THE ROLE OF ANALYTICAL PROCEDURES IN REVEALING CREATIVE ACCOUNTING PRACTICES: AN EMPIRICAL STUDY IN AUDIT COMPANIES IN ISTANBUL

Master’s Thesis

Haya S. A. ABOKWAIK

Eskişehir 2024

THE ROLE OF ANALYTICAL PROCEDURES IN REVEALING CREATIVE ACCOUNTING PRACTICES: AN EMPIRICAL STUDY IN AUDIT COMPANIES IN ISTANBUL

Haya S. A. ABOKWAIK

MASTER'S THESIS

Department of Business Administration

Programme in Accounting

Supervisor: Prof. Dr. Arman Aziz KARAGÜL

Eskişehir

Anadolu University

Graduate School

June 2024

ABSTRACT

THE ROLE OF ANALYTICAL PROCEDURES IN REVEALING CREATIVE ACCOUNTING PRACTICES: AN EMPIRICAL STUDY IN AUDIT COMPANIES IN ISTANBUL

Haya S. A. ABOKWAIK
Department of Business Administration
Programme in Accounting
Anadolu University, Graduate School, June 2024
Supervisor: Prof. Dr. Arman Aziz KARAGÜL

Creative accounting practices, which threaten the integrity of the accounting information, have resulted in the collapse of major companies such as Enron and WorldCom. These events have raised concerns among financial information users, necessitating solutions to confront and limit such practices. The auditing profession has a great responsibility in this field due to the important role it plays in verifying the credibility of financial information and overcoming these practices, based on a number of auditing procedures, the most important of which are analytical procedures.

The study introduces creative accounting and their forms in financial statements, as well as the importance of analytical procedures. The study also evaluated the opinions of auditors in Istanbul about the effectiveness of these procedures in detecting creative accounting practices using a specially prepared questionnaire, the results of which showed that the auditors agreed on the effectiveness of the analytical procedures. The study concluded that creative accounting practices pose a challenge to the auditing profession, requiring auditors to be vigilant and use different effective methods to detect them, such as analytical procedures. As a result of the study, it is stated that auditors need continuous training on new methods of creative accounting practices and ways to deal with them. In this context, the importance of analytical procedures and the need to improve auditors' ability to use technology are emphasized. It highlights the importance of the role of regulatory bodies in raising awareness for financial statement users, accountants and auditors in dealing with creative accounting.

Key Words: Creative Accounting, Audit, Analytical Procedures.

ÖZET

YARATICI MUHASEBE UYGULAMALARININ ORTAYA ÇIKARILMASINDA ANALİTİK PROSEDÜRLERİN ROLÜ: İSTANBUL'DAKİ DENETİM ŞİRKETLERİNDE AMPİRİK BİR ÇALIŞMA

Haya S. A. ABOKWAIK
İşletme Anabilim Dalı
Muhasebe Bilim Dalı
Anadolu Üniversitesi, Lisansüstü Eğitim Enstitüsü, Haziran 2024
Danışman: Prof. Dr. Arman Aziz KARAGÜL

Muhasebe bilgilerinin bütünlüğünü tehdit eden yaratıcı muhasebe uygulamaları, Enron ve WorldCom gibi büyük şirketlerin çökmesine neden olmuştur. Bu olaylar, finansal bilgi kullanıcıları arasında endişelere yol açarak, bu tür uygulamalarla yüzleşmek ve uygulamaları sınırlamak için çözümler gerektirmiştir. Denetim mesleği, en önemlileri analitik prosedürler olan bir dizi denetim prosedürüne dayanarak finansal bilgilerin güvenilirliğinin doğrulanmasında ve bu uygulamaların aşılmasında oynadığı önemli rol nedeniyle bu alanda büyük bir sorumluluğa sahiptir.

Çalışmada yaratıcı muhasebe ve mali tablolardaki türlerinin yanı sıra analitik prosedürlerin önemi tanıtılmaktadır. Çalışmada ayrıca İstanbul'daki denetçilerin yaratıcı muhasebe uygulamalarının tespitinde bu prosedürlerin etkinliğine ilişkin görüşleri özel olarak hazırlanmış bir anket kullanılarak değerlendirilmiş ve çalışma sonuçları denetçilerin analitik prosedürlerin etkinliği konusunda hemfikir olduklarını göstermiştir. Çalışmada, yaratıcı muhasebe uygulamalarının denetim mesleği için bir zorluk oluşturduğu, denetçilerin dikkatli olmasını ve bunları ortaya çıkarmada analitik prosedürler gibi farklı etkili yöntemler kullanması gerekliliği sonucuna varılmıştır. Çalışmanın sonucunda, denetçilerin yaratıcı muhasebe uygulamalarının yeni yöntemleri ve bunlarla başa çıkma yolları konusunda sürekli eğitime ihtiyaç duydukları belirtilmektedir. Bu bağlamda analitik prosedürlerin önemi ve denetçilerin teknolojiyi kullanma yeteneklerinin geliştirilmesi ihtiyacı vurgulanmaktadır. Yaratıcı muhasebe ile başa çıkmada, finansal tablo kullanıcıları, muhasebeciler ve denetçiler için farkındalığın artırılmasında düzenleyici kurumların rolünün önemine dikkat çekilmektedir.

Anahtar Kelimeler: Yaratıcı Muhasebe, Denetim, Analitik Prosedürler.

Jüri ve Enstitü Onay Sayfası

…./…./2024

STATEMENT OF COMPLIANCE WITH ETHICAL PRINCIPLES AND RULES

I hereby truthfully declare that I have behaved in accordance with the scientific ethical principles and rules throughout the stages of preparation, data collection, analysis and presentation of my work; that I have cited the sources of all the data and information that could be combined with the scope of this study, and included these sources in the references section. I also declare that, if a case contrary to my declaration is detected in my work at any time, I hereby express my consent to all the ethical and legal consequences that reinvolved.

The Ethics Board approval number E-54380210-050.99-545266 dated 22.06.2023 - 14/63 is added in Appendicies.

ACKNOWLEDGEMENTS

First and foremost, I express my gratitude to Allah who helped me to complete this thesis.

I extend my sincere thanks and appreciation to my esteemed supervisor, Prof. Dr. Arman Aziz KARAGÜL, who did not spare me his support and guidance throughout the preparation of this thesis. His profound knowledge, coupled with remarkable kindness and humility, had a huge impact on my academic journey. I am endlessly grateful to him.

I also want to extend my sincere thanks to Assoc. Prof. Sezen ULUDAĞ for her invaluable assistance in communicating with a number of audit companies during questionnaire's distribution, which had a great impact on the success of this research.

My deepest thanks go to my beloved parents, my father Salah and my mother Aida, for their unlimited support and great sacrifices. They did not spare me their love and guidance.

To my siblings, Heba and Majd, thank you for your constant encouragement and standing by my side at every step.

I dedicate this work to the memory of my big brother Hossam, whose memory is still alive in my heart and always inspires me, and to my dear homeland, Palestine.

I cannot fail to thank my dear friends who were like siblings to me when I needed them.

Thank you all

TABLE OF CONTENTS

Page

Page

LIST OF TABLES

Page

LIST OF FIGURES

Page

LIST OF ABBREVIATIONS

AAA: American Accounting Association

AICPA: American Institute of Certified Public Accountants

GAAP: Generally Accepted Accounting Principles

IASB: International Accounting Standards Board

IFAC: International Federation of Accountants

ISA: International Standards on Auditing

KGK: Kamu Gözetimi Kurumu (Public Oversight Authority in Turkey)

SAS: Statements on Auditing Standards

INTRODUCTION

In recent years, the accounting and auditing profession's role has been questioned, particularly following notable corporate collapses in the United States and then in different countries which eroded trust in financial reporting. These collapses were often attributed to complex techniques used by entity's management to manipulate financial statements, known as creative accounting. Detecting and addressing these practices has become crucial, prompting extensive research to support auditing practices and protect stakeholders (Abdulhalim,2014).

Financial statements are the primary outputs of the accounting system of any institution and are the most important source of information that users of financial statements (existing and prospective investors, creditors, financial analysts, government agencies, and others) rely on in making decisions. Through it, users are provided with financial information about the entity's revenue, expenses, profitability, debt load, and the ability to meet its short-term and long-term financial obligations during a certain period, where data users make their economic decisions based on what is stated in those statements.

To ensure its accuracy, financial statements are prepared in accordance with accounting standards regulated by governing bodies of accounting such as the Financial Accounting Standards Board and the International Accounting Standard Board, which issues accounting standards whose main objective is to achieve consistency in the field of financial reporting among the economic institutions of one country and among the institutions of more than one country, in order to enable investors and other users of the financial statements to make decisions based on data prepared on a consistent basis. Accounting standards thus facilitate the review, analysis and interpretation of financial information between institutions and countries, as the transparent financial information in which the requirements of relevance and objectivity is met enhances investor confidence and increases economic growth rates.

However, accounting standards are characterized by flexibility and the variety of alternatives as a result of several economic, political and technological factors that have accompanied the professional development of the accounting measurement process, in addition to the existence of a variation in the economic and legal factors surrounding entities from one country to another, which requires a variety of accounting measurement alternatives, allowing each entity to choose the alternative that suits its circumstances and the conditions of the surrounding environment.

As institutions and companies around the world grow in size, the importance of financial statements as they are considered the language through which the entity communicates with the users of financial information increases. Consequently, the need for independent audits has risen significantly to ensure the truthfulness and reliability of the financial information provided by these entities.

Some managements exploit the flexibility provided by accounting standards when preparing financial statements in order to show the results of its business in a way that serves the management and does not reflect the true image of the entity, which is called "Creative Accounting". Therefore, it was necessary to increase the effectiveness of the audit by increasing the auditor's ability to detect creative accounting practices.

Although the independent auditor's role is to express an objective opinion on the fairness and truthfulness of financial statements and evaluate the efficiency of financial and administrative systems, the interest in the responsibility of auditors in detecting fraud and misrepresentation cases reappeared in the early Eighties.

Then the interest in the concept of creative accounting increased by accountants, auditors and even all users of financial statements after the collapse of Enron as a result of its adoption of creative accounting methods, helped by the audit firm Arthur Anderson in covering up the company's practices, but this game did not last forever, by April 2001 many analysts began to question Enron's profits to begin their legal prosecution.

Analytical procedures are one of the most important procedures used by the auditor in the audit process, to identify the indicators of the company through which creative accounting practices are revealed, as the auditor focuses on items that are expected to have fundamental errors and requests additional evidence when the control system is weak and unreliable.

Based on the importance of the phenomenon of creative accounting and the need to shed light on what it is, what its forms and risks are, as well as the role of analytical procedures in increasing the efficiency of the auditing process, this research will focus in its various parts on a study and analysis of the literature related to analytical procedures and creative accounting, in addition to presenting an applied study aimed at measuring the extent to which analytical procedures are able to discover creative accounting practices from the point of view of independent auditors in auditing companies operating in Istanbul.

CHAPTER 1

AUDITING AND ANALYTICAL PROCEDURES

1.1. An Overview of the Audit

The word "auditor" originally meant "hearer or listener" in Latin since auditors in ancient Rome was listening to taxpayers, like farmers, as they made declarations regarding the performance of the businesses the and the amount of taxes owed. Auditors existed in both ancient Egypt and China, and their duties were overseeing the financial matters of the Egyptian Pharaoh and the Chinese Emperor. Early Babylonian periods (about 3000 BC) are the earliest period for which anthropologists have discovered evidence of auditing activities, auditing was also practiced in ancient Greece and Rome (Hayes et al. ,2005).

Throughout history, the development of audit has continued gradually and in parallel with the development of the accounting profession and the expansion of business activities.

The value of the auditing profession has expanded due to entities' significant growth in terms of business volume, the segregation of equity owners and entity's governance, as well as the establishment of banking, insurance, and joint stock corporations, which enforced the entities to deal with multiple parties each of whom has an interest that may conflict with the others.

The auditing profession is of great importance as it is entrusted with the task of producing a neutral opinion about the financial statements the accuracy and reliability, and that it truly reflects the financial position and the results of the business.

The auditor's role is not limited to examining the financial statements, as the auditor may also be assigned to examine non-financial evidence, such as the management reports, footnote disclosures, or examining an entity’s internal control, consequently auditing helps stakeholders gain confidence in financial statements while making thier economic decisions.

Therefore, it is necessary to focus on audit in this study, this section reviews audit in general with some focus on independent auditing, given that the study is related to independent auditing and the importance of analytical procedures in the auditing process in revealing creative accounting practices, it should be noted that the word “audit” or “auditing” in the rest of the study chapters means independent auditing, and the word “auditor” means the independent auditor.

1.1.1. Concept of auditing and the basics of independent audit

- **Audit Definition**

Until now there is no specific definition of audit, as it has been defined differently by several professional institutions and auditing professionals, but they all agree on the objectives that the audit seeks to achieve. Even the definition that International Federation of Accountants (IFAC) gave to auditing was expressing the objective of the audit, which is to allows the auditor to provide an opinion on whether the financial statements comply "in all material respects" with the relevant financial reporting framework (IFAC,2004, Para.2).

Montgomery (1934), defined it as regular examination of the books and records of a company or other organization in order to ascertain, verify, and to report facts relating to financial operations and their results.

According to the definition given by Mautz, (1954) "Auditing is concerned with the verification of accounting data, with determining the accuracy and reliability of accounting statements and reports."

Through the previous definitions, the researcher concludes the following:

1. The audit process is an organized process, and therefore it is based on advance planning.
2. The audit process requires the collection of evidence on which the auditor bases his opinion.
3. The auditor must adhere to impartiality in his collection of evidence, that is, it must be carried out objectively, away from bias.

4. The audit report should include the auditor's opinion on the credibility and fairness of the financial statements, so that the stakeholders can make appropriate decisions.

- **Audit Postulates:**

Postulates in any field of knowledge represent a starting point for any organized thinking in order to reach results that contribute to setting a general framework for the theory that governs this field. Therefore, creating postulates for audit is a necessary process to solve audit problems and reach results that help in finding a comprehensive theory for it (Al-Sahn et al., 2004). In 1961, Mautz and Sharaf did this in their book "The Philosophy of Auditing". The eight postulates are listed below. (Basu,2006).

-*Financial statements and financial data are verifiable.*

This postulate is related to the existence of the auditing profession. If the data and financial statements are not subject to examination, then there is no justification for the existence of this profession.

-*The auditor and management don't have any conflicts of interest.*

If there is a conflict between the management and the auditor, it will be difficult for the auditor to trust the answers given by the management to his questions, and therefore conducting the audit process will be impossible.

- *The financial statements are clear of collusion and other unusual deviations.*

This postulate states that the auditor is in charge of detecting obvious errors by exerting due professional care, however the auditor is not in charge of discovering collusive fraud and errors.

- *A strong internal control system can reduce errors and manipulation occurrences.*

Auditors are entitled to rely on internal controls that are deemed adequateas as proof for a variety of assertions. Whatever the level of risk indicated, auditors must perform specific substantive procedures on material transactions classes and account balances.

- *Consistent application of generally accepted accounting principles.*

It is founded on the fact that information has been prepared by following the agreed principles, as compliance with them is considered a real indicator for judging the validity of the final financial statements.

-*What has held true in the past for the entity will hold true in the future.*

It considers that the operations carried out by the entity in the past were carried out according to sound procedures and within a sound system of internal control. It assumes that the situation will continue in the future unless there is evidence to the contrary.

-*The auditor only acts as an auditor when reviewing financial information.*

This is linked to concepts such as valuable economic roles, public social responsibility and independence.

- *The auditor's professional position imposes professional requirements that are in line with their role.*

This implies that those who are part of audit profession have further responsibilities than their own financial interests.

- **Audit Objectives**

Audit objectives differ according to the type of audit to be conducted. It could be classified in the following categories (Mehta et al.,2021):

(1) **Primary Objectives:** Which are the examination of accounting books, and verification of financial statements.

(2) **Secondary Objectives:** There are many secondary objectives that the audit seeks to achieve, including discovering and mitigating of errors and frauds, creating healthy business environment, satisfying the governmental authorities, the moral effect the audit has on the employees, and giving advice to the management.

(3) **Social Objectives:** Which are to stop evasion of tax, to give protection to shareholders, the measurement of fair wages for laborer, to stop capital erosion, to ensure reasonable prices for consumers, to insure fair return and justice to the investors, and the evaluation of social cost and benefit.

(4) **Specific Objectives:** The audit could cover other areas such as operations auditing, performance management policy, cost record, etc. Therefore, for every distinct kind of audit, there will be a particular objective.

- **Auditor Types**

Based on the nature of the audit work required to be performed, responsibilities, and the context in which they operate, auditors are classified into the following categories (Liberto,2024):

Internal Auditors: are the auditors who are hired by entity's management to conduct in-house independent and objective evaluations of their financial and operational activities, including corporate governance. They report their findings to senior management, offering recommendations on how to enhance business operations.

External Auditors: are the auditors who are not associated with the entity under audit and does not work under its management. They are tasked with providing independent and objective opinions on the entity's financial statements. Their mission is to verify the accuracy and fairness of the financial statements' representation of the organization's financial position.

Government Auditors: they review documents of public and private organizations subject to laws and taxes, ensuring legal compliance, fraud detection, risk management review, and financial controls to ensure proper allocation of public funds in compliance with legal requirements.

- **Independent Audit Definition**

Independent, external auditing: the inspection of financial statements and underlying records by independent certified public accountants primarily to render an opinion on the financial statements' accuracy (Weston,1966).

The early focus of independent auditing was on detecting errors and fraud, but it gradually evolved into an assessment of the fair presentation of financial statements (O'Regan,2004).

Tom A. Lee identified external independent audit as a technical process aimed at independently verifying and affirming the quality of externally reported financial statements (Lee, 1993).

Independent audit was also defined as the process of examining the financial statements, predominantly comprising income statement, balance sheet, and the statement of cash flow. This comprehensive procedure entails a rigorous evaluation of the precision of the entity's accounting records, internal control framework, and validation of financial position and income statement components. Additionally it involves acquiring adequate and relevant evidence to express an impartial assessment about the truth and integrity of financial statements (Jarbou, 2007**).**

A general definition of audit has been given by American Accounting Association (AAA) as follows: "An audit is a systematic process of objectively obtaining and evaluating evidence regarding assertions about economic actions and events to ascertain the degree of correspondence between these assertions and established criteria, and communicating the results to interested users (AAA,1971)."

- **Objectives of Independent Audit**

The role of independent auditors in certifying the accuracy and fairness of the financial information has never been more important given the global issue of corporate corruption brought on by the avarice of fraudulent directors (Hendrikse et al. , 2004).

According to the previously mentioned definitions of independent audit, audit's main objective in its early stages was to detect fraud and errors. The objective was later broadened, and became to verify the correctness and fairness of a business's accounts. The auditor must simultaneously ensure that accounts are produced in line with the provisions. If the accounts are accurate and fair but not maintained in accordance with provisions, the audit's fundamental purpose is defeated. The auditor should therefore take into account all three factors, i.e., correctness, completeness, and compliance with the law when providing his report. Only then are the primary goals of auditing accomplished (Gupta, 2021).

- **Independent Audit Importance**

Several factors have emerged that indicate the need for independent auditing. One such factor is the inherent conflict of interest between users of financial statements and the entity's management, which may result in bias in the financial reporting process. While financial statements provide critical economic information for decision-makers, users often lack the expertise to directly verify this information (Amirouche,2011).

Independent audit plays a key role in ensuring the reliability of financial reports. It involves subjecting an organization's financial statements to an independent third party's assessment, which is the auditor, who is responsible for evaluating whether the financial statements accurately reflect an organization's financial status and whether they adhere to the relevant financial reporting standards. Consequently, the market's confidence in the reported financial information heavily depends on the integrity and thoroughness of external auditing practices (Arda et al. ,2008).

1.1.2. Audit types

Due to the various functions that auditing serves within an organization, it has different meanings. As a result, it is classified into different categories depending on several factors. According to its purpose, it can be divided into three categories: financial statement auditing, compliance auditing, and operational auditing. Or it may be classified according to the compulsory authority into statutory auditing and non-statutory auditing. It can also split into two categories according to the frequency of the audit which are continuous auditing and final auditing; and according to the auditing entity, it splits into internal auditing and external auditing (Nour El-Din, 2015).

- **Types according to the purpose:**

Financial statement auditing: An examination about how accurate the data of an entity's financial statements is called financial audit. It's carried out by a CPA firm that isn't affiliated with the organization being audited. All publicly held corporations are required to undergo this audit, which is the most common type of audit.

Compliance auditing: An entity's policies and procedures are examined as part of a compliance audit to determine if they adhere to internal or external standards.

Operational auditing: Examine the business's objectives, procedures, operations results, policies, and culture. This audit's primary goal is to identify areas of inefficiency and make improvements to business operations.

- **Types according to the compulsory authority:**

Statutory auditing: is the type of audit that is mandated by law or regulation to ensure the fairness and accuracy of the financial records and statements that a business presents to the public and regulators.

Non-statutory auditing: Also called on-demand audits are examinations of a business's financial records that are optional and not always required by financial authorities; it is not constrained just to financial statements. It can be conducted to evaluate a business's financial condition in different aspects.

- **Types according to the timing:**

Continuous auditing: An audit that is undertaken continuously throughout the year at planned or unplanned periods, entails the examination and analysis of company's financial transactions and accompanying financial documents.

Final auditing: also called a periodical audit, which is not conducted until the business has completed and closed the financial accounts. The financial transactions are either assessed all at once or in a series of sessions.

- **Types according to the auditing entity:**

Internal auditing: A team from the entity's audit department frequently conducts internal audits, which are focused on ensuring legal compliance, evaluating processes, and protecting assets. The audit's reports are given to management and the audit committee of the business.

External auditing: It is the audit that is conducted via an independent third-party who has no relations with the business, this audit aims to ensure the integrity of the financial statements, by furnishing an impartial assessment of their validity.

1.1.3. Process of independent audit

Whatever the audit's intended evaluation subject, to achieve audit objectives and to collect the necessary evidence that will help in achieving these objectives, the auditor follows an audit process, which is a well-defined methodology for arranging the audit to ensure that evidence is collected appropriately and sufficiently and that the audit objectives have been identified and met, the audit process has four specific phases, which are (Arnes et al., 2017):

Phase I: Plan and design an audit approach based on risk assessment procedures.

Phase II: Perform tests of controls and substantive tests of transactions.

Phase III: Perform substantive analytical procedures and tests of details of balances.

Phase IV: Complete the audit and issue an audit report.

Phase I: Plan and design an audit approach based on risk assessment procedures

Planning is considered to be an important phase of the audit process, and it is a basic requirement under international auditing standards. The audit must be structured in a manner that no work is improvised, allowing the auditor to conduct acceptable professional care.

Auditing plan must be developed upon a thorough comprehension of the client's business, its control environment, control procedures, the enity's accounting system, and conducting analytical procedures. Then planning process evolves to cover assessment of engament’s risk and applicable materiality thresholds (Hayes et al.,2005).

In this phase, the auditor formulates and documents a preliminary audit strategy. This strategy outlines the scope, timing, and direction of the audit. By considering the client’s industry and business type, the auditor identifies areas with a higher risk of significant misstatement. The goal is to allocate resources effectively and assign suitable staff to the audit. Additionally, the need for external specialists should be assessed if the audit process requires specialized knowledge. In cases where specialist knowledge is necessary, a specialist may need to be consulted to ensure accurate audit (Arens et al., 2017).

In general, preparing for the audit process helps in accomplishing the following (Thunibat,2015):

1- Enabling the auditor to gather adequate and relevant evidence and evaluate this evidence so that he may exercise the right level of reasonable professional care, reducing the likelihood of creating improper audit results and protecting the auditor from legal responsibility.
2- Allocating available economic resources to correctly carry out the audit process, which aids in attaining efficiency and effectiveness by lowering audit costs and focusing on important issues.
3- Reducing the likelihood of a dispute between the auditor and the client by explaining the relevant subjects and duties prior to beginning the audit process.

Phase II: Performing tests of controls and substantive procedures:

After concluding the study and comprehension of the internal control system in previous steps, the auditor begins at this stage to implement the control tests identified in the audit program, which are designed to offer the auditor a reasonable assurance on the effectiveness of the financial information system controls. As for the substantive procedures, they aim to verify the integrity, precision and validity of the accounting system outcomes. (Hayes et al.,2005). To achieve efficiency, auditors often perform tests of controls and substantive tests of transactions at the same time (Arens et al., 2017).

Phase III: Perform substantive analytical procedures and tests of details of balances

In this phase of the audit process, procedures are divided into two main categories. Analytical procedures evaluate financial information by examining plausible relationships between both financial and nonfinancial data. When these procedures offer assurance about an account balance, they are known as substantive analytical procedures. The second category involves tests of details of balances, which aim to identify monetary misstatements in financial statement balances. These tests are vital because they often use high-quality evidence from independent sources, enhancing the overall credibility of the audit (Arens et al., 2017).

Phase IV: Complete the audit and issue an audit report

In addition to the evidence collected during the previous audit stages, the auditor in the final stage collects additional evidence related to the financial statements in a comprehensive manner, and evaluates the results that help the auditor express his opinion through the evidence reached. This stage includes the following (Thunaibat, 2015).

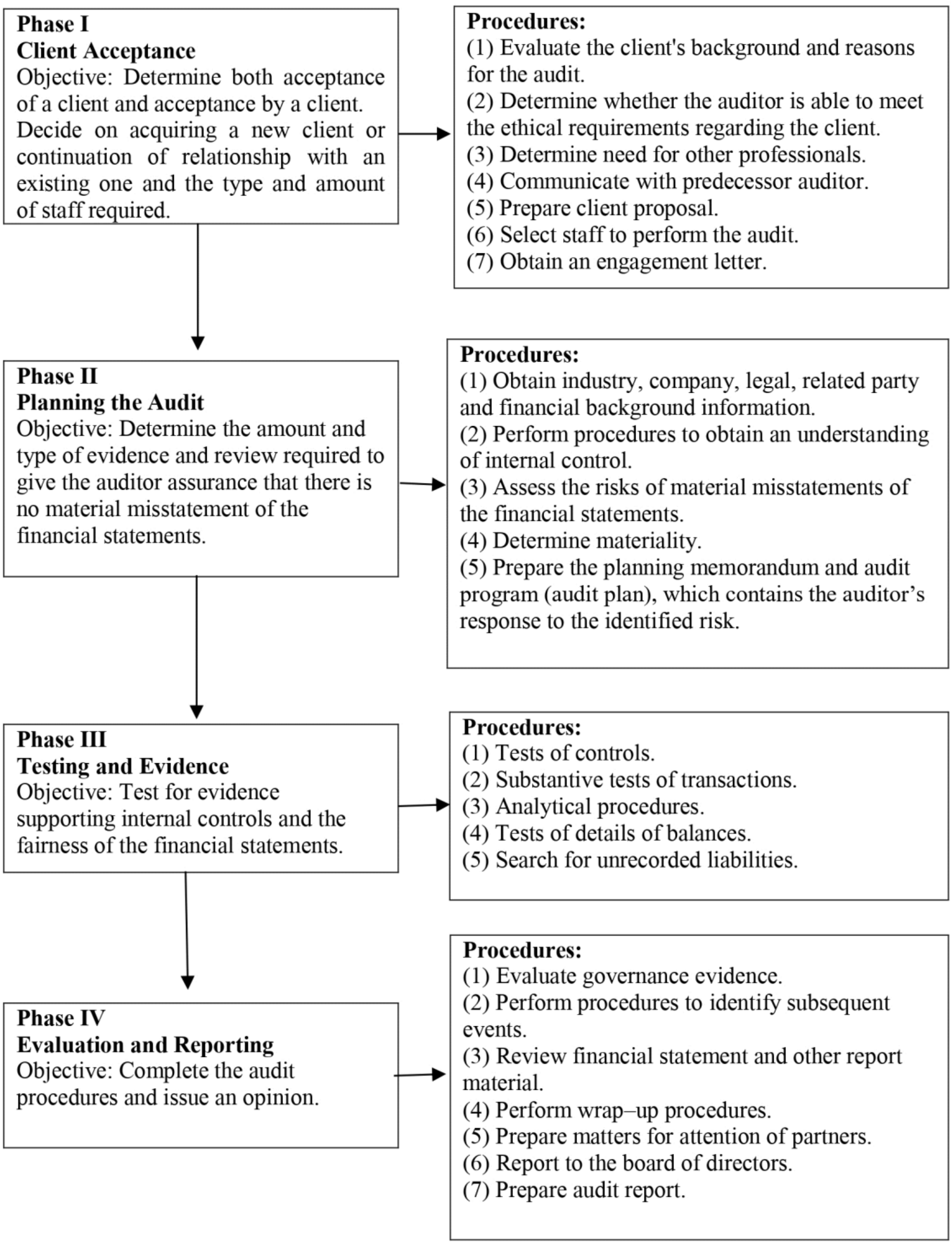
1. Preparing and issuing the audit report in its final form, based on the evidence collected and the opinion of the auditor.
2. Communicating with audit committee and management to inform them of the matters which the auditor deems necessary, as the auditor usually presents suggestions that help improve performance.

Once the auditor has done all necessary procedures for each audit objective, financial statement account, and related disclosure, it’s crucial to combine the gathered information to form an overall conclusion on the fair presentation of the financial statements. This process is notably subjective and depends significantly on the auditor's professional judgment (Arens et al., 2017).

The audit report should feature a concise and explicit statement of opinion regarding the financial information. An unqualified opinion demonstrates that the auditor is completely satisfied with the matters. When a qualified opinion, adverse opinion, or disclaimer of opinion is issued, the reasons should be stated in a clear and informative way in the audit report. (Hayes et al.,2005).

The following figure 1.1 shows the audit process model which consists of four main phases, each comprising several key sub-components, as summarized by Hayes et al.,(2005):

Figure 1.1 *The Audit Process Phases*



Source: Rick Hayes, Roger Dassen, Arnold Schilder, and Philip Wallage. (2005). *Principles of Auditing*. Second Edition. Page 422

1.1.4. Limitations of an Audit and Audit Risk

Audits have inherent restrictions which impact the auditor's abilities to find out significant misstatements. Those limitations are due to a variety of reasons, including the use of sample techniques, inherent constraints in accounting and internal control systems, moreover, it is important to acknowledge that a significant portion of audit evidence tends to be more persuasive than conclusive. In addition, much of an auditor's work requires making judgments. This includes identifying the type and scope of audit evidence required, as well as forming conclusions relying on the collected evidence. As a result, it is critical to note that while an audit acts as an important assurance tool, it does not provide a guarantee against serious misstatements in financial statements (Hayes et al.,2005).

Auditors are expected to give reasonable assurance which is high -but not absolute- assurance that financial statements are free of material misstatements. ISA 200 asserts, “The auditor should plan and perform the audit to reduce audit risk to an acceptably low level that is consistent with the objective of an audit.”

The possibility that the auditor will provide an inappropriate audit opinion in the event that the financial statements contain significant errors is known as audit risk. The level of audit risk indicates how trustworthy the accounting system's information is. As the audit risk increases, the auditor needs to gather a greater amount of information to ensure adequate assurance for forming an opinion regarding the integrity of the financial statements (Hayes et al., 2005).

Audit risk according to International Auditing Standard No. 200 is a function of the risks of material misstatement and detection risk. Material misstatement risk consists of inherent risk and control risk. Audit risk equation incorporates three types of audit risk as the following:

Audit risk (AR) = Control risk (CR) × Detection risk (DR) × Inherent risk (IR)

These risk types are defined as follows:

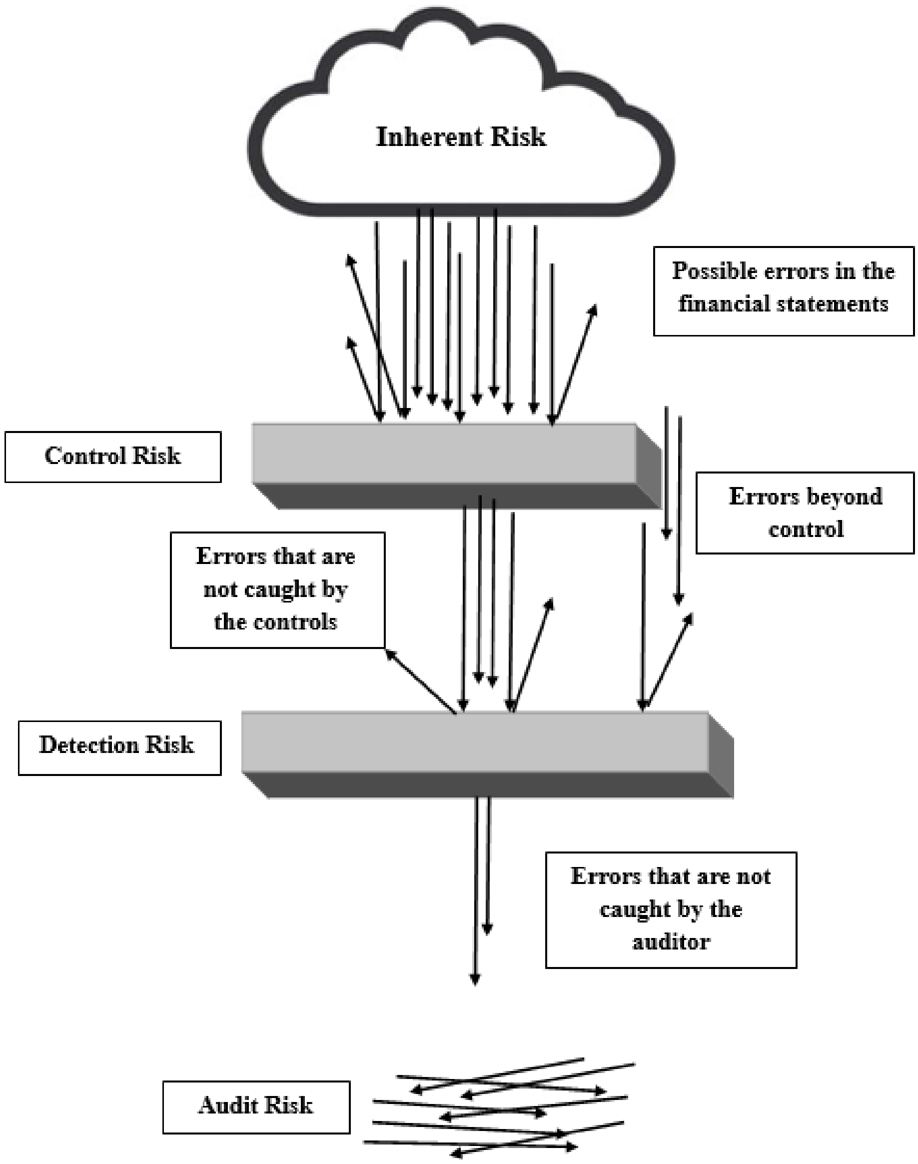
- Inherent Risk (IR): Is the possibility of a material misstatement affecting an account’s balance or a class of transactions, either on its own or when combined with misstatements in other balances or transaction categories, on the assumption that there is no relevant internal control.
- Control Risk (CR): Reflects the possibility of material misstatement occurs in an account balance or a class of transactions either on its own or when combined with

misstatements in other balances or transaction categories, without being timely prevented, identified, or corrected by the entity's internal control system.

- Detection Risk (DR): Refers to the risk that auditors' substantive procedures fail to uncover a misstatement that may be material either on its own or when combined with misstatements in other balances or class of transactions.

In the following figure 1.2, Erdogan M., (2005) explained the elements of audit risk. He showed how possible errors and fraud which might appear within financial statements are encountered with various checkpoints. Audit risk is the risk that errors or fraud may not be caught and found while passing through these obstacles.

Figure 1.2 *Audit Risk Elements*



Source: Erdogan M. (2005). *Audit*. Page 55

To evaluate and understand the different components that contribute to audit risk, auditors use the audit risk model. According to Arens et al. (2017), this model aids auditors in determining the quantity and types of evidence needed for each relevant audit objective. The audit risk model is typically expressed as follows:

$$PDR = \frac{AAR}{IR \times CR}$$

PDR: Planned Detection Risk

AAR: Acceptable Audit Risk

Acceptable audit risk (AAR) refers to the extent to which the auditor is able to accept that the financial statements are misstated after the audit is completed and an unmodified opinion is issued. The term audit assurance is often used to refer to acceptable audit risk, which equals one minus the acceptable audit risk. When using the audit risk model, there is a direct relationship between the accepted audit risks and the planned detection risks, and an inverse relationship between the accepted audit risks and the planned evidence, so that if the auditor decides to reduce the accepted audit risks, the planned detection risks decrease, necessitating an increase in the amount of planned evidence to ensure thorough detection of any potential misstatements.

1.2. Audit Procedures

Audit procedures are the steps or methods that the auditor takes to ensure the accuracy of the financial data provided by the entity, and are intended to provide auditors with sufficient evidence to form an opinion about whether these data reflect the reality of the entity. These procedures are determined in terms of their nature and timing based on risk assessment and are divided into: test of controls and substantive procedures (Messier,2017):

A. Test of controls: aims to assess the effectiveness of the internal control system, it involves verifying its ability to prevent, detect, and correct material errors in a timely manner. Auditors use the following tools to examine the internal control system:

- Inquiries: with relevant management, supervisors, and staff to gather insights.

- Inspection: Reviewing documents, reports, and electronic files.

- Observation: of the implementation of specific controls in practice.

- Walkthroughs: Tracing a transaction from its start to its reflection in financial statements using a mix of inquiry, observation, and inspection.

- Reperformance: The auditor independently re-executing the control procedures.

B. Substantive procedures: It aims to verify whether there are distortions in the monetary values of an account balance or class of transactions. These procedures fall under two categories: test of details and substantive analytical procedures

Test of details: These procedures are classified into two types:

- Substantive test of transaction for errors or fruad in individual transactions.

- Test of details of account balances and disclousre, which focus on items that are contained in the ending of financial statement account balances and disclousre.

Substatntive analytical procedures: which evalutes financial data by analyzing pluasible relationship between accounts depending on financial and non-financial data. The following section explain this type of audit procedures in details.

1.2.1. Analytical Procedures

As discussed in the forgoing section the auditor employs a number of methods in the audit process to ensure that it is of a high quality and to reach the proper conclusion regarding the fairness of the financial statements. Among these procedures are the analytical procedures that play an important role in different phases of the audit process, starting from planning to overall review stage. These procedures are distinguished from other auditing procedures by their ability to provide early indicators of accounting deviations and manipulations through analysis of ratios, comparisons, and other methods. It also helps the auditor to review a large amount of data at a lower cost compared to other detailed tests, and thus raises the economic efficiency of the audit process and makes it more accurate in detecting manipulative practices, the most important of which is creative accounting practices.

Analytical procedures aid in uncovering and recognizing potential significant problems at minimal costs, thereby enabling auditors to enhance efficiency in conducting auditing process (Tamimi, 2006).

These procedures are based on the use of some quantitative and statistical methods in the audit process, like financial ratio analysis, trend analysis, and regression analysis, in addition to the personal judgment method that depends on the qualification and experience of the auditor (Qarra, 2010).

The International Federation of Accountants (IFAC) recognized analytical procedures' importance and in 1983 have published the International Auditing Guide No. (12) entitled Analytical Procedures, this guideline was later amended in 1988 to be replaced by International Auditing Standard No. (520) to include the concept of analytical procedures, their importance, the stages of their application, degree of reliance on them, and other matters related to analytical procedures. The American Institute of Certified Public Accountants-AICPA indicated within the SAS23 auditing standard statement issued in 1978 that the analytical audit procedures are a set of tests that were applied to the financial statements, by examining and comparing the relationships between these data.

Considering the foregoing, it is clear that analytical procedures are essential in the auditing process within the context of examining financial statements and detecting errors, deviations, and manipulations including creative accounting practices. Considering the significance of this topic, this section of the chapter will go into some detail about analytical procedures.

- **Analytical Procedures Definition**

There are many definitions for the analytical procedures, it could be defined as a test of the audit process in which comparisons and relationship analysis are used to assess if account balances and other various data are reasonably stated (Abu Zaid et al.,2008).

This analytical examination may be carried out by comparing entity's current financial statements to those of earlier years, or by comparing entity's financial statements to predicted outcomes or budgets, or by conducting comparison for the financial information of the company with averages for a similar industry, or by assessing the interrelations between financial statements components that are subject to expected behavior (Qarra, 2010).

Analytical procedures are likewise defined as tests or methods aimed at verifying the reasonableness of the book value of an item in the financial statements according to the value estimated by the auditor for this specific item. If the two values diverge, this indicates the existence of fluctuations that require additional examination to verify their causes and to find out if the financial statements contain errors or manipulations (Lutfi, 2004).

ISA 520 defined analytical procedures as follows: "Analytical procedures mean evaluations of financial information made by a study of plausible relationships among both financial and non-financial data. Analytical procedures also encompass the investigation of identified fluctuations and relationships that are inconsistent with other relevant information or deviate significantly from predicted amounts."

Based on the definitions provided, it can be said that the analytical procedures are considered as evidence procedures which external auditors use during the various stages of their work in order to judge the reasonableness of the values and accounts contained in the financial statements, by evaluating and comparing the various relationships between financial and non-financial information, and searching for the causes of unexpected fluctuations in the balances of these accounts and relationships, with the aim of identifying the data that requires additional examination due to the presence of material errors, and obtaining adequate and relevant evidence to support the audit process’s final results.

- **The Importance of Analytical Procedures**

The interest of auditing professionals in analytical procedures has increased recently due to their importance as they help in identifying the weakness and strength aspects of the entity being audited, as well as discovering the failure of management to implement internal control procedures. They also allow the auditor to evaluate the performance of his assistants and discover any flaws in their work, which improves audit process effectiveness and reduces audit time and expenses.

Rabadi,(2013) summarized the significance of the analytical techniques included in ISA 520 in the following manner:

1. It aids auditors in planning the nature, time and extent of other audit procedures.
2. It can be used as a comprehensive review such as reviewing the financial statements at the last phase of audit process.
3. It helps reduce the time and efforts needed in auditing process.
4. The auditor will be able to understand the client's activity and form an appropriate idea about it by comparing the financial ratios of the entity with other entities in the same industrial environment.
5. Assistance in discovering unusual and unexpected items that require more analysis of these balances, through detailed tests or by using additional analytical procedures.
6. Financial ratios are one of the key metrics used to assess an entity's ability to continue or the presence of uncertainty regarding the entity's continuity, which necessitates additional investigation and explanation from the management of the management.
7. Analytical procedures are comprehensive procedures for the financial statements, thereby enhancing the overall effectiveness of the audit process.
8. Assistance in discovering any shifts in accounting methods and policies that have an impact on the financial statements, as well as discovering material fluctuations or unusual relationships in the accounting data.

Given the importance of analytical procedures, many professionals and auditors advocate for enhancing thier use throughout the audit process for the purpose of collect sufficient evidence to support the auditor's opinion and increase the possibility of discovering errors and irregularities that other audit procedures cannot detect.

- **Analytical procedures process**

The term "analytical review" refers to the process of using analytical procedures. To accomplish the desired goals of employing analytical procedures, the process of implementing the procedures goes through a number of phases which are (Hayes et al, 2005) :

- The first phase: Developing expectations.
- The second phase: Identifying deviations.
- The third phase: The investigation.
- The fourth phase: The evaluation.

The first phase: Developing expectations

The formulation of expectations, in which the auditor makes predictions about an account or a relationship between accounts, is the most important stage when utilizing analytical procedures. The auditor bases his expectations on diverse internal and external references, encompass entity's budget, previous year's financial statements, non-financial information, besides information about the industry where the business operates.

Three criteria connected to the accuracy of expectations ascertain an analytical procedure's effectiveness: (a) the nature of the account or assertion, (b) the reliability and other characteristics of the data, and (c) the inherent precision of the expectation method used (AICPA,2016).

The second phase: Identifying deviations

At this phase, the auditor compares his expectation against the entity's unaudited recorded balances. To do the comparison, the auditor must first define the criterion "the threshold" that will be used to judge the significance of the variations between the expectation and the recorded balance.

This criterion is closely linked to the concept of materiality and the needed level of assurance. In applaying analytical procedures as a substantive test, a lower threshold is applied; when analytical procedures are utilized in the planning or overall review stages, as higher threshold is applied. Determining the threshold is a professional judgment, the auditor must keep in mind the potential for a misrepresentation substantially distorting the financial statements, either on their own or in combination with other misstatement. (ISA,520, para.A16).

On this basis, if the variance is less than the threshold, it is considered acceptable and does not require further investigation. If the variance exceeds the threshold, the auditor must conduct additional investigations to discover the causes of the variance.

The third phase: The investigation

The auditor investigates potential explanations for the difference between his expectation and the actual balance. After identifying a variation between the recorded accounts and the expectations, the initial step for the auditor involves inquiring with management regarding the reasons behind the variation. In order to verify the management's justifications, additional audit procedures must also be conducted.

The variations could be due to misstatement arise from inherent factors involved in the calculation process or the accuracy of data utilized to formulate expectations. A more precise expectation increases the likelihood that any deviation is a result of misstatement. On the other hand, if the expectation is inaccurate, the variance probably is due to inherent factors or the quality of the data utilized in the prediction.

The fourth phase: the evaluation

At this phase the effect of the differences on financial statements is assessed, if entity's management was unable to give a compelling justification for the differences, or if the auditor's examinations to strengthen the management's justifications failed to establish the validity of the justifications, the auditor must assume that the differences are the result of error or fraud and must design other audit procedures to verify or deny the existence of error or fraud.

- **Analytical procedures types:**

Throughout the audit process, the auditor can employ a range of analytical procedures. Determining which type is appropriate to use is a professional judgment informed by the characteristics of the entity being audited, the information the auditor can obtain, and the auditor's experience. Analytical procedures fall into two main categories: simple procedures and more sophisticated modern procedures. When first starting to use analytical procedures, auditor's usage of it was predominantly limited to simple methods due to their ease of use and the lack of complexity in interpreting their results. The most important of these methods are ratio analysis and trend analysis (Emirouch et al. 2015).

Regression analysis, time series analysis, and data mining are examples of modern analytical procedures that are more in-depth and accurate in predicting the future status of an entity.

A look at the state of audit practice indicates that straightforward methods are more commonly employed than sophisticated statistical methods which, in general, are carried out with computer software "CAATs" (Hayes et al.,2005).

The following are the most common analytical procedures types:

- Trend Analysis.
- Ratio Analysis.
- Reasonableness Testing.

- Regression Analysis.

- Trend analysis: is considered among the most frequently used analytical procedures; it examines shifts in the balance of a particular element over previous accounting periods. Typically, this analysis centers on comparing previous year's balances with current year's balances, for example, the auditor may compare current year's monthly sales with the corresponding numbers from prior years. Trend analysis techniques vary between simple techniques represented in a comparison between two periods, or statistical comparisons such as time series.

When an entity has volatile operating conditions or changes its accounting methods and policies, trend analysis becomes less effective (AICPA,2017).

- Ratio Analysis: involves assessing the relationships among various financial statement accounts of the current period with previous periods, or a comparison between the entity and the industry, it could also include comparing an account with non-financial information. This analysis works best if there is a consistent and predictable relationship between accounts (Hayes et al.,2005).

Ratio analysis has the potential to be a far more useful method for detecting error and fraud than trend analysis since ratio analysis assumes a constant relationship between accounts, while trend analysis examines the changes just in a single account. A ratio's behavior is expected to be consistent, but the balance of a single account fluctuate as a consequence of a variety of causes related to normal operating factors that do not reflect error or fraud (S. Rao,2013).

- Reasonableness Testing (Model-based procedures): The use of the client's operating data and relevant external data like industry data and general economic data to forecast an account balance. To perform reasonableness tests, the auditor depends on the use of operating and external data in addition to financial data, for example, data such as the number of employees and average salaries and wages can be used in an approximate calculation of the payroll costs.

Unlike trend and ratio analyses, which both implicitly presume stable relationships, reasonableness tests use information to make an explicit prediction of the account balance. To estimate the account balance, the auditor sets assumptions for each of the key factors that affects the account balance, for instance considering economical and industrial variable when making sales account calculations. A reasonableness test for sales might be expressly formed by taking into account the sold units' quantity, the price per unit for each product line, varying pricing forms, and an analysis of industry trends throughout the period. This differs significantly from relying solely on an implicit sales trend expectation derived from the previous year's sales. Such an approach would be justifiable only if no other factors influenced sales during the current year, which is typically not the scenario (Hayes et el.,2005).

- Regression Analysis: regarded as a highly rigorous methods among analytical procedures. The expected values are computed by employing statistical approaches, where account balance is estimated depending on one or more determinants. For instance, auditors could create a regression model which forecasts income for a customer with a huge number of retail stores. The model's factors could encompass information like warehouse size, number of employees or workers, and the geographic area. Regression analysis is not a popular practice for in a lot of auditing companies because of the volume of required data as well as the degree of statistical experience needed to execute this procedure. (Johnstone et el.,2015).

In practice, when applying a single analytical procedure, it may have characteristics of three kinds of procedures (trend analysis, ratio analysis, and reasonableness tests). For example, different procedures' characteristics appear if the auditor compares the current ratio (ratio analysis) with the current ratio of previous years (trend analysis) and compares the result with his understanding of the factors affecting working capital (reasonableness test) (AICPA,2017).

- **Formulating expectations and making comparisons**

As mentioned earlier in the first stage of the analytical review process, the key focus lies in establishing suitable expectations when implementing analytical procedures. Expectations are formed by finding reasonable relationships that are likely to occur. The formulation of expectations hinges on auditor's comprehension of the entity and the industry it works within. As stated in ISA 520, analytical procedures involve examining the financial information of an entity through comparisons, like:

• Comparable information from previous periods.
• Expected results of the entity, or auditor's expectations.
• Comparable data from the industry.
• Financial information and relevant nonfinancial information.

1- Comparing the entity's data with data from previous periods:

The auditor conducts a comparison of the financial indicators and ratios across prior fiscal years with those of the current fiscal year of the entity under auditing, in case a notable rise or drop in any of those indicators and ratios was noticed, the auditor must estimate the possible causes based on his expertise and subsequently decide what evidence need to be collected to support those potential causes. (Abdali, 2011).

2- Comparing entity's data with the expectations of the auditor or the entity:

- The comparison with the auditor's expectations: Auditors make calculations to reach expected values for some financial statements' balances, normally, drawn from historical patterns pertaining to those balances, then contrasting those procedures findings with entity’s data to determine the balances that require examination and evidence collecting (Abdali,2011).
- The comparison with the entity's expectations:

The auditor compares the budgets for the accounting period with the actual data. The existence of differences between the actual and estimated data indicates to the existence of changes that require the auditor to search for convincing evidence. The auditor must evaluate the accuracy with which the entity has prepared its budgets, also to verify the entity’s ability to change the data contained in the budgets, because this affects the credibility of the budgets. Consequently, these factors affect the reliability of analytical procedures and the degree of confidence in their results. (Lutfi 2004).

3- Comparing the entity's data with data from the industry:

These comparisons contribute to providing useful information about the entity's performance by contrasting the differences between the financial information of the entity and the information that represents the overall activity of comparable entities operating in the same sector, this helps the auditor understand the entity's business operations and provides signs about possible financial difficulties.

One drawback of utilizing industry data lies in its potential lack of immediate comparability with client's specific data. Companies can exhibit significant differences, yet they are all part of the same industry. Furthermore, variations in accounting principles among firms within the industry can further complicate accurate comparisons. For example, comparisons would be incorrect if firms in the same industry used the FIFO method for stock valuation while the entity to be audited used the LIFO method (Johnstone et al, 2015).

4- Comparing the entity's data with non-financial data:

These comparisons serve to validate the accuracy of specific account balances or to approximate certain figures, such as making calculations in order to expect the salaries expenses using the employees' count. However, the auditor cannot place reliance on these analytical procedures unless they have certainty regarding the accuracy of non-financial information.

- **Limitations of Analytical Procedures:**

Despite the fact that analytical procedures play a crucial role in increasing the effectiveness of an auditing process, as well as the low cost of conducting them compared to other audit procedures, there are some factors that affect its effectiveness, which the auditor must take into account when applying analytical procedures.

ISA 12 of 1988 mentioned a number of these factors which are as follows (Hakem,2007):

- The objectives of the analytical review and the degree of reliance on its outcomes.
- Entity's characteristics and the availability of financial information and expectations.
- Availability and suitability of non-financial information.
- The extent to which available information is comparable.

ISA 520 also indicated in Paragraph 12 that when control systems are effective, the auditor's trust in the credibility of data increases, and thus confidence in the results of substantial tests increases.

In addition, an auditor's experience affects his ability to use analytical procedures effectively, Kida & Cohen (1989) showed that audit office managers have the ability to identify complex relationships and to create personal estimates of high accuracy, this is because audit office managers have more experience than auditors in using analytical procedures, they explained that experience has a significant effect on utilizing analytical procedures for the following reasons:

- The applicatiom of analytical review is not really a well-structured task.
- It involves understanding the complex interrelationships between account balances.
- The need to understand the relationship between the analytical procedures' outcomes and the scope of audit testing.

Kardudi, (2015) summarized the most important factors that can limit the utilization of analytical review in auditing process as follows:

- Lack of financial and non-financial information about the institutions.
- Differences in the data and applied accounting methods of similar entities, which prevent comparison with other entities operating in the same industry.
- The entity's changes in its accounting, production or marketing policies.
- The high cost of obtaining some data.
- Limited experience of auditors when using analytical procedures, here a distinction must be made between the experience of the auditor in general and his experience in using analytical procedures.
- Lack of sufficient experience in using computer programs, as computer programs greatly help in the use of analytical procedures tools, whether simple, such as ratio analysis, or complex such as correlation, regression and time series.

1.2.2. Analytical Procedures at Various Phases of the Audit Process:

The international auditing standards specified the stages at which analytical procedures are utilized, whether they are compulsory or optional, and their purposes. Analytical procedures are utilized in audit planning, substantive testing, and overall review stages.

- **Planning**

At this stage, the auditor aims to increase his comprehension of the entity and the characteristics of its work, as well as identifying audit risks by studying balances, amounts and unusual relationships and comparing ratios and trends which could provide information that affects how the audit process is planned. Analytical procedures at this stage are crucial for helping the auditor in determining the nature, timeline, and the scope of the audit proceedings. ISA 520 and ISA 315 considered analytical procedures ***"mandatory"*** at this stage as risk assessment procedures.

The objectives of the analytical procedures at the planning stage include (Abu Sharkh, 2012):

1- Enhancing auditor understanding of the client's operations and examining the possibility that the financial statements include significant misstatements.

2- Determine if the balances correspond with the auditor's expectations, which are formed by their analysis of the entity's activity, the surrounding environment, and the industry.
3- Identifying potential operational or financial problems in general.
4- Assists in focusing audit efforts on more important concerns.

- **Substantive Testing**

Using analytical techniques throughout the substantive testing stage is ***"optional"*** following ISA 520 which indicated that the possibility of using it as a substantive test is a matter for the auditor's judgment. The aim of using them at this stage is to give the auditor a suitable level of assurance about the internal control system and substantive tests' results, which enables the auditor to be convinced that audit risks are at their lowest level, accordingly, the number of other substantive tests could be reduced.

Thunaibat, (2010) outlined the following considerations for auditors when employing analytical procedures during the substantive testing stage:

1- Consider the aims of the analytical procedures and the extent of dependence on their outcomes.

2- The client's entity nature, and the accessibility of information of several departments, will determine whether analytical procedures should be performed for the entity as a whole or for some departments.

3- Determine whether the available information represents goals that the entity seeks to achieve, or whether they are expectations.

4- The source of the available information, whether it is internal or external.

5- The auditor should take into account the information available from previous audits.

- **Overall Review**

During the overall review stage of auditing, auditors evaluate the various evidence and form the final opinion. ISA 520 considered the use of analytical procedures in overall review phase as "***mandatory***". This step is primarily aims to enable auditors to accomplish the following objectives (Abdali,2011):

1- Ensuring the adequacy of the collected evidence related to the balances that were considered unusual in the planning stage of the audit process.

2- Finding unusual account balances or relationships, and irregularities in the financial statements that were not previously discovered.
3- Evaluating the overall integrity, fairness, and honesty of the financial statements and the adequacy of disclosing the reality of the entity's activity during the audited financial period.
4- Evaluating the actual financial position at the end of the period and the going concern status of the entity.

CHAPTER 2

THE ROLE OF AUDITORS IN DISCOVERING CREATIVE ACCOUNTING PRACTICES

Since accounting is an information system that must reflect the reality of the entity's operations, accountants must give a truthful image of the entity's financial position through the financial statements which allow the users to read what occurred in the previous period and forecast what might occur in the future. In order for the accounting profession to fulfill the role that has been assigned to it, accountants must adhere to the standards and ethics of this profession. But with the appearance of creative accounting practices that exploit gaps and alternatives in accounting standards, those interested in financial statements attach importance to this phenomenon and its effects on the outputs of the accounting system. As some accountants, with their skills and experience, and through understanding the nature of the market and the behaviors of users of financial information, can present the financial statements of the entity in a manner desired by management to achieve its objectives, regardless of the interest of the other parties.

2.1. Creative Accounting Concept:

Creative accounting is viewed as techniques that can be used to manipulate financial statement elements and describing situations in which businesses show their revenues, assets, and liabilities in an untruthful and misleading manner. This has resulted in numerous collapses and financial scandals at significant economic institutions like Enron, Worldcom, Harkin, and others.

There are several types of creative accounting in the literature, including earnings smoothing , income smoothing, cosmetic accounting, and accounting crafts. The term "earnings management" is preferred and most used in most of the literature published in the United States of America, but in Europe the term "creative accounting" is more used (Balaciu et al., 2009).

Several researchers and authors have attempted to define the term "creative accounting," and as a result of their varied points of view, a number of definitions of the term have appeared. A minority of them view it as a beneficial phenomenon, while others see it as having both positive and negative aspects. The majority categorize it as a negative practice that harms the users of financial information. A review of some of these concepts from various viewpoints is provided here.

Creative accounting from the point of view of those who believe that it is manipulation and falsification is defined as a general description of the process of manipulation in financial reports to achieve a hidden goal. It is a process where accountants take advantage of their experience in accounting principles and rules to manipulate the figures reported in entity's accounts (Amat et al, 1999).

According to McBarnet & Whelan (1999), creative accounting is the legal application of accounting regulations and standards in some manner to falsify and deceive financial records.

Mulford & Comiskey (2002), described creative accounting practices as any and all procedures used to play the financial numbers game, including the aggressive application of accounting principles, the creation of fraudulent financial reports, and earnings management methods.

In the same context, Idris et al, (2012) see creative accounting as one of the biggest ethical problems facing the accounting profession, and indicate that creative accounting refers to accounting techniques that distort and manipulate financial information in order to present a better financial picture by amplifying or decreasing profit in a way that is different from what it is in reality, or by misrepresenting the size or structure of capital, or concealing basic information from current and potential investors.

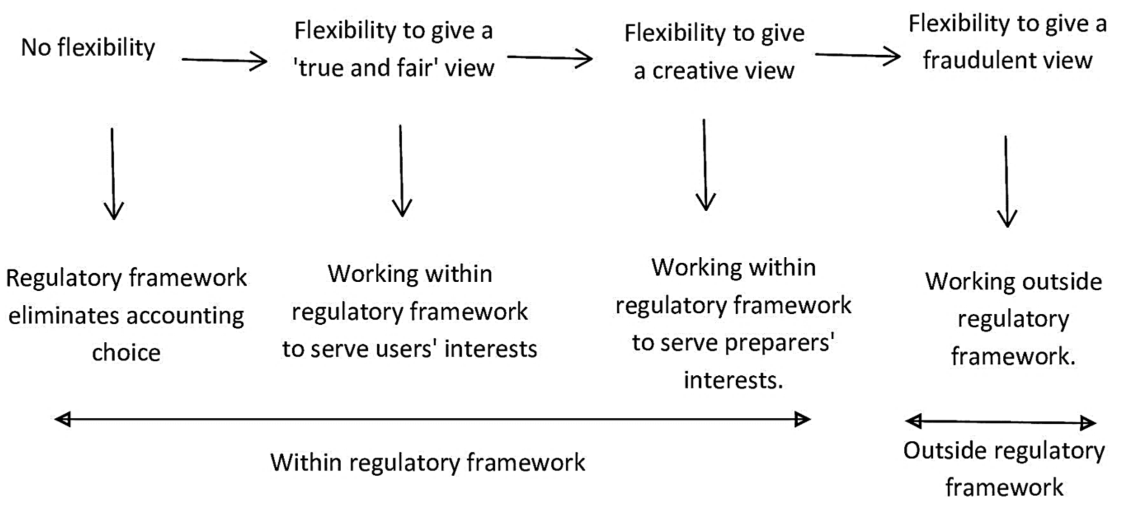
However Victoria, (2014) sees creative accounting in a positive way, as from his point of view it is to apply the best options and the ultimate goal is presenting a truthful and fair picture of the financial position. Revsine, (1991) also provided some justification for the practice of creative accounting drawing from positive accounting theory and the agency relationship between managers and shareholders. He contends that both parties can gain from "loose" accounting standards, which afford management the flexibility to determine when to report income.

From the perspective that finds that creative accounting has two sides, Ali et al., (2011) believe that creativity is a sign that it has a positive impact as it contribute in improving accounting proffesion, at the same time, they point out that it has a negative impact when it is used by management to deceive financial statements users and other stakeholders. They described creative accounting as revenue recognition practices that gives the entity's financial results more favorable appearance without deviating from generally accepted accounting controls, or without deviating from the general context.

Ijeoma, (2014) describes creativity in such context as similar to expressing the water cup as half-full instead of half-empty. Although the two explanations refer to the same situation, the recipient of the message will interpret each description differently. And considered creative accounting as a matter of approach is not objectionable per se, as long as it does not use unethical procedures, which may lead to wrong and unfair financial information.

As mentioned before, according to several sources in professional literature, the majority of writers present the negative impact of creative accounting and concur that creative accounting refers to the practice of presenting accounting information in the manner desired by the statements' creators by taking advantage of the flexibility of accounting standards as represented by the variety of alternatives and accounting policies. This practice degrades the accuracy of accounting information because it is distorted in an effort to deceive financial statement's users without breaking accounting rules and laws. In this context, (Michael, 2011) in the figure 2.1 below described how much flexibility in accounting standards can be used to accomplish various aims.

Figure 2.1 *Flexibility within Accounting*



Source: Michael J., 2011, Creative Accounting, Fraud and International Accounting Scandals. page 7

This is what Shah, (1996) described as the term *creative compliance*, which describes the capacity of creative accounting to adhere to the letter of the rules while bending its spirit.

2.2. Reasons Behind the Emergence of Creative Accounting

The appearance of creative accounting can be attributed to a multitude of influencing factors, but conflicts of interest between various parties played a particularly significant role, as managers' interests are based on reducing taxes and increasing their compensation, while shareholders' interests are in maximizing return on investment, employees' interests are in increasing administrative compensation, and the outside parties like the government want to collect more taxes and the lenders want their money back. Thus, the multiplicity of interests and the resulting conflict were what led to the development of creative accounting (Amat & Gowthorpe, 2004).

In the early 1990s, before the collapse of Enron, Revsine (2002) mentioned that sometimes when there are interests of one or more different parties, financial reports are prepared in what he called selective financial misrepresentation. These distortions allow managers to achieve bonus goals, shareholders to take advantage of rising stock prices, auditors to satisfy clients, and standard-setters, regulators and law-makers to meet political objectives.

The diversity of accounting alternatives made available by accounting standards in measurement, estimation, and accounting disclosure also helped spread the phenomenon of creative accounting. This motivated managers to innovate accounting practices aimed, in most cases, at maximizing profitability, either to save face for management or to justify unjustified administrative rewards imposed by management (Ibrahim, 2006).

Some managers have justified creative accounting procedures for reasons such as income smoothing, bringing earnings closer to expectations, changing accounting policies to divert attention away from poor performance, and maintaining or raising share prices. Regardless of the function of accounting standards and other restrictions, creative accounting has always played a role in a few entities to present their performance in a better way (Sharma,2009).

In their book *"The financial numbers game"* Mulford & Comiskey,(2002) highlighted the following as primary justifications for management's use of creative accounting:

- *The favorable impact on the entity's market reputation:* Creative accounting methods are typically employed to improve financial values related to an entity's performance, which, if not manipulated, will present an unfavorable image of the entity in front of its competitors.
- *The impact on the entity's share price in the financial markets*: A drop in business results has a negative impact on the prices of its shares in the financial markets. Disclosing these results as they are will definitely lead to a decrease in the share price of these entities. As a result, using creative accounting practices aims to maximize business' results and therefore raise the price of its shares in financial markets.
- *Increasing bank borrowing:* Several commercial banks employ a variety of criteria and indicators to analyze the performance of business entities before lending loans to these entities. As a result, these entities adopt creative accounting procedures in order to improve these indicators and standards, which will have a good impact on credit decision-making.
- *For the goal of tax evasion:* Some businesses minimize their tax by minimizing the reported income either by decreasing profits and revenues or increasing expenses.
- *Improving the entity's financial performance to further personal interests:* some entity’s management works to improve the business results of the entity that it directs to reflect a positive image of its performance for personal purposes, such as making a great impression on the board of directors about management's performance.
- *Obtaining a higher classification:* Many entities operating in the same sector compete to obtain a higher classification than their competitors in professional rating processes conducted by specialized international institutions. As these classifications are based on financial indicators and standards extracted from annual, semi-annual, and quarterly financial statements, some of these entities lean toward improving some of their financial values in order to obtain a higher classification.

2.3. Creative Accounting Methods in the Financial Statements

Creative accounting techniques can be divided according to their relationship with different aspects of accounting, such as revenue, expenses, financial statement classification, footnotes, and auditor's reports (Al-Qari, 2013).

Amat et al., (1999) considered that the methods used within the framework of creative accounting are four basic methods:

1. Choosing accounting policies that help give a desirable financial picture of the entity. As some accounting rules allow choosing between different accounting methods, so the management chooses what is consistent with its objectives.
2. Manipulating the estimated values. As some accounting operations depend heavily on a degree of estimations and expectations, such as estimating the useful life of assets to calculate depreciation. These estimates are usually done inside the entity, and here is the possibility of tampering with estimating the useful life of these assets, or in other cases where the valuer is external, the management chooses a valuer it knows before, and thus works to influence his estimates in line with its desire.
3. Using artificial transactions which could be done to falsify figures in the statement of financial position, or to transfer profits across accounting periods. Such actions may involve entering transactions with a willing of a third party, usually the bank.
4. Manipulating the timing of actual accounting entries to present the intended perception of the accounts. For example, an entity may own an asset valued at $1 million in its books, but its current value is $3 million, the management has the freedom to choose the timing of selling this asset, so that its profits appear better.

Mulford and Comiskey, (2002) further categorized creative accounting practices into three broad areas when considering the measurement of revenues, expenses, assets, and liabilities, their aim was to assist financial statements users in recognizing these activities:

1. Recognition of fictitious or premature revenues.

2. Aggressive capitalization and extended amortization policies.

3. Misreported assets and liabilities.

Since this study focuses on creative accounting practices in the financial statements, this section will highlight the most common creative accounting methods used by entities to impact financial statements.

2.3.1. Creative accounting methods used in income statement items:

Income statement includes essential numbers for financial analysis, such as operational earnings, net profit, and others, this statement is essential since it represents the entity's profitability. Some entities' management manipulate the profit figure, with the help of creative accounting practices so these entities appear less risky.

Creative accounting focuses around accelerating expenses, revenues, gains, or losses, or moving them between accounting periods, which is done by changing the categories and explanations in income statement for the period that will be altered.

Below are some of the techniques involved in creative accounting on the income statement (Schilit, 2002):

1- Recording revenues too early or of questionable quality:

Following the established regulations, the exchange of benefits must be completed before the revenues are recorded, but by following this creative accounting method, selling process income is recognized before the commpletion of the process and before the completion of the unconditional exchange. Based on this method, these are some questionable revenue recording techniques.:

- Revenue recognition while some services will be provided to the buyer later.

  Typically, revenues are not recognized during a given time period unless the sale transaction that generated the income is completed, as some goods, particularly tangible ones, are allowed to be returned within a certain amount of time under laws. But by following this technique revenues are recognized before the goods are shipped, and prior to customer's unconditional acceptance.

- Revenues are recorded although the customer is not under obligation to pay.

According to GAAP, "revenue cannot be recognized until persuasive evidence of the agreement exists and an assessment of the customer's creditworthiness has been made". In order to accelerate revenue some companies lend its customers in order to pay for their products, this way the company's earning power will look higher. This is called as vendor financing which is a legitimate selling approach but when it is exploited it can pose significant risks to the business.

Also, some companies offer extended payment terms, using this method the company pushed subsequent periods sales towards the current period, which fictitiously inflates revenues and profits.

- Selling to an affiliated party.

Every time the customer has a relationship with the vendor, the quality of the revenue is put in question. Some companies, in order to increase their revenues for a current financial period, lean toward selling goods to companies from their group or companies they have strategic partnership relations with. Consequently, it is questionable whether a sale to vendors, business partners, corporate director, or relative may be viewed as an arms-length transaction.

- Offering something valuable to the customer as a Quid pro Quo.

Some companies that wish to increase their revenues during a specific fiscal year use this method by giving the buyer additional value, this doubled value may come in the form of part of the company's stock, warrants, barter exchange, or participation in a specific investment agreed upon as a condition of completion of the sale.

- Grossing up revenue.

Using this method some companies add additional values to the value of their actual revenues. For example, some companies that play the role of an intermediary between the seller and the buyer may recognize the entire revenue that resulted from the sale process, while it must only recognize its own part resulting from the matchmaking service.

2- Boosting income through a one-time gain:

Using this method, the management can increase its revenues for a specific period using nonrecurring gains. This could be done using the following common manipulation methods which portray a favorable image of management performance by artificially inflating profits and revenues at a time when its performance is bad. Below are some applications.

- Increasing profits by selling an undervalued asset. This method is used by some companies' managements to increase their revenues and thus increase their profits in a certain period of time. This is due to the fact that there are some assets such as real estate, lands, stocks, and others, whose market value exceeds its book value, so companies resort to selling them suddenly to cover the drop in revenues during that period. Therefore, investors and lenders should pay attention to non-recurring revenues, resulting from selling undervalued assets, especially if there is no urgent economic need for the sale.

- Including investment revenue or gain as operating revenue. Some companies whose operating return in a given year is low mix it with the returns generated from non-operating investment operations to cover their poor operational performance.
- Record investment returns and gains, as a reduction of operating expenses .One example would be if an entity realized an unexpected profit from its pension assets, which would reduce the recorded pension expense or, even better, result in pension income.

3- Shifting current revenues to a later financial period:

This approach works on reducing current profits and deffer them to subsequent financial periods when their is a more pressing need. It is often emplyed when the entity's current fiscal year is showing excellent results, so managment lean to transfer these profits to future periods that it perceives as potentially challenging, within the framework of this method two methods are used:

- In the years that witness excellent revenues, the company does not recognize all of these revenues, but rather creates provisions and releases them in periods with poor revenues, which help in smoothing the earnings.
- When one company acquires another, it may ask the acquired company to delay recording revenues till the merger process is completed. After the merger, the acquiring company recognizes the revenues, so its profits appear better.

4- Recording premature or fictious revenue: this practice comprises the following methods:

- Recording sales that have no economic substance: When a company seeks to raise its revenue by deceptive means, this is one of the most commonly used methods. It is represented by creating a sales schedule of a certain product for a consumer who is not yet committed to buying or paying for the commodity. Or by making side letter agreements with clients to provide them with specific products during specific time periods without agreeing on the terms of their delivery and payment of their value.
- Recording cash received from borrowing transactions as revenue: Cash obtained from banks through borrowing is different from cash generated from the selling activities. The former is recorded as a liability, obligating the entity to pay, while cash generated from sales is recognized as revenue.
- Recording the amounts resulting from the return of purchases as revenues: In some cases, some companies record the amounts resulting from the return of purchases as revenues, with the aim of increasing their revenues in a particular fiscal year.

5- Transferring current expenses to previous or subsequent accounting periods:

This form of manipulation concerns assets accounts, given that business costs that result in achieving short-term gains such as rental expenses, salaries, wages, and advertisment costs are subtracted directly from the revenues, while business costs that lead to long-term benefits such as purchasing new machinery or buildings are assets with their amortization or depreciation is spread over a a long-term period aligned with the duration of the benefits they provide, i.e. when benefits are actually achieved. The following are methods used to boost profits by decreasing expenses:

- Capitalizing normal operational costs and transferring expenses to future financial periods, some businesses need to conceal significant expenses due to asset depreciation or a large advertising campaign, therefore they capitalize these expenses and then amortize them over several periods.
- Transferring expenses to a previous period, in the previous method, the management got rid of the expenses by posting them to a future period, and thus it only postponed facing these costs. But by following the method of transferring these expenses to a previous period, the management got rid of these costs forever by announcing a modification in its accounting policies for expenses during the final weeks of the fiscal year.
- Depreciating and amortizing assets too slowly, it is well known that the depreciation expenses of assets are deducted at financial intervals that are determined according to the nature of each asset and the method that management finds appropriate. Managers can enlarge profits for a certain period by decreasing some assets' depreciation or decreasing the amortization of some intangible assets. By keeping these assets for extended durations, the company maximizes assets value on the balance sheet and curtails expenses, thereby enhancing profitability.
- Failure to write down or write off impaired assets. It is commonly understood that when any of the assets is impaired it must be written off immediately not gradually. Some entities do not recognize the expenses resulting from assets impairment therefore these assets will be overvalued, the accumulation of these fictitious assets would create difficulties for the entity that could lead to its collapse.
- Assets provisions should be established in order for the assets to reflect their true value. These provisions are called contra accounts such as inventory obsolescence, depreciation

allowance, and doubtful debt allowance. Calculating these provisions at less than the real value leads to inflated profits.

6- Transferring future expenses to the current financial period as special charges. As an accounting rule, expenses are recorded against income in the period in which the benefit is received. The following techniques can be used to get around this rule:

- Inflating the amounts of specific items "special charge", where companies sometimes inflate their future profits by announcing special charges and including future operating expenses in this account, thus the profits of the following period will be higher because the expenses were included in the earlier periods' charges. This method is used in times when companies are facing difficult times, as business decline and other setbacks prompt managers to take certain bookkeeping steps to counter this situation in the hope that the future will be better. These procedures are done with the aim of reliving tomorrow's earning from some expenses burden.
- Accelerating recording discretionary expenses in the current period. This method is used at times when the company has achieved its expected goals for the current financial period, the management records some expenses for a subsequent financial period in the present financial period to boost next period's profits.

2.3.2. Creative accounting methods in statement of financial position:

The statement of financial position, often known as the balance sheet, is a critical statement as investors and users of financial statements rely on it to make their economic decisions. Accordingly, the financial position statement must accurately reflect the entity's financial position at the fiscal year-end. The significance of this statement is tied to the information it offers about the financial health of an entity, as it presents a detailed depiction of its assets and liabilities thereby informing stakeholders about its fiscal standing with creditors and shareholders; additionally, it may be useful to anticipate subsequent periods cashflows, including the amount and timeline.

Some of the most common creative accounting methods that may be used to alter a variety of financial position statement accounts include the following (Hamada et al., 2021):

- Fixed Assets: which can be manipulated by choosing not to adhere to the historical cost principle to show assets' value in financial position statement but choose the revaluation method, so the entity reports the revaluation gains of an asset in the income statement instead of shareholders' equity. The management may also manipulate asset depreciation ratios and lower them from those applied in the industry, or it may make unjustified changes to the use of depreciation methods, such as switching from the straight line to declining balance method or vice versa.

- Intangible assets: Overvaluation in intangible assets items like trademarks, or improper accounting treatmet of intangible assets, such as recognizing unpurchased goodwill, as well as doing unnecessary change in amortization methods used to reduce asset's value.
- Cash and cash equivalent: Restricted cash items remain undisclosed in this item, alongside the manipulation of exchange rates used to translate cash items available in foreign currencies.
- Accounts receivables: The balance of receivables is manipulated by not disclosing bad debts, with the intention of decreasing doubtful debts' provision, in addition to the inclusion of account receivables of related parties, subsidiaries or, associates. Also in this item, intentional errors are made in the classification of receivables accounts, such such as the classification of long-term receivables as current asset to enhance the entity's liquidity
- Inventory: Regarding inventory items creative accounting practices are concentrate on deferring a necessary write-down for value-impaired goods, which makes inventory to be overvalued by including slow-moving and obsolete inventory. In addition to an unjustified change in the inventory pricing method, such as changing the FIFO method to LIFO or vice versa.
- Short-term investment: by changing market prices that are used to evaluate a portfolio, or categorizing investments as long-term investments when their market values decrease.
- Long-term investments: by using different accounting methods for long-term investments, for example, changing from the cost method to the equity method. Also, avoid displaying the parent company's share of the subsidiary company's losses. And not to exclude mutual operations between the holding company and the subsidiaries when preparing the group's financial statements, such as mutual sales or loans.
- Current Liabilities: creative accounting practices in this item improve liquidity ratios, manipulation can be done by excluding long-term loan installments that are due within the current year from current liabilities.

- Long-term liabilities: including acquisition of long term loans before announcing the statement of financial position, this is done strategically to repay short term loans, thereby bolstering liquidity ratios.
- Owner equity: manipulation is practiced in this item by adding realized gains from prior periods into the current year's net profit, instead of treating it within the retained earnings as it should be. Or recognizing the profits or losses resulting from translating the financial statements of subsidiaries prepared in foreign currencies into the income statement rather than recognizing it within owners' equity.

2.3.3. Creative accounting methods in the cash flow statement:

A cash flow statement provides a comprehensive overview of cash movements, detailing both incoming and outgoing flows and their purposes over a specific period. It is regarded as one of the most accurate financial statements, and manipulating it involves substantial effort. Mulford & Comiskey (2002), stated that the cash flow statement is the least vulnerable to creative accounting practices compared to other statements that are prepared on an accrual basis. Where cash flow statement must be accurate because the cash flows must be deposited and can be verified by objective verification. And that although the flexibility available to manipulate this statement is less than the flexibility available in other statements, there are a large number of manipulation methods that can be exercised when preparing it.

Given that cash flows are an important indicator for predicting the future of entities and an important factor in evaluation, managements of some entities realized the importance of this statement for investors, creditors, and financial analysts and worked on manipulating the statement of cash flows in an attempt to improve the entity's image and enhance prediction of a promising future for it.

The statement of cash flows typically encompasses three sections: cash flows from operating activities, cash flows from investing activities, and cash flows from financing activities. Cash flows from operating activities is an important indicator of the entity's performance, as being able to achieve positive sustainable operating flows reflects the entity's capacity to deliver the anticipated returns to investors. Creativity in the statement of cash flows refers to any or all of the steps used to create the impression of a change in operating cash flow. This process gives a misleading indication of the entity's ability to generate sustainable cash. This is done through several methods, including (Mulford and Comiskey, 2002):

- Manipulating the classification of flows between operating, investment and financing cash flows. Such as classifying operating expenses as investment or financing expenses, or classifying financing cash inflows as operating cash inflows, these practices do not impact the ultimate figures but will give a misleading image about operating income sustainability. An example is the misclassification of cash flows is that the entity can classify development expenses as investment cash outflows and simply remove them from operational cash outflows. By capitalizing development expenses, not only current year's income is inflated, but the operating flows for subsequent years will be boosted, as these expenses will be depreciated in the coming periods, which will reduce net income, but will not affect operating flows, as they are non-cash expenses.
- Exploiting that the standards do not require disclosure nor separation between the flows of continuing and discontinued operations, and therefore some entities do not disclose clearly that the operating cash flows include part of the flows resulting from discontinued operations. This type of disclosure is quite beneficial since it shows the cash flow generated or expended by an inherently nonrecurring item.
- Although the standards tried to reduce the flexibility available in disclosing the operating cash flows, the management can still manage the operating cash flows to reflect the image it wants. For example, the company may achieve high operating cash flows in one year due to unexpected operating cash flows, such as a large sale of inventory or an extensive collection of accounts receivable. The management may go to purchase trading securities in order to maintain a certain level of operating cash flows. Thus, the net operating cash flows are reduced in the year that witnessed a significant increase, and then sells these securities in the years that witness a decrease in the net operating cash flow.

2.3.4. Creative accounting methods in the statement of changes in owners' equity:

The statement of changes in equity gives an overview of the changes in equity during a given period, which is prepared through tracking the alterations within the owners' equity components throughout the financial period.

As it is prepared on an accrual basis, every item in this statement is vulnerable to creative accounting practices. These can involve fictitious adjustments like increasing or decreasing of paid-in capital, and earned capital. The most prominent methods in this statement can be summarized as follows (Matar, 2006).

- Recognizing the differences resulting from the revaluation of assets in the income statement rather than recognizing it as equity.
- Adding realized gains from preceding years to the current year's net profit rather than recognizing them as retained earnings.
- Treating the gains of translating the financial statements of subsidiaries prepared in foreign currencies within the income statement instead of treating them within shareholders' equity.

2.4. Recent Trends to Reveal Creative Accounting Practices

In today's rapidly evolving financial environment, the adverse influence of creative accounting practices is impossible to overlook. It is crucial to take steps to curtail such actions since they have a noticeable negative impact on the reliability of financial statements. The accounting literature has identified numerous key approaches to address this issue, the most important of which are:

1- The role of corporate governance in limiting creative accounting practices
Corporate governance is generally defined as relationships within the firm and between the firm and its environment (Aguilera et al., 2006). The focus on corporate governance grew due to the financial crises occurred in East Asian and Latin American nations in the final decade of the previous century, in addition to the significant consequences felt in the American economy due to the financial collapses of some major American corporations in 2002 (Bu Salamah & Abdel Samad, 2008).

The reason corporate governance is important is that it helps make sure that all the various stakeholders like the board of directors, company management, shareholders, employees, customers, and society as a whole do their functions properly while keeping a fair balance of interests among them. (Brauweiler et al., 2019)

Given the importance of corporate governance, the United States of America established an act known as Sarbanes-Oxley Act (SOX) following many scandals that struck major American companies. The law was designed to enhance and raise the level of corporate governance in the United States.

Many studies have found that corporate governance plays an important role in preventing creative accounting practices. A study conducted by Fadaawi (2014), emphasized the importance of risk management, which is regarded as a cornerstone of corporate governance. Through risk management, a strategy is developed to mitigate the risks of creative accounting and prevent the company from facing crises. Furthermore, when supervision is activated in conjunction with risk management, disclosure, and holding management accountable, it results in safeguarding the rights of stakeholders in the company.

A study for Vladu and Matis (2010) also confirmed that the improvement of governance mechanisms in recent years has improved the ability to limit creative accounting practices, but without eliminating them.

2- The role of audit committee and internal audit

Audit committees perform an essential function in supervising and evaluating the control system and the work of internal auditors. Their significance is also emphasized in their support for external audits, which contributes significantly to curbing creative accounting practices.

Alongside the critical function of internal audit, a fundamental obligation of internal audit functions is to keep an eye on the financial report preparation and presentation stage- where the potential occurrence of creative accounting often arises. In this context, its role in limiting creative accounting practices comes to the forefront. Consequently, the audit committee and internal audit collaborate within a robust and effective control system to mitigate creative accounting practices (Salem et al., 2021).

3- The role of external auditing and auditors' vigilance

External auditing plays a pivotal role in mitigating creative accounting practices. The vigilance and effectiveness of external auditors can serve as a significant deterrent in uncovering such practices. This begins with selecting audit firms known for their efficiency and credibility, as competent auditors strive to develop audit procedures that provide reasonable assurance regarding the accuracy of financial statements and their freedom from material misstatements.

Taking into account the importance of the function that external auditing performs and its relationship to the research topic, this chapter delves deeper into the role of external auditors in uncovering these creative accounting methods.

4- The role of international professional bodies

The increase in creative accounting practices which often results from accountants exploiting certain weaknesses within international accounting standards, prompted the International Accounting Standards Board (IASB) to respond proactively. The IASB introduced amendments aimed at preventing the misuse of existing standards (Taleb, 2013). One significant amendment involved the inclusion of supplementary documents for each accounting standard. These documents serve to provide practical guidance on how to apply the standards, addressing the ambiguity in certain standard paragraphs. This effort aims to reduce opportunities for manipulation and distortions, often justified by a lack of clarity or misunderstanding of the standards. Moreover, it involved the elimination of any contradictions or inconsistencies present in some standards (Al-Qutaish & Al-Sufi, 2011).

While the literature indicates that changes in international accounting standards aim to curb creative accounting practices, the issue continues to persist and even grow (Phebe & Abayomi, 2019).

5- Limiting the misuse of some accounting policies

To reduce the misuse of certain accounting policies, the following actions can be implemented (Hussein, 2004):

- Establishing regulations that limit the utilization of specific accounting policies and imposing constraints on the freedom to switch from one accounting policy to another.
- Implementing the principle of consistency: this involves maintaining consistency in the use of accounting policies adopted by financial statement preparers and continuing their application from one year to the next. This principle does not imply that changing accounting policies is forbidden, but rather it suggests refraining from changing them except in cases of extreme necessity, with a requirement to transparently disclose the financial implications resulting from such policy changes.

6- The role of forensic accounting in limiting creative accounting practices

Forensic accounting is defined as employing investigative and analytical expertise to address financial issues in a way that helps the needs of the judiciary. It is a mixture of advanced expertise in accounting, auditing, finance, quantitative methods, some aspects of law, and skills for collecting and analyzing data, evaluating financial issues, interpreting and reporting results. (Hopwood et al., 2008).

In order to confront and limit creative accounting, the role of the law must be activated by using this type of accounting to be a link between the accounting system and the legal system. Through the basic work carried out by forensic accounting, creative accounting can be limited (Al- Sisi, 2006).

7- Developing accounting culture among investors and users of financial information

This is achieved by either self-education to enhance accounting knowledge or by collaborating with organizations dedicated to ensuring financial statement honesty and clarity, whether governmental or private sector entities. These organizations take the initiative to provide educational accounting programs, distribute explanatory materials, and facilitate discussion sessions. Through these efforts, they aim to shed light on creative accounting practices employed by certain companies, ensuring that individuals gain a better understanding of these practices (Al-Khashawi et al., 2008).

The researcher believes that efforts to reduce creative accounting practices are interconnected; rather than working independently, they should be viewed as a team, with each component supporting the others; if any of them becomes vulnerable due to obstacles, it may open the door to increased creative accounting practices.

2.5. The Contribution of Audit in Reducing Creative Accounting Practices

Among the most controversial issues that concern the auditing profession is the auditor's obligation for detecting creative accounting's fraud and deception activities. There is still a mismatch between the public’s expectations of auditors and their duties in accordance with commonly recognized auditing standards. The public expects from the auditor to uncover creative accounting practices of manipulation and fraud, but professional standards underscore that the auditor’s role primarily revolves around the fact that planning for the regular audit process is not done just to identify fraud and errors (Al-Khashawi et al., 2008).

Although international standards have attributed the responsibility for preventing and detecting error and fraud to each of the management and the governing bodies, this does not release the auditor from responsibility in the event of material errors affecting the financial statements' integrity and acurracy.

Taking into account the audit limitations, that result from several factors, the most important of which are the inherent risks in internal control systems, the fact that auditors use judgment, and that many audit evidence are persuasive, not conclusive; it can be concluded that the discovery of all errors and fraud is impossible and very expensive process, therefore ISA 200 necessitates designing an audit to offer reasonable assurance in detecting both errors and fraudulent activities within the financial statements. Auditing Standard (ISA 240) *"The Auditor's Responsibilities Relating to Fraud in an Audit of Financial Statements"* clarified that misstatements in financial statements stem from either error or fraud. What sets them apart is the intent behind the actions leading to the misstatements, which determines if it was intentional or unintentional. According to the standard, an "error" is an unintended misstatement in a financial report, such as the omission of an amount or a disclosure. While the term "fraud" refers to an intentional act like using deceit to get illegal or unfair benefit, it can be done by one or more members of management, those responsible for governance, employees, or third parties.

Sanusi et al. (2012) believe that what makes creative accounting practices considered fraud is the intention of the managers, and added that while not all instances of creative accounting are classified as fraudulent, distinguishing fraudulent practices from creative window-dressing in financial statements can be challenging.

International Standards on Auditing require auditors to plan and carry out the audit with an attitude of professional scepticism and due professional care. Accordingly, the auditor must be alert to creative accounting indicators. The auditors must pick up the red flags that indicate creative accounting practices, bearing in mind that not all of these flags necessarily indicate fraud, but the auditor need to be cautious of these indicators and take the necessary measures to ascertain their causes (Sanusi et al.,2012).

Here, the auditor's specialization in auditing a specific sector plays a major role in reducing audit risks resulting from manipulation, as Metwally et al. (2006) believe that the specialized auditor can detect cases of fraud and error in financial reports due to his experience in the field of client's activity, and the continuous auditing of homogeneous activities, which means that the specialized auditor in a specific field is more able to detect fraud and manipulation compared to the auditor less experienced in the field.

Accordingly, the sectoral specialization of the auditor is of great importance in increasing the degree of professional performance efficiency and reducing audit risks, which leads to narrowing the expectations gap in the auditing profession (Fattoha et al., 2016).

In a study conducted by Vidhi and Gupta (2017) entitled *Redefining the role of auditor in curbing creative accounting practices*, it was concluded that the auditor must examine the accounts carefully and reveal to the stakeholders the true picture of the entity. And that the effectiveness of the internal control system of the entity under audit has to be evaluated because of its important role in building good corporate governance; as integrated auditing is necessary for each entity to reduce the risks of accounting manipulation.

It was also pointed out that the following aspects should be taken into account to raise the efficiency of auditing in the face of accounting irregularities:

• Increasing auditors' experience: Continuous training is essential for auditors to acquire knowledge, skills, and methods to discover these activities.

• Verification of audits by specialized auditing authorities: To make sure that there hasn't been any accounting manipulation, the specialized auditing authorities should double-check the auditing.

• Unexpected and flexible audit processes: The auditors must adjust their methods and the scope of their work each year. They must also conduct surprise audit procedures throughout the year and during the audit process.

• Increase the use of computer-assisted tools: Although it is not an easy task to detect creative accounting, adopting computer-assisted tools makes the mission better and easier. These tools provide a wide range of applications that enable the auditor to precisely and quickly examine the accounting data and generates reports on any unusual items.

• Restrict certain non-audit services: The government should disallow the auditor from performing some non-audit services in order to reduce the likelihood that the auditor will violate any laws. In addition, this procedure limits the auditor's dilemma of having to decide between giving the correct opinion or losing the revenues earned from performing non-audit services, furthermore it may also increase the auditor's independence.

Many studies that dealt with the role of the auditor in confronting manipulation agreed that in addition to the professional skills required from auditors, thier adherence to the auditing profession' ethics raises auditing efficiency in facing the risks of accounting manipulation. As the greater the objectivity and integrity of the auditor, the greater the ability to discover creative accounting practices (Mohamed et al., 2013).

Overall, by following the guidance outlined in ISA 240, an audit's effectiveness can be increased if the auditors fulfill their responsibilities to uncover irregularities, the most important of these responsibilities are the following:

- Obtaining a declaration from management that includes its responsibilities for developing and implementing the internal control system that would prevent and detect errors and fraud.
- The auditor is required to estimate the risks that may occur and are of relative importance.
- The external auditor has to practice due professional diligence and this means acquiring an understanding of the internal control system, determining suitable proceedings and tests, along with executing an inclusive auditing program that encompass further proceedings in the event that the auditor discovered significant distortions in the financial statements.
- Throughout the audit process, it's a must for the auditor to uphold a professional skepticism stance, considering the possibility of significant misstatement resulting from fraud, despite his prior familiarity with the entity in relation to the management and those charged with governance.
- Report material misstatements resulting from fraud as soon as possible to the required administrative level.

In conclusion, the majority of those who engage in manipulations or creative accounting practices are accountants with a high degree of professionalism and creativity, thus auditors must be at the same level, if not higher, in order to discover and limit these practices.

2.6. Analytical Procedures in Reducing Creative Accounting Practices

Considering the important role of external auditors in uncovering accounting practices aimed at distorting and misleading financial information, especially creative accounting practices that were the reason for describing accounting as a tool for deception and a game of numbers, auditors have been spurred to seek more robust and efficient methods to ensure the accuracy of audit results. Among these methods, analytical procedures stand out as an essential tool in assessing the financial performance of entities through the use of financial indicators and ratios (Alqadi,2020). Musa,(2013) also mentioned that the emergence of the phenomenon of corporate collapse and manipulation of accounts led to the need to develop auditing processes and procedures. One of the results of this development was that the analytical review moved from a sub-auditing tool to a basic tool that is carried out according to internationally accepted standards.

The reasonable results reached by the auditor through analytical procedures for financial statement numbers must represent answers to a number of questions related to each of the following: (Al-Anqari, 2007):

1- Financial position statement.

a. Have all assets and liabilities been recorded?

b. Do the recorded assets and liabilities exist in reality?

c. Are the registered assets actually owned by the entity? and do the registered liabilities represent actual obligations of the facility?

d. Have the assets and liabilities been calculated in compliance wit the policies approved by the entity?

e. Were the assets, liabilities, and owners' equity appropriately stated and disclosed?

2. Income statement.

a. Are all revenues, expenses, gains, and losses for the accounting period recorded?

b. Do the revenues, expenses, gains, and losses belong to the entity?

c. Have revenues, expenses, gains, and losses been recognized and measured in conformity with the accounting policies approved by the entity?

d. Are the adopted accounting rules consistent with generally accepted accounting principles and applicable to the entity's circumstances?

e. Were revenues, expenses, gains, and losses properly recorded and disclosed?

3. Statement of Cash Flows.

a. Does the statement include all of the cash received during the period?

b. Does the statement include all cash payments which were done throughout the period?

c. Were the accounting standards related to presentation and disclosure adhered to when preparing this statement?

From the foregoing, it can be understood that the use analytical procedures, which is considered an aid tool in various stages of the audit process, and also a source for obtaining evidence, will increase the efficiency and effectiveness of the auditing process, as it helps auditors in detecting and limiting accounting manipulation practices, including creative accounting methods.

CHAPTER 3

CASE STUDY

3.1. Problem Statement

Due to several factors, the most important of which is the conflict of interests between the entity's management and various parties and the intense competition in the market, some entities' managements resort to manipulating their financial statements using creative accounting methods to achieve their own goals. These practices include inflating revenues, reducing expenses, or concealing debts intending to present financial statements that give an inaccurate picture of the entity's actual position. These practices deceive financial statement users, resulting in several risks such as financial losses and negative long-term consequences. In this context, auditing has a crucial role to play in reducing and combating these practices. This study focuses specifically on measuring auditors' opinions about analytical procedures' role within auditing process. It aims to evalute whether auditors believe that these procedures can identify deviations, ensure accuracy, and ultimately contribute to reducing instances of creative accounting, by conducting a field study on auditing firms in Istanbul. Accordingly, study's problem is to search for answers to the following main question:

Do auditors believe that using analytical procedures when auditing financial statement help in revealing creative accounting practices?
The main question leads to the following sub-questions:

1. Do auditors believe that using analytical procedures on the comprehensive income statement help in revealing creative accounting practices?
2. Do auditors believe that using analytical procedures on the statement of financial position help in revealing creative accounting practices?
3. Do auditors believe that using analytical procedures on the cash flow statement help in revealing creative accounting practices?
4. Do auditors believe that using analytical procedures on the statement of changes in equity help in revealing creative accounting practices?

3.2. Research Objectives

The research objectives could be summarized as follows:

1- Identify the concept of analytical procedures, their importance and methods.
2- Identify the phenomenon of creative accounting and its forms.
3- Assess auditors' opinion about the effectiveness of analytical procedures in the following areas:

- Discovering creative accounting practices in comprehensive income statement.
- Discovering creative accounting practices in financial position.
- Discoveringcreative accounting practices in cash flow statement.
- Discovering creative accounting practices in changes in owner 's equity statement.

3.3. Research Importance

The study's importance arises from the importance of the phenomenon of creative accounting and its influance on financial reports' integrity, which in turn affects the extent to which stakeholders trust these reports and can have broader implications for the economy. The study focuses in particular on the role of analytical procedures in audit to uncover these practices in the financial statements.

Considering previous studies, whether they are related to the field of creative accounting or related to analytical procedures, the researcher noticed that that there were no studies specifically investigating the role of analytical procedures within the auditing processes done by audit firms operating in Istanbul in revealing creative accounting practices.

This study serves multiple categories, as findings can guide audit professionals in Turkey to enhance their audit procedures and strategies, thereby improving the quality and reliability of financial audits, which consequently benefits financial statements' users including current and potential investors, banks, creditors, government agencies, financial analysts, and other stakeholders.
In addition, this research contributes to academic literature by offering empirical evidence specific to audit firms in Istanbul, filling a potential gap in the existing body of knowledge.

3.4. Literature Review

Previous international and local studies have addressed various aspects related to the subject of the current study. The researcher has referenced many of these studies to gain insight into the research topic. These studies span from exploring the concept of creative accounting to evaluating the effectiveness of analytical procedures in auditing.

One significant work is Mulford and Comiskey's (2002) book, "*The Financial Numbers Game: Detecting Creative Accounting Practices*". In which the writers tried to develop factors to limit these practices, to represent early warning procedures before deception occurs in financial figures, as well as the possibility of discovering them and protecting accounts from manipulation. The book included creative accounting practices in US companies through improper classification of revenue and misreporting of expenses in exchange for a number of rewards.

Similarly, Schilit Howard M.'s (2002) book, "*Financial Shenanigans*", offers a comprehensive view of detecting and understanding illegal or unethical financial activities that affect a company's report or financial performance. The book presented a number of financial fraud techniques and how they can be discovered. The author based his presentation of these techniques on a number of previous studies and empirical examples of manipulation from the reality of some companies.

Both books' authors emphasize the importance of separating tasks between accountants and managers and highlight the need for stringent regulations and legal procedures related to financial reporting to detect financial manipulation effectively.

One of the important studies in the field of creative accounting is the study by Amat, O. & Growthorpe C., (2004) entitled "*Creative Accounting: Nature, Incident and Ethical Issues*", which also explored the concept of creative accounting by providing a clear definition and the motivations that lead to its use. It outlined various methods associated with creative accounting and referenced prior studies aimed at understanding its nature and prevalence. Furthermore, the ethical dimension of this practice was thoroughly discussed. The results of this study emphasized the importance of regulatory efforts, such as those initiated by the International Accounting Standards Board (IASB) to reduce these practices through amendments to international accounting standards, and emphasized the importance of giving equal attention to the ethical dimension and the effective application of governance codes within institutions. This research paper thus represents a valuable contribution towards a deeper understanding of creative accounting and its broader implications.

In Türkiye, Çorbaci Doğan Ö.'s (2011) study, "*Creative Accounting and an Application on Companies Listed on Istanbul Stock Exchange*," clarified the concept of creative accounting, investigated creative accounting practices, explored the relationship between independent auditing and creative accounting practices, and brought to light instances of creative accounting among Turkish companies. To identify companies engaging in creative accounting, an analysis of the statement of financial position and income statement data for the years 2007 and 2008 was conducted using the Küçüksözen (2004) model. An important finding of this study is that independent audit practices and legal regulations were insufficient.

Many studies have linked between creative accounting and auditing, including the study of Rabin C. (2005), titled "*Determinants of Auditors Attitudes Toward Creative Accounting*", which evaluated auditors' attitudes toward creative accounting practices, focusing on the influence of factors such as ethical judgment, financial reporting quality evaluation, and perceptions of management incentives. The study used the analytical descriptive method and relied on a questionnaire targeting legal accountants in South Africa. The paper's results indicated that auditors' assessment of the quality of financial reporting has an important impact on their attitudes about creative accounting, whereas ethical judgment and management's rewards have lower impact. Furthermore, the paper emphasizes the importance of professional ethics in limiting creative accounting practices.

Guerrouf M. K., (2016) discussed in his study entitled "*The Role of Auditing in The Reduction of The Negative Practices of Creative Accounting*", the role of auditing in limiting creative accounting practices through a study conducted on 30 French institutions registered with the CAC 40 index. The researcher used the modified Jones model for the year 1995 to measure creative accounting practices by estimating voluntary accruals. The research findings indicated that adhering to auditing standards facilitates the detection of financial statement manipulation and fraudulent activities. As a result, the study suggested the importance of implementing measures to promote professional and ethical conduct as a means to mitigate creative accounting practices.

In the same field comes a study by Konak K., (2019) entitled "*Relationship between Creative Accounting Practices and Independent Audit Quality*", which investigated the impact of creative accounting practices on financial statements and indirectly investigated the relationship between this situation and the quality of independent auditing. The researcher conducted two surveys to measure the knowledge of professionals working in the field of accounting about creative accounting practices and examine the effects of these practices on the financial statements. The study's conclusion highlights that eliminating creative accounting and its inclusion in financial statements does not provide a definitive solution to the challenges encountered by stakeholders relying on financial reports. Complete avoidance of creative accounting practices is impractical since it would restrict accounting flexibility and force adherence to rigid standards. Consequently, the acknowledgment that creative accounting practices exist to some extent is essential, particularly as many stems from accrual accounting principles. However, it is crucial to ensure that their application remains within ethical boundaries.

As for the studies that dealt with the subject of analytical procedures, some of them dealt in general with the analytical procedures in the auditing process, such as a study of Al-Abdali, (2011) entitled "*The Importance of Using Analytical Procedures During the Stages of Checking up by Financial Controllers (Field Study in the Ministry of Finance in Kuwait)*" , which addressed analytical procedures' concept and the importance of their use by auditors of the ministry of finance in the process of control and auditing. The researcher followed the descriptive analytical method. Based on the answers collected by the researcher through the questionnaire and analyzed statistically several conclusions were drawn, the most significant was that financial controllers' using of analytical procedures when identifying and diagnosing potential problems affects the efficiency and effectiveness of auditing and monitoring performance on an ongoing basis. Several recommendations were outlined in the study, foremost among them is the emphasis on continuing to employ analytical procedures to carry out audit operations, as they contribute to adding evidentiary evidence to form the auditor's opinion when carrying out the audit process. ,

Al-Rabadi's study (2013) agrees with Al-Abdali's study (2011) in emphasizing the importance of these procedures in the auditing process, as in her study entitled, "*The Role of Analytical Review in Reducing the Expectations Gap in the Auditing Work*

Environment from the Point of View of the Jordanian Chartered Accountant (Field Study)" , the researcher sought to examine the influence of analytical review procedure on lowering the expectations gap in the Jordanian auditing environment, as well as the extent to which Jordanian chartered accountants depend on analytical procedures to minimize the expectations gap. A questionnaire was prepared and distributed to a random sample of the study population to meet the research's goals. Based on the answers collected by the researcher through the questionnaire and analyzed statistically it was found that the analytical review is helpful in minimizing the reasonableness gap in Jordan's auditing environment. The research presented a number of recommendations at its conclusion, the most important of which was to deepen the concept of analytical review and its pivotal role in upholding the credibility and reliability of financial statements.

Among the studies that evaluated auditors' opinion on analytical procedures was the study of Kritzinger J. & Barac K., (2017), titled "*The Application of Analytical Procedures in the Audit Process: A South African Perspective"*, which investigated the utilization of analytical procedures in the audit process among auditors in South Africa, given their pivotal role as a fundamental component of auditing practices and their potential to enhance audit quality. The information was gathered through interviews with managers of prominent auditing firms in the Republic of South Africa, which comprised eleven auditing firms. The study's findings revealed that South African auditors perceive analytical procedures as valuable additions to auditing and that their use improves audit efficiency and effectiveness.

Abd Jasim L. & Hadab F.F., (2020) through thier study titled, "*The Importance of Using Analytical Procedures in the Detection of Creative Accounting Practices"*, identified the importance of using analytical procedures in revealing creative accounting practices. The researchers relied on the descriptive analytical approach, and to achieve the goal of the study, 100 questionnaires were distributed to auditors in Iraq. The results showed that analytical procedures play a major role in detecting and limiting creative accounting practices, and that auditors use them at all stages of the audit.

After reviewing the extensive literature on creative accounting and analytical procedures in auditing, it is clear that researchers are keenly interested in understanding these practices and their impact on the quality of financial reporting. While studies vary widely in objectives and methodologies, there is broad consensus on the need to put in place strict regulations to limit these practices and emphasize the importance of professional ethics. This study aims to address some of the existing research gaps by focusing specifically on the effectiveness of analytical procedures in detecting creative accounting practices. It differs from other studies in that it combines between the studies that primarily aimed on defining creative accounting, its mechanisms, and methods for discovering it - such as Amat & Gowthorpe. (2004) and Mulford & Comiskey (2002) - with research highlighting the importance of analytical procedures in enhancing audit quality, like Al-Rabadi (2013) and Kritzinger & Barac (2017). Furthermore, this study differs from the few studies that explore the role of analytical procedures in uncovering creative accounting practices, such as Abd Jasim L. & Hadab F.F., (2020) study in Iraq, in that this study was conducted in a different environment than the one in which it was conducted in previous studies.

Previous studies were benefited from in determining the methodology of this study, as most previous studies adopted the descriptive analytical approach as it suits the nature of these studies. It was also benefited from in developing the study hypotheses and formulating the questionnaire questions.

3.5. Research Method

The study followed both descriptive and analytical approaches. The researcher used the descriptive approach in the theoretical sections of the research in presenting aspects related to auditing, analytical procedures, and creative accounting, to clarify the intellectual framework on which the study is based and present a comprehensive overview of the study's concepts. The analytical approach was followed in the empirical part of the study to test the study hypotheses by analysing the data collected.

Two principal sources of data were used:

- **Secondary sources:** The researcher relied on several references, including books, scientific journals, periodical literatures, research, previous studies, and websites.
- **Primary sources:** In the empirical part of this study, the researcher relied on primary data collected via a questionnaire designed for this study and then distributed to the study sample.

3.6. Research Hypotheses:

The research has one main hypothesis and four sub-hypotheses, the main hypothesis is:

1- Auditors believe that using analytical procedures helps in the discovery of creative accounting practices.

The sub-hypotheses below stem from the main hypothesis:

1.1 Auditors believe that using analytical procedures on the comprehensive income statement helps in the discovery of creative accounting practices.

1.2 Auditors believe that using analytical procedures on the statement of financial position helps in the discovery of creative accounting practices.

1.3 Auditors believe that using analytical procedures on the cash flow statement helps in the discovery of creative accounting practices.

1.4 Auditors believe that using analytical procedures on the statement of changes in equity helps in the discovery of creative accounting practices.

3.7. Study Tool

The researcher relied on the questionnaire as a mean of collecting primary data for the purpose of understanding the relationship between variables and examining study's hypotheses. A questionnaire was prepared about "**The role of analytical procedures in revealing creative accounting practices**", based on an in-depth review of relevant previous studies and aligned with the objectives of the study.

The questionnaire consisted of two sections:

1. **The first section:** includes participants' personal data (Gender, Age, Scientific qualification, Years of experience, Job title).
2. **The second section:** aims to measure the variables of the study and includes four fields:

The first field: The auditor's use of analytical procedures on <u>comprehensive income statement</u> reveals creative accounting practices, consists of 11 statements.

The second field: The auditor's use of analytical procedures on statement of financial position reveals creative accounting practices, consists of 10 statements.

The third field: The auditor's use of analytical procedures on cash flow statement reveals creative accounting practices, consists of 9 statements.

The fourth field: The auditor's use of analytical procedures on statement of changes in owners' equity reveals creative accounting practices, consists of 4 statements.

The five-point Likert scale will be used in the second part of the questionnaire, and the statements were formulated in a positive way. The relative weights ranged between 1-5 as shown in the following table (3.1).

Table 3.1 *Five-point Likert scale scores*

Response	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Degree	1	2	3	4	5

In order to facilitate the process of distributing the questionnaire, the questionnaire was designed on the Google Forms platform and the link was distributed to the study sample via emails.

3.7.1 Questionnaire's Validity

The validity of the questionnaire means that it measures what it was designed to measure. The researcher employed two key methods to evaluate the questionnaire's validity: internal consistency and construct validity.

First: Internal consistency

Internal consistency refers to how well each questionnaire paragraph aligns with the field it belongs to. In order to evaluate the internal consistency of the questionnaire, the researcher employed a statistical technique involving the calculation of correlation coefficients between each item within each field's item and the field's total score..

Correlation coefficients presented in Table (3.2) indicate how each paragraph of the first field “the auditor’s use of analytical procedures reveals creative accounting practices in the comprehensive income statement” was correlated with the overall score on this field.

The correlation coefficients shown are statistically significant at α = 0.05 level which confirms the validity of the field for its intended measurement objectives.

Table 3.2 *Correlation coefficients between individual paragraphs within the first field and the total score of the field.*

N	Paragraph	Pearson Correlation	Sig.
1	Excessive gains or losses that are not consistent with the entity's operations or industry norms.	.813**	0.000
2	Transactions that do not align with the entity's accounting policies or industry practices.	.895**	0.000
3	Recognition of revenues too early or of questionable quality.	.879**	0.000
4	Inflated income by recognizing fictitious revenue.	.810**	0.000
5	Misrepresentation of operating profits by including extraordinary gains.	.826**	0.000
6	Increases in revenues by carrying out sales deals using sales incentives like increasing sales discount rate.	.850**	0.000
7	Misrepresentation of cost of goods sold by including slow-moving inventory within inventory items.	.859**	0.000
8	Distortions of revenues by shifting current revenues to future periods.	.925**	0.000
9	Shifting current expenses to future periods by capitalizing normal operational expenses.	.856**	0.000
10	Shifting current expenses to previous periods by making unjustified changes in accounting policies.	.845**	0.000
11	Misrepresentation or reduction in depreciation/amortization ratios in a way that is not consistent with the entity's nature.	.897**	0.000

**. Correlation is significant at the 0.01 level (2-tailed)

Table (3.3) displays correlation coefficients that show how each paragraph in the second field "The auditor's use of analytical procedures reveals creative accounting practices in financial position statement" was correlated with the overall score on this field. The correlation coefficients shown are statistically significant at α = 0.05 level which confirms the validity of the field for its intended measurement objectives.

Table 3.3 *Correlation coefficients between individual paragraphs within the second field and the total score of the field.*

N	Paragraph	Pearson Correlation	Sig.
1	Manipulation by not disclosing restricted cash items.	.809**	0.000
2	Manipulation of the exchange rates used to translate foreign currencies.	.769**	0.000

Table 3.3 *Correlation coefficients between individual paragraphs within the second field and the total score of the field.(Continued)*

3	Manipulation in accounts receivables by not properly calculating doubtful debts provisions.	.879**	0.000
4	Manipulation in inventory by deferring the necessary write-down of value-impaired inventory.	.830**	0.000
5	Manipulation in inventory by inclusion of slow-moving inventory.	.850**	0.000
6	Manipulating the classification of short-term investments into long-term ones when their market prices fall.	.840**	0.000
7	Manipulating the value of fixed assets by using unrealistic depreciation rates or making an unjustified change in the depreciation method.	.888**	0.000
8	Improper recognition or overvaluation of intangible assets items such as trademarks.	.896**	0.000
9	Manipulating current liabilities by concealing the value of the installments due in the current period on long-term loans.	.906**	0.000
10	Manipulation by obtaining long-term loans before announcing the statement of financial position for the purpose of using them to pay off short-term loans.	.874**	0.000

**. Correlation is significant at the 0.01 level (2-tailed).

Table (3.4) displays correlation coefficients that show how each paragraph in the third field, "The auditor's use of analytical procedures reveals creative accounting practices in cash flow statement" was correlated with the overall score on this field. The correlation coefficients shown are statistically significant at $\alpha = 0.05$ level which confirms the validity of the field for its intended measurement objectives.

Table 3.4 *Correlation coefficients between individual paragraphs within the third field and the total score of the field.*

N	Paragraph	Pearson Correlation	Sig.
1	Manipulation by extending the repayment period for expenses and costs, with the aim of improving the level of operating cash flows.	.787**	0.000
2	Manipulating by removing and changing non-recurring items from continuing operations.	.900**	0.000
3	Manipulation in operating expenses by considering them as investment or financing expenses.	.799**	0.000
4	Manipulating by classifying overdrafts as operating activities when it is not considered an integral part of an entity's cash management.	.861**	0.000

Table 3.4 *Correlation coefficients between individual paragraphs within the third field and the total score of the field. (Continued)*

5	Manipulation by considering cash flow from factoring or securitization of receivables as operating cash flow.	.891**	0.000
6	Manipulating an increase in operating flows by deferring the payment of taxes owed.	.874**	0.000
7	Manipulating by classifying revenues from selling investment portfolio as operating cash flow.	.879**	0.000
8	Manipulation by exploiting the flexibility of criteria that allow interest and dividend payments to be classified among cash flows from operating or financing activities.	.940**	0.000
9	Manipulation by classifying cash outflows that have a negative impact as cash flows from discontinuing operations.	.877**	0.000

**. Correlation is significant at the 0.01 level (2-tailed).

Table (3.5) displays correlation coefficients that show how each paragraph in the fourth field, "The auditor's use of analytical procedures reveals creative accounting practices in the statement of changes in owners' equity" was correlated with the overall score on this field. The correlation coefficients shown are statistically significant at α = 0.05 level which confirms the validity of the field for its intended measurement objectives.

Table 3.5 *Correlation coefficients between individual paragraphs within the fourth field and the total score of the field.*

N	Paragraph	Pearson Correlation	Sig.
1	Manipulating by recording exchange rate gains or losses related to transactions in foreign currencies in equity instead of in the income statement.	.912**	0.000
2	Manipulation by recording the gains of translating financial statements prepared in foreign currencies for subsidiaries in the income statement instead of recording them in owners' equity.	.921**	0.000
3	Manipulation of fictitious increases in the paid-up capital or the retained earnings.	.929**	0.000
4	Manipulation by recording surplus from assets revaluation min income statement rather than owners' equity	.910**	0.000

**. Correlation is significant at the 0.01 level (2-tailed).

Second: Construct Validity

Construct validity is a fundamental aspect of assessing the validity of a study tool, as it indicates the extent to which each field of the questionnaire is related to the total score of the questionnaire items combined.

Table (3.6) shows that all correlation coefficients in all fields of the questionnaire are statistically significant at a significance level of 0.05 Thus, all fields of the questionnaire are considered valid and consistent in measuring the construct.

Table 3.6 *Correlation coefficient between the score of each field of the questionnaire and the total score of the questionnaire.*

N	Field	Pearson Correlation	Sig
1	Analytical procedures on comprehensive income statement	.946**	0.000
2	Analytical procedures on financial position statement.	.951**	0.000
3	Analytical procedures on cash flow statement.	.947**	0.000
4	Analytical procedures on statement of changes in equity.	.925**	0.000

**. Correlation is significant at the 0.01 level (2-tailed).

3.7.2 Questionnaire's Reliability

The reliability of the questionnaire refers to its ablity to provide consistent results when re-applied multiple times, and also indicates the closeness of the readings it provides each time it is used.

The reliability of the questionnaire was verified using Cronbach's alpha coefficient, and the results are shown in Table (3.7).

Table 3.7 *Cronbach's alpha coefficient to measure the reliability of* the questionnaire.

N	Field	Number of Paragraphs	Cronbach's Alpha Coefficient
1	Analytical procedures on comprehensive income statement.	11	0.965
2	Analytical procedures on financial position	10	0.958
3	Analytical procedures on cash flow statement.	9	0.959
4	Analytical procedures on statement of changes in equity.	4	0.937
All Fields together		34	0.958

The results presented in Table (3.7) demonstrate consistently high values of Cronbach's alpha coefficient across all fields, ranging from 0.937 to 0.965. Additionally, the overall Cronbach's alpha coefficient for all questionnaire items reached 0.958. These findings confirm both validity and reliability of the study tool.

Consequently, regading to the findings of the questionnaire's validity and reliability tests, it can be said that there is a strong basis for the confidence in its suitability for collecting accurate data and testing study's hypotheses.

3.8. Statistical Tools

The gathered data was analyzed using some statistical methods, including:

1-Percentages and frequencies: to clarify the characteristics of the research sample.

2- The arithmetic mean, the relative arithmetic mean, and the standard deviation.

3- Cronbach's alpha test: to assess the reliability of the questionnaire elements.

4- Pearson correlation coefficient: to assess questionnaire's internal consistency and construct validity.

5- One sample T-Test: to evaluate if the average response score has reached the average agreement score of 3 or more or less than that. It was used to verify the significance of the average for each item in the questionnaire.

3.9. Population and Sample

The study population was chosen to be auditors working in Istanbul due to the intensity of auditing operations conducted through auditing companies operating there. According to KGK website statistics for the year 2023, 19,831 audit agreements were signed throughout Turkey. The number of agreements implemented by auditing companies in Istanbul was 10,499 agreements, which indicates that auditing companies in Istanbul have greater activity than others, which reflects the extent of the auditors' practice there and their greater experience in auditing, which will reflect positively on the accuracy of the study's results, as the study tool measures the auditors' opinions about the effectiveness of the analytical procedures in detecting creative accounting practices. In order for the study sample to be appropriate, the auditors most capable of answering the questionnaire questions are the most experienced auditors, as they are more capable of employing analytical procedures and using personal judgment, and these characteristics are available in the auditors of auditing companies working in Istanbul due to the volume of agreements signed through these companies.

The population of the study comprises the independent auditors working in auditing firms in Istanbul, totaling 219 companies according to the official KGK website in June

2023. According to the same source, there are approximately 2563 auditors. The researcher followed the simple random sampling method, distributing the questionnaire several times via email to a number of the KGK listed companies which the researcher managed to acquire contact information. The number of completed questionnaires was 97, which is considered sufficient to represent the population at a 95% confidence level and a 10% margin of error, as it exceeds the minimum sample size required which is approximately 94 according to the equation below.

$$n = \frac{N \times Z^2 \times p \times (1-p)}{(N-1) \times e^2 + Z^2 \times p \times (1-p)}$$

Where:

- n = required sample size
- N = population size. Which is 2563
- Z = Z-score for the desired confidence level. 1.96 (for 95% confidence level)
- p = estimated population proportion. Assumed as 0.5
- e = margin of error. Which is 0.10

$$n = \frac{2563 \times (1.96)^2 \times 0.5 \times (1-0.5)}{(2563-1) \times (0.10)^2 + (1.96)^2 \times 0.5 \times (1-.05)}$$

$n \approx 93.17$

3.9.1 Statistical description of the study sample

Statistics were used to summarize basic information about the sample, such as the total sample size, mean, and standard deviation for all categories. This aims to provide a preliminary understanding about the main characteristics of the sample, facilitating better understanding and interpretation of the research findings.
As the table (3.8) shows, the sample consists of 97 participants, with a gender distribution of 69.1% males and 30.9% females. In terms of age, the sample extends across different age stages, including 26.8% under the age of 30 years, 39.2% between 30-40 years old, 28.9% between 41-50 years old, and 5.2% over 50 years old, which ensures a broad perspective for both younger and more experienced auditors.

In terms of educational background, the majority of the sample holds a bachelor's degree (66.0%), then comes a large percentage holding a master's degree (32.0%), and a small percentage holding a doctoral degree (2.0%). This distribution indicates a high level of academic achievement among participants, which is crucial for understanding the complexities of creative accounting practices and the effectiveness of analytical procedures in audits.

Looking at the years of experience, it shows a balanced distribution among the different categories, as the number of individuals with less than 5 years of experience ranges from 20.6%, from 5 to 10 years by 26.8%, from 11 to 15 years by 29.9%, and more than 15 years by 22.7%. The presence of a balanced representation of the various levels of experience contributes to emphasizing the comprehensiveness of the study sample for the opinions of the various categories of auditors in the study population.

Regarding job titles, the sample includes a diverse group of auditors under various job titles, where auditors constitute 46.4%, assistant auditors 21.6%, senior auditors 29.9%, and audit partners 2.1%. It should be noted that the largest category is auditors, which is the category specialized in field work concerned with analytical procedures and creative accounting practices, which enhances the accuracy of the collected data.

Table 3.8 *Statistical Description of the Study Sample*

Category		Frequency	Percent
Gender	Male	67	69.1%
	Female	30	30.9%
	Total	97	100.0%
Age	Less than 30	26	26.8%
	30-40	38	39.2%
	41-50	28	28.9%
	More than 50	5	5.2%
	Total	97	100.0%
Scientific qualification	Bachelor’s degree	64	66.0%
	Master’s degree	31	32.0%
	PhD Degree	2	2.0%
	Total	97	100.0%
Years of Experience	Less than 5 years	20	20.6%
	5 -10 years	26	26.8%
	11-15 years	29	29.9%
	More than 15	22	22.7%
	Total	97	100.0%
Job Title	Auditor	45	46.4%
	Assistant Auditor	21	21.6%
	Senior Auditor	29	29.9%
	Audit Partner	2	2.1%
	Total	97	100.0%

Therefore, based on the demographic data from the random sample, it can be concluded that the sample offers a comprehensive representation of the study population. This enhances the credibility of the conclusions and recommendations drawn from the study.

3.10. Data Analysis and Testing of the Hypotheses

This section comprises a presentation data analysis, testing of study hypotheses, and a review of the important findings derived from the analysis of the questionnaires in their various fields. The main hypothesis was tested by testing the four sub-hypotheses branching from it and through the fields they represent. The main hypothesis was:

Auditors believe that using analytical procedures helps in the discovery of creative accounting practices.

To test the study hypotheses, a one-sample T-test was used to determine whether or not the average response score agrees with the average agreement score, which equals 3. In case Sig. is greater than 0.05, then the average opinions of participants do not differ fundamentally from agree with a moderate degree of 3. However, if Sig. is less than 0.05, this means that the average opinions of participants shows a significant difference from the average degree of agreement. Here, the test value is used to determine whether the average answer is significantly higher or less than the average degree of agreement. If the test result was positive, this indicates that the average answer exceeded the average degree of agreement, and conversely.

The First Hypothesis: Auditors believe that using analytical procedures on the comprehensive income statement helps in the discovery of creative accounting practices.

The researcher conducted a T-test to check if the mean of the respondents' answers met the score of average agreement, which is 3. Table (3.9) displays the results.

Table 3.9 *The results of statistical analysis of the first field's paragraphs.*

N	Item	Mean	St. Deviation	Relative Mean	Value of the test (t)	Probability value (sig.)	Rank
1	Excessive gains or losses that are not consistent with the entity's operations or industry norms.	3.53	0.82	70.52	6.33	0.000	9

Table 3.9 *The results of statistical analysis of the first field's paragraphs.*(Continued)

2	Transactions that do not align with the entity's accounting policies or industry practices.	3.47	0.84	69.48	5.54	0.000	11
3	Recognition of revenues too early or of questionable quality.	3.72	0.85	74.43	8.35	0.000	3
4	Inflated income by recognizing fictitious revenue.	3.74	0.92	74.85	7.98	0.000	1
5	Misrepresentation of operating profits by including extraordinary gains.	3.73	0.88	74.64	8.15	0.000	2
6	Increases in revenues by carrying out sales deals using sales incentives like increasing sales discount rate.	3.56	0.85	71.13	6.42	0.000	6
7	Misrepresentation of cost of goods sold by including slow-moving inventory within inventory items.	3.69	0.82	73.81	8.29	0.000	5
8	Distortions of revenues by shifting current revenues to future periods.	3.54	0.89	70.72	5.93	0.000	7
9	Shifting current expenses to future periods by capitalizing normal operational expenses.	3.49	0.84	69.90	5.78	0.000	10
10	Shifting current expenses to previous periods by making unjustified changes in accounting policies.	3.54	0.82	70.72	6.46	0.000	8
11	Misrepresentation or reduction in depreciation/amortization ratios in a way that is not consistent with the entity's nature.	3.71	0.85	74.23	8.21	0.000	4
	Analytical procedures on comprehensive income statement	**3.61**	**0.73**	**72.22**	**8.20**	**0.000**	

From Table (3.9), the following can be extracted:

- The analysis results of the first field indicate that the mean for the fourth paragraph, "Inflated income by recognizing fictitious revenue," which obtained the highest rank among the paragraphs within the field, equals 3.74 (out of a total score of 5), a relative mean equals 74.85%, t-test value equals 7.98, with a probability value (Sig.) equals 0.000. Consequently, the paragraph is deemed statistically significant at a significance level of $\alpha \leq 0.05$, indicating that this paragraph's average degree of agreement is higher than the neutral agreement level of 3. Which reveals that there is a substantial level of agreement among the respondents regarding this paragraph.

- The mean of the second paragraph, “Transactions that do not align with the entity's accounting policies or industry practices.”, which received the lowest rank among the field's paragraphs equals 3.47 (the overall score is 5), a relative mean equals 69.48%. t-test value equals 5.54, with a probability value (Sig.) equals 0.000. Thus, this paragraph is statistically significant at a significance level of $\alpha \leq 0.05$, indicating that this paragraph's average degree of agreement is higher than the neutral agreement level of 3. Which reveals that there is a substantial level of agreement among the respondents regarding this paragraph.
- The rest of the paragraphs recorded high agreement scores with an average ranging between 3.73 and 3.49 (the overall score is 5), where the average for the fifth paragraph was 3.73, with a relative mean 74.64%, and the average for the ninth paragraph was 3.49 with a relative mean 69.90%.
- Overall, the average of all paragraphs in the field equals 3.61 (the overall score is 5), a relative mean equals 72.22%, t-test value equals 8.20, and the probability value (Sig.) equals 0.000 Accordingly, "Analytical procedures on comprehensive income statement" field is deemed statistically significant when the level of significance is $\alpha \leq 0.05$, signifying a fundamental differnce from the average degree of agreement, set at 3. This suggests a substantial level of agreement among the respondents regarding all field’s paragraphs.

Hypothesis result:

Accepting the hypothesis that auditors believe using analytical procedures on the comprehensive income statement helps in the discovery of creative accounting practices.

The Second Hypothesis: Auditors believe that using analytical procedures on the statement of financial position helps in the discovery of creative accounting practices.

The researcher conducted a T-test to check if the mean of the respondents' answers met the score of average agreement, which is 3. Table (3.10) displays the results.

Table 3.10 *The results of statistical analysis of the second field's paragraphs.*

N	Item	Mean	St. Deviation	Relative Mean	Value of the test (t)	Probability value (sig.)	Rank
1	Manipulation by not disclosing restricted cash items.	3.58	0.90	71.55%	6.32	0.000	7
2	Manipulation of the exchange rates used to translate foreign currencies.	3.49	0.89	69.90%	5.47	0.000	10
3	Manipulation in accounts receivables by not properly calculating doubtful debts provisions.	3.74	0.86	74.85%	8.53	0.000	3
4	Manipulation in inventory by deferring the necessary write-down of value-impaired inventory.	3.75	0.88	75.05%	8.44	0.000	2
5	Manipulation in inventory by inclusion of slow-moving inventory.	3.84	0.89	76.70%	9.28	0.000	1
6	Manipulating the classification of short-term investments into long-term ones when their market prices fall.	3.59	0.91	71.75%	6.36	0.000	6
7	Manipulating the value of fixed assets by using unrealistic depreciation rates or making an unjustified change in the depreciation method.	3.66	0.91	73.20%	7.13	0.000	5
8	Improper recognition or overvaluation of intangible assets items such as trademarks.	3.56	0.89	71.13%	6.16	0.000	8
9	Manipulating current liabilities by concealing the value of the installments due in the current period on long-term loans.	3.69	0.78	73.81%	8.70	0.000	4
10	Manipulation by obtaining long-term loans before announcing the statement of financial position for the purpose of using them to pay off short-term loans.	3.53	0.86	70.52%	6.06	0.000	9
	Analytical procedures on statement of financial position.	**3.64**	**0.75**	**72.85%**	**8.46**	**0.000**	

From Table (3.10), the following can be extracted:

- It is noted from the table that the fifth paragraph, "Manipulation in inventory by inclusion of slow-moving inventory," achieved the highest rank among all of the field's paragraphs, where the mean equals 3.84 (the overall score is 5), a relative mean of 76.70%, a test value of 9.28, and a probability value (Sig.) equals 0.000, this paragraph is deemed statistically significant at a significance level of $\alpha \leq 0.05$. This indicates that the average level of agreement with this paragraph surpasses the neutral agreement level of 3. Which reveals that, there is substantial agreement among the respondents regarding this paragraph.

- The mean for the second paragraph, "Manipulation of the exchange rates used to translate foreign currencies," which ranked lowest among all paragraphs in the field, equals 3.49, a relative mean equals 69.90%, t-test value equals 5.47, with a probability value (Sig) equals 0.000. Consequently, this paragraph holds statistical significance at a significance level of $\alpha \leq 0.05$. This suggests that the average level of agreement with this paragraph exceeds the neutral agreement level of 3. Therefore, there is substantial agreement among the respondents regarding this paragraph.
- The rest of the paragraphs recorded high agreement scores with an average ranging between 3.75 and 3.53 (the overall score is 5), where the average for the fourth paragraph was 3.75 with a relative mean 75.05%, and the average for the tenth paragraph was 3.53 with a relative mean 70.52%.
- Overall, the average of all field's paragraphs equals 3.64, with relative mean equals 72.85%, t-test value equals 8.46, a probability value (Sig.) equals 0.000 Therefore, the field of "Analytical procedures on the statement of financial position" is deemed statistically significant when the level of significance is $\alpha \leq 0.05$, signifying a fundamental differnce from the average degree of agreement, set at 3. This suggests a substantial level of agreement among the respondents regarding all field's paragraphs.

Hypothesis result:

Accepting the hypothesis that auditors believe using analytical procedures on the statement of financial position helps in the discovery of creative accounting practices.

The Third Hypothesis: Auditors believe using analytical procedures on the cash flow statement helps in the discovery of creative accounting practices.

The researcher conducted a T-test to check if the mean of the respondents' answers met the score of average agreement, which is 3. Table (3.11) displays the results.

Table 3.11 *The results of statistical analysis of the third field's paragraphs.*

N	Item	Mean	St. Deviation	Relative Mean	Value of the test (t)	Probability value (sig.)	Rank
1	Manipulation by extending the repayment period for expenses and costs, with the aim of improving the level of operating cash flows.	3.78	0.89	75.67%	8.65	0.000	1

Table 3.11 *The results of statistical analysis of the third field's paragraphs.(Continued)*

2	Manipulation by removing and changing non-recurring items from continuing operations.	3.58	0.91	71.55%	6.24	0.000	5
3	Manipulation in operating expenses by considering them as investment or financing expenses.	3.65	0.91	72.99%	7.00	0.000	2
4	Manipulating by classifying overdrafts as operating activities when it is not considered an integral part of an entity's cash management.	3.39	0.81	67.84%	4.76	0.000	9
5	Manipulation by considering cash flow from factoring or securitization of receivables as operating cash flow.	3.60	0.82	71.96%	7.14	0.000	4
6	Manipulating an increase in operating flows by deferring the payment of taxes owed.	3.51	0.77	70.10%	6.50	0.000	7
7	Manipulating by classifying revenues from selling investment portfolio as operating cash flow.	3.42	0.90	68.45%	4.63	0.000	8
8	Manipulation by exploiting the flexibility of criteria that allow interest and dividend payments to be classified among cash flows from operating or financing activities.	3.54	0.84	70.72%	6.27	0.000	6
9	Manipulation by classifying cash outflows that have a negative impact as cash flows from discontinuing operations.	3.63	0.77	72.58%	8.06	0.000	3
	Analytical procedures on cash flow statement.	**3.57**	**0.74**	**71.36%**	**7.57**	**0.000**	

From Table (3.11), the following can be extracted:

- The first paragraph, "Manipulation by extending the repayment period for expenses and costs, with the aim of improving the level of operating cash flows," attained the highest rank among field paragraphs, with a mean equals 3.78 (out of a total score of 5), a relative mean equals 75.67%, t-test value is 8.65, with a probability value (Sig.) equals 0.000. Accordingly, this paragraph is deemed statistically significant at a significance level of $\alpha \leq 0.05$. This means that the average level of agreement with this paragraph surpasses the neutral agreement level of 3. Which reveals that, there is substantial agreement among the respondents regarding this paragraph.
- The fourth paragraph, "Manipulating by classifying overdrafts as operating activities when it is not considered an integral part of an entity's cash management." received the lowest rank among field paragraphs with a mean equals 3.39 (the overall score is 5), a

relative mean equals 67.84%, t-test value of 4.76 and a probability value (Sig.) equals 0.000. Accordingly, this paragraph is regarded as statistically significant at a significance level of $\alpha \leq 0.05$. This means that the average level of agreement with this paragraph surpasses the neutral agreement level of 3. Thus, there is substantial agreement among the respondents regarding this paragraph.

- The rest of the paragraphs recorded high agreement scores with an average ranging between 3.65 and 3.42 (the overall score is 5), where the average for the third paragraph was 3.65 with a relative mean of 72.99%, and the average for the seventh paragraph was 3.42 with a relative mean of 68.45%
- Overall, the average of all paragraphs in the field equals 3.57, with a relative mean equals 71.36%, t-test value equals 7.57, and probability value (Sig.) equals 0.000 Therefore, the field of "Analytical procedures on cash flow statement" is deemed statistically significant at a significance level of $\alpha \leq 0.05$, suggesting a fundamental differnce from the average level of approval, set at 3. This indicates a strong level of agreement among the respondents regarding all field's paragraphs.

Hypothesis result:

Accepting the hypothesis that auditors believe using analytical procedures on the cash flow statement helps in the discovery of creative accounting practices.

The Forth Hypothesis:

Auditors believe using analytical procedures on the statement of changes in equity helps in the discovery of creative accounting practices.

The researcher conducted a T-test to check if the mean of the respondents' answers met the score of average agreement, which is 3. Table (3.12) displays the results.

Table 3.12 *The results of statistical analysis of the fourth field's paragraphs.*

N	Item	Mean	St. Deviation	Relative Mean	Value of the test (t)	Probability value (sig.)	Rank
1	Manipulating by recording exchange rate gains or losses related to transactions in foreign currencies in equity instead of in the income statement.	3.52	0.91	70.31%	5.55	0.000	4

Table 3.12 *The results of statistical analysis of the fourth field's paragraphs (Continued).*

2	Manipulation by recording the gains of translating financial statements prepared in foreign currencies for subsidiaries in the income statement instead of recording them in owners' equity.	3.66	0.85	73.20%	7.62	0.000	2
3	Manipulation of fictitious increases in the paid-up capital or the retained earnings.	3.67	0.94	73.40%	7.00	0.000	1
4	Manipulation by recording surplus from assets revaluation in income statement rather than owners' equity	3.55	0.90	70.93%	5.97	0.000	3
	Analytical procedures on the statement of changes in equity.	**3.60**	**0.83**	**71.96%**	**7.11**	**0.000**	

From Table (3.12), the following can be extracted:

- The third paragraph "Manipulation of fictitious increases in the paid-up capital or the retained earnings.", achieved the first rank among field paragraphs with a mean equal to 3.67 (the overall score of 5), a relative mean of 73.40%, a test value of 7.00, and a probability value of (Sig.) 0.000. Accordingly, this paragraph is deemed statistically significant at a significance level of $\alpha \leq 0.05$, suggesting that the average level of response to this paragraph surpasses the average level of agreement, which is 3. Consequently, there is substantial agreement among the respondents regarding this paragraph.
- The first paragraph, "Manipulating by recording exchange rate gains or losses related to transactions in foreign currencies in equity instead of in the income statement," mean equals 3.52, with a relative mean of 70.31%, t-test value equals 5.55, and a probability value (Sig.) equals 0.000. As a result, , this paragraph is deemed statistically significant at a significance level of $\alpha \leq 0.05$, suggesting that the average level of response to this paragraph surpasses the average level of agreement, which is 3. Consequently, there is substantial agreement among the respondents regarding this paragraph.
- The rest of the paragraphs recorded high agreement scores with an average ranging between 3.66 and 3.55 (the overall score is 5), where the average for the second paragraph was 3.66 with a relative mean of 73.20%, and the average for the fourth paragraph was 3.55 with a relative mean of 70.93%.

Overall, the average of all paragraphs in the field equals 3.60, a relative mean equals 71.96%, t-test value equals 7.11, and probability value (Sig.) equals 0.000 Therefore, the field of "Analytical procedures on the statement of changes in equity" is deemed statistically significant at a significance level of α ≤ 0.05, suggesting a fundamental differnce from the average level of approval, set at 3. This indicates a strong level of agreement among the respondents regarding all field’s paragraphs.

Hypothesis result:

Accepting the hypothesis that auditors believe using analytical procedures on the statement of changes in equity helps in the discovery of creative accounting practices.

Analyze All the Items of the Questionnaire

The researcher conducted a T-test to check if the mean of the respondents' answers met the score of average agreement, which is 3. Table (3.13) displays the results.

Table 3.13 *Mean and probability value (Sig) for all questionnaire items*

Item	Mean	St. Deviation	Relative Mean	Value of the test (t)	Probability value (sig.)	Rank
Analytical procedures on comprehensive income statement.	3.61	0.73	72.22%	8.20	0.000	2
Analytical procedures on financial position statement.	3.64	0.75	72.85%	8.46	0.000	1
Analytical procedures on cash flow statement.	3.57	0.74	71.36%	7.57	0.000	4
Analytical procedures on statement of changes in equity.	3.60	0.83	71.96%	7.11	0.000	3
All items	**3.60**	**0.72**	**72.09%**	**8.31**	**0.000**	

Table (3.13), shows that the mean for all questionnaire’s items is 3.60 (out of total score 5), with a relative mean equals 72.09%, t-test value equals 8.31, and a probability value (Sig.) equals 0.000. Accordingly, all items are considered statistically significant at a significance level of α ≤0.05, which indicates that the average level of agreement surpasses the neutral agreement level of 3. Which implies that, there is substantial agreement among the participants regarding all items in general.

3.11. Conclusions and Recommendations

Depending on the theoretical part it was concluded that creative accounting is considered a form of unethical manipulation, as it aims to transform real financial numbers into deceptive numbers. These practices benefit from the flexibility provided by accounting standards, and are implemented by accountants with great experience and competence. And it is the responsibility of auditors to design and implement audit operations to ensure the accuracy of financial statements and that they are free of fundamental errors. Analytical procedures are considered one of the most important audit tools, as they help in Identify and diagnose significant deviations, providing indications of manipulation at minimal costs.

From the empirical part of the study it was concluded that auditors believe that the use of analytical procedures reveals creative accounting practices in comprehensive income statement to a high degree by revealing manipulation of the items of this statement. It turns out that the most important practices that analytical procedures help reveal in comprehensive income statement are:

- Inflated income by recognizing fictitious revenue.
- Misrepresentation of operating profits by including extraordinary gains.

The researcher suggests that inflating revenues, whether through fictitious means or inflating operating income by including extraordinary gains, constitutes clear manipulative practices. As revenue figures are crucial indicators of financial performance, they receive primary focus during the audit process. Auditors prioritize examining revenue figures when designing and implementing their procedures. Analytical procedures, such as ratio analysis or comparison with industry benchmarks, are employed to detect any deviations. This systematic approach helps auditors identify potential irregularities more effectively.

The researcher also concludes that auditors believe that analytical procedures help detect manipulation of items in the financial position statement, especially in the inventory item, such as:

- Manipulation in inventory by deferring the necessary write-down of value-impaired inventory.
- Manipulation in inventory by inclusion of slow-moving inventory.

The researcher attributes that to their direct association with the inventory item and the importance of this item which stems from the multitude of financial transactions associated with it, such as purchasing and selling operations. Given the limited time available to auditors for thoroughly examining inventory-related financial operations, it is common to resort to analytical procedures to streamline the audit process. By employing analytical procedures, such as financial ratios, including the inventory turnover ratio for instance, auditors can detect red flags indicating the presence of creative accounting practices within the inventory item.

It was also found that auditors believe that the use of analytical procedures effectively reveals creative accounting practices in the cash flow statement by detecting manipulation of the items of this statement. The most significant practices that they believe analytical procedures help to uncover in the cash flow statement are:

- Manipulation by extending the repayment period for expenses and costs, with the aim of improving the level of operating cash flows.
- Manipulation in operating expenses by considering them as investment or financing expenses.

It is noted that the two items relate to operating cash flow and the practice of manipulating it through expense accounts, whether by prolonging the payment period for these expenses or manipulating their classification. Operating cash flow receives great attention from users of financial statements, and auditors give it great importance in the audit process. By applying analytical procedures, including comparative analysis or trend analysis of expense accounts, auditors can infer any deviations.

Finally, regarding the statement of changes in equity, it was found that auditors believe that the use of analytical procedures reveals creative accounting practices in this statement to a high degree. Among the most prominent practices that analytical procedures help to uncover are:Manipulation of fictitious increases in the paid-up capital or the retained earnings.

- Manipulation by recording the gains of translating financial statements prepared in foreign currencies for subsidiaries in the income statement instead of recording them in owners' equity.

The researcher concludes from the results of the field related to the statement of changes in equity that auditors are aware that all items included in this list are vulnerable to creative accounting practices because of their connection to the income statement, as manipulation of the income statement will have an impact on the statement of changes in equity. Therefore, auditors use analytical procedures to infer the presence of any deviation.

Recommendations:

1. Encourage the use of advanced analytical tools and programs that contribute to the automation of detecting anomalies and deviations in all accounts, including accounts that are not subject to frequent examination. These tools should provide comprehensive coverage of all aspects of financial statements.
2. It is necessary to educate auditors about the importance of paying attention to less well-known items in terms of manipulation to ensure comprehensive coverage and reveal creative accounting practices.
3. Emphasizing the necessity of educating and raising the awareness of financial statements users about the nature of creative accounting and its risks.
4. Emphasizing the need to control illegal practices of creative accounting due to their significant impact on the credibility of financial statements. Moreover, implementing rigorous laws with deterrent penalties for cases involving tampering with financial statements is essential.
5. Underlining the crucial importance of ongoing education for auditors to stay abreast of emerging forms of creative accounting. This ensures their ability to effectively identify and address such practices, thereby mitigating audit risks.
6. Emphasizing the importance of professional regulatory authorities in accounting and auditing profession to organize training workshops and seminars for auditors to confirm the importance of using analytical procedures in auditing and keeping track of developments in international accounting and auditing standards, along with developments in creative accounting practices and methods to mitigate them.
7. The need to raise awareness of the ethical dimension of the accounting profession because of its significant impact on issuing highly credible financial statements that benefit the economy in general.

REFERENCES

Abd Jasim, L., & Hadab, F. F. (2020). The importance of using analytical procedures in the detection of creative accounting practices. *Journal of Economics And Administrative Sciences*, 26(121).

Abdali, S. (2011). The importance of using analytical procedures in the stages of auditing (Unpublished master's thesis). Middle East University, Kuwait. P.44 P.38 P.39

Abdulhalim, M. M. (2014). Motivations and methods of creative accounting in Syrian joint-stock companies and evaluation of detection procedures by external auditors (Unpublished doctoral dissertation). Tishreen University, Latakia, Syria.

Abu Sharkh, J. (2012). The Effect of Using Analytical Audit Procedures as A Tool for Monitoring Performance and Detecting Deviations: A Field Study on Audit Office In Gaza. Islamic University of Gaza. Palestine. P. 24

Abu Zaid, K. Kh., Issa, S. and Rashed, R. (2008) Studies in External Auditing of The Financial Statements, University Press, Alexandria, P. 241

Aguilera, R. V., Williams, C. A., Conley, J. M., & Rupp, D. E. (2006). Corporate governance and social responsibility: A comparative analysis of the UK and the US. *Corporate Governance: an international review*, 14(3), 147-158. P.148.

AICPA. American Institute of Certified Public Accountants (2017). *Guide: Preparation, Compilation, and Review Engagements*. John Wiley & Sons. Retrieved from https://catalogimages.wiley.com/images/db/pdf/9781945498886.excerpt.pdf.

AICPA. American Institute of Certified Public Accountants (2016). *Audit Guide: Analytical Procedures*. John Wiley & Sons. Retrieved from https://catalogimages.wiley.com/images/db/pdf/9781945498886.excerpt.pdf.

Al-Anqari H. (2007) *Auditing in the Kingdom of Saudi Arabia*, Riyadh, *Sarawat Publications*, P.121

Ali S., Butt S., Tariq Y. (2011). Use or Abuse of Creative Accounting Techniques, *International Journal of Trade, Economics & Finance, Accounting by Internet Dictionary*. Vol.2(No.6):531

Al-Khashawi, A. M., & Al-Dosari, M. N. (2008). Creative Accounting and the Role of Auditors in Detecting and Evaluating its Practices and Results. *Ninth Research Competition across all Sectors of the Audit Bureau, Saudi Arabia*, P.12-13,3

Alqadi, A. M. (2020). The Impact of Using Analytical Procedures on Mitigating the Effects of Creative Accounting on the Reliability of Published Financial Information. Master Thesis, Benha University, Egypt.

Al-Qari, M. M. (2013) Motives and methods of creative accounting in joint stock companies in the Kingdom of Saudi Arabia, a field study, King Abdulaziz University, Scientific Publishing Center. P.53

Al-Qutaish, H. F., & Al-Sufi, F. J. (2011). Creative Accounting Methods Used in the Income Statement and Financial Position of Public Industrial Companies Listed on the Amman Stock Exchange. *Journal of the College of Economics* - University of Baghdad, Issue 27, P. 355-388.

Al-Sahn, A., Al-Sabban M., and Ali Hassan Sh., (2004) *Foundations of Auditing*, Aldar Algamaya Puplications, Alexandria, P. 27.

Al-Sisi, N. A. (2006). The Role of Forensic Accounting in Combating Financial Statement Fraud. Practical Journal, Ain Shams University, (1), P.33-69.

Amat, O.& Growthorpe, C. (2004). Creative Accounting: Nature, Incidence and Ethical Issues, *Journal of Economic Literature classification*. UPF Working Paper No. 749, P.3,41-44

Amat, O., Blake J. and Dowds J. (1999). The Ethics of Creative Accounting, Economic Working Paper Series, *Journal of Economic Literature classification*. Page,9,40-41,

American Accounting Association. (1971). *A Statement of Basic Auditing Concepts*, Sarasota, Florida. P. 2.

Amirouche, B.B. (2011), The Role of The Auditor in Assessing Risks and Improving Internal Control Systems for Inventory Operations Within The Institution, A Field Study, Algeria, Farhat Abbas University, Setif, P. 2

Arda, A., Gororo M., Grochalska J., and Mohlala M. (2018) External Audit Arrangements at Central Banks, *International Monetary Fund*. Page 6

Arens, A. A., Elder, R. J., Beasley, M. S., & Hogan, C. (2017). *Auditing and Assurance Services*. Prentice Hall.

Balaciu, D., Bogdan, V. and Vladu, A.B. (2009). A Brief Review of Creative Accounting Literature and its Consequences in Practice. *Annales Universitatis Apulensis Series Oeconomica*, 11(1), P. 170- 183.

Basu, S.K. (2006). *Auditing: Principles and Techniques*. Pearson Education. P.12,13

Brauweiler, H.-C., Yerimpasheva, A., & Balgabayeva, Z. (2019). Avoiding creative accounting: Corporate governance and leadership skills. *Zeszyty Teoretyczne Rachunkowości,* 104(160), 9-19. P. 16

Bu Salamah, H., & Abdel Samad, N. (2008). The Role of Governance in Achieving Sustainable Economic and Social Development. *Ramaḥ Journal of Sciences and Studies*, 4, P.172-185.

Çorbacı Doğan, Ö. (2011). Creative Accounting and an Application on Companies Listed on Istanbul Stock Exchange. Master's Thesis. Gaziosmanpaşa University, Institute of Social Sciences.

Emirouch, I., & Bourgada, H. (2015). The Extent of Using Analytical Procedures By External Auditors in The External Audit Process: An Empirical Study of A Sample of External Auditors in Algeria. Studies in Economics, 9(2), P.206-225.

Erdogan, M. (2005). Audit. Ozkan Publications. P.55

Fadaawi, A. (2014). The Role of Corporate Governance Pillars in Limiting Creative Accounting Practices. *Baji Mokhtar University Magazine*, 1(16), P.243-257.

Fattoha, M. and Sassi M., (2016), The sectoral specialization of the auditor and its role in reducing the risk of auditing, *The University Journal,* the eighteenth issue, the first volume, the Faculty of Economics, Al-Zawiya University, Libya, P. 115

Guerrouf, M. K. (2016). The role of auditing in the reduction of the negative practices of creative accounting. *Arab Journal of Accounting*, 19(1), 43-91.

Gupta, S. (2021). *Auditin*g. SBPD Publications. P. 26.

Hakem, R. and Makhadmah, A., (2007). The Importance of Applying Analytical Review Procedures to Increase Auditing Performance. *The Jordanian Journal of Business Administration* Volume 3, Number 4 P. 487

Hamada, M., Al-Sammarraee A., Alshareeda N.,(2021) The Impact of Creative Accounting Methods and the Reliability of Financial Statements - An Analytical Study of a Sample of Employees Working in Auditing Firms and Joint Stock Companies on the Bahrain Stock Exchange, *Information Sciences Letters An International Journal*, No.S1, 181-207

Hayes, R., Dassen, R., Schilder, A., and Wallage, Ph. (2005). *Principles of Auditing*. Second edition. Prentice Hall, Pearson Education.

Hendrikse, J.W., and Hendrikse,L. (2004). *Business Governance Handbook: Principles and Practice*. Software Publications Pty, Limited P. 263

Hopwood, W., Leiner, J., & Young, G. (2008). "*Forensic Accounting*." McGraw-Hill/Irwin. Boston, U.S.A. P. 3

Hussein, M. (2004). Auditing Voluntary Changes in Accounting Policies in Troubled Business Entities to Serve Auditors and Financial Statement Users (P.95). Unpublished doctoral dissertation, Faculty of Commerce, Cairo University.

Ibrahim, M. (2006). Ethical behavior of management when measuring accounting income in business organizations, New Horizons for Business Studies, Issue 1 and 2, January.

Idris, A., Kehinde J., Ajemunigbohun S. and Gabriel, J. (2012). The nature, techniques and prevention of Creative Accounting Empirical Evidence from Nigeria. *Canadian Journal of Accounting and Finance*, Vol. 1, No. 1, 2012, p. 26-31.

IFAC. (2004). Handbook of International Auditing, Assurance, and Ethics Pronouncements, International Standards on Auditing 200 (ISA 200), “Objective and General Principles Governing an Audit of Financial Statements”, Para.2 and 32. *International Federation of Accountants*, New York.

IFAC. (2009) International Standard on Auditing (ISA) 240. The Auditor’s Responsibilities Relating to Fraud in an Audit of Financial Statements. *International Federation of Accountants*, New York.

IFAC. (2009) International Standard on Auditing 520 Analytical Procedures, Pargrapgh A16 and paragraph 4. *International Federation of Accountants*, New York.

Ijeoma, N. B., (2014) The Effect of Creative Accounting on the Nigerian Banking Industry. Nnamdi Azikiwe University, Awka. *International Journal of Managerial Studies and Research (IJMSR)* Volume 2, Issue 10, November ,2014. P.14

Jarbou, Y. (2007). Basics of the Theoretical Framework in Auditing (2nd Edition). University Students' Library. Palestine.P.89

Johnstone, K., Gramling, A., and Rittenberg L. Auditing. (2015). *A Risk Based-Approach to Conducting a Quality Audit* (10th Edition). Cengage Learning. P.249, 305

Kardudi, S. (2015). The Role of Analytical Review In Improving The Performance of The Audit Process İn Light of The Use Of Information Technology: A Case

Study In The State of Biskra (unpublished doctoral dissertation). Mohamed Kheidar University Algeria. P.34

Kida, T., and Cohen, J. (1989). The Impact of Analytical Review Results, Internal Control Reliability, and Experience on Auditors' Use of Analytical Review, *Journal of Accounting Research*, Wiley Blackwell, Vol. 27, No. 2 , P. 263-276

Konak, K. (2019). The relationship between creative accounting practices and the quality of independent auditing (Master’s thesis, Marmara University, Institute of Social Sciences, Department of Business Administration, Accounting and Finance). Istanbul.

Kritzinger, J., & Barac, K. (2017). The application of analytical procedures in the audit process: A South African perspective. *Southern African Business Review*, 21.

Lee, Tom A. (1993). *Corporate Audit Theory*. London; New York. Chapman and Hall. P. 115

Liberto, D. (2024). *Auditor: What It Is, 4 Types, and Qualifications*. Investopedia.

https://www.investopedia.com/terms/a/auditor.asp

Lutfi, A. (2004). *Revision of the financial statements using analytical procedures and tests of details* (1st Edition). Al-dar Al-Jamiya Publications, Cairo. P.39,94

Matar, M., (2006). *Recent trends in financial and credit analysis*. (2nd edition). Dar Wael Publishing and Distribution, Amman. P.106

Mautz, R.K.(1954) *Fundamentals of Auditing* (2nd edition). John Wiley & Sons Inc.P.1.

McBarnet, D. and Whelan Ch. (1999). *Creative Accounting and the Cross-Eyed Javelin Thrower*. John Wiley & Sons Inc. P.4

Mehta, B. K., Kumari, A. and Mittal, R . (2021). *Auditing and Corporate Governance*. SBPD Publications. P. 35,41.

Messier Jr, W. F., Glover, S. M., & Prawitt, D. F. (2017). *Auditing & assurance services: A systematic approach*. McGraw-Hill.

Metwally, H. and Zaki, A. (2006). A Proposed Model for Measuring the Relationship Between the Strategy of Industrial Specialization of The Auditor and The Factors Affecting the Management of The Audit Process, An Applied Field Study, *Scientific Journal of Trade and Finance*, Faculty of Commerce, Tanta University, Volume One. First Issue, P.176.

Michael, J., (2011), *Creative Accounting, Fraud and International Accounting Scandals*, John Wiley & Sons P. 7

Mohammed, A.A. and Mohammed, I. O. (2013) The Effect of Auditors" Ethics on their Detection of CA Practices: A Field Study. *International Journal of Business and Management*, 8(13), 118-136.

Montgomery, R. H. (1934). *Auditing Theory and Practice* (5th edition). Ronald Press Company. P.3.

Mulford, C. Comisky, E. (2002). *The Financial Numbers Game*. (3rd edition), John Wiley and Sons. P. 3, 2-8, 355-356.

Musa A. (2013) Analytical review procedures and their role in rationalizing the personal judgment of the auditor, Libya, Zawia University, *University Magazine*, Issue 15, 2013

Nour El-Din, A. (2015). *The International Financial Reporting Standards (IFRS) Auditing*. Dar Al-Jenan for Publishing and Distribution, P.15

O'Regan, D. (2004) *Auditor's Dictionary Terms, Concepts, Processes, and Regulations*. John Wiley & Sons. P. 110

Phebe, F., & Abayomi, A. (2019). Ethical Issues on Creative Accounting: Theoretical and Practical Perspectives. *Islamic University Multidisciplinary Journal (IUMJ)*, 6(3), P. 24-34.

Qarra, Salih Muhammad. (2010). A Review of The Financial Statements, The Auditors' Report, And the Internal Control Report – *Financial and Administrative Sciences Blog*, Electronic version 21,42

Rabadi, K. (2013). The role of analytical auditing in reducing the expectations gap in the audit work environment from the point of view of the Jordanian chartered accountant: a field study. Jeddar University, Jordan. P. 37

Rabin, C. E. (2005). Determinants of auditors' attitudes towards creative accounting. *Meditari accountancy research*, 13(2), 67-88.

Revsine, L. (1991), The selective financial misrepresentation hypotheses. *Accounting Horizons*, 5(4), l6-27

Revsine, L. (2002). Enron: Sad but Inevitable, *Journal of auditing and Public Policy* 21(2), 137 – 145. P.137

S. Rao, V. (2013) *Wiley CIA Exam Review 2013, Internal Audit Practice* (4th edition). John Wiley & Sons

Salem, F. M., Al-Ashibi, M. M., & Al-Jazwi, S. A. (2021). Recent Trends in Reducing Creative Accounting Practices: Analytical Theory Study. *International Journal of Economic Studies*, 5(18), P.256-274

Sanusi, Z. M., and Mat-Isa Y., (2012). Creative Accounting: Auditors Roles in the Detection of Financial Fraud, Universiti Teknologi MARA, Malaysia Bloomsbury Information Ltd., P.2

Schilit, Howard M., (2002), *Financial Shenanigans*, (2nd edition), Mc Grow- Hill.

Shah, A.K., (1996). Creative Compliance In Financial Reporting. *Accounting Organization and Society*. Vol. 21, No. I, pp. 23-39.

Sharma, B. S., (2009), *Accounting Management: Information for Decisions*. Global India Publications, P. 82

Taleb, B. A. (2013). The Impact of Creative Accounting Methods on the Quality of Accounting Information under International Accounting Standards. Master's Thesis, University of Sulaimaniyah, Iraq.

Tamimi, H. (2006). *Introduction to Auditing from The Theoretical and Practical Perspectives* (3rd edition). Dar Wael Publishing Jordan. P.9

Thunaibat, A. (2015). *Auditing in the light of international standards - theory and application*. Dar Wael publications. P.141, 155

Thunaibat, A. (2010). *Auditing in Light of International Standards, Theory and Practice.* (3rd edition). Amman, Dar Wael Publishing P.216

Victoria, F. (2014), An Empirical Study on The Impact of Creative Accounting Policies on The Performance of Listed Romanian Companies. *Valahian Journal of Economic Studies*, 5(4), p.41-48.

Vidhi, B. and Gupta, L., (2017), Redefining the Role of Auditor in Curbing Creative Accounting Practices. *International Journal of Management and Social Sciences Research (IJMSSR)*, Volume 6, No. 3, P.36

Vladu, A., & Matis, D. (2010). Corporate Governance and Creative Accounting: Two Concepts Strongly Connected? Some Interesting Insights Highlighted by Constructing the Internal History of a Literature. *Annales Universitatis Apulensis Series Oeconomica*, 12(1), P.332-346.

Weston, Frank T. (1966). Discussion of Audit Recommendations and Management Auditing: A Case Study and Some Remarks, *Journal of Accounting Research*, Vol. 4. P.157.

APPENDIX-1. Questionnaire Form

Dear Participant
The following questionnaire is part of a study for a master's thesis titled " The Role of Analytical Procedures in Revealing Creative Accounting Practices: An Empirical Study in Audit Companies in Istanbul". Approval was obtained from Anadolu University ethics committee for the study. Your voluntary participation in this questionnaire is very important for the completion of the thesis. The questionnaire consists of 34 questions which will not take more than 10 minutes to answer. Your answers will increase the reliability of the study. The answers will remain in complete secrecy and will be used for scientific research purposes only.

Thanks for your valuable contribution.

Best Regards,

Haya S.A. AboKwaik
Prof. Dr. Arman Aziz Karagül

First Section: Personal data

1. **Gender**
   ☐Male ☐Female
2. **Age**
   ☐Less than 30 ☐30-40 ☐41-50 ☐ More than 50
3. **Scientific qualification**
   ☐ Bachelor Degree ☐ Master Degree ☐ PhD Degree
4. **Years of Experience**
   ☐ Less than 5 years ☐ 5 – 10 years ☐ 11-15 years ☐ More than 15
5. **Job title**
   ☐ Audit Partner ☐ Lead Auditor ☐ Senior Auditor ☐ Auditor
   ☐ Assistant Auditor

Second Section: The role of analytical procedures in revealing creative accounting practices. Please mark the answer that expresses your opinion.
(1) Strongly Disagree (2) Disagree (3) Neutral (4) Agree (5) Strongly Agree

The first axis: The auditor's use of analytical procedures reveals creative accounting practices in the income statement by discovering the existence of:						
No.	**Question**	**1**	**2**	**3**	**4**	**5**
1.	Excessive gains or losses that are not consistent with the entity's operations or industry norms.					
2.	Transactions that do not align with the entity's accounting policies or industry practices.					

3.	Recognition of revenues too early or of questionable quality.					
4.	Inflated income by recognizing fictitious revenue.					
5.	Misrepresentation of operating profits by including extraordinary gains.					
6.	Increases in revenues by carrying out sales deals using sales incentives like increasing sales discount rate.					
7.	Misrepresentation of cost of goods sold by including slow-moving inventory within inventory items.					
8.	Distortions of revenues by shifting current revenues to future periods.					
9.	Shifting current expenses to future periods by capitalizing normal operational expenses.					
10.	Shifting current expenses to previous periods by making unjustified changes in accounting policies.					
11.	Misrepresentation or reduction in depreciation/amortization ratios in a way that is not consistent with the entity's nature.					

The second axis: The auditor's use of analytical procedures reveals creative accounting practices in the financial position statement by discovering the existence of:

No.	Question	1	2	3	4	5
1.	Manipulation by not disclosing restricted cash items.					
2.	Manipulation of the exchange rates used to translate foreign currencies.					
3.	Manipulation in accounts receivables by not properly calculating doubtful debts provisions.					
4.	Manipulation in inventory by deferring the necessary write-down of value-impaired inventory.					
5.	Manipulation in inventory by inclusion of slow-moving inventory.					
6.	Manipulating the classification of short-term investments into long-term ones when their market prices fall.					
7.	Manipulating the value of fixed assets by using unrealistic depreciation rates or making an unjustified change in the depreciation method.					
8.	Improper recognition or overvaluation of intangible assets items such as trademarks.					
9.	Manipulating current liabilities by concealing the value of the installments due in the current period on long-term loans.					
10.	Manipulation by obtaining long-term loans before announcing the statement of financial position for the purpose of using them to pay off short-term loans.					

The third axis: The auditor's use of analytical procedures reveals creative accounting practices in cash flow statement by discovering the existence of:

No.	Question	1	2	3	4	5
1.	Manipulation by extending the repayment period for expenses and costs, with the aim of improving the level of operating cash flows.					
2.	Manipulation by removing and changing non-recurring items from continuing operations.					

3.	Manipulation in operating expenses by considering them as investment or financing expenses.					
4.	Manipulating by classifying overdrafts as operating activities when it is not considered an integral part of an entity's cash management.					
5.	Manipulation by considering cash flow from factoring or securitization of receivables as operating cash flow.					
6.	Manipulating an increase in operating flows by deferring the payment of taxes owed.					
7.	Manipulating by classifying revenues from selling investment portfolio as operating cash flow.					
8.	Manipulation by exploiting the flexibility of criteria that allow interest and dividend payments to be classified among cash flows from operating or financing activities.					
9.	Manipulation by classifying cash outflows that have a negative impact as cash flows from discontinuing operations.					
The fourth axis: The auditor's use of analytical procedures reveals creative accounting practices in the statement of changes in owners' equity by discovering the existence of:						
No.	**Question**	**1**	**2**	**3**	**4**	**5**
1.	Manipulating by recording exchange rate gains or losses related to transactions in foreign currencies in equity instead of in the income statement.					
2.	Manipulation by recording the gains of translating financial statements prepared in foreign currencies for subsidiaries in the income statement instead of recording them in owners' equity.					
3.	Manipulation of fictitious increases in the paid-up capital or the retained earnings.					
4.	Manipulation by recording surplus from assets revaluation in income statement rather than owners' equity					