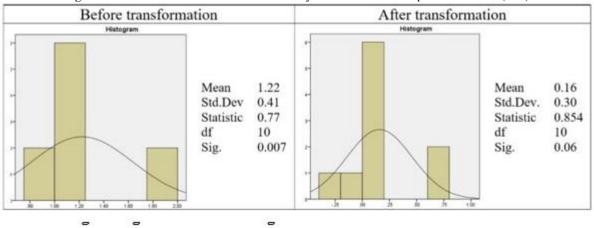


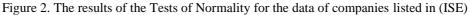
Figure 1. The results of the Tests of Normality for the data of companies listed on the Tunis Stock Exchange

Source: SPSS program results

Figure 1 demonstrates that: the P-value of the Shapiro-Wilk test is 0.421, which is greater than the significance level of 0.05, indicating that the data for the companies listed on the Tunisia Stock Exchange are distributed normally. When the coefficient of variation is calculated using the arithmetic mean and standard deviation, the value of the coefficient of variation is 0.046. It indicates that the data dispersion has decreased.

The results are displayed in the figure, based on the data of the companies mentioned in (ISE) and after testing. It is not distributed normally, because the P-value is 0.007, which is less than the significant level of 0.05. Thus, it means resorting to the method of re-transforming the data into logarithms and then retesting it with the aim of conducting a normal distribution of the data or resorting to another method to test the data. It becomes clear after re-transformation that it has become distributed normally, as the P-value became 0.06, which is greater than the level of significance of 0.05, while the level of dispersion in the data increased from its predecessor before the transformation of the data when measuring the coefficient of variation.





The applied study will be undertaken by assessing Earnings Management using a multiple regression model, and then comparing the model's application in Tunisia Stock Exchange and (ISE) banks, using morale as a measure of comparison between the two models. The validity of the model in the estimate process is indicated by the level of significance being close to or less than 0.05. The greater the margin of safety, the more precise the process of calculating the value of receivables becomes (Amina, 2015).

## Estimation of the correlation coefficient between the research variables

The first test is to find the correlation between the variables

| Correlation  |                 | Iraq Stock Exchange |       |         |          | Tunis Stock Exchange |        |      |      |
|--|-----------------|---------------------|-------|---------|----------|----------------------|--------|------|------|
|  |                 | β1                  | β2    | β3      | β4       | β1                   | β2     | β3   | β4   |
| β1   | Pearson R       | 1.000**             | 0.234 | -0.738* | -0.911** | 513                  | 503    | 170  | .563 |
|  | Sig. (2-tailed) | 0.000               | 0.515 | 0.015   | 0.000    | .129                 | .138   | .638 | .090 |
| 62   | Pearson R       |                     | 0.235 | -0.737* | 911**    |                      | .997** | .008 | .163 |
| β2   | Sig. (2-tailed) |                     | 0.513 | 0.015   | 0.000    |                      | .000   | .982 | .653 |
| β3   | Pearson R       |                     |       | -0.112  | -0.230   |                      |        | .055 | .189 |
| p3   | Sig. (2-tailed) |                     |       | 0.759   | 0.523    |                      |        | .880 | .600 |
| Q.4  | Pearson R       |                     |       |         | 0.602    |                      |        |      | .111 |
| β4   | Sig. (2-tailed) |                     |       |         | 0.065    |                      |        |      | .759 |
| **. Correlation is significant at the 0.01 level (2-tailed). |                 |                     |       |         |          |                      |        |      |      |
| *. Correlation is significant at the 0.05 level (2-tailed).  |                 |                     |       |         |          |                      |        |      |      |

Source: SPSS program results.

The data in Table 1 for measuring the correlation coefficient between the dimensions of the regression model and the dependent variable show that the results were statistically complete between two of those dimensions and the approved variable for the companies listed in (ISE), as the level of significance is 0.000, which is less than the level of significance. The

correlation is 0.01, while the correlation for the other two dimensions is not significant. The level of relationship between the dimensions was significant between the dimensions that were directly correlated with the dependent variable and not significant between the dimensions that were not significantly associated with the dependent variable, and these results could achieve the effect of Dimensions and the dependent variable, because the correlation between the independent dimensions and the dependent dimensions.

#### Estimation of the regression model coefficient

| Table 2. Results of calculating research variables for banks insted on the Tunisia Stock Exchange and (ISE) |                     |        |       |       |                      |        |        |       |
|---|---------------------|--------|-------|-------|----------------------|--------|--------|-------|
|   | Iraq Stock Exchange |        |       |       | Tunis Stock Exchange |        |        |       |
| OLS   | β1                  | β2     | β3    | β4    | β1                   | β2     | β3     | β4    |
| 025   | 0.999               | -0.001 | 0.000 | 0.001 | -0.032               | -0.009 | -0.032 | 0.075 |
| Sig.  | 0.000               | 0.63   | 0.627 | 0.52  | 0.8                  | 0.93   | 0.39   | 0.03  |
| influence   | yes                 | No     | No    | No    | No                   | No     | No     | yes   |
| Sig.  | 0.000               |        |       |       | 0.063                |        |        |       |
| F   | 51631               |        |       |       | 4.5789               |        |        |       |
| R2  | 1                   |        |       | 0.78  |                      |        |        |       |

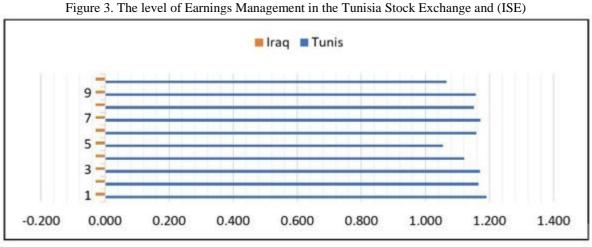
Table 2 Results of calculating research variables for banks listed on the Tunisia Stock Exchange and (ISE)

Source: SPSS program results

The results in Table 2 demonstrate the following: the significance of the regression model parameter for data from companies listed on the Tunisia Stock Exchange is not significant since its value is 0.063, which is greater than the level of significance of 0.05. Whereas data from companies listed on the (ISE) is significant and its value reached 0.000, which is less than the level of significance of 0.05. It means that the regression model for the companies listed in (ISE) is completely significant in contrast to the results for the companies listed on the Tunis Stock Exchange. The value of calculated F in the regression model is 4.5789 for the companies in (ISE) is greater than the companies listed on the Tunis Stock Exchange. While the marginal slope coefficient of the data of the companies listed in (ISE) is statistically complete, indicating that all of the factors addressed have a direct impact on Earnings Management. The marginal slope coefficient for the marginal regression coefficient in companies listed on the Tunisia Stock Exchange is (78%), implying that there are (22%) of other factors influencing Earnings Management that have not been studied in the regression coefficient model. This means that negative beta coefficient values have a negative impact on Earnings Management, whereas positive beta coefficient values have a positive impact. Based on the above results, we accept the first null hypothesis and reject the alternative hypothesis.

#### Measurement of Earnings Management and Testing of Significant Differences

To evaluate the third hypothesis, we must examine the results of Earnings Management in each of the companies listed on the Tunisia Stock Exchange and (ISE), as shown in Figure 3.



Source: Prepared by researchers based on market data.

Figure 3. demonstrates that Earnings Management practices in companies listed on the Tunisia Stock Exchange tend to increase earnings, whereas Earnings Management practices in companies listed on the (ISE) tend to reduce earnings, but at rates lower than those in the Tunisia Stock Exchange. In order to increase earnings in companies listed on the Tunisia Stock Exchange, Earnings Management practices in companies listed on the (ISE) tend to increase earnings, but at rates lower than those in the Tunisia Stock Exchange, Earnings Management practices in companies listed on the (ISE) tend to increase earnings, but at rates lower than those in the Tunisia Stock Exchange. Because the selected data for both markets are less than 10 banks, the Mann-Whitney Test is used to determine whether there are significant differences between the data as shown in Table 3.

| Table 3: Mann-Whitney Test     |        |  |  |  |  |
|--------------------------------|--------|--|--|--|--|
| Test Statistics                |        |  |  |  |  |
| Mann-Whitney U                 | 0.000  |  |  |  |  |
| Wilcoxon W                     | 45.000 |  |  |  |  |
| Z                              | -3.739 |  |  |  |  |
| Asymp. Sig. (2-tailed)         | 0.000  |  |  |  |  |
| Exact Sig. [2*(1-tailed Sig.)] | 0.000  |  |  |  |  |
|                                |        |  |  |  |  |

Source: SPSS program results.

From the results presented in Table 3, it is clear to us that the result of the Mann-Whitney Test is 0.000. It means that the test result is significant because it is less than the level of significance of 0.05. It also indicates that there are considerable discrepancies between the two samples, which we may trace to the varied trend of Earnings Management strategies in both

markets, as explained in the previous paragraph, and as evidenced by the data above. The research's second hypothesis can be accepted, implying that there are statistically significant variations in Earnings Management practices in banks listed on the Tunisia Stock Exchange and (ISE), as measured by the Mann-Whitney Test.

## CONCLUSIONS

Earnings are the most important factor for investors and creditors when it comes to making investment and financing decisions. The decision-making process is based primarily on the amount of predictions and expectations about the amount of returns that can be obtained. Various markets have experienced several crises at the turn of the third millennium, ranging from company bankruptcy to economic stagnation due to the Corona virus until this day. The focus of the research is to measure Earnings Management and test the level of significance differences in Earnings Management, as well as to compare the parameter of the Earnings Management model's regression coefficient in companies listed on the Tunisia Stock Exchange and companies not listed on the Tunisia Stock Exchange. The study comes to a number of conclusions, including the fact that while the research sample's companies operate in both the markets of Tunisia and Iraq, their approaches to Earnings Management take considerably different directions. As a result, the trend in Tunisia was among of profit growth. On the other hand, the companies listed in (ISE) engage in Earnings Management with the intent of cutting profits. This indicates that the management's goals for engaging in Earnings Management are different for both markets in terms of incentives and motivation.

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