



**Arab American University
Faculty of Graduate Studies**

**The Fraud Investigation, and the Reality of the Anti-
Fraud Framework in the Commercial Banks
Operation in Palestine**

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**This thesis was submitted in partial fulfillment of the
requirements for the Master`s degree in
The Fraud Protection**

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Thesis Approval

The Fraud investigation, and the reality of the anti-fraud framework in the commercial banks operation in Palestine

By

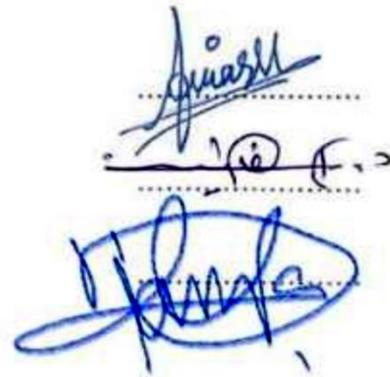
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Declaration

I declare that, except where explicit reference is made to the contribution of others, this thesis is substantially my own work and has not been submitted for any other degree at the Arab American University or any other institution.

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Abstract

The study's goal, this is to measure Investigating fraud and the reality of fraud prevention frameworks in Palestinian commercial banks, this study adopted the descriptive-correlational methodology to obtain information related to the study's topic, yielding a sample of 40 individuals. A comprehensive survey method was used to select participants, considering variables like gender, age, and willingness to complete the questionnaire. This approach ensured diversity in the study's population, resulting in 39 valid questionnaires out of 40 distributed.

the researcher used the Cronbach's alpha equation, calculating the reliability of the scale. The result for scaling items 92%. So, it's good. Upon collecting the study's data, the researcher did to test hypotheses and analyze the data, he was including descriptive statistics like frequencies, percentages, means, and standard deviations. Additionally, internal consistency was assessed using Cronbach's alpha, while the relationship between variables was explored using the Spearman correlation coefficient. The study's hypotheses concerning the variables were tested using the One-Way ANOVA test. The influence of categorical variables on dependent variables was determined through the Chi-square test.

The study's findings indicate a robust commitment by Palestinian commercial banks to fraud prevention and investigation. Among the dimensions assessed, "The reality of fraud prevention frameworks" (Roles and Responsibilities of Management) received the highest mean score of 4.25, reflecting a very high degree of effectiveness in fraud prevention. "Investigating fraud" (Investigation Methods) closely followed with a mean score of 4.19, signifying strong investigation processes. "Internal Controls, Employee Awareness, and Internal Audit" also scored well at 4.07, highlighting strong internal

controls and awareness. "The reality of fraud prevention frameworks" (Effectiveness of Fraud Prevention Frameworks) achieved a mean score of 3.55, showing good effectiveness. "Best Practices for Fraud Prevention and Detection" received a mean score of 3.95, emphasizing the adoption of best practices. "Collaboration with Authorities and Investigation Committees" achieved a mean score of 4.05, indicating high cooperation with authorities. Overall, the assessment scored 3.96, reflecting a "High" commitment to fraud prevention and investigation in Palestinian commercial banks. These results underscore the need to maintain and enhance these practices for robust fraud prevention and detection in the banking sector.

For hypotheses results there is no significant relationship or correlation between occupation and the actions management takes during fraud investigations.

The MANOVA "without Interaction" results indicate that none of the examined variables (gender, age group, educational level, and occupation) significantly impact the mean scores for investigating fraud and the reality of fraud prevention frameworks in Palestinian Commercial Banks

The analysis reveals a statistically significant predictive ability ($\alpha < .05$) for the degree of investigation into fraud and the reality of fraud prevention frameworks in Palestinian commercial banks. The linear regression analysis using the "enter" method indicates that 70% of the variance in the degree of investigation into fraud can be explained by the reality of fraud prevention frameworks

Recommendations based on the results and interpretations:

1. Strengthen Management's Roles and Responsibilities: Given the positive perception of management's performance in fraud prevention, it is recommended that Palestinian commercial banks continue to emphasize and support management's roles in

collaborating with other departments, proposing policy enhancements, and ensuring clarity in responsibilities. This can further enhance the effectiveness of management in fraud prevention.

2. **Continuous Adoption of Best Practices:** Banks should maintain their proactive approach to fraud prevention by continuously adopting best practices, utilizing data analytics, and staying updated with emerging technologies. Regular training and awareness programs can help employees stay current with the latest fraud prevention strategies.

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Chapter One
The Study's General Framework

Chapter One

The Study's General Framework

1.1. Introduction

The banking industry is an essential component of the global economy. It serves as the backbone of the financial system, allowing individuals and organizations to store, invest, and transfer their money securely. However, like any other industry, banks are not immune to fraud. Fraud schemes in banks can have a significant impact on the financial system and can lead to severe consequences for individuals, organizations, and the economy as a whole.

Fraud is a serious offense that involves financial motives and relies heavily on deception. As a result, it is a widespread concern that affects everyone. Fraud has become so ubiquitous in both the public and private sectors that it is now considered the norm. It is observed across various levels of authority, including presidential cabinets, political leaders, ward councilors, managing directors of businesses, and middle and lower management tiers. The pervasiveness of fraud has made it an issue that needs to be addressed with urgency, as its impact on the economy and society as a whole is significant. (Gbegi & Adebisi, 2014).

When an organization becomes aware of rumors, suspicions, or allegations of financial crime, they are obligated to take action. The source of the information can be from various sources, such as the media or tips from other individuals. However, if management solely decides to report these events to the authorities, the situation can quickly spiral out of control. Therefore, many companies choose to hire private investigators to reconstruct past events and situations. This approach can help the organization to gather relevant evidence, identify potential culprits, and mitigate any further damages.

Fraud is an ongoing and significant concern in the financial sector, particularly in the banking industry, which has been further aggravated by the current climate of uncertainty, which was primarily triggered by the previous financial crisis. Bank fraud can be defined as the deliberate use of false statements or deceptive means to obtain money, assets, or other property under the control of a financial institution. The term "bank fraud" is occasionally used in criminal law to refer to a deliberate act of deception carried out for financial gain or to harm a financial institution. Unlike simple bank robbery or theft, fraud is typically executed surreptitiously, with the perpetrator intending to evade detection until he has had sufficient time to abscond.

The implementation of an "anti-fraud awareness" campaign is aimed at instilling the value of fraud prevention in all members of an organization. As organizations grow, their vulnerability to fraudulent activities increases, making control measures essential for effective prevention. By establishing internal controls and promoting anti-fraud awareness, all members of the organization can contribute to reducing the risk of fraud, allowing them to better achieve their goals. The importance of internal audit in preventing bank fraud cannot be overstated, yet it is often overlooked. Nevertheless, contemporary and astute financial institutions recognize its significance and integrate it into their anti-fraud strategy.

When ethical behavior is driven by compassion, it creates a sense of ease for both customers and employees. A shared feeling of unity is necessary for humans to appreciate one another, and empathy is key to achieving this. When individuals are able to put themselves in another person's shoes, they gain a deeper understanding of the weight and lightness of life. This understanding leads to a coexistence that fosters moral behavior and reduces the likelihood of harm or deception towards others or the organization. A

healthy business culture that promotes empathy can act as a deterrent for fraudulent behavior. (Endiana al., 2021).

In Palestine as well, we can notice that the awareness has arisen about the fraud and especially electronic fraud. The Financial Follow-Up Unit ⁽¹⁾ published an awareness on their website about electronic fraud and financial losses to several citizens, also banks, electronic payment companies and money exchange companies conducted some awareness campaigns through their websites, social media posts, flyers, etc..., about the losses and prevention of electronic fraud. In the banking sector, there have been many reports and complaints from customers about cases of electronic fraud recently, and the number of these cases is steadily increasing.

1.2. The Study Problem

The main aim of this study is to examine the organizational structure of the departments in Palestinian commercial banks that are responsible for preventing fraudulent activities. Additionally, the research seeks to evaluate the effectiveness and efficiency of the investigating committees established to deal with fraudulent incidents within these institutions. By conducting a thorough investigation into these areas, this study aims to contribute to a better understanding of the anti-fraud framework in Palestinian commercial banks and provide valuable insights for enhancing the current prevention and detection mechanisms in place.

The need to study this topic arises from the growing reliance on non-face-to-face techniques in the banking sector due to emerging challenges such as COVID-19. The pandemic has accelerated the adoption of digital banking services, leading to an increased

¹ https://www.ffu.ps/ar_page.php?id=aae2y43746Yaae2

volume of online transactions and a surge in cyber threats. Therefore, it is essential to explore the potential vulnerabilities and risks associated with non-face-to-face banking operations to ensure the security and integrity of customer data and financial systems.

1.3. Study Questions

- A. What are the roles and responsibilities of the departments responsible for preventing fraud in Palestinian commercial banks?
- B. What are the investigation methods used by these departments when fraud is discovered or suspected in Palestinian commercial banks?
- C. What is the effectiveness of the fraud protection frameworks in place in Palestinian commercial banks, and what are the identified weaknesses in these frameworks?
- D. How effective are the internal controls, employee awareness, and internal audit mechanisms in preventing and detecting fraud in Palestinian commercial banks?
- E. What are the authorities related to combating fraud in Palestinian commercial banks, and how do they collaborate with the internal investigation committees in banks when fraud cases occur?

1.4. Hypotheses of the Study

First: There is a relationship between Occupation and the actions undertaken by my management while conducting investigations into fraudulent activities

Second: There are no statistically significant differences at the ($.05 \geq \alpha$) significance level in the means of the degree of investigation into fraud and the reality of fraud prevention frameworks in Palestinian commercial banks attributed to variables: gender, educational level, age, and job title.

Third: There is no statistically significant predictive ability ($\alpha < .05$) for the degree of investigation into fraud and the reality of fraud prevention frameworks in Palestinian commercial banks.

1.5. Study Objectives

Main Objective:

The overarching aim of this research is to assess the level of preparedness and effectiveness of investigative committees in response to fraud incidents in Palestinian commercial banks, while also examining the banks' preventive and detection measures for such occurrences.

Sub Objectives:

1. To find the authorities related to combating fraud in Palestinian banks.
2. To find the investigation methods used when fraud is discovered and suspected.
3. Measuring the effectiveness of fraud protection frameworks and identifying weaknesses.
4. Analyze the strength of internal controls, employee awareness and internal audit and their impact on fraud act.

1.6. Importance of the Study

This study on fraud investigation and the reality of the anti-fraud framework in Palestinian commercial banks will have several benefits. Firstly, it will provide insights into the current state of the anti-fraud framework in Palestinian commercial banks, including the effectiveness of measures taken to prevent and detect fraud. This information will be

valuable to policymakers, regulators, and bank management in improving anti-fraud practices and reducing financial losses due to fraud.

Secondly, the study will shed light on the prevalence and types of fraud in Palestinian commercial banks. This knowledge can help banks identify the areas where fraud is most likely to occur, and take appropriate measures to prevent it.

Lastly, the study will differ from other studies by focusing specifically on the Palestinian commercial banking sector. While there is existing research on fraud in banking, there is limited information on fraud in Palestinian commercial banks. Thus, this study will contribute to the knowledge gap and provide a unique perspective on the topic.

1.7. Study Limits

This study was conducted in the time period between December 2022 and September 2023. and it was being conducted in the city of Ramallah - Palestine, as all Palestinian banks have general or regional administrations in this city, and given that the sample that It was targeted in the study to survey its opinions. It is a purposeful sample. A certain number of people with practical experience in the field under study were targeted.

1.8. Study Form

The questionnaire was created in a professional and scientific manner so that the questions examine all aspects related to frameworks for protecting against fraud and investigating fraudulent operations in Palestinian banks. The questionnaire consists of seven axes and 33 questions, all of which are derived from the study's questions, its problem, and the study's hypotheses. The questions revolve around eliciting the opinion of the respondents

based on the reality of their work and their experience in combating fraud, each according to his field.

1.9. Justification for Choosing Commercial Banks

The researcher relied on selecting commercial banks operating in Palestine only, and excluded non-commercial banks. The researcher relied on the following factors in his selection:

- A- The difference in the work structure between commercial banks and Islamic banks, and taking this difference into consideration, commercial banks were chosen.
- B- Defining the research problem more specifically and accurately.
- C- Taking into consideration some characteristics that may affect the measurement tool between commercial and Islamic banks.
- D- Ease of access to information, as the researcher works in a commercial bank and has a greater ability to access information and survey opinions.

Chapter Two
The Theoretical Framework of the Study

Chapter Two

The Theoretical Framework of The Study (Fraud Investigation and Anti-Fraud Framework)

2.1 Introduction

Within the inaugural chapter titled "The Theoretical Framework of the Study: Fraud Investigation and Anti-Fraud Framework," an intricate exploration unfolds. This chapter serves as the bedrock upon which the entire study is built, delving into essential dimensions. In Section 1, a comprehensive analysis of fraud schemes within the banking sector is meticulously presented. Section 2 meticulously dissects the unique landscape of the Palestinian banking sector, considering its distinctive features and challenges. Progressing further, Section 3 navigates the complexities of fraud investigation, shedding light on methodologies and approaches to uncovering fraudulent activities. Culminating in Section 4, the chapter elucidates the critical components of an anti-fraud framework, essential for safeguarding the integrity of banking operations. Through these interconnected sections, this chapter establishes the theoretical context that underpins the study's investigative trajectory, providing a solid foundation for subsequent analysis and insights.

2.2 Previous Studies

Fraud Schemes in Banking Sector

Fraud schemes in banks can be incredibly damaging, both to the bank itself and to its customers. These schemes can range from simple check kiting to complex schemes involving multiple parties and accounts. It's crucial for banks to be vigilant in detecting

and preventing these schemes in order to protect their customers and maintain their own financial stability (Sanusi et al., 2015).

Fraud schemes in banks can take various forms, including embezzlement, money laundering, identity theft, and other fraudulent activities. In recent years, there have been numerous high-profile cases of bank fraud, leading to significant losses for the banks and their customers (Repousis et al., 2019).

Preventing bank fraud requires employee training to recognize and report suspicious activity, establishing strong internal controls like segregation of duties, regular auditing and reconciliation of accounts, and performing background checks. To detect fraud, banks should use both technology and human intelligence, with automated monitoring systems flagging suspicious activity and human analysts reviewing alerts and conducting investigations to determine whether fraud has occurred (Kundu & Rao, 2014).

Bank fraud schemes encompass a diverse array of malicious activities that threaten the financial security of both institutions and their customers. These schemes include account takeover fraud, where cybercriminals seize control of customers' accounts through deceptive means, phishing, and vishing attacks aimed at stealing sensitive data, ATM skimming devices that capture card information, insider fraud carried out by employees with access privileges, mobile banking and app-based fraud targeting smartphone users, check forgery and kiting techniques, card-not-present fraud in online transactions, business email compromise scams, identity theft and synthetic identity fraud, and loan fraud. Understanding and combating these schemes is crucial for safeguarding the integrity of the banking sector (Dzomira, 2014).

Bank fraud schemes encompass a broad range of deceptive tactics that pose significant risks to the financial sector. These schemes are dynamic, adapting to shifts in technology

and banking practices. Traditional techniques, including account takeover fraud, phishing, and check fraud, persist in their targeting of both individuals and institutions (Nkotagu, 2011).

Anti-Fraud Framework

Because it requires a detailed grasp of the nature of fraud and how it could be perpetrated and covered up by fraudsters, detecting and preventing fraud is a challenging task (Mansor, 2015). A forensic accountant with investigative expertise has a higher likelihood of discovering fraud, making them a crucial tool in the fight against fraud. Forensic accountants must comprehend the entire fraud investigation process, including fraud identification, evidence, investigation technique, and investigation report (Urumsah et al., 2020). We all know that an auditor will consider the possibility of fraud while assessing whether auditing standards are being followed. A forensic accountant only works to identify and stop fraud (Okoye & Gbegi, 2013).

Internal control mechanism Implementation has an impact on deterring fraud; regional internal control system implementation has an impact on good governance; and good governance can mediate the connection between regional internal control system implementation and deterring fraud. Internal control systems that are well-designed are particularly effective at discouraging and preventing fraud. This is due to the internal control system's use of both hard and soft controls to combat fraud. To stop fraud, strict controls including work segregation and transaction authorization are used. Adopting an ethical code and promoting moral principles are examples of soft controls that might help prevent fraud (Taufik, 2019). A few strategies are employed to detect and stop fraud, like the hotline and the whistleblower program, the surge in financial fraud and other white-collar crimes has increased awareness of the profession of forensic accounting. Forensic

accounting is a specialization that integrates knowledge of accounting, auditing, and investigation. There are increasingly more forensic accountants working for insurance companies, banks, police departments, governmental organizations, and other businesses (Bhasin, 2007). Managers, business owners, and politicians, to name a few, have the resources and skills necessary to execute sophisticated, well planned corporate frauds. Responding to this growing criminal threat is necessary to fight the corporate sick, and forensic accountants are in high demand as unconventional investigators like accountants and lawyers (Rahman & Anwar, 2014).

Anti-fraud frameworks play a pivotal role in safeguarding the integrity and stability of banking institutions. These comprehensive systems encompass policies, technologies, and procedures designed to detect, prevent, and respond to fraudulent activities. They include stringent customer identity verification processes, real-time transaction monitoring, and anomaly detection algorithms. Collaborative efforts with law enforcement agencies and regulatory bodies enhance the effectiveness of these frameworks. In today's digital age, advanced technologies like machine learning and artificial intelligence are employed to analyze vast datasets for unusual patterns and behaviors. The continuous evolution of anti-fraud frameworks is crucial, as fraudsters adapt to emerging technologies, emphasizing the necessity for banks to remain vigilant in protecting their assets and the trust of their customers (Todorović et al., 2020).

Fraud Investigation

Currently, financial anomalies—which frequently signify economic crime—are assessed more frequently utilizing private internal investigations. Institutions frequently carry out internal inquiries before notifying the appropriate authorities or carry out an independent inquiry while the police look into complaints, Investigation became necessary as a result

of internal and external audit systems in firms failing to find some management system faults. Examiners are being called upon more frequently to thoroughly review papers, locate new data, and assist in putting the pieces of a company's financial puzzle together to handle complex difficulties. The cost of investigating each fraud case that is reported must be covered by the banks. Therefore, it is unlikely that every reported case of fraud will receive full (and equal) attention in an investigation. Furthermore, if every case is considered for investigation, not every fraud case will receive a fair allocation of resources. One is that a significant number of resources must be devoted to the investigation of potential fraud cases in order to find real fraud. If the inquiry reveals genuine fraud, the offenders will be prosecuted and penalized, allowing the organizers (investigators) to recover the resources (money equivalent) used in the investigation. One of the most important resources that must be allocated is a budget for assembling a team to investigate fraud-related activities or allegations (Vousinas, 2016).

A successful fraud investigation raises the likelihood of organizational survival and sustainability in the short, medium, and long terms. This definition of a fraud investigation refers to a detailed fact-finding procedure for addressing fraud claims from start to finish. The anti-fraud expert's major responsibility is to carry it out using the following five crucial steps: conception, preparation, action, prosecution, and analysis. Additionally, fraud investigation tactics use crucial techniques like knowledge categorization and information gathering. Information is gathered through a variety of methods, including testimony, tangible and intangible proof, and personal observation. Examples of information classifications include authoritative behavior, administrative independence, commercial practices, market structures, bookkeeping standards, bizarre behaviors, individual goals, legal violations, and prior decisions. Companies that conduct

amazing misrepresentation investigations can effectively offer anti-defilement services, reach unexpected authoritative goals, and even win over partners. As a result, misrepresentation analysis plays a vital role in determining, motivating, and understanding the important business results of organizations (JANNOPAT & PHORNLAPHATRACHAKORN, 2022).

Investigating fraudulent transactions is a multifaceted process typically led by a dedicated fraud investigation department within financial institutions. This department is staffed with experts in forensic accounting, digital forensics, and law enforcement collaboration. Key investigation methods include transaction analysis to identify irregularities, examination of transaction histories, and in-depth interviews with affected parties. The investigation plan typically involves a structured approach: firstly, incident reporting and initial assessment, followed by data collection and preservation. Subsequently, investigators analyze evidence, often collaborating with external agencies if necessary. Finally, they compile findings into comprehensive reports for further action, which may include legal prosecution, enhanced fraud prevention measures, or restitution efforts (Coenen, 2009).

Collecting and analyzing data is paramount in fraud investigations, serving as the backbone of evidence-based decision-making. Data provides crucial insights into patterns, anomalies, and potential culprits. It helps investigators trace the flow of funds, identify suspicious transactions, and establish timelines. Advanced data analytics tools and techniques aid in detecting hidden relationships and trends that might elude human scrutiny. Furthermore, data-driven investigations enhance efficiency and accuracy, allowing for a more proactive approach to fraud prevention. By meticulously gathering, scrutinizing, and interpreting data, investigators can unravel complex schemes, strengthen

legal cases, and safeguard financial institutions and their stakeholders from the devastating impacts of fraud (Hipgrave, 2013).

2.3 Section.1: Fraud Schemes in Banking Sector

2.3.1 Preface

Section 1 explores the intricate landscape of fraud schemes within the banking sector. This segment delves into the multifaceted strategies employed by perpetrators to exploit vulnerabilities in financial systems, shedding light on the evolving tactics that challenge the integrity of banking operations. Through meticulous analysis, this section unravels the complexity of fraudulent activities, laying the groundwork for a comprehensive understanding of this critical facet within the financial domain.

2.3.2 Fraud Definitions

Fraud, as described by the Association of Certified Fraud Examiners (2021), is an act of intentional deception carried out with the objective of personal benefit, or to inflict harm upon another party. Fraudulent activities can manifest in several ways including financial fraud, cybercrime, and identity theft, and may be perpetrated by individuals, organizations, or even government entities.

According to Wells (2014), fraud embodies deliberate deception or untruthful tactics intended to exploit and unfairly benefit at the expense of another individual or group. It encompasses any crime designed to gain advantage primarily through deceit. Similarly, Lois et al., (2019) describe fraud as any unlawful act characterized by deception, concealment, or violation of trust.

The researcher defines fraud as a purposeful act of deception or trickery, executed with the goal of gaining an undue advantage or causing harm by deceptive means.

Within the context of the banking industry, fraudulent activities can be categorized into two main types: internal and external fraud. Internal fraud refers to deceitful activities conducted by bank employees, who exploit customer data or manipulate transaction records. Given their in-depth understanding of the internal workings and controls of the bank, they are able to bypass security measures. This is especially alarming as it can result in substantial financial losses for the bank and its clients (Albrecht et al., 2018). Internal fraud typically includes activities such as embezzlement, record falsification, and insider trading.

External fraud, contrastingly, is committed by individuals or entities outside the bank, like customers or third-party swindlers. They may employ methods like social engineering to deceive the bank and its clients. Account takeover, identity theft, and phishing scams are prevalent examples of external fraud.

Therefore, it's imperative for banks to establish robust anti-fraud strategies to prevent both internal and external fraud. These measures safeguard their clients and stakeholders. The report by ACFE (2021) details several common internal and external fraud schemes prevalent in the banking sector.

2.3.3 Internal Fraud

- A. *Embezzlement*: This term refers to the theft or misappropriation of funds or assets that an individual has been entrusted to manage or oversee. Within the banking environment, embezzlement frequently involves an employee illicitly redirecting funds. Instances of this may include an employee fabricating fictitious accounts or tampering with records to mask the pilfering of funds (Gottschalk & Buzzeo, 2017).
- B. *Account Takeover*: This type of fraud occurs when an employee obtains unauthorized access to a client's account and conducts unapproved transactions. Such illicit access

can be gained through stolen login information or by exploiting weaknesses in the bank's security systems (Peters & Maniam, 2016).

- C. *Loan Fraud*: This fraudulent activity involves the forgery of loan documents or the sanctioning of loans to applicants who are not eligible. In some cases, employees may collaborate with borrowers to sanction fraudulent loans, receiving unlawful payments in return (Hilary al., 2022).
- D. *Bribery and Corruption*: This form of fraud takes place when employees accept illicit payments or engage in corrupt practices for their own benefit. An instance of this may involve an employee receiving a bribe from a customer in return for loan approval or preferential treatment (Gbegi & Adebisi, 2014).
- E. *Wire Transfer Fraud*: This type of fraud involves the unauthorized redirection of funds from one bank account to another. An employee, exploiting their access to the bank's systems, might transfer money to their personal account or an accomplice's account (Okaforet al., 2015).

2.3.4 External Fraud

- A. *Phishing*: This type of fraud involves a scammer sending an email or text message that mimics a legitimate organization, such as a bank, asking for confidential information like usernames, passwords, or personal identification numbers (PINs).
- B. *Skimming*: Skimming refers to the unauthorized acquisition of credit or debit card details by a fraudster through a skimming device. These devices, which are typically compact, can be attached to card readers at ATMs, fuel stations, or other points of sale (Zulyadi, 2020).
- C. *Identity Theft*: This type of fraud involves the illicit acquisition and use of personal information, like a Social Security number. Criminals can use this stolen information

to set up new accounts, secure loans, or make unauthorized purchases (Okaforet al., 2015).

- D. *Check Fraud*: This form of fraudulent activity involves the fabrication or alteration of a check with the intention to deceive the recipient and gain access to their funds. This could involve forging signatures, modifying the payee or amount, or generating counterfeit checks (Gbegi & Adebisi, 2014).
- E. *Ponzi Schemes*: This type of fraud involves using the capital from new investors to pay the returns promised to earlier ones. Ponzi schemes risk collapse when the number of new investors isn't sufficient to maintain the high returns promised to previous participants.
- F. *Money Laundering*: This involves obscuring the origins of illegally obtained money, making it appear as if the funds were obtained legally. Banks may inadvertently participate in money laundering schemes while processing transactions that facilitate the movement of unlawful funds (Al-Suwaidi & Nobanee, 2021).

The banking sector's fraudulent schemes can lead to considerable financial and reputational damage for both banks and their clients. By recognizing the various types of fraudulent schemes, banks can devise and implement robust anti-fraud strategies. These measures will safeguard them and their customers against financial losses.

2.3.5 Emerging Bank Fraud Schemes in the Era of COVID-19

The COVID-19 pandemic has created a rapid shift to digital in the banking sector, leading to an increase in online transactions and digital adoption. However, this change has also created new opportunities for fraudsters to exploit the vulnerabilities and uncertainties of the pandemic. we will explore the most important bank fraud schemes that have emerged after the Corona pandemic (Levi & Smith,2022).

Phishing scams are one of the most widespread fraud schemes in the banking sector. During the pandemic, phishing scams have become more sophisticated, with fraudsters using techniques such as social engineering, spoofing, and malware to trick users into revealing their login credentials, personal information, or payment details. The fraudsters often pose as official health organizations, financial institutions, or government agencies, claiming to offer advice, support, or financial assistance related to COVID-19.

Another emerging bank fraud scheme is the use of fake online banking websites. Fraudsters create convincing replicas of legitimate banking websites, using similar domain names to the original ones. They then lure users to these fake websites, either through phishing emails or social media posts, and trick them into entering their login credentials and personal information. Once the fraudsters have this information, they can access the victim's bank account and steal money (Marcu, 2022).

Mobile banking fraud is also on the rise since the pandemic started. Fraudsters take advantage of the increase in mobile banking adoption and develop various schemes such as the use of fake banking apps, smishing (SMS phishing), and SIM swapping. They may send text messages to users, claiming to be from their bank and requesting personal information or payment details. They may also use malware to hijack the victim's phone or swap their SIM card, allowing them to intercept calls and messages and gain access to the victim's bank account.

Finally, the economic uncertainties created by the pandemic have led to a rise in online investment scams. Fraudsters offer lucrative investment opportunities, promising high returns with little risk. However, these investment schemes are often fraudulent, with no actual investment or return. Victims may be persuaded to transfer money to the fraudsters, who then disappear with the funds.

To prevent and detect bank fraud schemes, both users and financial institutions need to remain vigilant and take adequate measures. Employee training, implementation of strong security protocols, and regular monitoring of network activity are some of the measures that can be taken. Users should be cautious of unsolicited emails and text messages, and always verify the authenticity of the source. They should also avoid clicking on suspicious links or downloading unknown attachments. Financial institutions should invest in security software and encryption tools to protect their systems and networks. They should also adopt multi-factor authentication and implement transaction monitoring to detect suspicious activity. By staying informed and adopting a proactive approach to fraud prevention and detection, we can ensure the security and integrity of digital systems and protect ourselves against the ongoing threat of bank fraud (Marcu, 2022).

2.3.6 Cyber Fraud

Cyber fraud has been a growing problem for several years, but the COVID-19 pandemic has accelerated the adoption of digital technologies and led to an increased volume of online transactions. As a result, the threat of cyber fraud has become even more significant, with criminals exploiting the vulnerabilities and uncertainties of the pandemic to target individuals and organizations. In this article, we will explore the effects of cyber fraud and the challenges of investigating these crimes, particularly in the context of the COVID-19 pandemic (McKinnon al., 2018).

2.3.7 Effects of Cyber Fraud

The effects of cyber fraud can be devastating for individuals and organizations. Financial losses are the most obvious consequence, with cyber criminals using a variety of tactics such as phishing, malware, and ransomware to steal money and sensitive data. However, the impact of cyber fraud goes beyond financial losses. Victims may also experience

reputational damage, loss of privacy, and emotional distress. In the case of organizations, cyber fraud can result in disruption of business operations, legal liabilities, and damage to the brand image (Awoyemi al., 2019).

2.3.8 Investigation of Cyber Fraud

Investigating cyber fraud is a complex and challenging task. Cyber criminals can operate from anywhere in the world, making it difficult to track them down. They also use sophisticated techniques such as encryption and anonymization to hide their identities and activities. Moreover, the sheer volume of data generated by online transactions can make it challenging for investigators to identify patterns and evidence of fraudulent activity (Hidayati al., 2021).

In the context of the COVID-19 pandemic, investigating cyber fraud has become even more challenging. The pandemic has led to an increased volume of online transactions and an acceleration of digital adoption, creating more opportunities for cyber criminals to target individuals and organizations. Furthermore, the pandemic has led to changes in work patterns, with many employees working remotely and using personal devices and networks, which can create additional vulnerabilities for cyber-attacks.

To overcome these challenges, investigators need to adopt a range of techniques and tools. These may include forensic analysis of digital devices and networks, data mining and analysis, and cooperation with international law enforcement agencies. However, it is also essential to take a proactive approach to prevention and detection of cyber fraud, through measures such as employee training, implementation of strong security protocols, and regular monitoring of network activity (Hidayati al., 2021).

The threat of cyber fraud has amplified, and the COVID-19 pandemic has further escalated its significance. The aftermath of cyber fraud can be catastrophic for both

individuals and organizations, making the process of probing such crimes intricately challenging. Nevertheless, by embracing a forward-thinking stance towards prevention and detection, along with the utilization of various methods and instruments for examination, we can diminish the influence of cyber fraud and safeguard the security and authenticity of digital systems. It's of paramount importance to sustain vigilance and stay abreast with the evolving trends and methods employed by cybercriminals, ensuring we are well-equipped to confront this persisting menace.

2.4 Section.2: Palestinian Banking Sector

2.4.1 Preface

The banking sector in Palestine is vibrant and dynamic, playing a vital role in fulfilling the financial demands of individuals, corporations, and institutions. Over time, the Palestinian banking industry has undergone substantial growth and evolution, providing a broad spectrum of financial offerings tailored to cater to the varied needs of its clientele. The landscape of banking in Palestine is dominated by the Bank of Palestine, which stands as the country's largest bank. The bank has established a solid reputation due to its inclusive array of banking services. This variety encompasses retail banking, business banking, corporate banking, investment services, and options for Islamic banking, addressing the wide-ranging requirements of individuals and businesses. The Bank of Palestine takes pride in its widespread branch network, facilitating easy access to its services across the West Bank and the Gaza Strip.

Besides Bank of Palestine, other prominent banks operate within Palestine, providing valuable financial services to the local population. These banks include the Arab Bank, which has a strong presence not only in Palestine but also throughout the Middle East

region. Palestine Islamic Bank, which operates in accordance with the principles of Islamic Sharia, offers a range of banking products and services that are compatible with Islamic Sharia. The banking sector in Palestine continues to evolve and adapt to the changing economic landscape, providing essential financial support to individuals and companies and the overall development of the Palestinian economy. The following is a list of banks operating in Palestine, according to the Palestine monetary authority ⁽²⁾:

Table (2.1): The Banks in Palestine, Source: PMA

Bank Name	Bank type	Governorate	Area	Telephone
Palestine Islamic Bank	Local Bank	Ramallah and AL_Bireh	AL_Masyoun	02-2949797
Arab Bank	Foreign Bank	Ramallah	Al Masyoon	02-2978100
Arab Islamic Bank	Local Bank	Ramallah	Ramallah	02-2941822
Bank of Jordan	Foreign Bank	Ramallah and Al-Bireh	Al-Bireh	02-2411466
Bank of Palestine	Local Bank	Ramallah and AlBireh	Ein- Musbah	02 - 2946700
Cairo Amman Bank	Foreign Bank	Ramallah & Al Bireh	Al - Masyoun	02-2977230
Egyptian Arab Land Bank	Foreign Bank	Ramallah & Al Bireh	Al Bireh	2958421
Housing Bank for Trade & Finance	Foreign Bank	Ramallah & Al Bireh	Al - Masyoun	02- 2945500
Jordan Ahli Bank	Foreign Bank	Ramallah	Al-Masyoun	00970 22948860
Palestine Investment Bank	Local bank	Ramallah	Irsal	02-2943500
Quds Bank	Local Bank	Ramallah and al-Bireh	Almasyoun Neighborhood	02 - 2979555
Safa Bank	Local Bank	Ramallah-AL-Bireh	Al-Masyoun	02-2941333
The National Bank	Local Bank	Ramallah-AL-Bireh	Ramallah	02-2946090

2.4.2 Basic Concepts in the Principles of Banking Science and Some Laws Regulating Banks

According to the definitions of the Palestinian Monetary Authority, some definitions can be clarified as follows: ⁽³⁾

⁽²⁾[Banks \(pma.ps\)](#)

³ [PMA > Home](#)

The Concept of Financial Institutions: They are economic units that play the role of mediator or link between those who have the funds in excess of their needs, which are called surplus units, and the need for those funds, which are called deficit units.

The Concept of Banking Institutions: They are economic institutions that carry out the financial activities specified by the law, with a license from the banking authority in society.

Definition of a Bank According to the Monetary Authority Law: It is any bank licensed to conduct banking transactions in Palestine in accordance with the provisions of the applicable Banking Law.

Some Articles in the Banking Law that Regulate the Banking Business:

1. Article No. (3) It is prohibited for any natural or legal person to carry out basically and as usual any of the banking activities without obtaining a license to do so from the Monetary Authority in accordance with the provisions of this law and any regulations or decisions issued for its implementation.
2. Article No. (4): No unauthorized person may use the word “bank” and its derivatives, synonyms, or any similar expression in any language, whether from his papers, publications, commercial address, name, or in his advertising.
3. Article No. (6): The Monetary Authority shall register banks, financial companies, representative offices and branches of foreign banks.
4. Article No. (14): If a group of persons wishes to establish a company to practice banking business, it may not be registered under the Companies Law except after obtaining approval from the Palestinian Monetary Authority and the Acting Central Bank.

5. Article No. (15): The Monetary Authority or the Central Bank has the right to set any regulations or instructions it deems appropriate for the work of financial companies (PMA, 2017).

2.4.3 Historical Development of the Palestinian Banking System

The Palestinian banking system went through several stages in which it was affected by the changes that occurred in the work of successive governments, and the political transformations that Palestine went through. These developments can be summarized in the following stages as follows:

2.4.3.1 The period Before 1948

During that period, he worked in many banks and financing institutions, the most prominent of which was the Arab Bank, which was founded in 1930 by the Palestinian businessman Abdel Hamid Shoman in the city of Jerusalem, and its branches spread in many Palestinian cities.

This is in addition to many foreign banks such as the Ottoman Bank and the British Barclays Bank, which worked as a bank for the government in Palestine during the British Mandate period, in addition to other financing institutions (Nassar, 2013).

2.4.3.2 The Period from 1948 to 1967

This period was characterized by the dependence of the West Bank on Jordanian laws and regulations. The number of banks operating in the West Bank during that period reached eight, with (32) branches: Al-Arabi, Al-Aqari Al-Arabi, Cairo-Amman, Al-Othmani (Grindles), Jordan, Al-Ahli Al-Jordan, Intra (Al-Mashreq), the British Bank of the Middle East. These banks were subject to the supervision of the Central Bank of Jordan. (As for the Gaza Strip, it was subject to Egyptian administration during that period, as work was carried out in accordance with Egyptian laws, regulations, and

instructions. The number of operating banks in the Gaza Strip during that period reached The period consisted of six banks with (7) branches, including: Palestine, Al-Arabi, Alexandria, Al-Ummah, Agricultural Credit Company, although legally from the Egyptian banking system, the banking system in the Gaza Strip remained separate, given that the Gaza Strip falls under Egyptian administrative supervision and was not annexed. However, the Egyptian currency remained the fiat currency during that period (Nassar, 2013).

2.4.3.3 The period from 1967 to 1993

After Israel occupied the rest of the Palestinian territories in 1967, Israel pursued an economic, monetary, and banking policy aimed at eliminating all manifestations of independence in the Palestinian territories. It abolished the use of the Egyptian and Jordanian currencies, and imposed the Israeli currency. Banks operating in the West Bank and Gaza Strip were closed, and they practiced banking work. In the Palestinian areas, where the number of Israeli banks operating in the West Bank and Gaza Strip reached six, with (39) branches. The work of these banks was limited to facilitating commercial exchange between the West Bank and Gaza Strip on the one hand, and Israel On the other hand.

The presence of Israeli banks in the West Bank and Gaza Strip continued until the beginning of the Intifada, when these banks faced public rejection that led to their closure, with the exception of the Mercantile Discount Bank branch in the city of Bethlehem, which continued to operate until December 2000. In 1981, Bank of Palestine was allowed to resume its activities. in Gaza City, however. Banned from branching out in Khan Yunis. In 1989, after it was allowed to branch out, the number of its branches increased to reach the end 1993 into five branches.

In 1986, Cairo-Amman Bank was allowed to carry out its activities in the city of Nablus, to extend its activity later to many Palestinian cities and communities, as the number of its branches until the end of 1993 reached eight Branches, the nature of the work of these banks in that period was restricted and unable to perform the task of mediator between savers and investors; As its work was limited only to the task of facilitating commercial operations and preserving deposits, in addition to these banks, many specialized lending institutions worked during that period, such as: the Specialized Development Corporation, the Economic Development Group, as well as the joint Palestinian-Jordanian committee that provided a lot of support for housing projects in Palestine (Sabra, 2015).

The researcher believes that this period was characterized by many obstacles and the curtailment of the role of Palestinian banks by the occupation authorities so that they would not help to withstand the period of the first intifada and eliminate the national spirit. In addition, its role in economic and social development has been marginalized, and its role has been limited to preserving deposits and facilitating limited commercial exchanges.

2.4.3.4 The Period from 1994 Until Now

The Palestinian banking sector witnessed remarkable development in the period after 1994, due to the reopening of Arab and Palestinian banks in the West Bank and Gaza Strip, to the establishment of the Palestinian Authority and the establishment of the Palestinian Monetary Authority in 1994, which was allowed - according to the Paris Protocol - to exercise the functions of the central bank. With restrictions on performance by the Israeli monetary policy and authorities and the lack of Palestinian monetary performance without having the right to issue a national currency.

The private sector and its increasing activity was one of the most prominent channels of influence on the banking system. During that period, banks grew significantly in Palestine, as the number of operating banks in the West Bank and Gaza Strip reached 13 in 1995, while the number of branches and offices for the same year reached 57 branches. The number of banks increased to 21 in 2000, while the number of branches and offices reached 106 banks, and in 2005 the number of banks reached 20, and the number of branches and offices reached 139 branches. 17 banks in 2013, and the number of branches and offices reached 237 branches and offices (Sabra, 2015), and due to the continued banking merger between each other, the number of banks decreased to 15 banks until 2016, and the offices and branches reached 342 branches, (The Monetary Authority Annual Report, 2016), while in 2018 AD the number of banks operating in Palestine reached 14 banks with 355 branches. This is according to the issuance of the Monetary Authority for the first quarter of 2018.

In this context, the researcher considers the following: The historical development of the Palestinian banking system reflects a complex journey shaped by political, economic and social forces. As shown through various phases, from before 1948 to the present day, the system has gone through challenges and transitions that reflect the turbulent history of Palestine itself. The first period before 1948 saw the establishment of important financial institutions, which paved the way for future banking efforts. Subsequent eras, such as the turbulent period from 1967 to 1993, were marked by the occupation's attempts to suppress the regime's independence, limiting its role primarily to commercial exchanges and the preservation of deposits. However, the turning point came after 1994, when the Palestinian banking sector witnessed a remarkable recovery after the establishment of the Palestinian Authority and the Palestinian Monetary Authority. With the reopening of

banks, the increasing influence of the private sector, and the increase in the number of banks, the system evolved to embrace a more active role in the economic development of Palestine. Despite historical obstacles, the Palestinian banking system has emerged as a demonstration of resilience and ability to adapt, aligning its trajectory with the nation's aspirations for self-determination and prosperity.

2.5 Section.3: Fraud Investigation

2.5.1 Preface

Section 3 delves into the realm of fraud investigation, a critical process in safeguarding the integrity of financial systems. This segment explores the methodologies, techniques, and tools employed to detect, analyze, and prevent fraudulent activities within the banking sector. By examining the intricacies of fraud investigation, this section provides a deeper insight into the proactive measures taken to maintain the trust and stability of financial institutions.

- 1. Definition of Fraud Investigation:** Is the process of gathering and analyzing information to determine the facts of a matter. In the context of fraud, investigation is used to uncover fraudulent activities and identify those responsible. Effective investigation requires specialized skills and knowledge, including forensic accounting, data analysis, and interviewing techniques. (Association of Certified Fraud Examiners, 2021).

Fraud requires an exhaustive examination to expose the truth. Effective fraud inquiries adopt a strategic approach, engaging skilled professionals, advanced techniques, and thorough evidence gathering. The researcher explores the essential components of a fraud investigation, emphasizing the investigation plan, team formation, methodologies,

information acquisition, evidence gathering strategies, and the indispensable role of interviews.

2. Investigation Plan:

Table (2.2): Investigation Plan Tools, Source: Author

1	Objectives and Scope
2	Risk Assessment
3	Methodologies and Techniques
4	Timelines and Milestones
5	Resource Allocation
6	Legal and Ethical Considerations
7	Reporting and Communication

A meticulously crafted investigation plan forms the foundation for a successful fraud investigation within the banking sector. This plan serves as a roadmap, outlining the specific steps, methodologies, and resources required to uncover fraudulent activities (Coenen, 2009), Let's delve deeper into the key components of an investigation plan:

2.5.2 Objectives and Scope:

The investigation plan begins by clearly defining the objectives of the investigation. These objectives may include identifying the nature and extent of the fraud, determining the individuals involved, quantifying the financial impact, and recommending measures to prevent future occurrences. Additionally, the plan establishes the scope of the

investigation, specifying the time period, geographic area, departments, and accounts to be examined (Sanusi al., 2019).

2.5.3 Risk Assessment:

Conducting a comprehensive risk assessment is crucial to identify potential vulnerabilities and prioritize investigation efforts. This involves analyzing various factors such as transaction volumes, critical control points, system vulnerabilities, regulatory compliance, and previous fraud incidents. By understanding the specific risks faced by the bank, investigators can allocate resources effectively and focus on high-risk areas (Gottschalk & Buzzeo, 2017).

2.5.4 Methodologies and Techniques:

The investigation plan outlines the methodologies and techniques to be employed during the investigation. These can include financial analysis, digital forensics, data mining, transactional analysis, and document examination. Each technique is chosen based on its relevance to the specific case and its potential to uncover fraudulent activities. It is important to consider both traditional investigative methods and emerging technological tools to ensure a comprehensive approach (Peters & Maniam, 2016).

2.5.5 Timelines and Milestones:

Establishing realistic timelines and milestones is essential for efficient investigation management. The plan should include specific deadlines for key activities, such as data collection, analysis, interviews, and report preparation. By setting milestones, investigators can monitor progress, identify bottlenecks, and make necessary adjustments to stay on track (Drammeh, 2023).

2.5.6 Resource Allocation:

A crucial aspect of the investigation plan is the allocation of resources, including personnel, technology, and financial support. The plan should identify the roles and responsibilities of each team member, ensuring that individuals with the necessary expertise are assigned to specific tasks. Adequate technology resources, such as data analysis software and forensic tools, should be allocated to facilitate efficient data processing and evidence gathering

(Ahmad et al., 2024).

2.5.7 Legal and Ethical Considerations:

In any fraud investigation, adherence to legal and ethical standards is paramount. The investigation plan should encompass an understanding of relevant laws, regulations, and industry guidelines. It should ensure compliance with data privacy regulations, evidence handling protocols, and rules of evidence admissibility. Collaboration with legal advisors ensures that the investigation remains within legal boundaries and minimizes potential risks.

2.5.8 Reporting and Communication:

The investigation plan should outline the reporting and communication protocols throughout the investigation. This includes periodic updates to stakeholders, such as senior management, board of directors, and regulatory authorities. The plan should also define the format and content of the final investigation report, which typically includes a summary of findings, supporting evidence, conclusions, and recommendations for remedial actions (Okaforet al., 2015).

By developing a comprehensive investigation plan, fraud investigators in banks can enhance the effectiveness and efficiency of their efforts. The plan serves as a strategic guide, aligning the investigative process with the objectives of uncovering and preventing

fraudulent activities. Flexibility and adaptability are key, as investigations may require adjustments based on new information or unforeseen circumstances. The investigation plan acts as a blueprint, providing structure and guidance while ensuring that the investigation is conducted in a systematic and objective manner (Gottschalk & Buzzeo, 2017).

3 Investigation Team:

Table (2.3): Design an Investigation Team, Source: Author

1	Expertise and Specializations
2	Collaboration and Communication
3	Role Definition and Responsibilities
4	Cross-Functional Collaboration
5	Training and Continuous Learning
6	Ethical and Professional Conduct
7	Continuous Evaluation and Improvement

Building a skilled and diverse investigation team is crucial for conducting effective fraud investigations within the banking sector. The complexity of financial fraud requires expertise in various domains, including accounting, law, digital forensics, data analysis, and investigative techniques (Silverstone al., 2012), Let's explore the key aspects to consider when assembling an investigation team:

2.5.9 Expertise and Specializations:

A successful investigation team should consist of professionals with specialized expertise relevant to fraud investigations in the banking sector. This can include forensic accountants, certified fraud examiners, legal advisors, digital forensics specialists, data analysts, and experienced investigators. Each team member brings a unique skill set and perspective, enabling comprehensive coverage of the investigation (Okaforet al., 2015).

2.5.10 Collaboration and Communication:

Effective communication and collaboration among team members are essential for a successful investigation. Team members must be able to work together seamlessly, sharing information, insights, and updates. Regular team meetings and debriefings facilitate coordination, align objectives, and ensure that all team members are on the same page (Soviany, 2018).

2.5.11 Role Definition and Responsibilities:

To optimize the efficiency of the investigation, it is crucial to define clear roles and responsibilities for each team member. This ensures that everyone understands their specific tasks, areas of focus, and deliverables. Assigning a team leader or coordinator helps streamline the investigative process, manage resources, and maintain overall accountability (Brooks & Button, 2011).

2.5.12 Cross-Functional Collaboration:

Fraud investigations in banks often require collaboration with various internal and external stakeholders. The investigation team should establish effective lines of communication and collaboration with key personnel, such as compliance officers, internal auditors, IT departments, and legal counsel. Engaging with external entities, such

as law enforcement agencies or regulatory bodies, may also be necessary for support and information sharing (Okaforet al., 2015).

2.5.13 Training and Continuous Learning:

Given the ever-evolving nature of fraud schemes and the advancements in technology, ongoing training and continuous learning are vital for the investigation team. Staying updated on the latest fraud trends, investigation techniques, regulatory changes, and technological advancements enables the team to adapt and effectively respond to new challenges. Training programs, industry conferences, and professional certifications contribute to the team's expertise and credibility (Peters & Maniam, 2016).

2.5.14 Ethical and Professional Conduct:

Maintaining the highest standards of ethics and professional conduct is paramount for the investigation team. They must adhere to legal and regulatory requirements, respect privacy and confidentiality, and handle evidence with integrity. Upholding a strong code of ethics helps build trust within the organization, supports the team's credibility, and ensures the investigation process is fair and unbiased (Hilary al., 2022).

2.5.15 Continuous Evaluation and Improvement:

Throughout the investigation, it is essential to continuously evaluate the performance of the investigation team. This includes assessing individual and collective effectiveness, identifying areas for improvement, and implementing corrective measures when necessary. Regular feedback, self-reflection, and learning from past experiences contribute to the team's growth and enhance future investigations (Okaforet al., 2015).

By assembling a skilled and diverse investigation team, banks can leverage the collective expertise and resources needed to navigate the complexities of fraud investigations. Collaboration, clear role definition, ongoing training, ethical conduct, and continuous

evaluation contribute to a high-performing team capable of effectively detecting, investigating, and preventing fraudulent activities.

3 Methods and Techniques:

Table (2.4): Investigation Methods, Source: Author

1	Financial Analysis
2	Digital Forensics
3	Data Mining and Analytics
4	Document Examination
5	Interview and Interrogation
6	Open-Source Intelligence
7	Surveillance
8	Cooperation with External Entities

Fraud investigations in the banking sector require a diverse range of methods and techniques to unravel complex schemes and uncover evidence. Investigators leverage a combination of traditional investigative approaches and cutting-edge technologies (Wells, 2009), Let's explore some key methods and techniques commonly employed:

2.5.16 Financial Analysis:

Financial analysis plays a vital role in fraud investigations. Investigators examine financial records, statements, and transactional data to identify irregularities, patterns, and anomalies indicative of fraudulent activities. Techniques such as ratio analysis, trend

analysis, and anomaly detection aid in spotting red flags and understanding the flow of funds (Ozili, 2015).

2.5.17 Digital Forensics:

Given the increasing reliance on digital systems, digital forensics plays a critical role in fraud investigations. Investigators employ specialized tools and techniques to analyze digital evidence from computers, mobile devices, and network logs. They can recover deleted data, trace digital trails, and reconstruct events to establish a timeline of fraudulent activities (Gottschalk & Buzzeo, 2017).

2.5.18 Data Mining and Analytics:

Data mining and analytics techniques are used to extract valuable insights from vast amounts of structured and unstructured data. Investigators employ algorithms, statistical models, and machine learning approaches to identify patterns, trends, and associations that may indicate fraudulent behavior. These techniques enable investigators to analyze large datasets efficiently and uncover hidden relationships (Zulyadi, 2020).

2.5.19 Document Examination:

Document examination is a fundamental technique in fraud investigations. Investigators scrutinize various documents, including bank statements, invoices, contracts, and correspondence, to identify inconsistencies, forgeries, or alterations. Advanced techniques, such as handwriting analysis, ink analysis, and document authentication, aid in assessing the authenticity and integrity of critical documents (Peters & Maniam, 2016).

2.5.20 Interview and Interrogation:

Interviews and interrogations are crucial for gathering information, extracting confessions, and uncovering crucial details. Investigators utilize structured interview techniques, behavioral analysis, and deception detection methods to elicit information from individuals involved in fraudulent activities. Effective interviewing skills, active listening, and the ability to detect verbal and non-verbal cues are vital for obtaining accurate and valuable insights (Sanusi al., 2019).

2.5.21 Open-Source Intelligence (OSINT):

OSINT involves gathering information from publicly available sources, such as social media, news articles, and online forums. Investigators use OSINT techniques to gather intelligence about individuals, organizations, and events related to the fraud investigation. OSINT helps in identifying potential connections, establishing backgrounds, and corroborating information obtained through other investigative methods (Gottschalk & Buzzeo, 2017).

2.5.22 Surveillance:

Surveillance techniques may be employed in certain fraud investigations, especially when physical activities and behaviors need to be monitored. Investigators may conduct covert observations, use video surveillance, or employ GPS tracking to gather evidence of suspicious activities. Surveillance provides real-time information and can help establish links between individuals and events (Sanusi al., 2019).

2.5.23 Cooperation with External Entities:

Fraud investigations in banks often involve collaboration with external entities such as law enforcement agencies, regulatory bodies, and forensic experts. Sharing information, seeking expert opinions, and leveraging their resources and expertise can significantly enhance the investigation (Sanusi al., 2019).

Collaborative efforts ensure that investigations are conducted within legal boundaries and benefit from specialized knowledge and experience.

By employing a combination of these methods and techniques, investigators can effectively analyze financial data, detect patterns, gather evidence, and establish a comprehensive understanding of fraudulent activities. It is crucial for investigators to stay updated on emerging methods, tools, and technologies to adapt to evolving fraud schemes and enhance investigation outcomes.

2.5.24 Interviews with the Accused:

Interviewing individuals suspected of involvement in fraudulent activities is a critical component of fraud investigations in banks. These interviews aim to gather information, elicit admissions or denials, and uncover crucial details that can help establish the truth. Conducting effective interviews requires a strategic approach, adherence to legal guidelines, and proficient communication skills (Sharma al., 2009), Let's explore the key aspects of interviews with the accused:

Table (2.5): Components of Interview, Source: Author

1	Interview Planning
2	Interview Setting
3	Building Rapport
4	Interview Techniques
5	Cognitive Interviewing
6	Body Language and Non-Verbal Cues

7	Legal Considerations
8	Documentation and Analysis

2.5.25 Interview Planning:

Before conducting interviews, thorough planning is essential. Investigators should review available evidence, identify key areas of inquiry, and prepare a structured interview plan. This plan outlines the topics to be covered, the sequence of questions, and the desired outcome. Preparing a well-organized interview plan helps ensure that all relevant aspects are addressed and increases the chances of obtaining valuable information (Soviany, 2018).

2.5.26 Interview Setting:

Creating an appropriate interview setting is crucial for fostering open communication. The interview should take place in a neutral and comfortable environment, free from distractions or interruptions. Privacy and confidentiality must be maintained to encourage the accused to provide honest and candid responses. Establishing a respectful and non-confrontational atmosphere is important to build rapport and cooperation (Hilary al., 2022).

2.5.27 Building Rapport:

Building rapport with the accused is a fundamental step in conducting successful interviews. Investigators should strive to establish a positive and non-threatening relationship, as it encourages the accused to feel more at ease and willing to share information. Active listening, empathy, and demonstrating understanding can help create a conducive environment for open communication (Venugopal al., 2020).

2.5.28 Interview Techniques:

Effective interview techniques aid in obtaining accurate and relevant information from the accused. Structured interviews, utilizing open-ended questions, allow the accused to provide detailed responses and explanations. Probing techniques, such as follow-up questions, clarification requests, and challenges to inconsistencies, help ensure a comprehensive understanding of the accused's involvement (Hilary al., 2022).

2.5.29 Cognitive Interviewing:

Cognitive interviewing techniques can be particularly useful in fraud investigations. This approach focuses on enhancing the recall and accuracy of the accused's memory. Investigators employ techniques such as free recall, context reinstatement, and narrative reconstruction to facilitate the accused's recollection of events and obtain detailed and reliable information (Gbegi & Adebisi, 2014).

2.5.30 Body Language and Non-Verbal Cues:

Observing the accused's body language and non-verbal cues during the interview can provide valuable insights. Non-verbal cues, such as facial expressions, gestures, and body posture, may indicate discomfort, deception, or inconsistencies in the accused's statements. Investigators trained in deception detection techniques can leverage these cues to assess the credibility and truthfulness of the accused's responses (Okaforet al., 2015).

2.5.31 Legal Considerations:

When conducting interviews, investigators must adhere to legal guidelines and protocols. It is crucial to ensure that the accused's rights are protected, including the right to legal representation and the right against self-incrimination. Interviews should be conducted in compliance with applicable laws, regulations, and internal policies, to ensure the

admissibility of evidence and protect the integrity of the investigation (Brooks & Button, 2011).

2.5.32 Documentation and Analysis:

Thorough documentation of the interview process is essential. Investigators should take detailed notes, record audio or video (if legally permissible), and prepare summaries of the interviews. These records serve as important reference material for further analysis, comparison with other evidence, and potential use in legal proceedings. Careful analysis of interview transcripts and related evidence helps identify inconsistencies, corroborate information, and support the overall investigative findings (Raghavan & El Gayar, 2019). Effective interviews with the accused can provide valuable insights, admissions, or denials that contribute to establishing the truth and building a strong case. Interviewing techniques, adherence to legal guidelines, and proficiency in communication skills are crucial for obtaining accurate and reliable information. Balancing assertiveness with empathy, remaining objective, and respecting the accused's rights are essential for conducting (Soviany, 2018).

Fraud investigations demand meticulous planning, specialized expertise, and rigorous execution. By adhering to a well-defined investigation plan, leveraging the capabilities of a diverse investigation team, employing appropriate methods, gathering comprehensive information, collecting valid evidence, and conducting effective interviews, investigators can uncover the truth and bring fraudulent activities to light.

2.6 Section.4: Anti-fraud framework

2.6.1 Preface

An anti-fraud framework is a comprehensive set of policies, procedures, and controls designed to prevent, detect, and respond to fraud within an organization. The framework should be tailored to the specific risks and needs of the organization and should include measures such as risk assessments, control activities, monitoring, and reporting. (The Institute of Internal Auditors, 2018).

2.6.2 Definition of Concepts

- A. *Anti*: This prefix originates from Latin and Greek and generally implies against, opposed to, preventive. When 'anti' is used in combination with a term, it refers to countering or preventing the meaning of that term. This is a general English language definition and is not typically sourced from a specific text or author. Source: The Free Dictionary
- B. *Fraud*: According to the legal dictionary by The Free Dictionary, fraud is "A false representation of a matter of fact—whether by words or by conduct, by false or misleading allegations, or by concealment of what should have been disclosed—that deceives and is intended to deceive another so that the individual will act upon it to her or his legal injury." Source: The Free Dictionary
- C. *Framework*: In general terms, a framework refers to a basic structure underlying a system, concept, or text. In the context of business and technology, a framework often refers to a broad overview, outline, or skeleton of interlinked items which supports a particular approach to a specific objective. It provides a structured way of approaching a complex issue. This definition is also a general English language usage and is not typically attributed to a specific source.

Now, combining these three, an *Anti-Fraud Framework* can be defined as a structured and systematic approach to prevent, detect, and respond to fraud. This includes the policies, controls, and procedures put in place by an organization to mitigate the risk of fraud. It could include several elements such as prevention strategies, detection techniques, response procedures, communication strategies, and ongoing evaluation and improvement (Association of Certified Fraud Examiners, 2021).

One of the notable frameworks is by the Association of Certified Fraud Examiners (ACFE), which includes elements like Fraud Risk Governance, Fraud Risk Assessment, Fraud Prevention and Detection, Fraud Investigation and Corrective Action.

D. Fraud prevention: Fraud prevention refers to the proactive measures taken to reduce the likelihood of fraud occurring. This can include a combination of controls, policies, training, and awareness programs designed to prevent fraudulent activities from taking place. It is important to have a comprehensive fraud prevention strategy in place to minimize the risk of fraud and protect the organization's assets. (KPMG, 2019).

E. Fraud detection: Fraud detection is the process of identifying and investigating potential fraudulent activities that have already taken place. This can include techniques such as data analytics, audits, and investigations. Effective fraud detection requires a combination of technical expertise, data analysis, and investigative skills. (Association of Certified Fraud Examiners, 2021).

F. Internal controls: Internal controls are the processes and procedures implemented by an organization to ensure that its objectives are met, risks are managed effectively, and compliance with laws and regulations is maintained. In the context of fraud prevention, internal controls can include things like segregation of duties,

authorization procedures, and access controls. Effective internal controls can help prevent and detect fraudulent activities within an organization. (The Institute of Internal Auditors, 2018).

G. Employee awareness: Employee awareness refers to the extent to which employees are trained and informed about fraud risks and prevention techniques. This can include things like training sessions, communications, and policies that encourage employees to report suspicious activity. It is important for employees to be aware of the risks and warning signs of fraud so that they can be vigilant and report any suspicious activity. (KPMG, 2019).

H. Internal audit: Internal audit is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. In the context of fraud prevention, internal audit can help evaluate the effectiveness of anti-fraud controls and processes, assess the risk of fraud, and provide recommendations for improvement. Effective internal audit can help organizations prevent and detect fraudulent activities. (The Institute of Internal Auditors, 2017).

I. Investigation: Investigation is the process of gathering and analyzing information to determine the facts of a matter. In the context of fraud, investigation is used to uncover fraudulent activities and identify those responsible. Effective investigation requires specialized skills and knowledge, including forensic accounting, data analysis, and interviewing techniques. (ACFE, 2021).

J. Fraud risk assessment: Fraud risk assessment is the process of identifying and evaluating the specific fraud risks that an organization faces. This involves analyzing the organization's operations, systems, and controls to identify vulnerabilities and potential areas of weakness. Effective fraud risk assessment can help organizations

develop a comprehensive fraud prevention strategy and prioritize resources to address the most significant risks. (IIA, 2018).

The anti-fraud framework is a comprehensive set of policies, procedures, and controls that an organization implements to prevent and detect fraudulent activities. The purpose of an anti-fraud framework is to create a robust and effective system that can detect, prevent, and deter fraudulent activities. In the case of Palestinian commercial banks, a comprehensive anti-fraud framework is essential to protect the banks, customers, and shareholders from financial loss and reputational damage. we discuss the essential components of the anti-fraud framework that Palestinian commercial banks should implement (BAI, 2016).

2.6.3 Components of Anti-Fraud Framework: Al Furqan & Tobing study (2017),
Astriaana & Adhariani Study (2019)

Table (2.6): Components of Anti-Fraud Framework Source: Author

1	Internal Controls
2	Management Oversight
3	Employee Awareness
4	Internal Audit
5	Whistleblower Program
6	Collaboration with Law Enforcement
7	Fraud Risk Assessment
8	Training

2.6.4 Internal Controls

Internal controls are an essential component of any anti-fraud framework. Internal controls are policies, procedures, and processes that organizations implement to ensure that assets are safeguarded, transactions are authorized, and financial information is

reliable. Internal controls can help to prevent fraud by providing a system of checks and balances that can detect and deter fraudulent activities. Some examples of internal controls include segregation of duties, access controls, and reconciliation of accounts (Asat et al., 2019).

Internal controls are an essential component of any anti-fraud framework and are used by organizations to safeguard their assets and ensure the reliability of their financial reporting. This chapter will discuss the importance of internal controls in preventing and detecting fraud, and the various types of internal controls that can be implemented in a banking organization.

2.6.5 Importance of Internal Controls in Preventing and Detecting Fraud

Internal controls play a critical role in preventing and detecting fraud in a banking organization. Internal controls can help to detect fraudulent activities by providing a system of checks and balances that can identify suspicious transactions and irregularities. Effective internal controls can also deter potential fraudsters by creating an environment that emphasizes ethical behavior and accountability. Additionally, strong internal controls can help to prevent fraud by ensuring that only authorized transactions are processed and that assets are properly safeguarded (Puryati & Febriani, 2020).

2.6.6 Types of Internal Controls

There are several types of internal controls that can be implemented in a banking organization to prevent and detect fraud. Some of the most commonly used types of internal controls include:

(Alisherovich & Ugli, 2023) , (Carretta et al., 2017).

- A. **Segregation of Duties:** Segregation of duties is a critical internal control that ensures that no single individual has complete control over a transaction or process. This

control helps to prevent fraud by requiring different individuals to perform separate tasks, such as authorizing transactions, recording transactions, and reconciling accounts.

- B. **Access Controls:** Access controls are used to restrict access to sensitive information and systems. This control helps to prevent fraud by ensuring that only authorized individuals have access to sensitive data and systems.
- C. **Reconciliation of Accounts:** Reconciliation of accounts is a process of comparing two sets of records to ensure that they are consistent and accurate. This control helps to prevent fraud by identifying discrepancies and errors in financial records.
- D. **Audit Trails:** Audit trails are records of all transactions and activities that occur in a banking system. This control helps to prevent fraud by providing a record of all transactions and activities that can be reviewed and analyzed for potential fraud.
- E. **Monitoring and Reporting:** Monitoring and reporting are used to identify potential fraud by monitoring transactions and reporting any suspicious activities. This control helps to prevent fraud by providing an early warning system that can identify potentially fraudulent activities.

Effective internal controls are critical in preventing and detecting fraud in a banking organization. Segregation of duties, access controls, reconciliation of accounts, audit trails, and monitoring and reporting are all important types of internal controls that can be implemented to prevent and detect fraud. By implementing a comprehensive system of internal controls, banks can create an environment that emphasizes ethical behavior and accountability while safeguarding their assets and ensuring the reliability of their financial reporting.

2.6.7 Management Oversight

Management oversight is a critical element in any anti-fraud framework. It is the responsibility of the senior management of an organization to establish a tone at the top that emphasizes the importance of ethical behavior and a zero-tolerance policy towards fraud. Management oversight includes setting up policies and procedures that promote transparency, accountability, and effective risk management (Marcu, 2022).

According to a study by Albrecht and Albrecht (2018), management oversight is an important factor in preventing fraud. The study found that the presence of an effective oversight structure, including a strong ethical tone at the top, reduces the likelihood of fraud occurrence. Management oversight can be achieved through various mechanisms such as establishing an audit committee or a fraud risk management committee to oversee the anti-fraud program. These committees are responsible for reviewing and monitoring the effectiveness of the anti-fraud framework (McKinnon al., 2018).

Another study by Forster and O'Donnell (2016) identified the importance of management's commitment to preventing fraud. The study found that an organization's commitment to anti-fraud efforts, demonstrated through actions such as providing adequate resources, training, and support for anti-fraud activities, is positively associated with reduced fraud occurrences.

Management oversight can also include conducting regular risk assessments to identify potential areas of vulnerability to fraud. Risk assessments help to identify the areas where fraud is most likely to occur, and where controls may be weak or nonexistent. Once identified, controls can be put in place to mitigate the risks and prevent fraudulent activities (Wells, 2009).

In summary, management oversight plays a crucial role in the success of any anti-fraud framework. Senior management must establish a culture of ethical behavior and provide the necessary resources and support to prevent and detect fraud. The use of oversight committees and regular risk assessments can help to ensure that the anti-fraud program remains effective and relevant.

2.6.8 Employee Awareness

Employees need to be trained on the risks of fraud and the policies and procedures in place to prevent it. The training should be ongoing and cover topics such as identifying red flags, reporting suspected fraud, and the consequences of engaging in fraudulent activities. Employees who are aware of the risks and consequences of fraud are less likely to engage in fraudulent activities, and they are more likely to report suspicious activities (KPMG, 2019).

Training and awareness programs should cover topics such as recognizing the signs of fraud, reporting suspicious activities, and the consequences of fraud. Additionally, employees should be educated on the company's policies and procedures related to fraud prevention, such as the proper use of company assets and the importance of segregation of duties.

Research has shown that employee awareness training can be effective in reducing the risk of fraud. A study conducted by the Association of Certified Fraud Examiners (ACFE) found that organizations that provided anti-fraud training to their employees had a 50% lower incidence of fraud than organizations that did not provide such training (ACFE, 2020).

Moreover, organizations can use various tools and techniques to improve employee awareness. For example, some organizations use anonymous tip lines to encourage

employees to report suspicious activities without fear of retaliation. Others may use posters or newsletters to reinforce the message of fraud prevention and ethical behavior. It is important to note that employee awareness programs should be ongoing and not a one-time event. As new employees join the organization or existing employees take on new roles, they should receive appropriate training and awareness to understand their role in preventing fraud.

In conclusion, employee awareness is a critical element of an effective anti-fraud framework. Regular training and awareness programs can promote a culture of honesty and ethical behavior and reduce the risk of fraudulent activities. By providing the necessary tools and techniques to employees, organizations can empower them to be a line of defense against fraud.

2.6.9 Internal Audit

Internal audit is another essential component of the anti-fraud framework. Internal audit is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. The internal audit function can help to prevent and detect fraudulent activities by performing risk assessments, conducting fraud investigations, and evaluating the effectiveness of internal controls. The internal audit function should be adequately staffed and have the necessary resources to perform its duties effectively (McKinnon al., 2018).

It is the process by which an organization evaluates the effectiveness of its internal controls, risk management processes, and governance procedures. The primary objective of an internal audit is to identify areas where the organization's processes are weak and make recommendations for improvement. The internal audit function can help to prevent

fraud by detecting weaknesses in internal controls and providing recommendations to strengthen them (Venugopal al., 2020).

Internal audit should be independent and objective, which means that it should not be influenced by management or other departments within the organization. Internal audit should report to the audit committee or the board of directors and should be adequately resourced to carry out its responsibilities effectively. The internal audit function should be adequately staffed with qualified professionals who have the necessary skills and experience to perform their duties.

Internal audit can help prevent fraud by conducting regular audits of high-risk areas, such as cash handling, procurement, and payroll. These audits can identify weaknesses in internal controls and recommend changes to strengthen them. Internal auditors can also investigate suspicious transactions or activities and report their findings to the appropriate authorities (Association of Certified Fraud Examiners, 2021).

In addition to preventing fraud, internal audit can also help to detect fraud that has already occurred. Internal auditors can use data analytics and other tools to identify unusual transactions or patterns of behavior that may indicate fraud. They can also interview employees and review documentation to gather evidence of fraud.

Internal audit should work closely with other departments within the organization, such as compliance and risk management, to ensure that all areas of risk are identified and addressed. They should also collaborate with external auditors and regulators to ensure that the organization is in compliance with all applicable laws and regulations.

Overall, internal audit is an essential component of an effective anti-fraud framework. By conducting regular audits of high-risk areas, identifying weaknesses in internal controls, and making recommendations for improvement, internal audit can help to prevent fraud

and detect it if it occurs. Internal audit should be adequately staffed, independent, and objective, and should work closely with other departments and external stakeholders to ensure that the organization is effectively managing its risks.

2.6.10 Whistleblower Program

These programs are designed to provide a channel for employees and other stakeholders to report suspected fraudulent activities without fear of retaliation. Whistleblower programs can help to detect and deter fraudulent activities by encouraging individuals to come forward with information (Pandey, 2017).

A well-designed whistleblower program should include clear reporting procedures, protection for whistleblowers from retaliation, and a commitment from management to thoroughly investigate all reported cases. The program should also provide anonymity to whistleblowers if desired and offer regular training to employees on the importance of reporting fraud.

In the banking industry, whistleblower programs are often required by regulatory bodies. For example, in the United States, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 includes provisions that protect whistleblowers from retaliation and provide financial incentives for individuals who report securities fraud to the Securities and Exchange Commission (SEC).

Studies have shown that whistleblower programs can be effective in detecting and deterring fraudulent activities in organizations. For example, a study by the Association of Certified Fraud Examiners (ACFE) found that organizations with a whistleblower program had a significantly lower median loss from fraud than those without such a program. The study also found that tips from employees were the most common way that fraud was detected in organizations with whistleblower programs (Venugopal al., 2020).

However, whistleblower programs are not without their challenges. For example, employees may be reluctant to report fraud if they fear retaliation or do not trust the organization's reporting process. Additionally, whistleblower programs may be underutilized if employees do not understand their importance or do not feel comfortable reporting suspicious activities.

To address these challenges, organizations must ensure that their whistleblower programs are well-designed, well-publicized, and well-supported. They should also provide regular training to employees on the importance of reporting fraud and create a culture that encourages transparency and accountability (Raghavan & El Gayar, 2019).

A well-designed whistleblower program can be a valuable tool in preventing and detecting fraud in commercial banks. However, it is important to recognize the challenges associated with implementing such a program and to take steps to address these challenges to ensure its effectiveness.

2.6.11 Collaboration with Law Enforcement

Collaboration with law enforcement is an important component of the anti-fraud framework. The banks should work closely with law enforcement agencies to investigate and prosecute fraudulent activities. The banks should have policies and procedures in place to report suspected fraudulent activities to law enforcement agencies promptly. The collaboration with law enforcement agencies can help to deter fraudulent activities and increase the likelihood of successful prosecution (Association of Certified Fraud Examiners, 2021).

2.6.12 Fraud Risk Assessment

Fraud risk assessment is the process of identifying and evaluating the risk of fraud within an organization. It involves assessing the likelihood and potential impact of fraud, as well

as the effectiveness of existing controls in place to prevent, detect, and respond to fraud (Mock et al., 2017).

Fraud risk assessments should be conducted on a regular basis, and should be tailored to the specific risks faced by the organization. The assessment should take into account factors such as the organization's size, complexity, industry, and operating environment (Ahmad et al., 2024).

There are several steps involved in conducting a fraud risk assessment:

Identify and prioritize fraud risks: The first step in conducting a fraud risk assessment is to identify the potential sources of fraud within the organization. This can be done through interviews with key personnel, review of historical data, and analysis of industry trends. Once the potential sources of fraud have been identified, they should be prioritized based on their likelihood and potential impact (Mock et al., 2017).

Assess existing controls: The next step is to evaluate the effectiveness of existing controls in place to prevent, detect, and respond to fraud. This includes assessing the design and operation of controls, as well as identifying any gaps or weaknesses in the control environment (Ahmad et al., 2024).

Develop and implement additional controls: Based on the results of the risk assessment, additional controls may need to be developed and implemented to address identified risks. These controls should be designed to mitigate the likelihood and potential impact of fraud, and should be monitored and tested on an ongoing basis to ensure their effectiveness (Carretta et al., 2017).

Monitor and update the fraud risk assessment: Fraud risk assessments should be monitored and updated on an ongoing basis to ensure that they remain relevant and

effective. This includes tracking changes in the operating environment, industry trends, and internal control effectiveness.

In order to conduct an effective fraud risk assessment, organizations should have a clear understanding of the fraud risk assessment process, and should have access to the necessary resources and expertise. This may include internal audit, legal, and compliance personnel, as well as external experts such as forensic accountants and fraud investigators (Venugopal al., 2020).

2.6.13 Training

Employees should receive training on the organization's anti-fraud policies and procedures, the types of fraud schemes commonly encountered, and the warning signs of fraudulent activity.

Training is a critical component of any effective anti-fraud framework. Properly trained employees are better equipped to identify and prevent fraudulent activities. Training programs should be designed to educate employees on fraud schemes, the organization's anti-fraud policies and procedures, and their roles and responsibilities in preventing fraud (Yuniarti & Ariandi, 2017).

Training should be provided to employees at all levels of the organization, from front-line staff to senior management. Front-line employees who interact with customers and handle transactions should receive training on identifying red flags of fraud and the proper procedures for reporting suspected fraud. Supervisors and managers should be trained on how to detect and respond to fraud, as well as their responsibility to enforce anti-fraud policies and procedures (Association of Certified Fraud Examiners, 2021).

Training should be conducted regularly to ensure that employees are up to date on the latest fraud schemes and prevention techniques. This is particularly important in rapidly

changing environments, such as the banking sector. Ongoing training can also help to reinforce the importance of fraud prevention and create a culture of integrity within the organization (KPMG, 2019).

The content of training programs should be tailored to the specific needs of the organization. For example, if the organization has identified a particular type of fraud scheme that is prevalent in its industry, training should focus on that specific scheme. Additionally, training should be delivered in a format that is appropriate for the audience, such as in-person training, online courses, or webinars (Drammeh, 2023)

In order to ensure the effectiveness of training, organizations should measure the impact of their training programs. This can be done through testing or assessments before and after training to determine if employees have acquired the necessary knowledge and skills. It is also important to solicit feedback from employees to identify areas for improvement in the training program.

As mentioned Yuniarti & Ariandi, they emphasized that internal controls and awareness have an important role in building an anti-fraud program, as they said: Internal controls and awareness play pivotal roles in countering fraud. Internal controls establish checks and balances, deterring and detecting fraudulent activities within an organization's processes. Concurrently, heightened anti-fraud awareness cultivates a vigilant workforce that can recognize and report suspicious behavior promptly, fortifying the organization's defenses against fraudulent schemes (Yuniarti & Ariandi, 2017).

2.6.14 Challenges of Implementing an Effective Anti-Fraud Framework:

Here we will review the opinions of two different researchers on the challenges facing building an anti-fraud framework, then I will present the challenges from my point of view as a researcher and specialist.

2.6.14.1 Trust and Fraud in Nigeria: A Comprehensive Analysis of Socioeconomic Factors and Regulatory Measures (Drammeh, 2023)

A. Implementation and Enforcement Challenges

Implementing an effective anti-fraud framework in organizations can be met with various challenges related to both implementation and enforcement. Implementation challenges might involve difficulties in integrating new procedures and technologies into existing processes, overcoming employee resistance to change, and managing resource constraints. Enforcement challenges can stem from ensuring consistent adherence to the framework's protocols across the organization, handling cases of non-compliance or violations, and maintaining a culture of vigilance against fraudulent activities (Wells, 2009).

B. Gaps in the Legal Framework

The legal framework surrounding fraud prevention and detection may not always be comprehensive or up-to-date, leaving gaps that fraudsters can exploit. These gaps can emerge due to changes in technology, new methods of perpetrating fraud, or shortcomings in legislation. Organizations may find it challenging to address emerging types of fraud when the legal framework hasn't caught up with the evolving landscape. Closing these gaps requires collaboration between regulatory bodies, law enforcement, and legal experts to update and strengthen anti-fraud laws (Silverstone al., 2012).

C. Inadequate Coordination Between Regulatory Bodies

The fight against fraud often involves multiple regulatory bodies, each responsible for enforcing different aspects of fraud prevention. However, inadequate coordination between these bodies can lead to inefficiencies, duplicated efforts, and regulatory blind spots. The lack of a unified approach can hinder effective anti-fraud efforts and leave

gaps in the oversight of fraud prevention measures. Establishing better communication and collaboration mechanisms between regulatory bodies can enhance the overall effectiveness of anti-fraud frameworks (Coenen, 2009).

D. The Need for Continuous Updates to Keep Pace with Evolving Fraud Techniques

Fraudsters continuously adapt and innovate their techniques to evade detection, making it crucial for anti-fraud frameworks to keep up with these evolving tactics. Organizations must invest in staying ahead of new fraud methods through constant updates to detection algorithms, prevention strategies, and response mechanisms. This need for ongoing adaptation can strain resources, necessitate training for personnel, and require close collaboration between in-house experts, technology providers, and external consultants to ensure the framework remains effective over time (Venugopal al., 2020).

2.6.14.2 An effective anti-fraud program: How do we know? (The Challenge of Finding an Anti-Fraud Program in the Indonesian Public Sectors) (Eryanto, 2020)

A. Resistance to Cultural Change

The introduction of an anti-fraud framework demands more than just a change in protocols; it requires a shift in organizational culture. Employees accustomed to established procedures may resist the imposition of new processes, fearing disruptions to their routines. Overcoming this resistance necessitates effective change management strategies that include transparent communication, comprehensive training, and the alignment of the framework with the organization's values and goals (KPMG, 2019).

B. Resource Allocation Dilemma

The implementation of an effective anti-fraud framework entails significant resource allocation in terms of finances, personnel, and time. Organizations often grapple with the challenge of prioritizing anti-fraud initiatives alongside other strategic objectives. This

dilemma can lead to inadequate resource allocation, thereby hindering the framework's efficacy. Striking the right balance requires an organizational commitment to dedicating the necessary resources to anti-fraud measures without compromising other critical areas (Association of Certified Fraud Examiners, 2021).

C. Cross-Functional Collaboration

Effectively combating fraud necessitates collaboration across various departments, including IT, finance, compliance, and legal. However, these departments often operate with distinct priorities, terminologies, and methodologies. Aligning these diverse functions into a cohesive effort poses a considerable challenge. Successful collaboration involves fostering clear communication channels, breaking down silos, and creating an environment where each department understands its role within the larger anti-fraud strategy. (Eryanto, 2020)

D. Skill Shortage and Expertise

The successful implementation of an anti-fraud framework demands a fusion of skills ranging from fraud detection and risk assessment to data analysis and technology proficiency. However, recruiting individuals possessing this amalgamation of expertise is no small feat. The demand for such professionals frequently outpaces the supply, leading to challenges in hiring, training, and retaining skilled personnel capable of effectively driving anti-fraud initiatives (Drammeh, 2023).

E. Regulatory Compliance Complexity

Many industries are subject to a complex web of regulatory requirements related to fraud detection and prevention. Navigating through these mandates can be intricate, especially as regulations evolve to address new fraud tactics. Organizations must ensure their anti-

fraud framework aligns with these regulations, further complicating the task of striking a balance between fraud prevention and regulatory compliance.

F. Managing Data and Privacy Concerns

Anti-fraud frameworks heavily rely on data analysis to detect anomalies and patterns indicative of fraudulent activities. Balancing this need for data with individuals' privacy rights and data protection regulations is a delicate challenge. Organizations must implement robust data governance practices, adhere to privacy regulations, and establish transparent communication with customers regarding data usage.

G. Evolving Fraud Tactics

Fraudsters are not stagnant; they continuously adapt their tactics to exploit vulnerabilities. Anti-fraud frameworks must anticipate and address emerging fraud methods. Organizations face the challenge of staying ahead by constantly updating their detection algorithms, prevention strategies, and response mechanisms (McKinnon al., 2018).

2.6.15 The Challenges from Point of View of Researcher.

Implementing and maintaining an effective anti-fraud framework can be challenging for banks. Some of the challenges include inadequate resources, lack of management support, and resistance from employees.

A. Lack of Management Support

Without strong support from senior management, anti-fraud efforts may not receive the necessary attention and resources. Management must establish a strong tone at the top and communicate the importance of fraud prevention to all employees (Wells, 2009).

Implementing an effective anti-fraud framework can be challenging for many organizations, including banks. Some of the key challenges that banks face when implementing an anti-fraud framework are as follows:

B. Resource constraints

Implementing an anti-fraud framework can be a resource-intensive process that requires significant financial, human, and technical resources. Many banks may not have the necessary resources to implement a comprehensive anti-fraud framework, which can result in the framework being incomplete or ineffective (Marcu, 2022).

C. Resistance to Change

Implementing an anti-fraud framework can require significant changes to existing processes and procedures, which can be met with resistance from employees who are accustomed to the existing ways of doing things. Resistance to change can slow down or even derail the implementation of an anti-fraud framework (Marcu, 2022).

D. Lack of Expertise

Implementing an effective anti-fraud framework requires expertise in fraud detection and prevention, risk assessment, and data analysis. Many banks may not have the necessary expertise in-house and may need to rely on external consultants or vendors to help implement the framework (Raghavan & El Gayar, 2019).

E. Complexity

The banking industry is complex, and there are many different types of fraud schemes that banks need to be aware of and protect against. Implementing an anti-fraud framework that addresses all of these schemes can be a complex and challenging task (McKinnon al., 2018).

F. Compliance requirements

Banks are subject to various regulatory requirements related to fraud prevention and detection, such as the Bank Secrecy Act, the USA PATRIOT Act, and the Sarbanes-Oxley

Act. Compliance with these requirements can add an additional layer of complexity to the implementation of an anti-fraud framework (Association of Certified Fraud Examiners, 2021).

G. Coordination and communication

Implementing an anti-fraud framework involves coordinating and communicating with various stakeholders, such as management, employees, external auditors, regulators, and law enforcement agencies. Effective communication and coordination are essential to ensure that the framework is implemented successfully (KPMG, 2019).

H. Technology

An effective anti-fraud framework often requires the use of technology, such as fraud detection software, data analytics tools, and secure systems for storing and transmitting sensitive information. The implementation of these technologies can be a significant challenge for banks, particularly those with outdated or legacy systems (Silverstone al., 2012).

Chapter Conclusion

In synthesis, this chapter has meticulously constructed the theoretical scaffold for the study, "Fraud Investigation and Anti-Fraud Framework." Navigating through fraud schemes within the banking sector, the distinctive landscape of Palestinian banking, fraud investigation methodologies, and the pivotal role of an anti-fraud framework, a comprehensive panorama emerges. This foundational exploration equips the study with a profound understanding of the subject's multifaceted dimensions, positioning it to delve into empirical investigations and provide valuable insights for the banking sector's integrity (Venugopal al., 2020).

In summation, the chapter "The Theoretical Framework of the Study: Fraud Investigation and Anti-Fraud Framework" has artfully woven together intricate threads of understanding. Illuminating fraud schemes within banking, unraveling the contours of Palestinian banking, delving into fraud investigation methodologies, and culminating in the exposition of an anti-fraud framework, a rich tapestry emerges. This theoretical underpinning equips the study with a robust foundation, paving the way for empirical exploration and the potential enhancement of fraud prevention strategies in the banking sector.

Chapter Three
Methodology and Procedures

Chapter 3

Methodology and Procedures

1.3 Introduction

In order to achieve the study's goal, this is to measure Investigating fraud and the reality of fraud prevention frameworks in Palestinian commercial banks. this chapter includes a description of the study's methodology, its population, the study sample and its selection method. It also provides a detailed description of the study's tools, their validity and reliability, as well as the study's procedures and the statistical analysis used by the researcher to extract and interpret the study's results.

2.3 Study Methodology

This study adopted the descriptive-correlational methodology to obtain information related to the study's topic. This choice was made because it is the most suitable methodology for the nature of this study. The descriptive-correlational methodology is ideal for achieving the objectives of this study as it focuses on studying, understanding, and describing the phenomenon accurately through previous information and literature. This methodology not only involves collecting data but also involves establishing and analyzing the relationships between the study's variables to reach the desired conclusions through the study (Oudah and Malkawi, 1992). Therefore, the researcher found that the descriptive analytical method is the most suitable for this study and achieves its objectives with accuracy and objectivity.

3.3 Study Population

The study population consists of all "The employees of the control departments in these banks, with a focus on department managers and supervisors & Control departments include: Anti-money laundering, Risk, Internal Audit, and Compliance. The total number of department managers in these departments is approximately 40 individuals." These data were obtained from records for the year 2022/2023.

4.3 Study Sample

Since the researcher followed the comprehensive survey method, the entire study community was targeted, the study sample includes 40 individuals with different characteristics in terms of their ages, gender, education level, and others demographic characteristics of individuals in Palestine. The individuals in the sample were selected using the stratified random sampling method, taking into account variables such as gender, age, and other variables, as well as their willingness and readiness to complete the questionnaire and understand its content. This was done to ensure the required diversity as evident in the study's population. 40 questionnaires were distributed. One questionnaire was invalidated due to the same employee filling out two questionnaires, 39 questionnaires were deemed valid.

The researcher also conducted interviews with two individuals working as managers in the anti-money laundering and compliance departments in banks and a fraud protection specialist working in the Financial Follow-up Unit in Palestine. They were asked four questions related to fraud investigation and fraud protection frameworks, and the approaches that banks could develop in their opinion to build a solid anti-fraud system.

Table (3.1): Distribution of the Study Sample According to its Demographic Variables
(n=31)

Gender		Frequency	Percent
Options	Male	27	71.0
	Female	12	29.0
	Total	39	100.0

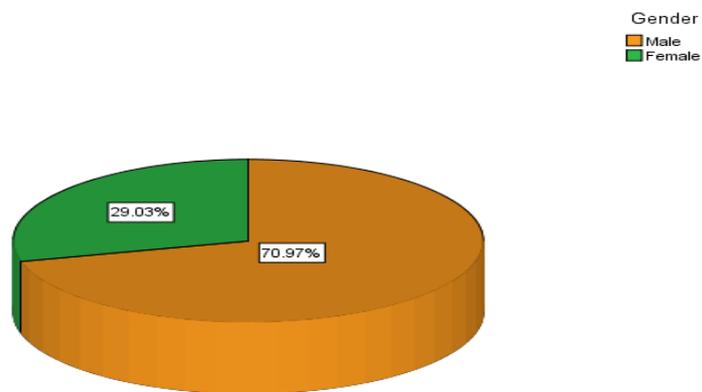


Chart 1 : Gender

Age Group		Frequency	Percent
Options	20-30	3	6.5
	31-40	24	61.3
	41-50	7	19.4
	Over 50	5	12.9
	Total	39	100.0

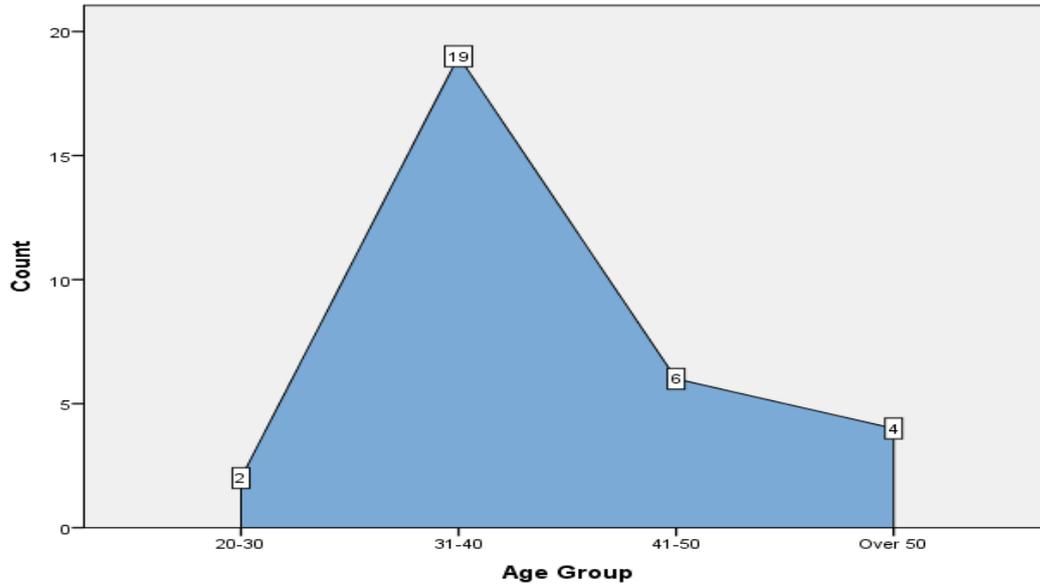


Chart 2 : Age Group

Educational Level		Frequency	Percent
Options	Bachelor's degree	34	87.1
	Postgraduate studies	5	12.9
	Total	31	100.0

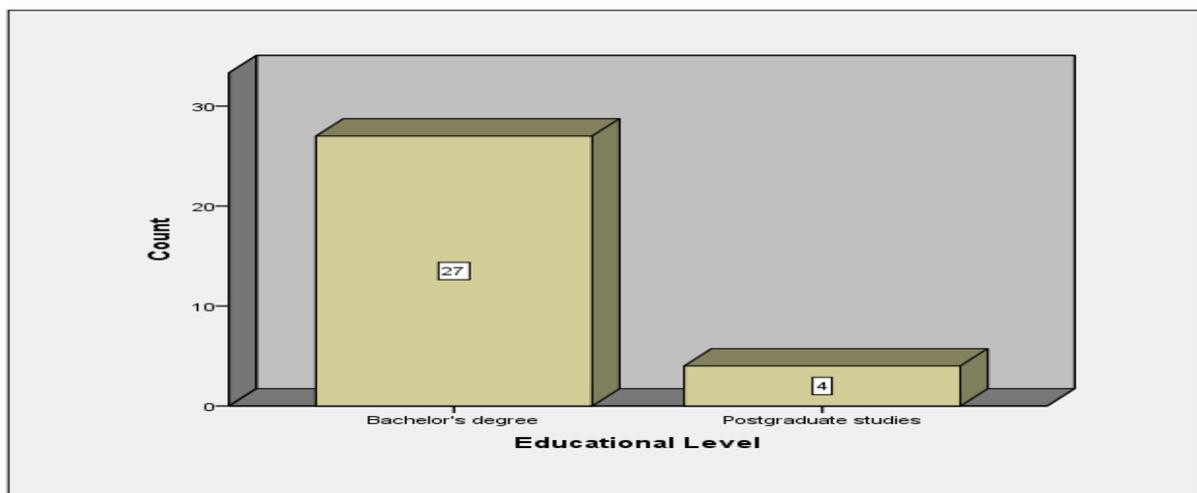


Chart 3: Educational Level

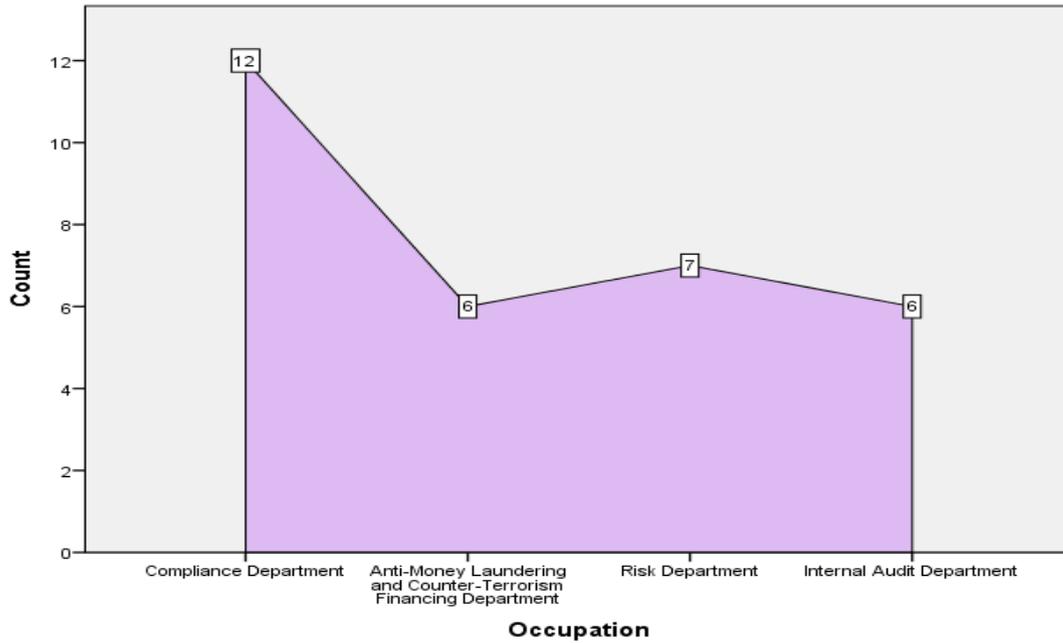


Chart 4: Occupation

Table 1.3 provides an insightful breakdown of the study sample's distribution based on various demographic variables.

In terms of gender (Gender), it's clear that the majority of the respondents were male, constituting 71.0% of the sample, while female respondents made up 29.0% of the total.

Regarding age groups (Age Group), the data indicates that a significant portion of the sample falls within the age range of 31-40, comprising 61.3% of the respondents. Meanwhile, the other age groups, 20-30, 41-50, and over 50, account for 6.5%, 19.4%, and 12.9% of the sample, respectively.

Finally, with respect to educational levels (Educational Level), the majority of respondents held a Bachelor's degree, making up 87.1% of the sample, while those with postgraduate studies accounted for 12.9%.

These tables provide a clear overview of the composition of the study sample in terms of gender, age, and educational background, which will be valuable for analyzing the research findings.

5.3 Study Instrument:

After reviewing several previous studies and the tools used in them, the researcher constructed the questionnaire, which consists of two sections, as shown in Table (3.3).

Table (2.3): Illustrates the Main Sections of my Study Instruments. Source: Author

Section	Section Title	Number of Paragraphs
Demographic Variables	Personal Information and Demographic Variables	4
Investigating fraud	Investigation Methods	4
	Collaboration with Authorities and Investigation Committees	5
the reality of fraud prevention frameworks	Roles and Responsibilities of Management	5
	Effectiveness of Fraud Prevention Frameworks	4
	Internal Controls, Employee Awareness, and Internal Audit	5
	Best Practices for Fraud Prevention and Detection	4

Description of the Study Scale and its Psychometric Properties:

The study utilized a scale to measure the relationship and level of Investigating fraud and the reality of fraud prevention frameworks in Palestinian commercial banks. After reviewing several Arabic and foreign scales, the researcher employed an initial version of the scale and subsequently modified it to its final form, as presented in Appendix (2).

The final scale consisted of 27 items, and some item offered five response choices: "strongly disagree," "disagree," "neutral," "agree," and "strongly agree," assigned values of 1, 2, 3, 4, and 5, respectively, following the Likert five-point scale.

The validity and Reliability:

The validity and reliability of the scale measuring the relationship and level of Investigating fraud and the reality of fraud prevention frameworks in Palestinian commercial banks were examined as follows:

First: Content Validity:

The initial version of the scale was presented to a panel of expert reviewers in the field, as shown in Appendix (1). Their feedback was used to modify the scale, incorporating suitable adjustments such as item deletion, addition, or modification. The agreement rate among the reviewers for the scale items was not less than 85%, indicating the suitability of the scale for application on the study sample. The final version of the scale is presented in Appendix (2).

Secondly, Internal Consistency:

To verify the internal consistency of the measurement scale for investigating fraud and the reality of fraud prevention frameworks in Palestinian commercial banks, the correlation coefficients between the dimensions of the independent variable and its main constructs were calculated.

Table (3.3) presents the correlation coefficients between the dimensions of the independent variable and its main constructs for measuring investigation into fraud and the reality of fraud prevention frameworks in Palestinian commercial banks.

Table (3.3) Presents the Correlation Coefficients between the Dimensions of the Independent Variable and its Main Constructs

Comparing		investigation into fraud
Investigation Methods	Pearson Correlation	.925 ^{**}
	Sig. (2-tailed)	.000
	N	31
Collaboration with Authorities and Investigation Committees	Pearson Correlation	.919 ^{**}
	Sig. (2-tailed)	.000
	N	31

Comparing		the reality of fraud prevention frameworks
Roles and Responsibilities of Management	Pearson Correlation	.853 ^{**}
	Sig. (2-tailed)	.000
	N	31
Effectiveness of Fraud Prevention Frameworks	Pearson Correlation	.739 ^{**}
	Sig. (2-tailed)	.000
	N	31
Internal Controls, Employee Awareness, and Internal Audit	Pearson Correlation	.848 ^{**}
	Sig. (2-tailed)	.000
	N	31
Best Practices for Fraud Prevention and Detection	Pearson Correlation	.842 ^{**}
	Sig. (2-tailed)	.000
	N	31

Table (5.3) provides valuable information regarding the correlation coefficients between the dimensions of the independent variable and its main constructs for measuring investigation into fraud and the reality of fraud prevention frameworks in Palestinian commercial banks.

In the context of "Investigation into Fraud," it's evident that there is a strong positive correlation between "Investigation Methods" and "Collaboration with Authorities and Investigation Committees." Both correlations are notably high at .925, and the p-values (Sig. 2-tailed) are statistically significant at .000, indicating a robust relationship between these two dimensions.

When examining "The Reality of Fraud Prevention Frameworks," we observe similarly strong correlations between the independent variable and its main constructs. The correlations between "Roles and Responsibilities of Management," "Effectiveness of Fraud Prevention Frameworks," "Internal Controls, Employee Awareness, and Internal Audit," and "Best Practices for Fraud Prevention and Detection" all exceed .700, signifying significant associations. These strong correlations underline the interconnectedness of these dimensions in assessing the reality of fraud prevention frameworks in Palestinian commercial banks.

Overall, these findings suggest that the various aspects of investigation and the assessment of fraud prevention frameworks are closely related, emphasizing the need for a comprehensive approach to tackling fraud within the banking sector.

Scale Reliability:

Internal consistency reliability (consistency) was used, and this type of reliability refers to the strength of the relationship between items in the study instrument. To estimate the

coefficient of consistency, the researcher used the Cronbach's alpha equation, calculating the reliability of the scale. The result for scaling items 92%. So it's good.

Study Procedures:

The study was conducted following these steps:

- 1- Identifying the study population: The researcher identified The employees of the control departments in these banks, with a focus on department managers and supervisors &Control departments include: Anti-money laundering, Risk, Internal Audit, and Compliance. The total number of department managers in these departments is approximately 40 individuals as the study population. The necessary permissions to apply the study tools were obtained from the university.
- 2- Determining the study sample: The researcher coordinated with the university and informed them of the study's schedule for selecting and recruiting the study participants.
- 3- Developing study tools: The researcher constructed the study tools by reviewing educational literature related to the field and adopting appropriate procedures.
- 4- Calculating the validity and reliability of the study tools.
- 5- Applying the study tools to the selected sample.
- 6- Collecting data, particularly concerning the details of the study population.
- 7- Analyzing the data, extracting results, recommendations, and suggestions.

Statistical Analysis:

After collecting the study's data, the researcher reviewed it to prepare it for computer entry. The data were assigned specific numbers by converting verbal responses into numerical ones for all study questions. The following statistical methods were used to test the hypotheses and analyze the data:

- 1) Descriptive statistics: Such as frequencies, percentages, means, and standard deviations.
- 2) Internal consistency measurement (Cronbach's alpha).
- 3) Spearman correlation coefficient was utilized to explore the relationship between the variables.
- 4) The One-Way ANOVA test to examine hypotheses related to the study variables, and post hoc LSD test was used for pairwise comparisons.
- 5) Chi-square test was utilized to determine the influence of categorical variables on the dependent variables.

Chapter Four
Analysis and Discussion of Study Results

Chapter 4

Analysis and Discussion of Study Results

This chapter presents a description of the results obtained from this study. To facilitate result interpretation, the study relied on percentages. The following are the results related to the primary research question:

1.4 Results Related to the Main Research Question

(What is the relationship and level of Investigating fraud and the reality of fraud prevention frameworks in Palestinian commercial banks?)

To answer the main question of the study, a set of tests was relied on, such as the averages, using the five-point Likert and other methods of description, analysis and tests, each question separately

To interpret the scores, the range was distributed across the following levels, as shown in Table 4.1:

Table (4.1) : Scoring Key (Correction Key), source: Author

Mean	Degree
Less than 1.8	Very Low
1.8-2.59	Low
2.6-3.39	Moderate
3.4-4.19	High
4.2 and above	Very High

To answer this question, means, standard deviations, and percentages were calculated for the study domains. The following tables illustrate this:

Table (4.2): Demonstrates the Descending Arranged Arithmetic Means and Standard Deviations for Roles and Responsibilities of Management, Source: Author

Number of items in Questionnaire	Items	Mean	Std. Deviation	Percentage	Degree
5	My management collaborates well with other departments to ensure a coordinated approach to fraud prevention.	4.32	0.48	86%	Very High
4	My management contributes to proposing enhancements to the policies and procedures used to prevent and detect fraud in the bank.	4.29	0.46	86%	Very High
1	There is clarity in my management roles in preventing fraud within the bank.	4.26	0.51	85%	Very High
2	My management effectively contributes to preventing and detecting fraudulent activities in the bank.	4.23	0.43	85%	Very High
3	The responsibilities assigned to my management align with the overall objectives of fraud prevention in the bank.	4.13	0.50	83%	High
	Total Degree	4.25	0.48	85%	Very High

Table (4.2) presents a comprehensive view of the descending order of arithmetic means and standard deviations for the dimension of "Roles and Responsibilities of

Management." This dimension is crucial in assessing the effectiveness of management in fraud prevention within the bank.

The table reveals that all the items related to management roles and responsibilities exhibit very high mean scores, indicating a positive perception of management's performance in various aspects of fraud prevention:

1. "My management collaborates well with other departments to ensure a coordinated approach to fraud prevention." This item scored the highest mean of 4.32, reflecting a very high level of collaboration among different departments for fraud prevention.

2. "My management contributes to proposing enhancements to the policies and procedures used to prevent and detect fraud in the bank." This item closely follows with a mean of 4.29, indicating active involvement in improving anti-fraud measures.

3. "There is clarity in my management roles in preventing fraud within the bank." This statement earned a mean of 4.26, highlighting the clarity in management's roles concerning fraud prevention.

4. "My management effectively contributes to preventing and detecting fraudulent activities in the bank." This item received a mean score of 4.23, showcasing management's effectiveness in these critical tasks.

5. "The responsibilities assigned to my management align with the overall objectives of fraud prevention in the bank." While slightly lower than the others, this item still scored a high mean of 4.13, signifying alignment with the bank's fraud prevention objectives.

The overall degree for this dimension is 4.25, which falls within the "Very High" range.

These results demonstrate that the study participants have a positive perception of the management's roles and contributions to fraud prevention, highlighting the effectiveness of management in this critical area.

Table (4.3): Demonstrates the Descending Arranged Arithmetic Means and Standard Deviations for Investigation Methods, Source: Author

Number of items in Questionnaire	Items	Mean	Std. Deviation	Percentage	Degree
8	My management ensures that investigations are conducted objectively and in accordance with established protocols.	4.26	0.51	85%	Very High
9	Information and evidence gathered during investigations are properly documented and preserved for further analysis.	4.23	0.56	85%	Very High
7	The investigation methods used by my management are effective in uncovering the root causes of fraudulent activities.	4.19	0.40	84%	High
6	The bank has a dedicated team with clear responsibilities for conducting investigations when fraud is suspected.	4.10	0.65	82%	High
	Total Degree	4.19	0.53	84%	High

Table (4.3) provides an insightful overview of the descending order of arithmetic means and standard deviations for the dimension of "Investigation Methods." This dimension is crucial in assessing the effectiveness of the methods employed by management in uncovering fraudulent activities.

The table reveals that all the items related to investigation methods reflect a high level of effectiveness and adherence to established protocols:

1. "My management ensures that investigations are conducted objectively and in accordance with established protocols." This item scored the highest mean of 4.26, demonstrating a very high level of objectivity and adherence to protocols during investigations.

2. "Information and evidence gathered during investigations are properly documented and preserved for further analysis." This statement closely follows with a mean of 4.23, indicating the high importance placed on documentation and evidence preservation.

3. "The investigation methods used by my management are effective in uncovering the root causes of fraudulent activities." This item received a mean score of 4.19, signifying that the investigation methods employed are highly effective in identifying the underlying causes of fraud.

4. "The bank has a dedicated team with clear responsibilities for conducting investigations when fraud is suspected." Although slightly lower than the others, this item still scored a high mean of 4.10, emphasizing the existence of a dedicated team for conducting investigations.

The overall degree for this dimension is 4.19, falling within the "High" range. These results indicate a positive perception among participants regarding the effectiveness of investigation methods employed by management in uncovering fraudulent activities. This underscores the importance of well-structured and objective investigation processes within the bank.

Table (4.4): Demonstrates the Descending Arranged Arithmetic Means and Standard Deviations for Effectiveness of Fraud Prevention Frameworks, Source: Author

Number of items in Questionnaire	Items	Mean	Std. Deviation	Percentage	Degree
14	Fraud prevention frameworks are supported by targeted awareness materials for bank customers.	4.03	0.75	81%	High
13	Fraud prevention frameworks are regularly reviewed and updated to adapt to emerging fraud risks and challenges.	3.84	0.69	77%	High
11	Effectively addressing various types of fraudulent activities within the current fraud prevention frameworks.	3.74	0.82	75%	High
12	I see weaknesses in the current fraud prevention frameworks.	2.58	0.96	52%	Low
	Total Degree	3.55	0.80	71%	High

Table (4.4) presents a breakdown of the descending ordered arithmetic means and standard deviations for the dimension of "Effectiveness of Fraud Prevention Frameworks." This dimension is essential in evaluating how well the fraud prevention frameworks in place address emerging fraud risks and challenges.

1. "Fraud prevention frameworks are supported by targeted awareness materials for bank customers." This item achieved a mean of 4.03, indicating a high level of support for fraud prevention frameworks through targeted customer awareness materials.

2. "Fraud prevention frameworks are regularly reviewed and updated to adapt to emerging fraud risks and challenges." While slightly lower, this item still received a mean of 3.84, suggesting a proactive approach to adapting to evolving fraud risks.

3. "Effectively addressing various types of fraudulent activities within the current fraud prevention frameworks." This item earned a mean score of 3.74, signifying that the current frameworks are relatively effective in dealing with different types of fraudulent activities.

4. "I see weaknesses in the current fraud prevention frameworks." This statement had the lowest mean score at 2.58, indicating that some participants perceive weaknesses in the existing fraud prevention frameworks.

The overall degree for this dimension is 3.55, which falls within the "High" range. These results indicate that, on the whole, participants believe that the fraud prevention frameworks are effective and well-supported, with some acknowledging room for improvement. This underscores the importance of regularly reviewing and updating these frameworks to stay ahead of emerging fraud risks and challenges.

Table (4.5): Demonstrates the Descending Arranged Arithmetic Means and Standard Deviations for Internal Controls, Employee Awareness, and Internal Audit,
Source: Author

Number of items in Questionnaire	Items	Mean	Std. Deviation	Percentage	Degree
18	Internal audit operations are regularly conducted to assess the effectiveness of internal controls and identify potential areas for improvement.	4.32	0.48	86%	Very High

19	Feedback from internal audit reports is promptly addressed to enhance fraud prevention measures at the bank.	4.19	0.54	84%	High
17	The bank maintains a strong culture of ethics and integrity, contributing to fraud prevention.	4.16	0.37	83%	High
15	The internal controls implemented at the bank provide effective safeguards against fraudulent activities.	4.00	0.52	80%	High
16	Bank employees receive sufficient training and guidance on fraud prevention procedures and best practices.	3.68	0.98	74%	High
	Total Degree	4.07	0.58	81%	High

Table (4.5) offers valuable insights into the descending order of arithmetic means and standard deviations for the dimension of "Internal Controls, Employee Awareness, and Internal Audit." This dimension plays a pivotal role in assessing the effectiveness of internal measures in preventing and detecting fraud within the bank.

1. "Internal audit operations are regularly conducted to assess the effectiveness of internal controls and identify potential areas for improvement." This item received the highest mean score of 4.32, indicating a very high level of regular internal audit operations to evaluate and enhance internal controls.

2. "Feedback from internal audit reports is promptly addressed to enhance fraud prevention measures at the bank." This statement closely follows with a mean of 4.19, highlighting a proactive approach to addressing feedback from internal audit reports.

3. "The bank maintains a strong culture of ethics and integrity, contributing to fraud prevention." This item achieved a mean score of 4.16, emphasizing the significance of an ethical culture in fraud prevention.

4. "The internal controls implemented at the bank provide effective safeguards against fraudulent activities." With a mean of 4.00, this item reflects that the internal controls in place are viewed as effective safeguards against fraud.

5. "Bank employees receive sufficient training and guidance on fraud prevention procedures and best practices." While slightly lower, this item still scored a mean of 3.68, indicating a relatively high level of training and guidance for employees in fraud prevention.

The overall degree for this dimension is 4.07, falling within the "High" range. These results indicate a positive perception among participants regarding the effectiveness of internal controls, employee awareness, and internal audit practices in preventing and detecting fraudulent activities within the bank. This underscores the importance of maintaining a strong internal control framework and ethical culture in fraud prevention.

Table (4.6): Demonstrates the Descending Arranged Arithmetic Means and Standard Deviations for Collaboration with Authorities and Investigation Committees,
Source: Author

Number of items in Questionnaire	Items	Mean	Std. Deviation	Percentage	Degree
21	The bank has established clear procedures and channels for reporting suspected fraudulent cases to relevant authorities.	4.32	0.48	86%	Very High
20	There is effective collaboration between the anti-fraud authorities and internal investigation committees at the bank.	4.13	0.50	83%	High
22	Authorities provide timely and valuable support and guidance to the bank's internal investigation committees.	3.97	0.55	79%	High
24	The bank has established mechanisms for sharing relevant information and intelligence with authorities	3.94	0.57	79%	High

	to effectively prevent and combat fraud.				
23	Internal investigation committees at the bank actively cooperate with external authorities in investigating and prosecuting fraud cases.	3.90	0.60	78%	High
	Total Degree	4.05	0.54	81%	High

Table (4.6) presents a comprehensive overview of the descending order of arithmetic means and standard deviations for the dimension of "Collaboration with Authorities and Investigation Committees." This dimension is critical in assessing how effectively the bank collaborates with external authorities and internal investigation committees to combat fraud.

1. "The bank has established clear procedures and channels for reporting suspected fraudulent cases to relevant authorities." This item achieved the highest mean score of 4.32, indicating a very high level of clarity and efficiency in reporting suspected fraud cases to relevant authorities.

2. "There is effective collaboration between the anti-fraud authorities and internal investigation committees at the bank." With a mean score of 4.13, this item signifies that there is a high level of effective collaboration between anti-fraud authorities and internal investigation committees.

3. "Authorities provide timely and valuable support and guidance to the bank's internal investigation committees." This statement achieved a mean of 3.97, highlighting the importance of timely support and guidance from external authorities.

4. "The bank has established mechanisms for sharing relevant information and intelligence with authorities to effectively prevent and combat fraud." With a mean of 3.94, this item underscores the significance of information sharing mechanisms to prevent and combat fraud effectively.

5. "Internal investigation committees at the bank actively cooperate with external authorities in investigating and prosecuting fraud cases." This item received a mean score of 3.90, indicating a high level of cooperation between internal committees and external authorities.

The overall degree for this dimension is 4.05, falling within the "High" range. These results demonstrate that participants have a positive perception of the bank's collaboration with authorities and investigation committees in combating fraud. Effective collaboration with external authorities is crucial in addressing fraud cases comprehensively, and these findings reflect a strong commitment to this aspect of fraud prevention.

Table (4.7): Demonstrates the Descending Arranged Arithmetic Means and Standard Deviations for Best Practices for Fraud Prevention and Detection, Source: Author

Number of items in Questionnaire	Items	Mean	Std. Deviation	Percentage	Degree
27	The bank encourages a proactive approach to fraud prevention, including the use	4.06	0.57	81%	High

	of data analytics and advanced technologies.				
25	The bank actively explores and adopts best practices in fraud prevention and detection.	4.03	0.48	81%	High
26	Continuous improvement initiatives are undertaken to enhance the bank's capabilities in fraud prevention and detection.	3.97	0.48	79%	High
29	The bank regularly assesses its own fraud prevention practices against defined standards.	3.94	0.63	79%	High
28	There are established mechanisms to promote knowledge exchange and collaboration on fraud prevention among different banks.	3.74	0.68	75%	High
	Total Degree	3.95	0.57	79%	High

Table (4.7) provides a comprehensive view of the descending order of arithmetic means and standard deviations for the dimension of "Best Practices for Fraud Prevention and Detection." This dimension assesses how well the bank promotes and adopts best practices to prevent and detect fraud.

1. "The bank encourages a proactive approach to fraud prevention, including the use of data analytics and advanced technologies." This item achieved the highest mean score of 4.06, indicating a high level of encouragement for a proactive approach, including the adoption of data analytics and advanced technologies in fraud prevention.

2. "The bank actively explores and adopts best practices in fraud prevention and detection." With a mean score of 4.03, this item signifies that the bank actively seeks and incorporates best practices in the field.

3. "Continuous improvement initiatives are undertaken to enhance the bank's capabilities in fraud prevention and detection." This statement received a mean of 3.97, emphasizing the importance of continuous improvement efforts to enhance fraud prevention capabilities.

4. "The bank regularly assesses its own fraud prevention practices against defined standards." With a mean score of 3.94, this item reflects the bank's commitment to self-assessment and adherence to defined standards.

5. "There are established mechanisms to promote knowledge exchange and collaboration on fraud prevention among different banks." This item scored a mean of 3.74, highlighting the existence of mechanisms for knowledge exchange and collaboration among different banks in the realm of fraud prevention.

The overall degree for this dimension is 3.95, falling within the "High" range. These results indicate that participants have a positive perception of the bank's commitment to

adopting best practices in fraud prevention and detection. The emphasis on a proactive approach, continuous improvement, and collaboration with other banks underscores the bank's dedication to staying at the forefront of fraud prevention efforts.

Table (4.8): The Means and Percentages of the Degree of Investigation into Fraud and the Reality of Fraud Prevention Frameworks in Palestinian Commercial Banks, Source: Author

Order	Field	Items	Mean	Std. Deviation	Percentage	Degree
1	the reality of fraud prevention frameworks	Roles and Responsibilities of Management	4.25	0.48	85%	Very High
6		Effectiveness of Fraud Prevention Frameworks	3.55	0.80	71%	High
3		Internal Controls, Employee Awareness, and Internal Audit	4.07	0.58	81%	High
5		Best Practices for Fraud Prevention and Detection	3.95	0.57	79%	High
2		Investigating fraud	Investigation Methods	4.19	0.53	84%
4	Collaboration with Authorities and		4.05	0.54	81%	High

		Investigation Committees				
		Total Degree	3.96	0.60	79%	High

Table (4.8) presents an overview of the means and percentages of the degree of investigation into fraud and the reality of fraud prevention frameworks in Palestinian commercial banks. Here are the key observations and comments on the table:

1. "The reality of fraud prevention frameworks" (Roles and Responsibilities of Management) has the highest mean score of 4.25, indicating a very high degree of effectiveness in this aspect of fraud prevention. This reflects the strong commitment of bank management to their roles and responsibilities in preventing fraud.
2. "Investigating fraud" (Investigation Methods) follows closely with a mean score of 4.19, signifying a high degree of effectiveness in investigation methods. This suggests that the bank has robust processes in place for investigating fraud cases.
3. "Internal Controls, Employee Awareness, and Internal Audit" has a mean score of 4.07, indicating a high level of effectiveness in maintaining internal controls and employee awareness. This is crucial in preventing fraudulent activities.
4. "The reality of fraud prevention frameworks" (Effectiveness of Fraud Prevention Frameworks) achieved a mean score of 3.55, reflecting a good level of effectiveness but slightly lower than other dimensions.
5. "Best Practices for Fraud Prevention and Detection" received a mean score of 3.95, highlighting a strong emphasis on adopting best practices in fraud prevention and detection.

6. "Collaboration with Authorities and Investigation Committees" achieved a mean score of 4.05, indicating a high degree of cooperation with authorities and internal investigation committees.

The overall degree for this assessment is 3.96, falling within the "High" range. These results collectively signify a strong commitment by Palestinian commercial banks to fraud prevention and investigation. The high percentages demonstrate that participants have a positive perception of the effectiveness of these measures. It's important to maintain and continually improve these practices to ensure robust fraud prevention and detection in the banking sector.

2.4 Testing the Hypothesis:

First: There is a relationship between Occupation and the actions undertaken by my management while conducting investigations into fraudulent activities

To examine this hypothesis, the chi-square test and Spearman's correlation coefficient were used to assess the relationship between categorical variables through a Cross tabulation test.

Table (4.9): Demonstrates Crosstab between the "Occupation & Which of the Following Actions is Undertaken by my Management While Conducting Investigations into Fraudulent Activities?", Source: Author

Variables	Which of the following actions is undertaken by my management while conducting investigations into fraudulent activities?				Total
	Initial assessment	Investigation planning	Data collection, review,	All of the above	

				and		
				analysis		
Occupation	Compliance Department	0.00	0.00	4.00	8.00	12.00
	Anti-Money Laundering and Counter- Terrorism Financing Department	1.00	0.00	2.00	3.00	6.00
	Risk Department	0.00	1.00	3.00	3.00	7.00
	Internal Audit Department	0.00	0.00	0.00	6.00	6.00
	Total	1.00	1.00	9.00	20.00	31.00

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi- Square	11.797 ^a	9.00	0.22

		Value	Asymptotic Standardized Error ^a	Approximate T ^b	Approximate Significance
Ordinal by Ordinal	Spearman Correlation	0.10	0.16	0.54	.596 ^c
N of Options Cases		31.00			

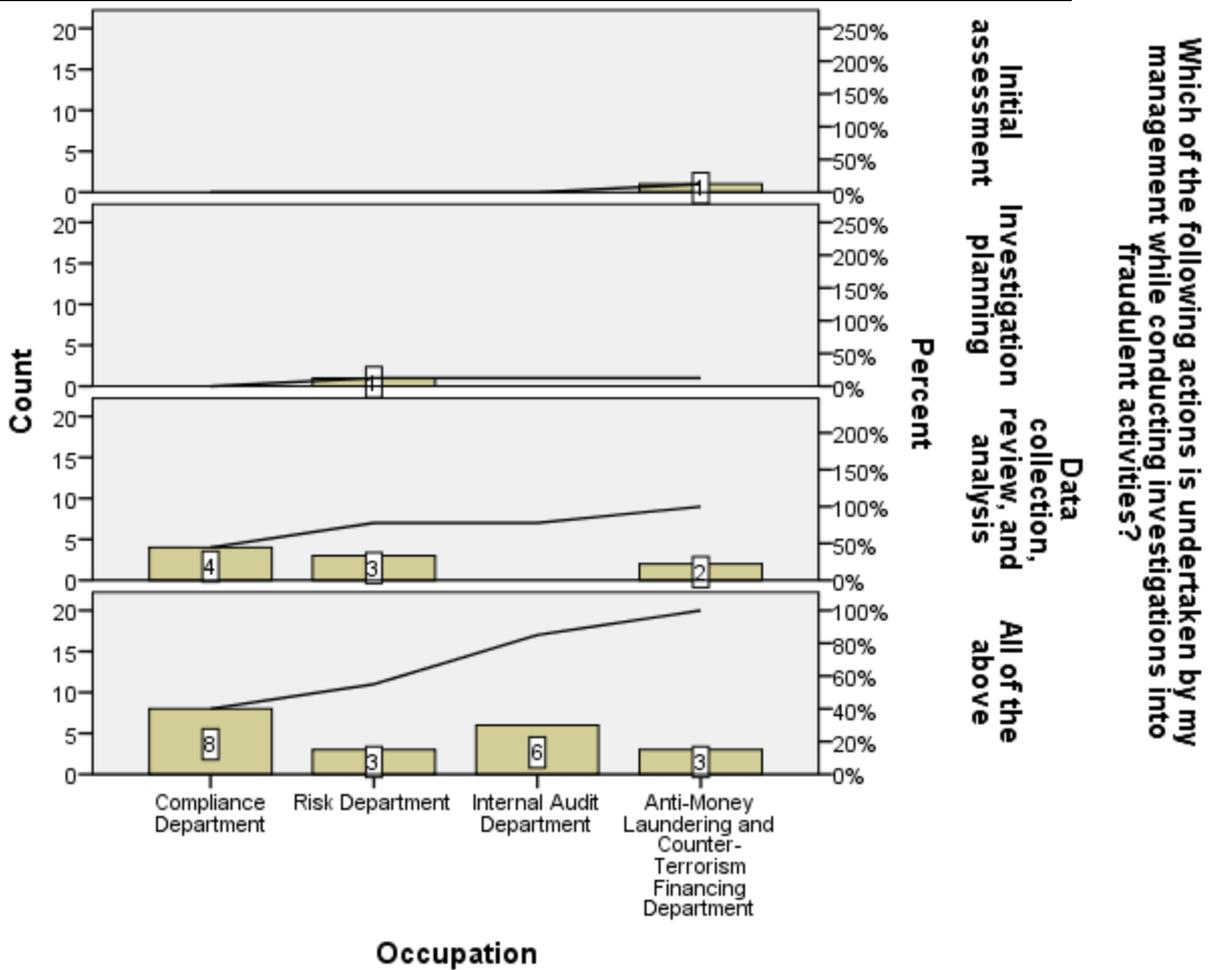


Chart 5: Occupation

The table (4.10) illustrates a cross tabulation between occupation and the actions undertaken by management during investigations into fraudulent activities. The table presents the number of respondents from different departments who selected each action.

The chi-square test was conducted to examine the relationship between occupation and the actions taken during investigations. The results show a Pearson Chi-Square value of 11.797 with 9 degrees of freedom, and an asymptotic significance (2-sided) of 0.22, indicating that there is no statistically significant relationship between occupation and the actions undertaken by management during fraud investigations.

Additionally, Spearman's correlation coefficient was calculated, resulting in a correlation of 0.10, an asymptotic standardized error of 0.16, an approximate T value of 0.54, and an approximate significance of 0.596c. This further supports the finding that there is no significant correlation between occupation and the actions taken during fraud investigations.

Second: Results related to the second hypothesis:

There are no statistically significant differences at the $(.05 \geq \alpha)$ significance level in the means of the degree of investigation into fraud and the reality of fraud prevention frameworks in Palestinian commercial banks attributed to variables: gender, educational level, age, and job title.

To test the first hypothesis, the arithmetic means and standard deviations of the responses of the study sample on the scale of investigation into fraud and the reality of fraud prevention frameworks in Palestinian commercial banks were calculated for the variables: gender, educational level, age, and job title.

Table (4.11) illustrates this:

Table (4.11): Shows the Arithmetic Means and Standard Deviations of the Responses of the Study Sample on the Scale of Investigation into Fraud and the Reality of Fraud Prevention Frameworks in Palestinian Commercial Banks Attributed to Variables: Gender, Educational Level, Age, and Job Title

Variable	Level	Mean	Standard Deviation
Gender	Male	22.00	4.05
	Female	9.00	3.91
	Total	31.00	4.01
Age	20-30	2.00	4.21
	31-40	19.00	4.06
	41-50	6.00	3.91
	Over 50	4.00	3.83
	Total	31.00	4.01
Educational level	Bachelor's degree	27.00	4.10
	Postgraduate studies	4.00	4.26
	Total	31.00	4.12
Job title	Compliance Department	12.00	4.06
	Anti-Money Laundering and Counter-Terrorism Financing Department	6.00	4.10

	Risk Department	7.00	4.15
	Internal Audit Department	6.00	4.23
	Total	31.00	4.12

The table illustrates the presence of significant differences in the means of the study sample's scores on the Investigation into Fraud and the Reality of Fraud Prevention Frameworks in Palestinian Commercial Banks, as distributed according to the study variables. To ascertain the significance of the differences between the means of the total score and the subdomains of the Investigation into Fraud and the Reality of Fraud Prevention Frameworks in Palestinian Commercial Banks, a Multivariate Analysis of Variance "without Interaction" (4-MANOVA) was conducted, and Table (4.11) demonstrates this analysis.

Table (4.11): Demonstrates the Multivariate Analysis of Variance (MANOVA) "without Interaction" on the total score and subdomains of the Investigation into Fraud and the Reality of Fraud Prevention Frameworks in Palestinian Commercial Banks, based on the variables of gender, educational level, age, and job title.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	
Gender	Investigating fraud	0.25	1.00	0.25	1.79	0.21
	The reality of fraud prevention frameworks	0.09	1.00	0.09	0.72	0.41
	Total	0.13	1.00	0.13	1.12	0.31
Age Group	Investigating fraud	0.66	3.00	0.22	1.58	0.24

	The reality of fraud prevention frameworks	0.42	3.00	0.14	1.17	0.36
	Total	0.46	3.00	0.15	1.31	0.32
Educational Level	Investigating fraud	0.03	1.00	0.03	0.22	0.65
	The reality of fraud prevention frameworks	0.01	1.00	0.01	0.07	0.80
	Total	0.01	1.00	0.01	0.12	0.74
Occupation	Investigating fraud	0.39	3.00	0.13	0.95	0.45
	The reality of fraud prevention frameworks	0.16	3.00	0.05	0.43	0.74
	Total	0.19	3.00	0.06	0.53	0.67
Error	Investigating fraud	1.66	12.00	0.14		
	the reality of fraud prevention frameworks	1.45	12.00	0.12		
	Total	1.41	12.00	0.12		

a. R Squared = .645 (Adjusted R Squared = .112)

b. R Squared = .593 (Adjusted R Squared = -.018-)

c. R Squared = .611 (Adjusted R Squared = .029)

Table (4.11) presents the results of the Multivariate Analysis of Variance (MANOVA)

"without Interaction" conducted on the total score and subdomains of the Investigation

into Fraud and the Reality of Fraud Prevention Frameworks in Palestinian Commercial Banks, with a focus on the variables of gender, educational level, age, and job title.

The MANOVA analysis aims to examine whether there are significant differences in the mean scores across these variables. Here are some key observations:

1. Gender: The MANOVA results for gender show no significant differences in mean scores for both investigating fraud and the reality of fraud prevention frameworks. The F-statistics for both variables are not statistically significant ($p > 0.05$).

2. Age Group: The analysis of age groups also reveals no significant differences in mean scores for investigating fraud and the reality of fraud prevention frameworks. The F-statistics for both variables are not statistically significant ($p > 0.05$).

3. Educational Level: Similar to gender and age, the educational level variable does not show significant differences in mean scores for both investigating fraud and the reality of fraud prevention frameworks. The F-statistics for both variables are not statistically significant ($p > 0.05$).

4. Occupation: The occupation variable also does not yield significant differences in mean scores for investigating fraud and the reality of fraud prevention frameworks. The F-statistics for both variables are not statistically significant ($p > 0.05$).

In summary, the MANOVA "without Interaction" results indicate that none of the examined variables (gender, age group, educational level, and occupation) significantly impact the mean scores for investigating fraud and the reality of fraud prevention frameworks in Palestinian Commercial Banks. The R-squared values suggest that the variables collectively explain only a small portion of the variance in the dependent variables. Adjusted R-squared values are also provided to account for the number of predictors in the model.

Third: Results Related to Hypothesis Three:

There is no statistically significant predictive ability ($\alpha < .05$) for the degree of investigation into fraud and the reality of fraud prevention frameworks in Palestinian commercial banks.

To assess the contribution of the reality of fraud prevention frameworks to predicting the degree of investigation into fraud, linear regression analysis was employed using the "enter" method. Table (4.11) illustrates this

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.836 ^a	0.70	0.69	0.19

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	2.50	1.00	2.50	67.55	.000 ^b
1 Residual	1.07	29.00	0.04		
Total	3.57	30.00			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.94	0.37		2.55	0.02
1	Investigating fraud	0.73	0.09	0.84	8.22	0.00

Third: Results Related to Hypothesis Three:

The analysis indicates that there is statistically significant predictive ability ($\alpha < .05$) for the degree of investigation into fraud and the reality of fraud prevention frameworks in Palestinian commercial banks.

To explore the contribution of the reality of fraud prevention frameworks to predicting the degree of investigation into fraud, a linear regression analysis was conducted using the "enter" method. The results, as shown in Table (11.4), demonstrate the following:

- Model Summary:

- The coefficient of determination (R Square) is 0.70, indicating that 70% of the variance in the degree of investigation into fraud can be explained by the reality of fraud prevention frameworks.

- ANOVA:

- The ANOVA table shows that the regression model is statistically significant ($F = 67.55, p < .001$), suggesting that the reality of fraud prevention frameworks contributes significantly to predicting the degree of investigation into fraud.

- Coefficients:

- The unstandardized coefficient (B) for the "Investigating fraud" variable is 0.73, with a standard error of 0.09. This coefficient indicates that for each unit increase in the reality of fraud prevention frameworks, there is an expected increase of 0.73 units in the degree of investigation into fraud.

In conclusion, the linear regression analysis provides evidence that the reality of fraud prevention frameworks does contribute significantly to predicting the degree of investigation into fraud in Palestinian commercial banks.

Linear Regression Equation:

Degree of Investigation into Fraud = 0.94 + (0.73 * Reality of Fraud Prevention Frameworks).

4.3 Interviews

The researcher conducted interviews with the Director of the Compliance Department and the Director of the Anti-Money Laundering Department in one of the Palestinian commercial banks, and with a specialist in combating fraud in the Financial Follow-up Unit in Palestine. A number of questions were asked to them and the answers were as follows:

1. Could you walk me through the specific procedures your department follows from the moment a potential fraud is identified? How are these responsibilities divided among team members, and what role does your department play in the broader anti-fraud strategy of the bank?

Compliance: When a potential fraud is identified, our department initiates a structured protocol. We first conduct a preliminary review to confirm the suspicion, involving data analysis and initial interviews. Responsibilities are then allocated based on expertise: accountants handle financial data, IT specialists address digital evidence, and legal advisors prepare for potential legal action. Our department's role is critical in aligning investigative actions with the bank's anti-fraud strategy, ensuring compliance with regulatory requirements, and integrating findings into broader preventive measures to strengthen overall fraud defenses.

AML: When a potential fraud is identified, our department follows a detailed procedure to address it. Initially, we perform an immediate risk assessment to verify the fraud suspicion. This involves analyzing transaction data and customer profiles for anomalies. Responsibilities are allocated based on specialization: AML analysts review transaction

patterns and customer due diligence, compliance officers liaise with legal teams, and investigators handle evidence collection. Our department's role is pivotal in the broader anti-fraud strategy, ensuring that the fraud detection aligns with regulatory requirements and informing adjustments to the bank's anti-fraud policies based on insights gained from each case. This systematic approach integrates findings into a comprehensive risk management framework.

2. When a fraud case is detected or suspected, what advanced investigative techniques are employed by your department? How do these methods vary depending on the type and complexity of the fraud incident? Can you provide a specific example of how these techniques were applied in a recent case?

Compliance: Our department employs several advanced investigative techniques, including data analytics, forensic accounting. Data analytics helps identify anomalies and patterns indicative of fraud, while forensic accounting scrutinizes financial records for discrepancies. Digital forensics investigates electronic evidence, such as email trails and system logs. For example, in a recent case of insider, data analytics revealed unusual patterns. Forensic accounting and digital forensics then confirmed collusion through irregular transactions and communications, leading to successful legal action against the perpetrators.

AML: In detecting or investigating fraud, our department employs several advanced techniques tailored to the fraud's nature and complexity. We use data mining and transaction analysis to identify unusual patterns and linkages between accounts. For complex cases, such as those involving large sums or multiple jurisdictions, we deploy network analysis to uncover connections and correlations. Digital forensics helps track digital footprints and communications. For instance, in a case involving money

laundering through shell companies, we applied network analysis to map out financial flows and data mining to uncover suspicious transaction patterns. This led to identifying and disrupting a sophisticated laundering scheme.

3. In your professional opinion, what are the most significant strengths and weaknesses of the fraud protection frameworks currently in place within your bank? How do these frameworks hold up against emerging fraud tactics, and what improvements would you recommend to address any vulnerabilities?

Compliance: The strengths of our fraud protection frameworks include robust real-time monitoring systems and comprehensive coverage of various fraud types, which enhance early detection and mitigation. However, weaknesses exist in adapting to rapidly evolving fraud tactics and resource constraints that limit the frequency of updates and training. Our frameworks occasionally lag behind new threats, making it essential to integrate advanced AI and machine learning technologies for predictive analysis. Additionally, continuous employee training and regular updates to fraud detection systems are recommended to address these vulnerabilities and improve resilience.

AML: Our fraud protection frameworks are robust in terms of real-time transaction monitoring and comprehensive risk assessment tools, which effectively identify and mitigate many fraud scenarios. However, a significant weakness lies in the system's adaptability to emerging and increasingly sophisticated fraud tactics, such as advanced social engineering and synthetic identities. These frameworks often require frequent updates to stay ahead of new methods employed by fraudsters. To address these vulnerabilities, I recommend enhancing our systems with advanced AI and machine learning technologies for better predictive capabilities and continuous integration of threat intelligence. Additionally, strengthening cross-departmental collaboration and

increasing investment in ongoing training can improve our responsiveness to evolving fraud threats.

4. How do internal controls, employee awareness initiatives, and internal audit mechanisms integrate with each other to form a cohesive fraud prevention strategy? Can you discuss any specific instances where collaboration between these elements and external authorities led to the successful resolution of a fraud case?

Compliance: Internal controls, employee awareness initiatives, and internal audit mechanisms are interconnected to create a cohesive fraud prevention strategy. Internal controls set operational standards and limit access to sensitive information, while employee awareness programs ensure that staff recognize and report suspicious activities. Internal audits provide ongoing reviews and uncover potential weaknesses. For example, in a recent case, internal controls detected irregularities in transaction approvals, employee awareness led to a whistleblower report, and internal audits identified control gaps. Collaboration with external authorities then facilitated a thorough investigation and successful prosecution, demonstrating the effectiveness of this integrated approach.

AML: Internal controls, employee awareness initiatives, and internal audit mechanisms are interlinked to create a robust fraud prevention strategy. Internal controls establish procedural safeguards and segregation of duties to limit opportunities for fraud. Employee awareness programs ensure that staff understand the signs of fraud and reporting procedures. Internal audits provide independent reviews and identify gaps in controls or compliance. For example, in a case involving fraudulent account activity, internal controls flagged suspicious transactions, employee awareness led to a timely report by a vigilant staff member, and internal audits confirmed weaknesses in the control environment. Collaboration with external authorities then enabled a thorough

investigation, leading to the successful prosecution of the fraudsters and the strengthening of our fraud prevention framework.

The researcher believes that the insights provided by the AML and compliance managers underscore the critical interplay between advanced investigative techniques and robust procedural frameworks in combating fraud. The systematic approaches detailed reveal the sophistication required to address complex fraud schemes effectively. The integration of data analytics, digital forensics, and transaction monitoring highlights the necessity of continuous adaptation to emerging fraud tactics. Despite the strengths of current systems, the acknowledged vulnerabilities point to a pressing need for incorporating AI-driven predictive tools and enhancing cross-functional collaboration. The successful resolution of fraud cases through coordinated efforts exemplifies the efficacy of a well-rounded strategy, emphasizing the importance of ongoing updates and rigorous training to fortify defenses against evolving threats.

Chapter Five

Conclusion and Recommendation

Chapter Five

Conclusion and Recommendation

This chapter contains summary and discussion of findings in the light of previous studies' findings, thus reaching the conclusion of the study, which contains the study's findings and then presents the most prominent recommendations in the light of those findings, with proposals for the future study relating to the topic of the study.

5.1 Discussion of Results Related to the Main Research Question:

(What is the relationship and level of Investigating fraud and the reality of fraud prevention frameworks in Palestinian commercial banks?)

Through the computational averages of study fields, it becomes evident that the overall degree for this assessment is 3.96, falling within the "High" range. These results collectively signify a strong commitment by Palestinian commercial banks to fraud prevention and investigation. The high percentages demonstrate that participants have a positive perception of the effectiveness of these measures. It's important to maintain and continually improve these practices to ensure robust fraud prevention and detection in the banking sector

To obtain a more precise explanation, the researcher interpreted the results of each field separately.

5.2 Roles and Responsibilities of Management

The analysis of the "Roles and Responsibilities of Management" dimension reveals a comprehensive overview of the descending order of mean scores and standard deviations. This dimension is pivotal for evaluating management's effectiveness in fraud prevention within the bank. The results indicate exceptionally high mean scores for all related items, with the highest mean of 4.32 for "Collaboration with other departments for fraud

prevention," followed closely by "Enhancements to anti-fraud policies and procedures" at 4.29. Additionally, "Clarity in management roles in fraud prevention" received a mean of 4.26, while "Management's effectiveness in preventing and detecting fraud" scored 4.23. Even the item with the lowest mean, "Alignment of management responsibilities with fraud prevention objectives," still garnered a respectable mean of 4.13. The overall mean for this dimension is 4.25, signifying a "Very High" level of positive perception regarding management's roles and contributions to fraud prevention, affirming their effectiveness in this critical domain.

In the Palestinian context, these research findings indicate a positive assessment of management's performance in the dimension of "Roles and Responsibilities of Management" concerning fraud prevention within the banking sector. The descending order of mean scores and standard deviations offers a comprehensive insight into how participants perceive these aspects.

The highest mean score, 4.32, for "Collaboration with other departments for fraud prevention" underscores a strong level of cooperation among various bank departments, a critical element in safeguarding financial institutions against fraudulent activities. Closely following is the item "Enhancements to anti-fraud policies and procedures," with a mean score of 4.29, demonstrating active involvement and a proactive approach by management in refining policies and procedures to prevent and detect fraud. The mean score of 4.26 for "Clarity in management roles in fraud prevention" indicates that participants view management's roles and responsibilities in fraud prevention as well-defined and transparent. With a mean score of 4.23, "Management's effectiveness in preventing and detecting fraudulent activities" highlights the crucial role of management in maintaining the banking sector's integrity. Even the item with the lowest mean score,

"Alignment of management responsibilities with fraud prevention objectives," still achieved a respectable 4.13, suggesting participants perceive a reasonable alignment between management's responsibilities and the overarching objectives of fraud prevention within the Palestinian banking context. Overall, the dimension attained an impressive mean score of 4.25, falling within the "Very High" range. These results convey a positive perception among study participants regarding management's efficacy in their roles and contributions to fraud prevention, underscoring the significance of management in safeguarding the Palestinian banking sector against fraudulent activities. Based on the research findings, it is evident that management's roles and responsibilities in fraud prevention within the Palestinian banking sector are highly regarded. The descending order of mean scores and standard deviations highlights several key aspects. Firstly, the exceptionally high mean scores indicate a robust level of collaboration among different departments, emphasizing the importance of a coordinated approach to fraud prevention. Secondly, the proactive stance of management in enhancing anti-fraud policies and procedures is apparent, showcasing their commitment to continuous improvement. Thirdly, the clarity in management's roles regarding fraud prevention contributes to effective implementation. Additionally, management's effectiveness in preventing and detecting fraudulent activities is underscored, indicating their pivotal role in safeguarding the sector. Even the slightly lower score for the alignment of management responsibilities with fraud prevention objectives still signifies a reasonable degree of congruence. In summary, these results demonstrate that Palestinian banking participants have a positive perception of management's roles and contributions to fraud prevention, emphasizing the effectiveness of management in this critical area and suggesting a strong

foundation for further efforts to enhance fraud prevention measures within the context of Palestinian banking.

5.3 Investigation Methods

The results for the "Investigation Methods" dimension provide a valuable overview of the effectiveness of management's methods in uncovering fraudulent activities. The highest mean score of 4.26, achieved by the item "Objective and protocol-compliant investigations," highlights the exceptionally high level of objectivity and adherence to protocols during investigations. Additionally, the mean score of 4.23 for "Proper documentation and evidence preservation" underscores the significance of meticulous record-keeping and evidence preservation. With a mean score of 4.19 for "Effective root cause identification," the investigation methods employed are deemed highly effective in identifying the underlying causes of fraud. Even the slightly lower mean score of 4.10 for "Dedicated investigation team" emphasizes the existence of a dedicated team for conducting investigations. Overall, with an impressive mean score of 4.19, falling within the "High" range, these results reflect a positive perception among participants regarding the effectiveness of management's investigation methods in uncovering fraudulent activities, highlighting the importance of structured and objective investigation processes within the bank.

The interpretation of these results suggests that the investigative methods employed by management within the Palestinian banking sector are considered effective and reliable by the study participants. It is evident that management places significant emphasis on ensuring that research processes are conducted objectively and in accordance with established protocols, indicating a very high level of objectivity and professionalism in

this regard. The importance of meticulous data documentation and evidence preservation is also apparent, contributing to the enhancement of the quality of research operations.

Furthermore, the positive assessment indicates that these investigative methods are successful in uncovering the root causes of fraudulent activities, demonstrating the bank's ability to accurately identify and understand the underlying reasons behind fraud. Even when considering the presence of a dedicated investigation team, the results underscore its significance, signifying organized research operations within the bank.

Overall, these findings reveal a positive perception among participants regarding the effectiveness of management's investigative methods in detecting fraudulent activities, emphasizing the importance of structured and objective research processes within the Palestinian banking sector.

5.4 Effectiveness of Fraud Prevention Frameworks

The results for the "Effectiveness of Fraud Prevention Frameworks" dimension indicate overall positive perceptions among participants, with strong support for fraud prevention frameworks through customer awareness materials, a proactive approach to adapting to emerging risks, and relative effectiveness in addressing various types of fraud. However, some participants perceive weaknesses, highlighting the importance of ongoing framework review and improvement to stay ahead of evolving fraud challenges. The overall score of 3.55 falls within the "High" range, emphasizing the effectiveness and potential for enhancement in these frameworks.

In the Palestinian context, these results indicate a positive evaluation of the effectiveness of the existing fraud prevention frameworks. The item "Fraud prevention frameworks are supported by targeted awareness materials for bank customers" achieved a mean score of

4.03, signifying strong support for fraud prevention through customer-focused awareness materials.

Additionally, it is evident that there is a proactive approach to adapting the fraud prevention frameworks to address emerging challenges in the Palestinian context, as the item "Fraud prevention frameworks are regularly reviewed and updated to adapt to emerging fraud risks and challenges" achieved a mean score of 3.84.

Furthermore, the item "Effectively addressing various types of fraudulent activities within the current fraud prevention frameworks" suggests a relative effectiveness with a mean score of 3.74, indicating that the existing frameworks can deal with different types of fraud relatively effectively.

However, it's worth noting that some participants perceive weaknesses in the current fraud prevention frameworks, as indicated by the item "I see weaknesses in the current fraud prevention frameworks" with the lowest mean score of 2.58.

The overall score for this dimension is 3.55, falling within the "High" range, underscoring that participants believe the fraud prevention frameworks are effective but require ongoing improvement. This highlights the importance of continually reviewing and updating these frameworks to address emerging fraud challenges in the Palestinian context.

5.5 Internal Controls, Employee Awareness, and Internal Audit

These results provide valuable insights into the dimension of "Internal Controls, Employee Awareness, and Internal Audit." The highest mean score, 4.32, was achieved for the item "Internal audit operations are regularly conducted to assess the effectiveness of internal controls and identify potential areas for improvement," indicating a very high

level of regular internal audit operations aimed at evaluating and enhancing internal controls.

Following closely, the item "Feedback from internal audit reports is promptly addressed to enhance fraud prevention measures at the bank" obtained a mean of 4.19, highlighting a proactive approach to addressing feedback from internal audit reports.

The dimension also emphasizes the importance of an ethical culture in fraud prevention, with the item "The bank maintains a strong culture of ethics and integrity, contributing to fraud prevention" scoring a mean of 4.16.

Furthermore, the internal controls implemented at the bank are perceived as effective safeguards against fraudulent activities, as indicated by the mean score of 4.00 for the item "The internal controls implemented at the bank provide effective safeguards against fraudulent activities."

Even the item with the lowest mean score, "Bank employees receive sufficient training and guidance on fraud prevention procedures and best practices," still achieved a respectable mean of 3.68, signifying a relatively high level of training and guidance for employees in fraud prevention.

The overall degree for this dimension is 4.07, falling within the "High" range. These results demonstrate a positive perception among participants regarding the effectiveness of internal controls, employee awareness, and internal audit practices in preventing and detecting fraudulent activities within the bank. This underscores the significance of maintaining a strong internal control framework and ethical culture in fraud prevention.

In the Palestinian context, these results indicate a positive assessment of the effectiveness of internal measures in preventing and detecting fraud within the bank. The item "Internal audit operations are regularly conducted to assess the effectiveness of internal controls

and identify potential areas for improvement" achieved the highest mean score of 4.32, signifying a very high level of regular internal audit operations aimed at evaluating and enhancing internal controls.

Additionally, it is evident that there is a proactive approach to promptly address feedback from internal audit reports to enhance fraud prevention measures at the bank, as the item "Feedback from internal audit reports is promptly addressed to enhance fraud prevention measures at the bank" obtained a mean of 4.19.

These results also emphasize the importance of maintaining a strong culture of ethics and integrity within the bank, as indicated by the item "The bank maintains a strong culture of ethics and integrity, contributing to fraud prevention" scoring a mean of 4.16.

Furthermore, it is recognized that the internal controls implemented at the bank are effective safeguards against fraudulent activities, as reflected by the mean score of 4.00 for the item "The internal controls implemented at the bank provide effective safeguards against fraudulent activities."

Even the item with the lowest mean score, "Bank employees receive sufficient training and guidance on fraud prevention procedures and best practices," still achieved a respectable mean of 3.68, signifying a relatively high level of training and guidance for employees in fraud prevention.

The overall score for this dimension is 4.07, falling within the "High" range. These results demonstrate a positive perception among participants regarding the effectiveness of internal controls, employee awareness, and internal audit practices in preventing and detecting fraudulent activities within the bank. This underscores the significance of maintaining a strong internal control framework and ethical culture in fraud prevention in the Palestinian context.

5.6 Collaboration with Authorities and Investigation Committees

These results highlight a positive perception of the bank's collaboration with authorities and investigation committees in combating fraud. Key findings include a very high level of clarity in reporting suspected fraudulent cases, effective collaboration between anti-fraud authorities and internal investigation committees, and the importance of timely support and guidance from external authorities. The overall score for this dimension is 4.05, within the "High" range, reflecting a strong commitment to this aspect of fraud prevention.

In the Palestinian context, these results reflect a positive assessment of the bank's efforts in collaborating with official authorities and internal investigation committees to combat fraud. The findings indicate the existence of clear procedures and channels for effectively reporting suspected fraudulent cases to relevant authorities, signifying a very high level of clarity and efficiency in this regard.

Moreover, the results indicate effective collaboration between anti-fraud authorities and internal investigation committees within the bank, demonstrating a high degree of coordination and cooperation to combat financial crimes.

The importance of providing swift and effective support and guidance from official authorities to the bank's internal investigation committees is also highlighted in the results, contributing to the enhancement of measures to prevent fraud.

The presence of mechanisms for sharing relevant information and data with relevant authorities to combat fraud effectively underscores the significance of partnerships in achieving this goal.

In conclusion, the overall findings of this dimension in the study portray a positive perception among participants regarding the bank's collaboration with official authorities

and internal investigation committees in the fight against fraud. This emphasizes the bank's strong commitment to partnering with external entities in the context of fraud prevention and mitigation in Palestine.

5.7 Best Practices for Fraud Prevention and Detection

These results offer a comprehensive view of the "Best Practices for Fraud Prevention and Detection" dimension. The highest mean score, 4.06, reflects strong encouragement for proactive fraud prevention approaches, including the adoption of data analytics and advanced technologies. Additionally, the bank actively seeks and integrates best practices in fraud prevention and detection, as indicated by the mean score of 4.03. Continuous improvement initiatives to enhance fraud prevention capabilities are evident, with a mean of 3.97, and the bank places importance on self-assessment against defined standards, with a mean score of 3.94. There are also established mechanisms for knowledge exchange and collaboration among different banks in fraud prevention, scoring 3.74. Overall, with a degree of 3.95 within the "High" range, these results demonstrate a positive perception of the bank's commitment to adopting best practices in fraud prevention and detection, emphasizing proactive measures and collaboration for effective fraud prevention.

In the Palestinian context, these results reflect a positive evaluation of the bank's efforts in adopting best practices for fraud prevention and detection. The highest mean score of 4.06 for the item "The bank encourages a proactive approach to fraud prevention, including the use of data analytics and advanced technologies" indicates strong support for proactive measures and the utilization of advanced technologies in preventing and detecting fraud.

Moreover, the mean score of 4.03 for the item "The bank actively explores and adopts best practices in fraud prevention and detection" highlights the bank's active pursuit and incorporation of best practices in the field of fraud prevention.

The mean score of 3.97 for the item "Continuous improvement initiatives are undertaken to enhance the bank's capabilities in fraud prevention and detection" underscores the importance of ongoing efforts to enhance the bank's capabilities in combating fraud.

Furthermore, the mean score of 3.94 for the item "The bank regularly assesses its own fraud prevention practices against defined standards" indicates the bank's commitment to self-assessment and adherence to industry standards in fraud prevention.

Lastly, the mean score of 3.74 for the item "There are established mechanisms to promote knowledge exchange and collaboration on fraud prevention among different banks" reflects the existence of mechanisms for knowledge sharing and collaboration among various banks in the field of fraud prevention.

Overall, with an overall degree of 3.95 falling within the "High" range, these findings demonstrate a positive perception among participants regarding the bank's commitment to adopting best practices in fraud prevention and detection in the Palestinian context. The emphasis on proactive measures, continuous improvement, and collaboration with other banks highlights the bank's dedication to staying at the forefront of fraud prevention efforts in the region.

5.8 Discussion the Hypothesis

First: There is a relationship between Occupation and the actions undertaken by my management while conducting investigations into fraudulent activities

The results of the cross tabulation between occupation and the actions taken during fraud investigations reveal that there is no statistically significant relationship between the two

variables. This is supported by the Pearson Chi-Square value of 11.797 with 9 degrees of freedom and an asymptotic significance (2-sided) of 0.22, which is greater than the commonly accepted significance level of 0.05. Additionally, the Spearman's correlation coefficient of 0.10 with an approximate significance of 0.596c further confirms the absence of a significant correlation between occupation and the actions undertaken during fraud investigations. Therefore, the hypothesis is accepted because the p-value is greater than 0.05, indicating that there is no significant relationship or correlation between occupation and the actions management takes during fraud investigations.

In the Palestinian context, these results indicate that there is no statistically significant relationship between the occupation of individuals and the actions taken by management during fraud investigations. This finding suggests that, regardless of their professional backgrounds or roles within the organization, employees tend to experience similar management responses and actions when it comes to fraud investigations.

This lack of significant variation in the actions undertaken by management across different occupations may be attributed to several factors within the Palestinian context. Firstly, the legal and regulatory framework governing fraud investigations in Palestine may prescribe standardized procedures and actions that apply uniformly across various departments and job roles.

Secondly, the organizational culture and ethical norms within Palestinian institutions may prioritize consistency and fairness in dealing with fraud-related issues, leading to similar responses regardless of one's occupation. This uniformity could reflect a commitment to maintaining a fair and transparent approach to fraud investigations.

Overall, these results highlight the importance of standardized and consistent practices in dealing with fraud within Palestinian organizations. While occupation may not

significantly influence the actions taken during fraud investigations, it underscores the need for clear and equitable procedures to address fraud-related concerns, ensuring the integrity of the investigative process.

Second: Results related to the second hypothesis:

There are no statistically significant differences at the ($.05 \geq \alpha$) significance level in the means of the degree of investigation into fraud and the reality of fraud prevention frameworks in Palestinian commercial banks attributed to variables: gender, educational level, age, and job title.

Second: Results related to the second hypothesis:

There are no statistically significant differences at the ($.05 \geq \alpha$) significance level in the means of the degree of investigation into fraud and the reality of fraud prevention frameworks in Palestinian commercial banks attributed to variables: gender, educational level, age, and job title.

5.9 Results Related to the Second Hypothesis:

There are no statistically significant differences at the ($.05 \geq \alpha$) significance level in the means of the degree of investigation into fraud and the reality of fraud prevention frameworks in Palestinian commercial banks attributed to variables: gender, educational level, age, and job title.

the MANOVA "without Interaction" results indicate that none of the examined variables (gender, age group, educational level, and occupation) significantly impact the mean scores for investigating fraud and the reality of fraud prevention frameworks in Palestinian Commercial Banks. The R-squared values suggest that the variables collectively explain only a small portion of the variance in the dependent variables.

Adjusted R-squared values are also provided to account for the number of predictors in the model.

These results from the Multivariate Analysis of Variance (MANOVA) "without Interaction" suggest that none of the examined variables (gender, age group, educational level, and occupation) significantly influence the mean scores for investigating fraud and the reality of fraud prevention frameworks in Palestinian Commercial Banks. Several factors contribute to this outcome:

1. Gender: The analysis indicates that gender does not play a significant role in explaining differences in mean scores for investigating fraud and assessing the reality of fraud prevention frameworks. This suggests that both male and female participants in the study have similar perceptions of these aspects, and gender-based variations are not a significant factor.

2. Age Group: The results also show that age group does not have a significant impact on the mean scores for investigating fraud and evaluating fraud prevention frameworks. This implies that individuals across different age groups within the study population share similar perspectives on fraud investigation and prevention practices.

3. Educational Level: Similar to gender and age, the educational level of participants does not lead to significant differences in mean scores for investigating fraud and assessing fraud prevention frameworks. This indicates that individuals with varying levels of education in the study have comparable views regarding these aspects.

4. Occupation: The occupation variable also fails to demonstrate a significant influence on the mean scores for investigating fraud and evaluating fraud prevention frameworks. Regardless of their job titles or positions within the banks, participants perceive these aspects similarly.

Overall, the MANOVA results suggest that the examined demographic and professional variables collectively contribute only a small portion of the variance in the participants' perceptions of investigating fraud and the reality of fraud prevention frameworks in Palestinian Commercial Banks. This outcome indicates that other unexamined factors may have a more substantial impact on these perceptions, emphasizing the need for further research to uncover additional influences on fraud-related practices and attitudes within the banking sector.

5.10 Results Related to Hypothesis Three:

There is no statistically significant predictive ability ($\alpha < .05$) for the degree of investigation into fraud and the reality of fraud prevention frameworks in Palestinian commercial banks.

The analysis reveals a statistically significant predictive ability ($\alpha < .05$) for the degree of investigation into fraud and the reality of fraud prevention frameworks in Palestinian commercial banks. The linear regression analysis using the "enter" method indicates that 70% of the variance in the degree of investigation into fraud can be explained by the reality of fraud prevention frameworks. The regression model is statistically significant ($F = 67.55, p < .001$), signifying that the reality of fraud prevention frameworks significantly contributes to predicting the degree of investigation into fraud. The unstandardized coefficient (B) for the "Investigating fraud" variable is 0.73, with a standard error of 0.09, suggesting that for each unit increase in the reality of fraud prevention frameworks, there is an expected increase of 0.73 units in the degree of investigation into fraud. In conclusion, the linear regression equation affirms that the reality of fraud prevention frameworks plays a substantial role in predicting the degree of investigation into fraud within Palestinian commercial banks.

These results indicate a statistically significant relationship between the degree of investigation into fraud and the reality of fraud prevention frameworks in Palestinian commercial banks. This means that the effectiveness of the bank's fraud prevention measures has a substantial impact on how actively the bank engages in fraud investigations.

The linear regression equation provides further insight, suggesting that the degree of investigation into fraud can be predicted based on the reality of fraud prevention frameworks in the bank. Specifically, for each one-unit increase in the reality of fraud prevention frameworks (measured in standard units), there is an expected increase of 0.73 units in the degree of investigation into fraud. This implies that strengthening and enhancing fraud prevention measures in the bank lead to an increased focus on and commitment to investigating fraud.

In the Palestinian context, this can be interpreted as an indication that improving and reinforcing fraud prevention measures in Palestinian banks can significantly enhance efforts in fraud investigation. It reflects the growing importance of addressing fraud earnestly and effectively within banks, along with a commitment to established fraud prevention standards and measures.

Overall, these results provide a positive signal that improving the reality of fraud prevention in Palestinian banks can greatly contribute to enhancing fraud investigation efforts and improving the efficiency of fraud prevention in the Palestinian banking sector.

Conclusion

Comprehensive conclusion summarizing the results:

1. **Management's Performance in Fraud Prevention Roles:** In the Palestinian context, the study results indicate a positive assessment of management's performance in the dimension of "Roles and Responsibilities of Management" concerning fraud prevention within the banking sector. These findings highlight the significance of cooperation among different bank departments and the proactive approach taken by management to improve anti-fraud policies and procedures, clarify management roles, and effectively prevent and detect fraudulent activities. Overall, these results demonstrate a positive perception among study participants regarding management's effectiveness in roles and contributions to fraud prevention within the Palestinian banking sector.

2. **Best Practices for Fraud Prevention and Detection:** The results suggest that the bank promotes a proactive approach to fraud prevention, including the use of data analytics and advanced technologies. They also indicate a commitment to actively exploring and adopting best practices in fraud prevention and detection, continuous improvement initiatives, and collaboration with other banks in the field of fraud prevention. These findings emphasize the bank's dedication to staying at the forefront of fraud prevention efforts.

3. **Researcher's Interpretation and Regression Analysis:** In the Palestinian context, the researcher's interpretation of the regression analysis reveals that the reality of fraud prevention frameworks significantly contributes to predicting the degree of investigation into fraud within Palestinian commercial banks. This means that the effectiveness of fraud prevention measures in the bank strongly influences its willingness to participate in fraud investigations. The regression equation quantifies this relationship, highlighting the

importance of robust fraud prevention frameworks in driving efforts to investigate fraud cases.

4. Influencing Factors: The results from the MANOVA analysis suggest that factors such as gender, age, educational level, and occupation did not have statistically significant effects on the degree of investigation into fraud and the reality of fraud prevention frameworks. This indicates that these factors were not pivotal in explaining the variations in the study's outcomes.

In conclusion, these results underscore the importance of effective management, adopting best practices, and having robust fraud prevention frameworks in Palestinian commercial banks. Additionally, they emphasize the essential role of the reality of fraud prevention frameworks in motivating the bank's participation in fraud investigations. These findings provide valuable insights for enhancing fraud prevention efforts within the Palestinian banking sector.

Recommendations

Building a special unit to combat fraud

The researcher concluded that many factors, if applied in Palestinian banks, will limit the fraudulent operations that these banks may be exposed to, and provide them with a strong framework for fraud protection. It contributes to conducting systematic and scientific investigations that contribute to early detection of fraud and reduce potential losses.

The most important recommendations were to create a special unit to combat fraud because there is a need for this topic due to the increase in fraud operations in the recent period. This recommendation falls within the institutional framework for combating

fraud, and it is not necessary for this unit to be independent. To ensure the success of this unit, the researcher believes that the following should be adhered to:

- A- It should be a mixture of employees of the supervisory departments within the bank, an external consultant, a legal person, a representative of the bank's management, the institution's board of directors, and a person from the information systems department and related departments.
- B- Authorizing the fraud control unit to participate in all investigations related to the crime of fraud, especially with regard to electronic fraud.
- C- Granting the necessary powers to the unit's employees, which helps them in performing their work.
- D- Training the employees of this unit and building their capacities.
- E- Participating in the unit's development of supervisory and internal systems and risk management, especially risks related to fraud.

The researcher also recommends the following:

1. Strengthen Management's Roles and Responsibilities: Given the positive perception of management's performance in fraud prevention, it is recommended that Palestinian commercial banks continue to emphasize and support management's roles in collaborating with other departments, proposing policy enhancements, and ensuring clarity in responsibilities. This can further enhance the effectiveness of management in fraud prevention.
2. Continuous Adoption of Best Practices: Banks should maintain their proactive approach to fraud prevention by continuously adopting best practices, utilizing data analytics, and staying updated with emerging technologies. Regular training and

awareness programs can help employees stay current with the latest fraud prevention strategies.

3. **Invest in Robust Fraud Prevention Frameworks:** Building on the importance of fraud prevention frameworks, banks should invest in robust and adaptable systems. These frameworks should not only be effective in addressing various types of fraudulent activities but also regularly reviewed and updated to address emerging fraud risks.

4. **Encourage Reporting of Suspected Fraud Cases:** Banks should ensure the establishment of clear and efficient procedures for reporting suspected fraudulent cases to relevant authorities. Encouraging employees to report any suspicious activities can help in early detection and prevention of fraud.

5. **Collaboration with External Authorities:** The positive perception of collaboration with external authorities is promising. Banks should further strengthen these collaborations, ensuring timely support and guidance from anti-fraud authorities. This can enhance the overall effectiveness of fraud prevention efforts.

6. **Promote Ethical Culture:** The perception of a strong culture of ethics and integrity contributing to fraud prevention is noteworthy. Banks should continue promoting an ethical work environment and values among employees, as this can act as a deterrent to fraudulent activities.

7. **Focus on Data-Driven Decisions:** Given the emphasis on data analytics, banks should invest in advanced data analytics tools and resources. Data-driven decisions can improve fraud detection and prevention measures.

8. **Training and Awareness:** Banks should continue to invest in employee training and awareness programs focused on fraud prevention procedures and best practices. Well-informed employees are better equipped to prevent and detect fraud.

9. Regular Evaluation of Internal Controls: Periodic assessments of internal controls against defined standards should be maintained. This helps in identifying weaknesses and areas for improvement in fraud prevention practices.

10. Encourage Cross-Bank Collaboration: The presence of mechanisms for knowledge exchange and collaboration among different banks in fraud prevention is positive. Banks should actively participate in such initiatives to share insights and strategies for combating fraud collectively.

These recommendations aim to strengthen fraud prevention efforts within Palestinian commercial banks, ensuring a robust and proactive approach to mitigating fraud risks. Continuous improvement and a focus on ethical values can further enhance the banking sector's resilience against fraudulent activities.

11. The Researcher recommend studies focused od enhancing fraud investigation and protection mechanisms within financial institutions. Forensic accounting, digital forensic, Fraud risk assessment and management.

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ملخص الدراسة

هدفت هذه الدراسة إلى قياس مستوى التحقيق في الاحتيال وواقع أطر مكافحة الاحتيال في البنوك التجارية الفلسطينية. تبنت الدراسة منهج الوصفي الترابطي للحصول على معلومات متعلقة بموضوع الدراسة، وأسفرت عن عينة تتألف من 32 فرداً. تم استخدام أسلوب العينة العشوائية المتعددة الطبقات لاختيار المشاركين، مع مراعاة متغيرات مثل النوع، والعمر، واستعدادهم لاستكمال الاستبيان. وقد ضمن هذا النهج تنوعاً في عينة الدراسة، حيث تم قبول 31 استبياناً من أصل 32 تم توزيعها.

قام الباحث باستخدام معادلة كرونباخ ألفا لحساب موثوقية القياس، وأظهرت النتيجة أن القيمة للعناصر المقيمة بلغت 92%، مما يشير إلى جودة القياس. بعد جمع بيانات الدراسة، قام الباحث بفحص فروض البحث وتحليل البيانات باستخدام الإحصائيات الوصفية مثل التكرارات والنسب المئوية والمتوسطات وانحرافات القياس القياسي. بالإضافة إلى ذلك، تم تقدير التجانس الداخلي باستخدام معامل كرونباخ ألفا، وتم استخدام معامل ارتباط سبيرمان لاستكشاف العلاقة بين المتغيرات. تم اختبار فروض الدراسة المتعلقة بالمتغيرات باستخدام اختبار تحليل الانحراف الأحادي. وتم تحديد تأثير المتغيرات الفئوية على المتغيرات التابعة من خلال اختبار كاي-مربع. تشير نتائج الدراسة إلى وجود التزام قوي من قبل البنوك التجارية الفلسطينية تجاه مكافحة الاحتيال والتحقيق. من بين الأبعاد التي تم تقييمها، حصلت "واقع أطر مكافحة الاحتيال" (أدوار ومسؤوليات الإدارة) على أعلى متوسط 4.25، مما يعكس درجة عالية جداً من الفعالية في مكافحة الاحتيال. "تحقيق الاحتيال" (أساليب التحقيق) يتبع عن كثب بمتوسط 4.19، مما يشير إلى وجود عمليات تحقيق قوية. حصلت "الضوابط الداخلية، ووعي الموظفين، والتدقيق الداخلي" أيضاً على درجة عالية تبلغ 4.07، مما يسلط الضوء على وجود ضوابط داخلية ووعي قوي. حقق "واقع أطر مكافحة الاحتيال" (فعالية أطر مكافحة الاحتيال) متوسط 3.55، مما يظهر فعالية جيدة. حصلت "أفضل الممارسات لمكافحة الاحتيال والكشف عنه" على متوسط 4.05، مما يشير إلى التركيز على اعتماد أفضل الممارسات. في المجمل، حصلت الدراسة على درجة 3.96، مما يعكس التزاماً "عالياً" بمكافحة الاحتيال والتحقيق في البنوك التجارية الفلسطينية. تؤكد هذه النتائج على ضرورة الحفاظ على هذه الممارسات وتعزيزها باستمرار لضمان مكافحة وكشف قويين للاحتيال في قطاع البنوك.

أما بالنسبة لنتائج الفروض، فإنه لا يوجد علاقة أو ارتباط ذو دلالة إحصائية بين الوظيفة والإجراءات التي يتخذها الإدارة أثناء التحقيق في الاحتيال.

نتائج تحليل MANOVA "بدون تفاعل" تشير إلى عدم وجود تأثير إحصائي معنوي لأي من المتغيرات المدروسة (الجنس، ومجموعة العمر، ومستوى التعليم، والوظيفة) على متوسط الدرجات في مجالي التحقيق في الاحتيال وواقع أطر مكافحة الاحتيال في البنوك التجارية الفلسطينية.

يشير التحليل إلى وجود قدرة تنبؤ إحصائية معنوية ($\alpha < 0.05$) لدرجة التحقيق في الاحتيال وواقع أطر مكافحة الاحتيال في البنوك التجارية الفلسطينية. يوضح تحليل الانحدار الخطي باستخدام الأسلوب "الإدخال" أنه يمكن تفسير 70% من التباين في درجة التحقيق في الاحتيال بواسطة واقع أطر مكافحة الاحتيال.

توصيات استنادا إلى النتائج والتفسيرات:

1. تعزيز أدوار ومسؤوليات الإدارة: نظرا للإدراك الإيجابي لأداء الإدارة في مجال مكافحة الاحتيال، يُوصى بأن تستمر البنوك التجارية الفلسطينية في التأكيد على دعم أدوار الإدارة في التعاون مع الأقسام الأخرى، واقتراح تحسينات السياسات، وضمان وضوح المسؤوليات. يمكن أن يعزز ذلك فعالية الإدارة في مكافحة الاحتيال.

2. اعتماد مستمر لأفضل الممارسات: يجب على البنوك الاستمرار في اعتماد نهج نشط لمكافحة الاحتيال من خلال اعتماد أفضل الممارسات باستمرار واستخدام تحليل البيانات والبقاء على اطلاع دائم على التكنولوجيات الناشئة. يمكن أن تساعد البرامج الدورية للتدريب وزيادة الوعي الموظفين على البقاء على اطلاع على أحدث استراتيجيات مكافحة الاحتيال.