

**The Effect of Auditing Accounting Estimates
According to Risk – Based Audit on the Faithful
Representation of Accounting Information**

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Mohamed Zedan¹ Mohamed Wahdan² Mahmoud Abd-Elwahab³ Ahmed Abo Donia⁴

Abstract

The main objective of this study is to determine the effect of auditing accounting estimates according to risk- based audit on the faithful representation of accounting information of the annual financial reports published for a sample of companies registered on the Egyptian Stock Exchange. To do so, quality of discretionary accruals is measured to decide on the faithful representation of accounting information by conducting an applied study on some companies listed on the Egyptian Stock Exchange during the period from 2015 to 2020.

The finding of the study indicated that there is an effect of auditing accounting estimates according to risk-based audit effectiveness on the faithful representation of accounting information for the companies under study. The most important study recommendation indicated that: The authorities responsible for setting the Egyptian auditing standards adopt what is stated in the International Auditing Standard No. (540) the year 2019 regarding auditing accounting estimates, to keep pace with professional developments at the international level, and work to avoid the shortcomings that the current auditing standard suffers from achieving quality auditing accounting estimates.

Key words: Auditing Accounting Estimates, Risk-Based Audit Approach, Auditing Accounting Estimates according to Risk-Based Audit, Faithful Representation of Accounting Information.

1- Introduction

Since mid-2008, the world has witnessed a crisis characterized by the global financial crisis, which began as a real estate financing crisis in the United States of America and soon became a global crisis after it was moved to all the developed and developing countries of the world. The causes of the crisis have been widely debated, some have believed that the crisis is due to the lack of governance mechanisms and expansion of lending and borrowing operations, as this is the main manifestation of the credit and mortgage crisis, while others have stated that the crisis is due to the wider use of fair value estimates in the preparation of reports and financial statements and an excessive use of personal judgment and accounting estimates, as well as the cases of

¹ Professor of Accounting, Faculty of Commerce, Menofia University.

² Professor of Auditing, Faculty of Commerce, Menofia University.

³ Emeritus Professor of Accounting, Faculty of Commerce, Menofia University.

⁴ Assistant lecturer, Faculty of Commerce, Menofia University.

manipulation, financial corruption and the appearance of fraud that did not exist before (Al-Sawah & Badawi, 2009).

Accounting scandals and financial crisis undermined investors' and other stakeholders' trust concerning the financial reports, resulted in demand by regulators and other stakeholders to enhance the financial information quality (Mahboub,2017). The characteristic of faithful representation is one of the most important qualitative accounting information characteristics disclosed through financial reports, the first appearance of which was the primary characteristic of accounting information in the project of the common joint framework for financial accounting, which was issued by FASB and IASB, where the project is an important step to standardize accounting practices and eliminate the shortcomings of the frameworks issued by both FASB and IASB.

The new framework included a consolidation of accounting and financial reporting objectives, qualitative characteristics of accounting information and financial statements elements, and represents the common framework is a very important step in narrowing the differences between the bases and the concepts on which accounting information is based and which facilitates comparability and international consistency and complements both boards' views on what the framework for financial accounting should be (Hamed, 2014).

Faithful representation is the most important characteristic of accounting information, because accounting information must be represented of reality and of processes and events that have already been carried out on the basis of a genuine exchange of documents. Documentation indicates that they have occurred in the values to which they have been accurately stated without exaggeration, diminution, misrepresentation or interference for personal judgment.

Faithful representation is accompanied by full accounting stages, the event or financial process must be described with the same accuracy in influencing the relevant accounts, and when proven in the books, it must be supported by documents that are digitally and numerically identical to those that have been recorded in the accounting books on the side of the debtor and the creditor, right down to the correct range and make all necessary adjustments if they exist, then produce the faithful information expressive and representative of the reality of what was done at the firm. Faithful representation not only relates to amounts, but also the necessary accounting disclosure, in which all should mention possible qualitative and quantitative information such as contingent liabilities and events subsequent to the date of financial reporting as they occurred or were expected to occur (Al-gaarat, 2012).

Accounting estimates are the responsibility of the company's management and are usually carried out under the conditions of uncertainty to events that have already occurred or are likely to occur and require the use of the personal judgment. Given the potential impact of accounting estimates for certain items in the absence of a precise

means of measuring them on financial statements such as inventory reduction provisions, accounting receivables to the expected value of the asset, the provision of allocating the cost of fixed assets over their estimated productive lifetimes, Accrued revenues, deferred taxes, provision for loss due to litigation, losses of contracts under execution, and provision for meeting obligations during the warranty period. As a result, the risk of significant misrepresentation is higher and may require the auditor to consider special audit considerations (Egyptian Auditing Standard No. 540, 2008).

Based on the above mentioned, in mid-December 2009, the international auditing and assurance standards board withdrew the international auditing standard No. 545 (Isa 545) auditing fair value measurement and related disclosure, and the international auditing standard 540 (ISA 540) auditing the accounting estimates was modified to be auditing the accounting estimates, including estimate of fair value and related disclosures. furthermore, International Standard on Auditing (540) revised "Auditing Accounting Estimates and Related Disclosures" issued by the International Auditing and Assurance Standards Board (IAASB) and published by the International Federation of Accountants (IFAC) in December 2018. Beginning on or after December 15, 2019, this standard addresses the responsibilities of the auditor in relation to accounting estimates and disclosures related to them when auditing financial statements.

On the other hand, since most of the risks of activities have financial implications that would affect the risk of diversion in the financial statements, the modern trend of auditing has therefore begun by obliging the auditor to understand the risks of the activity by understanding the enterprise and its environment, including the internal control system, which increases the likelihood of identifying significant and influential distortion risks, whether due to fraud or error. This understanding must also be sufficient to the extent that the auditor can design the additional audit procedures, however, the auditor is not responsible for determining or evaluating all the risk of the activity (Egyptian Auditing standard 315 understands the entity and its environment and assessing the risk of material misstatements).

Thus, the problem of the study is how to improve the faithful representation of accounting information by proposing a framework and providing an indicative guide for auditors when auditing accounting estimates according to risk-based audit approach and therefore, the following study questions could be developed as follows:

1. To what extent is there a significant effect of the effectiveness of the procedures for auditing accounting estimates according to risk-based audit on the faithful representation of accounting information for the companies under study?
2. To what extent is there a significant effect of the adequacy disclosures about auditing accounting estimates according to risk-based audit on the faithful representation of accounting information for the companies under study?

3. To what extent is there a significant effect of reporting the reasonableness of auditing accounting estimates according to risk-based audit on the faithful representation of accounting information for the companies under study?
4. To what extent is there a significant effect of auditing accounting estimates according to risk-based audit effectiveness on the faithful representation of accounting information for the companies under study?

2- Literature review and hypotheses development

2-1 Auditing accounting estimates according to risk-based audit.

In 2013, Mahmoud examined using risk-based audit approach as a tool to improve the objectivity of auditors' professional judgment regarding accounting estimates. The study found that risk based audit approach may help in providing sufficient and appropriate evidence, design audit program to audit the financial statements in general and accounting estimates in particular.

Al-Sabbagh et al., (2016) aimed at addressing the risk of fair value auditing and other accounting estimates under the application of international financial reporting Standards (IFRS), reaching a proposed framework for the audit of the fair value by reviewing the literatures in this concern. The study found that there was a study gap that none of the previous studies had addressed a proposed introduction to the audit of accounting transactions of fair value estimates in the moving to the IFRS application.

In the same year, Al-Saiyad aimed to establish a framework for the auditing fair value estimates using the risk-based audit approach. The study demonstrated fair value valuation models, fair value levels, the challenges of auditing fair value estimates and disclosure, and a proposed auditing framework was developed which illustrates the procedures performed by the auditor for auditing accounting estimates of the fair value and related disclosures. The study found that there is a significant relationship between the risks of fair value measurement (market risk, credit risk and liquidity risk) and fair value estimates, there is a significant relationship between the auditor's estimation of the risk of the distortions and the accuracy of fair value accounting estimates, finally proposed framework was accepted by the study sample.

Comment on this group of previous studies: In this group, the most important previous studies on the subject of auditing accounting estimates according to risk-based audit were reviewed. These studies were concerned to determine:-

- The use of risk-based audit approach as a tool to improve the objectivity of auditors' professional judgment regarding accounting estimates.
- The auditing fair value estimates using the risk-based audit approach.
- The risk of fair value auditing and other accounting estimates.

It's observed that there is a scarcity of studies on that subject, that taking into account the most important risks and the threats surrounding the audit of accounting estimates.

2-2 The faithful representation of accounting information.

In 2018, Qzwal examined the extent to which the practice of accounting conservatism affects the quality of the accounting information disclosed in the Algerian joint stock companies by limiting the practices of decision-makers in the disclosure of non-real profits, either by inflating or reducing those profits, which is known as the preface Income. The study found that the accounting conservatism policies have a role in reducing earning management practices for the purpose of inflating them and have no role in the misrepresenting of earning management for the purpose of preface income.

In the same year, Wahdan assessed the impact of ERP systems on the faithful representation of accounting information in the light of the effectiveness of internal control by examining the impact of ERP systems on the effectiveness of internal control, the impact of ERP systems on the faithful representation of accounting information, and the impact of effective internal control on faithful representation of accounting information in three sectors (Construction and Building, Real Estate, and Healthcare and Medicines). The study found an impact of ERP systems on the effectiveness of internal control, a positive impact of ERP systems on the faithful representation of accounting information, the impact of the effectiveness of internal control on the faithful representation of accounting information, the impact of ERP systems on the faithful representation of information in the light of the effectiveness of internal control as an intermediary variable in companies in the sector of construction & building and real estate, there is no impact of ERP systems on the faithful representation of accounting information in the light of the effectiveness of internal control as an intermediary variable in the sector of healthcare and medicines.

The study of Abdel-Khalik (2019) asserted that specific accounting treatments and disclosure of hedging forecasted transactions, establishing valuation adjustments and separating embedded derivatives, result in significant deviations from faithfully representing actual transactions and events such that financial statements have become sufficiently distorted and thus hindering transparency and impairing comparability.

The study of Hassan & Yaqoub in the same year identified the possibility of achieving the property of faithful representation of accounting information and measures it by using the standard approach based on mathematical and statistical equations by comparing two financial periods before and after the application of (IFRS-15) Revenue from contracts with customers, during the period. (2014-2018). The study reached a set of conclusions, the most important of which is that the application of the IFRS (15) revenue from contracts with customers in companies listed in the Iraqi market for securities achieves the property of the faithful representation of accounting information and thus gives confidence in the financial statements of its users.

Moreover, the objective of Pervin et al., study in the same year is to explore the effect of enterprise resource planning (ERP) implementations on faithful representation and verifiability of accounting information leading to earnings management. The study

findings reveal the fact that ERP implementation affects negatively the faithful representation and verifiability of accounting information. It is evident from the study that ERP implementations encourage earnings management.

In the same year the study of Sherlita aimed to prove empirically the influence of the value relevance of accounting information, and faithful representation on investment decision. As a commitment of funds, investors should be able to determine the right investments, particularly estimate the intrinsic value of the investment to compare the estimates to the prevailing market price. The results indicated that the accounting information was used in making investment decisions. It can be concluded that the accuracy of financial statements does not affect the decision-making in companies listed on the Indonesia Stock Exchange. This result shows that there are still a lot of investors who have not been able to catch the signal of reliability presented by the company, so as consequence transparency, companies should be able to present the annual report more complete and faster so that the information can be immediately responded by investor.

The study of Elmashharawi & Mohamed (2020) discussed the impact of programmed accounting analysis (PAA) for the financial statements on qualitative characteristics of useful financial information. The study found that PAA affects and is affected by the fundamental qualitative characteristics of accounting information (relevance and faithful representation), and the supporting qualitative characteristics of accounting information (Comparability, verifiability, timeliness and understandability).

In the same year, the study of Taiwo et al. examined the effect of sustainability reporting and faithful representation accounting information of banks listed in Nigeria. The study found out that the sustainability reporting measures have significant and positive effect on faithful representation of accounting information ($F - \text{stat} = 66.78$, $\text{Adj. } R^2 = 0.59$, $p = 0.000$ i.e $p < 0.05$). The study concluded that sustainability reporting measures (Environmental and social risk management, environmental and social footprint, women economic empowerment, financial inclusion and reporting) have significant effect on quality of accounting information (faithful representation) of listed banks in Nigeria.

The study of Al-Khatib et al. in 2021 aimed to show the impact of the disclosure of additional information on the financial statements and their true representation by identifying the nature of the additional information, and identifying the true representation, its characteristics and methods of measurement. The study result indicated that characteristics of faithful representation can be measured through the four elements provided by financial reports which are: examining the discussions related to the estimates and assumptions that were adopted when preparing the reports, examining the available disclosures and discussions related to the accounting principles used that increase the possibility that the preparers of financial statements fully understand the methods of measurement and this in turn reduces the possibility of unintentional errors, the amount of information that the reports provide about negative

as well as positive events, and finally focus on the type of report submitted by the auditor and assess whether the company provides any information on corporate governance.

The study of El Shikh in the same year aimed to test the relationship between the sustainability disclosure and the quality of the accounting information in terms of the qualitative characteristics of the accounting information, the sustainability disclosure was measured through an index to disclose the dimensions of sustainability, which the researcher formulated based on the Global Report Initiative (GRI) in its latest version issued in 2016 and previous accounting literature. The results of the statistical analysis showed a significant statistical impact of the sustainability disclosure in the quality of accounting information expressed on the qualitative characteristics of the accounting information of Iraqi oil companies.

Comment on this group of previous studies: In this group, the the most important previous studies of earning quality represented by the faithful representation of accounting information were reviewed, where these studies have found it difficult to measure faithful representation directly by only evaluating financial reports, since information is an economic form that must confirm faithful representation. Estimates and assumptions that correspond to economic events establish criteria that can improve faithful representation. Therefore, emphasis should be placed on the elements of financial reporting that increase the likelihood of faithful representation of accounting information. These elements do not directly refer to GAAP or IFRS but provide an indirect measure of the faithful representation of information in financial reports prepared according to certain accounting standards, these elements include completeness, neutrality, and free of error (Wahdan, 2018).

The quality of accruals is classified into two types: the quality of discretionary accruals reflecting the manipulation of benefits for the purpose of earning management for example, accounting estimates and alternative accounting policies, the quality of non-discretionary accruals refers to inadvertent errors in the estimation of benefits. Therefore the quality of discretionary accruals can be used to detect earning management practices and thus the extent to which the faithful representation of accounting information is achieved (Wahdan, 2018).

To achieve the objective of the applied study, which is to determine the impact of auditing accounting estimates according to risk-based audit on the faithful representation of accounting information, the following hypotheses were formulated:

First hypothesis:-

"There is no significant effect of the effectiveness of the procedures for auditing accounting estimates according to risk-based audit on the faithful representation of accounting information for the companies under study"

Second hypothesis:-

"There is no significant effect of the adequacy disclosures about auditing accounting estimates according to risk-based audit on the faithful representation of accounting information for the companies under study"

Third hypothesis:-

"There is no significant effect of reporting the reasonableness of auditing accounting estimates according to risk-based audit on the faithful representation of accounting information for the companies under study"

Fourth hypothesis:-

"There is no significant effect of auditing accounting estimates according to risk-based audit effectiveness on the faithful representation of accounting information for the companies under study"

3- Study Methodology

The study relied on the scientific method, both deductive and inductive. The deductive method was used in building the theoretical framework for the study and developing its hypotheses, however, the inductive method was used in collecting the necessary data to test the study's hypotheses.

4- Study Scope

- The effectiveness of the auditing accounting estimates according to risk-based audit was evaluated by:
 - The effectiveness of the procedures followed by the auditor when auditing accounting estimates according to risk-based audit through a check list of questions distributed to the auditors who audited the study sample companies during the study period.
 - The adequacy of disclosures related to auditing accounting estimates according to risk-based audit by making a content analysis to the financial statements of the study sample companies during the study period.
 - The effectiveness of the reporting on auditing accounting estimates according to risk-based audit by carrying out a content analysis to the auditor's report on the financial statements of the study sample companies during the study period.
- The study relied on measuring the faithful representation of accounting information on the modified Jones model 1991.
- The impact of auditing accounting estimates according to risk-based audit on the faithful representation of accounting information was determined in the light of a set of controlling variables which are: auditor industrial specialization, the size of the company, the size of the audit office, financial leverage, and the operating cash flows rate.

5- An applied Study

5-1 Study Population and Sample

The study population consists of listed companies whose shares are traded in the Egyptian stock market in three sectors: The food, beverages and tobacco sector (a total of 24 companies), The real estate sector (a total of 33 companies), and The building materials sector (a total of 11 companies), which are different sectors in terms of the nature of employment as well as for their substantial contribution to national income. A sample of 10 companies within each sector was selected. The sample was selected according to the following conditions:

- Continuing listing and trading of companies in the stock market during the period from 2015 to 2020 for the possibility of obtaining data related to the study variables.
- These companies have financial statements for the period under study (6 years).
- The companies should be active in trading during the chosen study period.
- The company's shares be circulating during the period covered by the study, and that its fiscal year ends on 12/31 of each year.
- The financial statements be attached to the auditor's report, and the Central Auditing Organization does not participate in their review.
- Not to belong to the banking sector or the financial services sector and insurance companies.

The study period was determined to cover the years 2015, 2016, 2017, 2018, 2019, 2020. The selection of the current study period, which includes annual financial reports data, is due to several reasons, which are as follows:

- This period is considered a period of financial and economic reform, during which the Egyptian government launched its program to reform the Egyptian economy, which achieved financial and economic stability, and real growth rates.
- This period is considered a period of political and social stability, because it comes after the June 30, 2013 revolution.

5-2 Applied study variables and ways to measure them

A- Effectiveness of auditing accounting estimates according to risk-based audit (Independent variable X):

The authors measured the effectiveness of auditing accounting estimates according to risk-based audit through:

- ❖ Verifying the effectiveness of the procedures for auditing accounting estimates according to risk-based audit.
- ❖ Verifying the adequacy of disclosures related to accounting estimates.
- ❖ The reporting in relation to accounting estimates.

- ❖ Verifying the effectiveness of the procedures for auditing accounting estimates according to risk-based audit: by using a check list of questions⁵ that were directed to the auditors who audited the financial reports of the study sample companies during the years of study. The questions of the list were limited to the expressions that measure the extent to which the procedures for auditing accounting estimates are applied according to risk-based audit.
- ❖ Verifying the adequacy of disclosures related to accounting estimates: The authors determined the adequacy of disclosures related to accounting estimates by doing a content analysis of the financial statements.
- ❖ The reporting in relation to accounting estimates(X_3): a dummy variable equal to (one) if the auditor's report is:
 - ✓ Unqualified in the case of the reasonableness of the estimates and the adequacy of disclosures,
 - ✓ Unqualified with a paragraph to draw attention in the case of unreasonable estimates and the adequacy of disclosures,
 - ✓ Unqualified with a paragraph to focus on A matter in the event of the unreasonableness of the estimates and insufficient disclosures, but the effect is immaterial
 OR (zero) otherwise,
 - ✓ A qualified opinion in the case of unreasonable estimates and insufficient disclosures and the effect is material,
 - ✓ A reverse opinion in the case of unreasonable estimates and insufficient disclosures and the impact is highly material.

B- Faithful representation of accounting information (The dependent variable Y):

Earnings management represents the basis that can be used to judge the quality of financial reports, as the management can, through the application of the accrual basis, to manipulate accounting profits and thus affect the quality of accounting information contained in financial reports (faithful representation of accounting information). This, in turn, affects the quality of decisions based on this information, as the faithful representation of accounting information means compliance with the requirements of full disclosure and transparency, and this in turn affects the usefulness of accounting information for decision makers.

The accounting thought has dealt with many models for measuring the quality of accounting information (as previously explained in the third chapter. In the current study, the author relied to measure the quality of accounting information (faithful

⁵ Check list of questions evaluated and reviewed by:

Prof. Dr/ Refaee Mobarak, Professor of Accounting, Faculty of Commerce, Tanta University
 Prof. Dr/ Ahmed Abo Mousa, Professor of Accounting, Faculty of Commerce, Tanta University
 Ernst & Young (EY) office
 KPMG (Hazem Hassan) office

representation) on measuring the quality of discretionary accruals (Y) in order to discover the extent of the existence of management practices of earnings management and therefore the extent to which there is a faithful representation of accounting information as the following studied had indicated (*Brazel & Dang, 2008; Morris & Laksmana, 2010; Aryani & Kriismiaji, 2014; Shafakheibari & oladi, 2015; Wahdan, 2018; Pittman et al., 2019; Gee and Zhang, 2017; Lee et al., 2017; Dao et al., 2019; Kwon & Yi, 2018; Taghyan, 2020*). The study relied on the modified Jones model to measure the quality of discretionary accruals, which is the most accurate and used model in accounting studies, as: (*Wahdan, 2018; Taghyan, 2020*)

- It reflects accuracy in measuring the quality of discretionary accruals, especially after the amendments made by (*Dechow et al, 1995*), which increased its effectiveness in measuring earnings management practices.
- The model's high ability to explain the change in the company's total accruals.
- The majority of studies that measured discretionary accruals in annual financial reports used this model.
- It is one of the most important measures of accrual assessment and made it avoid the shortcomings of other models.
- Qualitative characteristics (relevance, faithful representation, and comparability) are also available in the accrual accounting information (*Khansalar, 2012*).
- The data required for its application in the Egyptian environment is available.

The quality of discretionary accruals is measured according to the following steps:

1. Measure the total accruals: by the difference between net income before unusual items and cash flows from operating activities through the following equation:

$$TA_{it} = E_{it} - OCF_{it}$$

Where:

- TA_{it} = Total accruals of the company (i) during period (t)
 - E_{it} = Net income before unusual items of the company (i) during period (t)
 - OCF_{it} = Cash flows from operating activities of the company (i) during period (t)
2. Estimating the parameters of the model β_1 , β_2 , β_3 , by which the non-discretionary accruals (NDA_{it}) are calculated through the following regression equation for the sample group of companies for each year separately.

$$TA_{it} / A_{it-1} = \beta_1 (1 / A_{it}) + \beta_2 \{(\Delta REV_{it} - \Delta REC_{it}) / A_{it-1}\} + \beta_3 (PPE_{it} / A_{it-1}) + E_{it}$$

Where:

- TA_{it} = Total accruals of the company (i) during period (t)
- ΔREV_{it} = Change in the company's revenue (i) during the period (t-1) to period (t)

- ΔREC_{it} = Change in company's accounts receivable (i) from period (t-1) to period (t)
 - PPE_{it} = Total real estate, property and plant (fixed assets) of the company (i) during period (t)
 - A_{it-1} = Total assets of the company (i) at the beginning of period (t)
 - E_{it} = Random error.
3. Determine the normal non-discretionary accruals (NDA_{it}) for each company (i) in period (t) through the following equation:

$$\text{NDA}_{it} = \beta_0 + \beta_1(1/ \text{A}_{it-1}) + \beta_2\{(\Delta\text{REV}_{it}-\Delta\text{REC}_{it}) / \text{A}_{it-1}\} + \beta_3(\text{PPE}_{it}/ \text{A}_{it-1}) + \text{E}_{it}$$

Where:

- NDA_{it} = Non-discretionary accruals of the company (i) during period (t)
 - A_{it-1} = Total assets of the company (i) at the beginning of period (t)
 - ΔREV_{it} = Change in the company's revenue (i) during the period (t-1) to period (t)
 - ΔREC_{it} = Change in company's accounts receivable (i) from period (t-1) to period (t)
 - PPE_{it} = Total real estate, property and plant (fixed assets) of the company (i) during period (t)
 - E_{it} = Random error.
4. Discretionary accruals (DA_{it}) are calculated for each company, which is the difference between total accruals and non-discretionary accruals.

$$\text{DA}_{it} = \text{TA}_{it} - \text{NDA}_{it}$$

5. Calculating the absolute value of the discretionary accruals of the sample companies during the study period and the average of this value, If the absolute value of the annual discretionary accruals is less than the average of the discretionary accruals, this indicates that the company has not practiced earnings management during this year, which indicates a faithful representation of accounting information, and consequently a high quality of accounting information provided to users of financial statements. But if the absolute value of the annual discretionary accruals is higher than the average of the discretionary accruals, this indicates the company practiced earnings management during this year, which indicates a low faithful representation of accounting information, and consequently a low quality of accounting information provided to users of financial statements.

It should be noted that the value of the discretionary accruals may be positive (leading to an increase in profits) or it may be negative (leading to a decrease in profits), and that what concerns us is the extent to which the management exercises the discretionary accruals, which indicates the extent to which earnings management is practicing, and therefore the value will be used. The value of the discretionary accruals as a measure of the quality of accruals, the higher the value of the discretionary

accruals, the lower the quality of the accruals, the higher the earnings management, the lower the faithful representation of accounting information and vice versa.

C- Controlling Variables: The study relied on a set of factors affecting the effectiveness of auditing accounting estimates according to risk – based audit, as well as the factors affecting the faithful representation of accounting information. These factors were identified and described in the light of previous studies. These variables and how to measure them can be clarified as in the following table:-

Table (1)
Controlling variables and ways to measure

Variable code	Variable Name	Method of measurement and justification	Source
Z ₁	Auditor's Industrial specialization	<p>A dummy variable equal to (one) if the company is audited by an industry-specialist auditor, or (zero) otherwise.</p> <p>The industrial specialization has been defined as follows:</p> <ul style="list-style-type: none"> • Calculating the market share of the audit partner, it is calculated through the total assets of customers in the industry being audited by the partner <u>divided by</u> the total assets of companies in the same industry. • Calculate the comparison ratio as follows: $(1/\text{Number of sector companies}) \times 0.5$ <p>It is assumed that it positively affects the effectiveness of auditing accounting estimates according to risk – based audit and faithful representation of accounting information</p>	Soliman, 2014; Butar-Buter & Indarto, 2018; Gee & Zhang, 2017; Goodwin et al., 2017; Hardies et al., 2020; Lee et al., 2017; Wahdan, 2018; Hamoda, 2018.
Z ₂	The size of the company under auditing	<p>The natural logarithm of total assets</p> <p>The size of the company is assumed to have a positive impact on the effectiveness of the audit of accounting estimates according to risk – based audit and faithful representation of accounting information due to the availability of the material capabilities and the pressures of financial analysts and the media, due to the presence of a</p>	Brazel & dang, 2008; Chen & Zhang, 2014; Lenard et al., 2016; Amoah et al., 2017; Ji et al, 2017; Zhang et al., 2017; Wahdan, 2018

Variable code	Variable Name	Method of measurement and justification	Source
		large number of users of financial reporting information for large companies	
Z ₃	Audit office size	A dummy variable equal to (one) if the auditing office is one of Big 4, or (zero) otherwise. It is assumed that it is positively correlated with the effectiveness of auditing accounting estimates according to risk – based audit and faithful representation of accounting information due to the availability of experienced auditors.	Chi et al ., 2011; Chen & Zhang,2014; Lenard et al., 2016; Hardies et al., 2020; Wahdan, 2018
Z ₄	Net Operating Cash Flow Rate	Net operating cash flow / Total assets As it affects the maximization of discretionary accruals, and then negatively affects the faithful representation of accounting information	Doyle et al., 2007; Brazel & Dang, 2008; Aryani & krismia, 2013; Wahdan, 2018
Z ₅	Financial Leverage	Total Liabilities/Total Assets It is assumed that it is negatively associated with faithful representation of accounting information, as it leads to a rise in discretionary accruals as a result of reliance on external funding	Brazel & Dang, 2008; Li et al., 2012; Chen & Zhang, 2014; Gee and Zhang, 2017; Omer et al., 2016; Wahdan, 2018

Source: prepared by the authors

The dependent variable (the faithful representation of accounting information Y) is measured by the following models:

- Measuring the effect of the procedures for auditing accounting estimates according to risk-based audit effectiveness on the faithful representation of accounting information using the following model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 Z_1 + \beta_3 Z_2 + \beta_4 Z_3 + \beta_5 Z_4 + \beta_6 Z_5 + E$$

- Measuring the effect of the adequacy of disclosures related to auditing accounting estimates according to risk- based audit on the faithful representation of accounting information by the following model:

$$Y = \beta_0 + \beta_1 X_2 + \beta_2 Z_1 + \beta_3 Z_2 + \beta_4 Z_3 + \beta_5 Z_4 + \beta_6 Z_5 + E$$

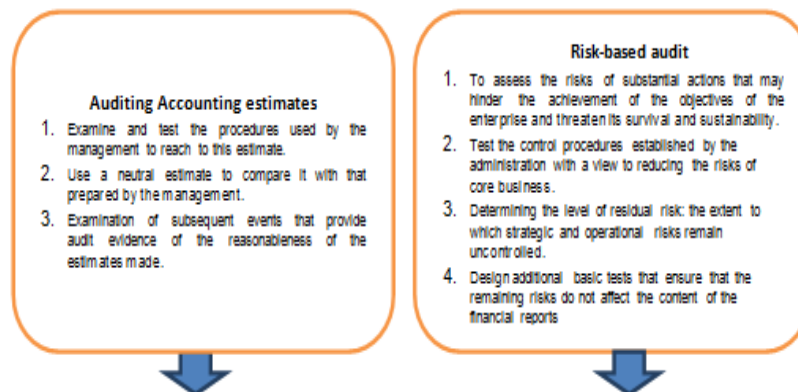
- Measuring the effect of the reporting with respect to auditing accounting estimates according to risk- based audit on the faithful representation of accounting information by the following model:

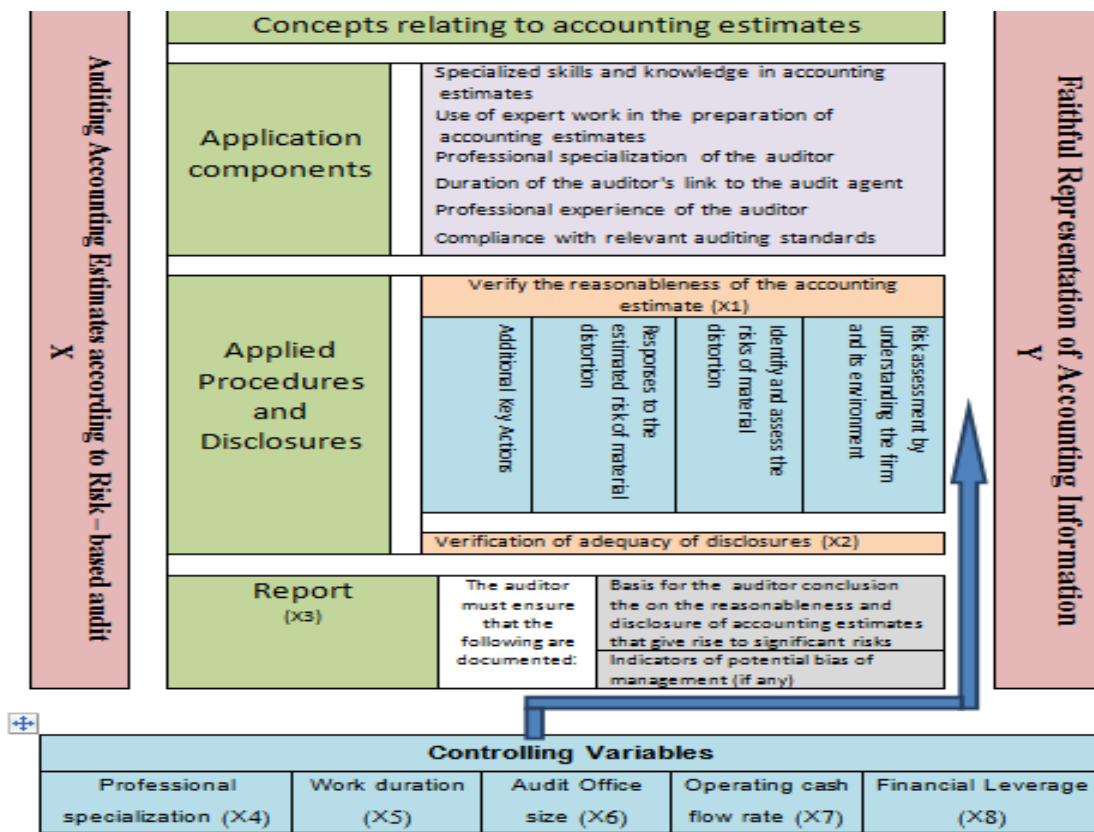
$$Y = \beta_0 + \beta_1 X_3 + \beta_2 Z_1 + \beta_3 Z_2 + \beta_4 Z_3 + \beta_5 Z_4 + \beta_6 Z_5 + E$$

- Measuring the effect of auditing accounting estimates according to risk- based audit on the faithful representation of accounting information by the following model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 Z_1 + \beta_5 Z_2 + \beta_6 Z_3 + \beta_7 Z_4 + \beta_8 Z_5 + E$$

The following figure represents the proposed model of the study:





Source: Prepared by the authors

5-3 Data Collections Method

- The study followed the method of field research as a source of primary data by preparing a check list of questions, personal interviews (with audit offices that audited the financial reports of the study sample companies, in order to measure the reasonableness of auditing accounting estimates according to risk-based auditing).
- The study relied on the published data and annual reports of the study sample companies to assess the impact of auditing accounting estimates according to risk-based audit on the faithful representation of accounting information through the following sources:-
 - The Egyptian Stock Exchange website: to obtain from it a list of the listed companies and their various sectors, and the dates of issuing the financial statements of the sample companies. www.egx.com.eg
 - Mubasher information website (Egypt): in order to obtain the annual financial reports of the sample companies. <https://www.mubasher.info/countries/eg>
 - Websites of the study sample companies: in order to obtain from them the annual financial reports of the study sample companies, which were not provided by mubasher information website.

5-4 Statistical Techniques used in test of hypothesis

To test the validity of the study's hypotheses, the following statistical methods were used:

- **Descriptive analysis of data (mean - standard deviation):** in order to monitor the behavior of the study data, that can be used to determine the attributes of the study samples through recognizing the mean averages in addition to standard deviation to declare the most important variable and the least one.
- **Cronbach's Alpha Test:** that determines the degree of the standard internal consistency and expresses the stability of the sample attitudes toward the study subject. It can be used to illustrate the validity and reliability of the questions in the questionnaire.
- **One-Sample Kolmogorov-Smirnov Test** which tests the normal distribution of the study data in order to determine the suitable statistical tests to analyze the desired data.
- **Correlation Analysis (Person)** which estimates the strength and direction of the relationship between auditing accounting estimates according to risk-based auditing (X) and faithful representation of accounting information(Y).
- **Statistical tests for the study's hypotheses:** which included:
 - **Mann-Whitney U test:** used to measure the significant differences between the two groups of respondents of study sample.
 - **Discriminate analysis method:** in order to distinguish between the sectors under study by reviewing accounting estimates according to the audit on the basis of risk and honest representation of accounting information.
 - **Multiple Regression Analysis:** which can be used to identify the most important predictive variables of auditing accounting estimates according to risk-based auditing (X), as the independent variables appears in the model to illustrate its role in supporting the faithful representation of accounting information(Y).
 - **F-test:** used to test the significance of the model as a whole.
 - **T-test:** used to test the significance of each variable separately.
 - **Multicollinearity Test:** used to explore the existence of the multicollinearity problem and determine the ability of the study model to interpret the impact of auditing accounting estimates according to risk-based auditing (X) and faithful representation of accounting information(Y). The study relied on the collinearity diagnostics by determining the values of Variance Inflation Factor (VIF) and Tolerance. The consequences of imperfect multicollinearity can be summarized as follows(*Gujarati, 2003*):
 - ✓ Estimates of the OLS coefficients may be imprecise in the sense that large standard errors lead to wider confidence intervals.

- ✓ Affected coefficients may fail to attain statistical significance due to low t-statistics, which may lead us to wrongly drop an influential variable from our regression model.
 - ✓ The signs of the estimated coefficients can be the opposite of those expected.
 - ✓ The addition or deletion of a few observations may result in substantial changes in the estimated coefficients.
- **Autocorrelation Test:** used to explore the autocorrelation problem in the model and determine the extent of the existence of a real impact of auditing accounting estimates according to risk-based auditing (X) and faithful representation of accounting information(Y). The study relied on the Durbin Watson value (D-W) (*Field, 2009*). The consequences of the autocorrelation problem can be summarized as follows (*Gujarati, 2003*):
- ✓ The OLS estimators of the β s are still unbiased and consistent.
 - ✓ The OLS estimators will be inefficient and therefore no longer best linear unbiased estimation (BLUE).
 - ✓ The estimated variances of the regression coefficients will be biased and inconsistent, and therefore hypothesis testing is no longer valid.

All these tests are considered to be accompanying the analysis methods that were decided to be used and which are available in the SPSS statistical methods package.

5-5 Analyzing the results of the applied study

1- To test the validity of the first hypothesis of the study, which is "There is no significant effect of the effectiveness of the procedures for auditing accounting estimates according to risk-based audit on the faithful representation of accounting information for the companies under study", The multiple regression method was used to determine the extent of the impact of the procedures for auditing accounting estimates according to risk-based audit effectiveness (X_1) and other factors (Controlling Variables) on the faithful representation of accounting information(Y). Table (5) shows the results of the multiple regression analysis of the effect the effectiveness of the procedures for auditing accounting estimates according to risk-based audit and controlling variable on the faithful representation of accounting information.

Table (2)

The multiple regression analysis of the effect the effectiveness of the procedures for auditing accounting estimates according to risk-based audit and controlling variable on the faithful representation of accounting information

code	Variable Name	Unstandardize Coefficients		Stand . Coef. Beta	T	P - Value Sig.	Collinearity Statistics	
		B	Std. Error				Tol.	VIF
X ₁	The effectiveness of the procedures for auditing accounting estimates according to risk-based audit	0.048	0.018	0.059	2.626	0.009	0.859	1.165
Z ₁	Auditor's Industrial specialization	0.057	0.028	0.178	2.002	0.047	0.356	2.808
Z ₂	The size of the company under auditing	0.365	0.014	0.693	26.843	0.000	0.645	1.551
Z ₃	Audit office size	0.062	0.020	0.077	3.086	0.002	0.696	1.436
Z ₄	Net Operating Cash Flow Rate	-0.022	0.024	-0.024	-0.907	0.366	0.620	1.612
Z ₅	Financial Leverage	-0.017	0.013	-0.037	-1.336	0.184	0.570	1.754
Constant					0.0891			
R					.717			
R ²					0.513			
Adj.R2					0.497			
F- value					30.427			
P-value					0.000			
Durbin Watson (D-W) value					1.786			

Source: the results of the statistical analysis

Table (2) indicated the following:

- The significance of the model used as a whole to test the influence relationship in the faithful representation of accounting information, Where F- value is (30.427) with a significant level (.000), which is less than (.05), that means the model with its independent variables is valid for predicting the value of the dependent variable. It is also evident from the value of the (VIF) for each variable, which is less than (10) and the value of the (Tolerance), which is greater than (.1), that there is no problem of linear interference (multicollinearity) and the strength of the study model in interpreting the effect on the faithful representation of accounting information (O'Brien , 2007). The results of conducting the autocorrelation test reveal that calculated (D-W) value was (1.786) within the stated range of the test which should be between the range of (1:3), that refers to the nonexistence of the autocorrelation problem between the study variables which may affect the accuracy of the analytical results of the model (*Field 2009, Ali & Bhaskar 2016*), also the calculated (D-W) value fail in the range of (du < calculated d < 4- du) means there is no autocorrelation (positive or negative) (*Gujarati, 2003*).
- According to the explanatory ability of the model, it appears that the value of the multiple correlation coefficient between the independent variables and the dependent variable amounted to (.717) and the relative contribution (the coefficient of determination) amounted to (51.3%), it's means that the independent variables (including the effectiveness of the procedures for auditing accounting estimates according to risk-based audit) explain an amount of 51.3% of the change in the dependent variable (faithful representation of accounting information).
- The results of the multiple regression analysis of the most important factors affecting the faithful representation of accounting information Y show that the effectiveness of the procedures for auditing accounting estimates according to risk-based audit has a direct impact on the faithful representation of accounting information at a significant level (.009), which means that verifying the reasonableness of accounting estimates leads to an improvement in the faithful representation of accounting information.
- The table also shows that the auditor's industrial specialization positively affects the faithful representation of accounting information at a significant level (.047), the size of the company under auditing positively affects the faithful representation of accounting information at a significant level (.000), and the audit office size positively affects the faithful representation of accounting information at a significant level (.002). While the net operating cash flow rate, and financial leverage did not affect the faithful representation of accounting information, the equation of the regression model is as follows: **(Bold Significantly affecting variables)**

$$Y = 0.0891 + 0.048 X_1 + 0.057 Z_1 + 0.365 Z_2 + 0.062 Z_3 - 0.022 Z_4 - 0.017 Z_5$$

Therefore, the first hypothesis is rejected, which is "There is no significant effect of the effectiveness of the procedures for auditing accounting estimates according to risk-based audit on the faithful representation of accounting information for the companies under study", as it turned out that there is an effect of the effectiveness of the procedures for auditing accounting estimates according to risk-based audit on the faithful representation of accounting information for the companies under study.

2- To test the validity of the second hypothesis of the study, which is "There is no significant effect of the adequacy disclosures about auditing accounting estimates according to risk-based audit on the faithful representation of accounting information for the companies under study", The multiple regression method was used to determine the extent of the impact of the adequacy disclosures about auditing accounting estimates according to risk-based audit (X_2) and other factors (Controlling Variables) on the faithful representation of accounting information(Y). Table (6) shows the results of the multiple regression analysis of the effect the adequacy disclosures about auditing accounting estimates according to risk-based audit and controlling variable on the faithful representation of accounting information

Table (3)

The multiple regression analysis of the effect the adequacy disclosures about auditing accounting estimates according to risk-based audit and controlling variable on the faithful representation of accounting information

code	Variable Name	Unstandardize Coefficients		Stand . Coef. Beta	T	P - Value Sig	Collinearity Statistics	
		B	Std. Error				Tol.	VIF
X ₂	The adequacy disclosures about auditing accounting estimates according risk-based audit	0.142	0.011	0.465	13.553	0.000	0.365	2.737
Z ₁	Auditor's Industrial specialization	0.057	0.029	0.177	1.972	0.050	0.349	2.862
Z ₂	The size of the company under auditing	0.062	0.020	0.077	3.086	0.002	0.696	1.436
Z ₃	Audit office size	0.069	0.030	0.102	2.306	0.022	0.570	1.754

Z ₄	Net Operating Cash Flow Rate	-0.082	0.014	-0.274	-5.893	0.000	0.520	1.923
Z ₅	Financial Leverage	-0.043	0.059	-0.022	-0.717	0.474	0.467	2.142
Constant				-0.042				
R				.715				
R ²				0.512				
Adj.R2				0.495				
F- value				30.230				
P-value				0.000				
Durbin Watson (D-W) value				1.788				

Source: the results of the statistical analysis

Table (3) indicated the following:

- The significance of the model used as a whole to test the influence relationship in the faithful representation of accounting information, Where F- value is (30.230) with a significant level (.000), which is less than (.05), that means the model with its independent variables is valid for predicting the value of the dependent variable. It is also evident from the value of the (VIF) for each variable, which is less than (10) and the value of the (Tolerance), which is greater than (.1) , so there is no problem of linear interference and the strength of the study model in interpreting the effect on the faithful representation of accounting information. The results of conducting the autocorrelation test reveal that calculated (D-W) value was (1.788) within the stated range of the test which should be between the range of (1:3), also the calculated (D-W) value fail in the range of ($du < \text{calculated } d < 4 - du$) means there is no autocorrelation (positive or negative),that refers to the nonexistence of the autocorrelation problem between the study variables which may affect the accuracy of the analytical results of the model.
- According to the explanatory ability of the model, it appears that the value of the multiple correlation coefficient between the independent variables and the dependent variable amounted to (.715) and the relative contribution (the coefficient of determination) amounted to (51.2%), it's means that the independent variables (including the adequacy disclosures about auditing accounting estimates according risk-based audit) explain an amount of 51.2% of the change in the dependent variable (faithful representation of accounting information).
- The results of the multiple regression analysis of the most important factors affecting the faithful representation of accounting information Y show that the

adequacy disclosures about auditing accounting estimates according risk-based audit has a direct impact on the faithful representation of accounting information at a significant level (.000), which means that the adequacy disclosures about auditing accounting estimates according risk-based audit leads to an improvement in the faithful representation of accounting information.

- The table also shows that the size of the company under auditing positively affects the faithful representation of accounting information at a significant level (.002), audit office size positively affects the faithful representation of accounting information at a significant level (.022), and net operating cash flow rate negatively affects the faithful representation of accounting information at a significant level (.000). While auditor's industrial specialization, and financial leverage did not affect the faithful representation of accounting information, the equation of the regression model is as follows: (Bold Significantly affecting variables)

$$Y = -0.042 + \mathbf{0.142X_2} + 0.057Z_1 + \mathbf{0.062Z_2} + \mathbf{0.069Z_3} - \mathbf{0.082Z_4} - 0.043 Z_5$$

Therefore, the second hypothesis is rejected, which is "There is no significant effect of the adequacy disclosures about auditing accounting estimates according to risk-based audit on the faithful representation of accounting information for the companies under study", as it turned out that there is an effect of the adequacy disclosures about auditing accounting estimates according to risk-based audit on the faithful representation of accounting information for the companies under study.

3- To test the validity of the third hypothesis of the study, which is "There is no significant effect of reporting the reasonableness of auditing accounting estimates according to risk-based audit on the faithful representation of accounting information for the companies under study". Table (7) shows the results of the multiple regression analysis of the effect the effectiveness of reporting for auditing accounting estimates according to risk-based audit and controlling variable on the faithful representation of accounting information.

Table (4)

The multiple regression analysis of the effect the effectiveness of reporting for auditing accounting estimates according to risk-based audit and controlling variable on the faithful representation of accounting information

code	Variable Name	Unstandardize Coefficients		Stand. Coef. Beta	T	P - Value Sig	Collinearity Statistics	
		B	Std. Error				Tol.	VIF
X ₃	Reporting for auditing accounting	0.054	0.029	0.105	1.853	0.066	0.863	1.159

	estimates according to risk-based audit							
Z ₁	Auditor's Industrial specialization	0.061	0.028	0.191	2.158	0.032	0.354	2.825
Z ₂	The size of the company under auditing	0.425	0.025	0.947	17.087	0.000	0.365	2.737
Z ₃	Audit office size	0.155	0.030	0.309	5.126	0.000	0.859	1.165
Z ₄	Net Operating Cash Flow Rate	-0.024	0.041	-0.017	-0.583	0.561	0.501	1.996
Z ₅	Financial Leverage	-0.241	0.031	-0.539	-7.866	0.000	0.591	1.691
Constant						-0.021		
R						.721		
R ²						0.520		
Adj.R2						0.504		
F- value						31.280		
P-value						0.000		
Durbin Watson (D-W) value						1.768		

Source: the results of the statistical analysis

Table (4) indicated the following:

- The significance of the model used as a whole to test the influence relationship in the faithful representation of accounting information, Where F- value is (31.280) with a significant level (.000), which is less than (.05), that means the model with its independent variables is valid for predicting the value of the dependent variable. It is also evident from the value of the (VIF) for each variable, which is less than (10) and the value of the (Tolerance), which is greater than (.1) , so there is no problem of linear interference and the strength of the study model in interpreting the effect on the faithful representation of accounting information. The results of conducting the autocorrelation test reveal that calculated (D-W) value was (1.768) within the stated range of the test which should be between the range of (1:3), also the calculated (D-W) value fail in the range of (du < calculated d < 4- du) means there is no autocorrelation (positive or negative), that refers to the nonexistence of the autocorrelation problem between the study variables which may affect the accuracy of the analytical results of the model.

- According to the explanatory ability of the model, it appears that the value of the multiple correlation coefficient between the independent variables and the dependent variable amounted to (.721) and the relative contribution (the coefficient of determination) amounted to (52.0%), it's means that the independent variables (including reporting for auditing accounting estimates according to risk-based audit) explain an amount of 52% of the change in the dependent variable (faithful representation of accounting information).
- The results of the multiple regression analysis of the most important factors affecting the faithful representation of accounting information Y show that the effectiveness of reporting for auditing accounting estimates according to risk-based audit has a direct impact but not significant on the faithful representation of accounting information.
- The table also shows that the auditor's industrial specialization positively affects the faithful representation of accounting information at a significant level (.032), the size of the company under auditing positively affects the faithful representation of accounting information at a significant level (.000), audit office size positively affects the faithful representation of accounting information at a significant level (.000), and financial leverage negatively affects the faithful representation of accounting information at a significant level (.000). While net operating cash flow rate did not affect the faithful representation of accounting information, the equation of the regression model is as follows: (Bold Significantly affecting variables)

$$Y = -0.021 + 0.054X_3 + \mathbf{0.061Z_1} + \mathbf{0.425Z_2} + \mathbf{0.155Z_3} - 0.024Z_4 - \mathbf{0.241Z_5}$$

Therefore, the third hypothesis is rejected, which is "There is no significant effect of reporting the reasonableness of auditing accounting estimates according to risk-based audit on the faithful representation of accounting information for the companies under study", as it turned out that there is an effect of reporting for auditing accounting estimates according to risk-based audit effectiveness on the faithful representation of accounting information for the companies under study.

4- To test the validity of the fourth hypothesis of the study, "There is no significant effect of auditing accounting estimates according to risk-based audit effectiveness on the faithful representation of accounting information for the companies under study", The multiple regression method was used to determine the extent of the impact of the effectiveness of reporting for auditing accounting estimates according to risk-based audit (X) and other factors (Controlling Variables) on the faithful representation of accounting information(Y). Table (8) shows the results of the multiple regression analysis of the effect the effectiveness of auditing accounting estimates according to risk-based audit and controlling variable on the faithful representation of accounting information.

Table (5)

**The multiple regression analysis of the effect the effectiveness of auditing
accounting estimates according to risk-based audit and controlling variable on the
faithful representation of accounting information**

code	Variable Name	Unstandardize Coefficients		Stand . Coef. Beta	T	P - Value Sig	Collinearity Statistics	
		B	Std. Error				Tol.	VIF
X ₁	The effectiveness of the procedures for auditing accounting estimates according to risk-based audit	0.096	0.023	0.295	4.246	0.000	0.645	1.551
X ₂	The adequacy disclosures about auditing accounting estimates according risk-based audit	0.205	0.034	0.408	6.098	0.000	0.696	1.436
X ₃	Reporting for auditing accounting estimates according to risk-based audit	0.064	0.029	0.199	2.200	0.029	0.343	2.919
Z ₁	Auditor's Industrial specialization	0.055	0.032	0.109	1.729	0.086	0.704	1.421
Z ₂	The size of the company under auditing	0.343	0.033	0.776	10.308	0.000	0.366	2.736
Z ₃	Audit office size	0.093	0.040	0.139	2.307	0.022	0.570	1.754
Z ₄	Net Operating	-0.074	0.019	-0.248	-3.928	0.000	0.520	1.922

	Cash Flow Rate							
Z ₅	Financial Leverage	-0.039	0.040	-0.068	-0.960	0.338	0.620	1.612
Constant				0.082				
R				.723				
R ²				0.523				
Adj.R2				0.501				
F- value				23.425				
P-value				0.000				
Durbin Watson (D-W) value				1.763				

Source: the results of the statistical analysis

Table (5) indicated the following:

- The significance of the model used as a whole to test the influence relationship in the faithful representation of accounting information, Where F- value is (23.425) with a significant level (.000), which is less than (.05), that means the model with its independent variables is valid for predicting the value of the dependent variable. It is also evident from the value of the (VIF) for each variable, which is less than (10) and the value of the (Tolerance), which is greater than (.1) , so there is no problem of linear interference and the strength of the study model in interpreting the effect on the faithful representation of accounting information. The results of conducting the autocorrelation test reveal that calculated (D-W) value was (1.763) within the stated range of the test which should be between the range of (1:3), also the calculated (D-W) value fail in the range of (du < calculated d < 4- du) means there is no autocorrelation (positive or negative), that refers to the nonexistence of the autocorrelation problem between the study variables which may affect the accuracy of the analytical results of the model.
- According to the explanatory ability of the model, it appears that the value of the multiple correlation coefficient between the independent variables and the dependent variable amounted to (.723) and the relative contribution (the coefficient of determination) amounted to (52.3%), it's means that the independent variables (including all variable of X) explain an amount of 52.3% of the change in the dependent variable (faithful representation of accounting information).
- The results of the multiple regression analysis of the most important factors affecting the faithful representation of accounting information Y show that the effectiveness of the procedures for auditing accounting estimates according to risk-based audit, the adequacy disclosures about auditing accounting estimates according risk-based audit, and reporting for auditing accounting estimates

according to risk-based audit have a direct impact on the faithful representation of accounting information at a significant levels (.000, .000, .029) respectively.

- The table also shows that the size of the company under auditing positively affects the faithful representation of accounting information at a significant level (.000), audit office size positively affects the faithful representation of accounting information at a significant level (.022), and net operating cash flow rate negatively affects the faithful representation of accounting information at a significant level (.000). While the auditor's industrial specialization, and financial leverage did not affect the faithful representation of accounting information, the equation of the regression model is as follows: (**Bold Significantly affecting variables**)

$$Y = 0.082 + 0.096X_1 + 0.205X_2 + 0.064X_3 + 0.055Z_1 + 0.343Z_2 + 0.093Z_3 - 0.074Z_4 - 0.039Z_5$$

Therefore, the fourth hypothesis is rejected, which is "There is no significant effect of auditing accounting estimates according to risk-based audit effectiveness on the faithful representation of accounting information for the companies under study", as it turned out that there is an effect of auditing accounting estimates according to risk-based audit effectiveness on the faithful representation of accounting information for the companies under study.

6- Conclusions, recommendations and future studies

6-1 Conclusions

- ❖ There is an effect of the effectiveness of the procedures for auditing accounting estimates according to risk-based audit on the faithful representation of accounting information for the companies under study .
- ❖ There is an effect of the adequacy disclosures about auditing accounting estimates according to risk-based audit on the faithful representation of accounting information for the companies under study .
- ❖ There is an effect of reporting for auditing accounting estimates according to risk-based audit effectiveness on the faithful representation of accounting information for the companies under study .
- ❖ There is an effect of auditing accounting estimates according to risk-based audit effectiveness on the faithful representation of accounting information for the companies under study .

6-2 Recommendations

The following are the most important recommendations of the study:

- ❖ The application of the business risk-based audit approach in relation to accounting estimates should be applied to improve the quality of the audit process and thus the faithful representation of accounting information and the quality of financial reports.

- ❖ The authorities responsible for setting the Egyptian auditing standards adopt what is stated in the International Auditing Standard No. (540) the year 2019 regarding auditing accounting estimates, to keep pace with professional developments at the international level, and work to avoid the shortcomings that the current auditing standard suffers from regarding achieving quality auditing accounting estimates.
- ❖ The use of the risk-based audit approach for auditing accounting estimates can provide knowledge that leads:
 - auditing standards setters: through this knowledge, it is possible to identify the difficulties and risks that may face auditors when evaluating the reasonableness of accounting estimates, so that standard-setters can make amendments to the requirements and guidelines of the auditing standards related to accounting estimates in an attempt to reduce these difficulties and risks.
 - Auditors: through this knowledge, it is possible to evaluate the quality of accounting estimates, and to identify the areas that negatively affect the credibility of the financial statements, and then report on them reliably.
 - Regulatory authorities: through this knowledge, they can evaluate the effectiveness of accounting estimates and identify the obstacles that limit them, especially according to the adequacy of disclosure related to these estimates, and identify the citizens that the administration can exploit to carry out opportunistic behavior, especially the practice of earnings management.
 - Investors: through this knowledge, they can improve their ability to analyze accounting information, and then reveal the exploitation of accounting estimates in any opportunistic behavior of management.

6-3 Suggested future studies

- ❖ The effect of auditing accounting estimates according to risk – based audit on the quality of accounting information.
- ❖ The effect of auditing accounting estimates according to risk – based audit on accounting conservatism.
- ❖ The effect of auditing accounting estimates according to risk – based audit on audit quality.
- ❖ A proposed framework for auditing accounting estimates, including fair value estimates according to risk – based audit to improve the quality of financial reporting.

7 References

Abdel-Khalik, R.,(2019), " Failing Faithful Representations of Financial Statements: Issues in Reporting Financial Instruments", a Journal of accounting-finance-business study ABACUS, Vol. 55, No. 4, pp. 676-708.

- Al-gaarat, K., J., (2012), "Development of a proposed model for the characteristics of high-quality financial information: an analytical theoretical study", Journal of the Baghdad Faculty of Economic Sciences University, No. 33, pp. 187-219.
- Ali, Z., and Bhaskar, S., (2016), "Basic statistical tools in research and data analysis", Indian journal of anaesthesia, Vol. 60, No. 9, pp. 662-669.
- Al-Khatib, J., A., Abdel-Rahman, R., and Abdel Rahman, A., (2021), "The Reflection of Additional Supplementary Disclosures on the Faithful Representation of the Financial Statements: An Analytical Theory Study", Sohag Journal for Young Researchers, Faculty of Commerce, Sohag University, Issue One, pp. 90-100.
- Al-Sabbagh, A., Faraj, A., and Asaad, Z., (2016), "Fair value Auditing risks under the direction of business enterprises towards the implementation of international standards for international reporting IFRS: A proposed framework", pp. 295-317, 18-19 July, Kuala Lumpur, MALAYSIA. Organized by: <http://worldconferences.net/home>
- Al-Saiyad, A., A., (2016), "Proposed framework for the Auditing of fair value accounting estimates using the risk-based audit Portal", Journal of Accounting and Auditing AUJAA, second issue, pp. 109-136.
- Al-Sawah, T., and Badawi, H., (2009), "Causes and accounting implications of the global financial crisis", 9th International Scientific Conference, Faculty of Commerce, Alexandria University, from 9-10 December.
- Amoah, N., Anderson, A., Bonaparte, I. and Tang, A., (2017), "Internal Control Material Weakness and Real Earnings Management", Advances in Public Interest Accounting, Vol. 20, pp. 1-21.
- Aryani, Y., and Krismiaji (2014), "Enterprise Resource Planning Implementation and Accounting Information Quality", GSTF Journal on Business Review (GBR), Vol. 2, No. 2, pp. 25-31.
- Brazel, J.F., and Dang, L. (2008), "The Effect of ERP System Implementations on the Management of Earnings and Earnings Release Dates", Journal of Information Systems, Vol. 2, No. 2, pp. 1-21.
- Butar-Butar, S., and Indarto, S., (2018), "Does Auditor Industry Expertise Improve Audit Quality In Complex Business Environments?", Journal Akuntansi dan Keuangan, Vol.20, No.1, [Email: sansaloni@unika.ac.id](mailto:sansaloni@unika.ac.id).
- Chen, J., and Zhang, H. (2014), "The Impact of the Corporate Governance Code on Earnings Management: Evidence from Chinese Listed Companies", European Financial Management, Vol. 20, No. 3, pp. 596-632.
- Chi, H. and Chin, c., (2011), "Firm Versus Partner measure of Auditor Industry Expertise and Effects on Auditor Quality", Auditing: A Journal of Practice and Theory, Vol.30, No.2, pp. 201-229.

- Dao, M., Xu, H. and Liu, L., (2019), "Impact of The Disclosure of Audit Engagement Partners on Audit Quality: Evidence from The USA", *International Journal Auditing*, Vol.23, pp. 112-124.
- Dechow, P., Sloan, G., and Sweeney, P., (1995), "Detecting earnings, The Accounting Review", Vol. 70, No. 2, pp. 193-225.
- Doyle, J., Ge, W. and McVay, S., (2007), "Determinants of Weaknesses in Internal Control over Financial Reporting", *Journal of Accounting and Economics*, Vol. 44, pp. 193-223.
- Egyptian auditing Standard No. 315, "understands the entity and its environment and assessing the risk of material misstatements", general authority for financial supervision, Available at: http://www.efsa.gov.eg/content/efsa_ar/efsa2_merge_audit/audit30.htm
- _____ No. 540, "Auditing accounting estimates", general authority for financial supervision, Available at: http://www.efsa.gov.eg/content/efsa_ar/efsa2_merge_audit/audit20.htm
- _____ No. 545, "Auditing fair value measurement and related disclosure", General authority for financial supervision, Available at: http://www.efsa.gov.eg/content/efsa_ar/efsa2_merge_audit/audit19.htm
- Elmashharawi, Z., and Mohamed, Kh., (2020), "The Impact of programmed accounting Analysis (PAA) for the Financial Statements on Qualitative Characteristics of Useful Financial Information", The 1st international, Conference on Information, Technology and Business ICITB2020, Available at: <https://ssrn.com/abstract=3664591>.
- El Shikh, kh., (2021), "The impact of corporate sustainability disclosure on suitability and faithful representation characteristics: an applied study", *Scientific Journal of Business and Environmental Studies*, Suez Canal University, Ismailia faculty of Commerce, Vol. 12, first issue, pp. 109-132.
- Field, A., (2009), "Discovering Statistics Using SPSS", Third Edition.
- Gee, R. and Zhang, J., (2017), "Regulatory Investigations of Audit Partners and Audit Quality Improvement", *China Journal of Accounting Studies*, Available at: <https://doi:10.1080/21697213.2017.1375647>.
- Goodwin, J. and Wu, D., (2014), "Is the Effect of Industry Expertise on Audit Pricing on office Level or A Partner Level Phenomenon?", *Review of Accounting Studies*, Vol.19 ,No.4 , pp.1532-1570.
- Gujarati, D., N., (2003), "BASIC ECONOMETRICS", Fourth edition, Available at: http://www.uop.edu.pk/ocontents/gujarati_book.pdf
- Hamed, H., A., (2014), "Accounting reservation in the light of tax considerations and its impact on the significance of financial statements", Unpublished PhD thesis, Faculty of Commerce, Mansoura University.

- Hamoda, M., S., (2018), "The Impact of External Audit Quality on the Auditor's Report Delay Period: An Applied study", Alexandria Journal of Accounting Research, faculty of commerce, Alexandria university, Vol. 2, No. 1, pp. 247-399.
- Hardies, K., Hossain, S., and Chapple, L., (2020), "Archival research on audit partners Assessing the research field and recommendations for future research", Accounting & Finance, Available at: <https://doi:10.1111/acfi.12731>.
- Hassan, H., and Yaqoub, F., (2019), "Faithful representation of accounting information according requirements width financial statements depending on international standard (IFRS-15) revenue from contracts with customers: Applied research in a sample of the joint stock companies listed on the Iraq Stock Exchange", Journal of Accounting and Financial Studies, the Fourth National Conference for Postgraduate Students, pp. 1-20.
- International Accounting Board (IASB), (2010), "International financial reporting standards", London, United Kingdom.
- International Accounting Standards Board (IASB), (2010), "The conceptual framework for financial reporting", International Accounting Standards Board (IASB).
-
- _____, (2019), International Standard on Auditing (ISA 315) (Revised 2019), "Identifying and Assessing the Risks of Material Misstatement through Understanding the Entity and Its Environment", It becomes effective for financial statement audits for periods beginning on or after December, 2021, Published by: International Federation of Accountants (IFAC), Available at: permissions@ifac.org.
-
- _____, (2019), International Standard on Auditing (ISA 540) (Revised 2019), "Auditing Accounting Estimates and Related Disclosures", It becomes effective for financial statement audits for periods beginning on or after December,15, 2019, Published by: International Federation of Accountants (IFAC), Available at: permissions@ifac.org.
-
- _____, International Auditing Standard No. 540 "Auditing accounting estimates including fair value estimates and related disclosures", Saudi authority for chartered accountants.
- Ji, X., Lu, W. and Qu, W., (2017), "Voluntary Disclosure of Internal Control Weakness and Earnings Quality: Evidence from China", The International Journal of Accounting, Vol. 52, No. 1, pp. 27-44.
- Khansalar, E., (2012), "The Reliability of Accruals and the Prediction of Future Cash Flow", International Journal of business and Management, Vol. 7, No. 2, pp. 45-57.
- Kwon, S. and Yi, H., (2018), "Do Social Ties between CEOs and Engagement Audit Quality and Audit Fees?", Auditing: A Journal of Practice and Theory, Vol.37, No.2, pp.139-161.

- Lee, H., Nagy, A., and Zimmerman, Al., (2017), "Audit Partner Assignments and Audit Quality in United States", working paper, Fordham University, John Carroll University, and North Illinois University.
- Lenard, M., Petruska, K., Alam, P. and Yu, B., (2016), "Internal Control Weakness and Evidence of Real Activities Manipulation", *Advances in Accounting*, Vol. 33, pp. 47-58.
- Mahboub, R., (2017), "Main Determinants of Financial Reporting Quality in the Lebanese Banking Sector", *European Research Studies Journal*, Vol. XX, Issue 4B, pp. 706-726.
- Mahmoud, Sh., A., (2013), "activating the risk-based audit portal as a tool to achieve the objectivity of the auditor's professional judgment on accounting estimates", *Journal of Accounting Thought*, Issue 4, Vol. 17, pp. 59-84.
- Morris J., and Laksmana, I., (2010), "Measuring the impact of Enterprise Resource Planning (ERP) Systems on Earnings Management", *Journal of emerging Technologies in Accounting*, Vol. 7, No. 1, pp. 47-71.
- O'Brien, R., (2007), "A Caution Regarding Rules of Thumb for Variance Inflation Factors", *Quality & Quantity*, Vol. 41, No. 5, October, pp. 673-690.
- Omer, T., Christensen, B., Glover, S., and Shelley, M., (2016), "Understanding audit quality: Insights from audit professionals and investors", *Contemporary Accounting Research*, Vol. 33 No. 4, pp. 1648-1684.
- Pervin, M., Sarkar, J., and Bala, S., (2019), "Effect of ERP Implementations on Faithful Representation and Verifiability of Accounting Information Leading to Earnings Management: Bangladesh Perspective", Available at: <https://www.duet.ac.bd/wp-content/uploads/2020/02/9.-Effect-of-ERP-Implementations-on-Faithful-Representation-and-Verifiability-of-Accounting-Information-Leading-to-Earnings-Management-Bangladesh-Perspective.pdf>
- Pittman, J., Stein, S. and Valentine, D., (2019), "Audit Partners' Risk Tolerance and The Impact on Audit Quality", Available at: <http://ssrn.com/abstract=3311682>.
- Qzwal, I., (2018), "Study the effect of the computer reservation on the quality of financial information under the application of the financial accounting system SCF: an empirical study on a sample of Algerian shareholding companies for the period 2011:2015", Published PhD thesis, Faculty of Economics, Commercial sciences and science Interpretation, Department of Commercial Sciences, the University of kasidy Meriah Warkla, Algeria.
- Shafakhebari, N. and Oladi, B., (2015), "The Effect of ERP Systems on Relevance of Accounting Data and Quality of Financial Reporting Quality", *Management and Administrative Science Review*, Vol. 4, No. 3, pp. 504-514.
- Sherlita, E., (2019), "Value Relevance of Accounting Information and Faithful Representation against Investment Decisions", *Global Business and Management Research: An International Journal*, Vol. 11, No. 1, pp. 120-129.

- Soliman, M., (2014), "Auditing Quality Characteristics and Accounting Conservatism: An Empirical Study of the Listed Companies in Egypt", *Corporate Ownership & Control*, Vol. 11, No. 2, Available at: [WWW. Virtusinterpress. Org](http://WWW.Virtusinterpress.Org).
- Taghyan, M., (2020), " Accounting Estimates and Financial Reporting Quality: Theoretical and Applied Study", Unpublished PHD thesis, Faculty of Commerce, Sohag University.
- Taiwo, O., Alao, S., Festus, F., (2020), "Effect of Sustainability Reporting on Faithful Representation of Accounting Information of Deposit Money Banks Listed in Nigeria", *Journal of Business and Management*, Vol. 22, Issue 3, pp. 19-23.
- Wahdan, M., A., (2018), " Evaluating the Impact of ERP Systems on the Faithful Representation of Accounting Information in the light of the Effectiveness of Internal Controls: An Empirical Study", *Journal of Accounting Research*, Faculty of Commerce, Tanta University, 2nd issue, pp. 86-164.
- Zhang, M., Li, X. and Xu, H. (2017), "The Effect of Pervious Working Relationship between Rotating Partners on Mandatory Audit Partner Rotation", *International Journal of Accounting*, Vol.52, pp. 101-121.