

Forensic accounting and the current state of the infrastructure components of its implementation

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Abstract: Forensic accounting is a specialized accounting field that deals with the detection and Prevention of financial fraud and employee crimes. It involves the use of accounting, auditing and investigative skills to analyze financial transactions and provide evidence in legal proceedings. The importance of criminal accounting has increased significantly in recent years due to the high number of cases of financial fraud around the world , and the application of Forensic accounting depends heavily on the state of the infrastructure components, we aim in this study to study the Forensic accounting infrastructure and find out the reasons that required criminal accounting and the infrastructure that should be available in the Forensic accountant and understanding the difference between the Forensic accountant and the independent auditor and the knowledge of the essence of the elements of Forensic accounting as an element of the registration system and cause of technology has facilitated the way to commit this kind of crimes and that is why the number of financial crimes has increased, it is necessary to know the technology and techniques that Infrastructure for Forensic accounting.

Keywords: Forensic accounting ,infrastructure components.

المحاسبة الجنائية والوضع الحالي لمكونات البنية التحتية لتنفيذها

الدكتور/ أسامة عصام مطر

المجلس الاستشاري | المؤسسة الأمريكية للأبحاث | واشنطن | الولايات المتحدة الأمريكية

المستخلص: المحاسبة الجنائية أحد مجالات المحاسبة المتخصصة، والتي تعمل على كشف ومنع الإحتيال المالي وجرائم الموظفين، من خلال استخدام مهارات المحاسبة والتدقيق والتحقيق لتحليل المعاملات المالية وتقديم الأدلة في الإجراءات القانونية، وقد ازدادت أهمية المحاسبة الجنائية بشكل كبير في السنوات الأخيرة بسبب ارتفاع عدد حالات الإحتيال المالي حول العالم، ويعتمد تطبيق المحاسبة الجنائية بشكل كبير على حالة مكونات البنية التحتية، لذلك تهدف هذه الدراسة إلى دراسة البنية التحتية الخاصة في المحاسبة الجنائية، ومعرفة متطلبات المحاسبة الجنائية والبنية التحتية، والتي ينبغي أن تكون متاحة في المحاسب القضائي، وفهم الفرق بين المحاسب القضائي والمراجع المستقل، ومعرفة جوهر عناصر المحاسبة الجنائية، ومعرفة التكنولوجيا والتقنيات التي توفرها البنية التحتية للمحاسبة الجنائية.

الكلمات المفتاحية: المحاسبة الجنائية، مكونات البنية التحتية.

1- Introduction

As a result of developing business activities, accounting information has an important place in corporate governance holds. The results of the financial statements related to management decisions and accounting information produced to shed light on the parties should be accurate and reliable is required. In an environment where globalization and competition are intensified today, with the help of developing technologies, businesses have fewer staff and are more detailed, and the issue of keeping accounting records has come up more. These positive developments in addition, to the personnel working in accounting both by their own will and from the management to mislead the parties interested in the results of the financial statements by the requests, received there are also significant increases in the number of tricks they perform for the purpose.

Increases in the number of transactions made for misleading users of financial statements not only does it affect the financial statements and operating results of enterprises, but also the country it has also affected their economies. With the results of the financial statements outside the business as a result of the internationalization of interested parties, as well as companies owned by foreign partners as a result of the pressure of partners and international organizations, as in many areas new regulations have been made in the accounting profession.

As a result of the developments, new standards for accounting and auditing standards and introduction of applications, revealing new areas of activity belonging to the accounting profession indicates required. As an extension of these developments, under the title of accounting, accounting the audit has gained importance, internal audit, certified public accountancy audit, independent different professional groups such as auditing are in many countries of the world, as well as in the us he has found a place in the accounting professional group.

In the world, especially in the United States, this chain is called "forensic accounting" under the name; "Forensic Accounting", which has not yet found an application area in us new ring has been added, which can be named. Forensic Accountants, by the request from the parties, the accountant, auditor, and researcher skills in making decisions on disputed issues by providing services by combining they help the courts and business management by expressing an opinion.

Forensic accounting, transferred to the court, is present in disputed accounting cases they study the situation and evidence, explain it, and as a result, the expert they have obtained submit their thoughts and findings to the event that is the subject of the case in the law courts or it is presented to clarify the problem to be investigated in enterprises. This a profession that carries out activities for the purpose has the necessary professional license and education its employees are also described as forensic accountants. Forensic accountants, your profession much more associated with cheating and judgment during its execution than other accountants they carry a separate feature in terms of being in it.

Forensic accounting practices are manifested in three areas. The first two of these areas are while it is important in terms of the part of the work that is transferred to the courthouse and the judiciary, the third area is it is gaining importance in terms of business management. The first area offered to lawyers in terms of counseling support "litigation support", the second area, presented in court "expert testimony" in terms of expert knowledge and the management of the enterprise and related parties providing services by the request of "investigative accounting" or "cheating the auditor" is In our country, lawyers, prosecutors, and judges are particularly interested in tax and accounting issues not having the necessary and sufficient information, looking at the tax and accounting records they have difficulty making inferences. Given this situation, accounting from the stage of opening a case on which their records will be based to the decision stage, a forensic accountant may be needed for lawyers, prosecutors, and judges via The support provided to the lawyer at the stage of meeting this need, filing a lawsuit, and following up if provided with "case support", support for judges and prosecutors in the court process if provided with "expert testimony" for the business owner, manager, and other interested persons as a support, the subject of "fraud investigation-investigative accounting" activities is happening.

In areas requiring expertise in courts, where a decision needs to be made or the case in cases where it is thought that it will have a significant impact on the course, even in almost every issue the expert can be applied to. One of the accumulations and difficulties experienced in the judiciary is expertise is one of the specialties that cannot be fully applied today, even increasingly it is in the state of an institution that has begun to move away. From the statements of the relevant parties the expertise and reliability of experts who express opinions in courts are increasingly questionable it is understood that he has come to a situation. The problem is also being discussed from the point of view of legal circles and solutions are being sought.

Legal support, expert testimony, and investigative accountancy called forensic accounting practices are used only for the investigation and detection of fraudulent situations not only that but also at the stage of interpretation of accounting records and financial statements, and reports it aims to express opinions to the interested parties about the subject to be investigated. Because the events that are transferred to the courthouse are not always about cheating and fraudulent practices, corporate investigations, profit distribution, partnership shares, criminal cases, insurance related transactions, divorce cases, company valuation, professional negligence, mediation, and arbitration, virtual crimes, evaluation of intellectual capital, etc. topics are also it can contain. In such cases, the financial statements and reports submitted to the court are an expert in terms of being understood and interpreted, so that a decision can be reached the accountant is required to assist lawyers.

accounting-based scandals experienced in the world at the end of the twentieth century, financial their attention once again to the reliability of the tables and the issues of independent audit must have taken it. In parallel with this, the need for accurate and reliable information, error and cheating while bringing financial statements and accounting information to the forefront that are free from cheating has also given special importance to his research. Business owners, partners, management, investors or lenders to the business, managers or employees of the business whether there are several fraudulent applications made, whether there are to be able to determine the size and frequency of occurrence in the case of also cheating they can apply to their researchers (investigative accountants). For this reason, especially the last after the accounting scandals experienced in the times, the forensic accounting fraud research, which is one of the application areas (investigative accounting) by coming to the forefront of the need for expertise, a little more important than other application areas is gaining.

1.1 methodology OF STUDY .

1.1.2 Problem of study:

Is the first stone the reason for the increases in average of financial crimes or the last stone the reason or the stones thrown in the middle between the first and the last stone? Due to the current state of the components of the infrastructure for the implementation of criminal accounting is that financial fraud and white-collar crimes are still prevalent in the business world, despite the existence of laws and regulations aimed at preventing or even reducing this type of crime, and for this it is necessary to examine the current state of the elements of infrastructure for the implementation of criminal accounting to determine the effectiveness of the tools and techniques used to detect and prevent financial fraud, and because of the constantly evolving nature of financial fraud, which makes the perpetrators of this type of crime one step ahead of the judiciary and criminal accountants, fraudsters have become increasingly sophisticated in their techniques, making it difficult for Traditional criminal accounting detect and prevent their activities. As a result, there is a need for continuous improvement and development of infrastructure components to keep pace with these evolving trends in addition to the lack of standardization in the implementation of criminal accounting. Different countries and jurisdictions have different accounting laws, regulations, and standards, which can make it difficult to apply forensic accounting techniques across different regions. This can lead to inconsistencies in the application of Forensic Accounting and may limit its effectiveness in preventing financial fraud.

1.1.3 Objective this study.

Due to the importance of criminal accounting in our time, and that this importance is based on the increase in average of financial crimes that occur, we aim in this to find out the reason for the high rates of financial crimes The adequacy of existing laws to reduce this type of crime and studying infrastructure that makes up criminal accounting and the skills that a Forensic accountant must acquire to be able to solve complex financial crimes and find out the difference between a criminal accountant and an independent auditor and the extent of the contribution of technology in such cases.

1.1.4 Study methodology: analytical exploratory study methodology based on the fact bug criminal accounting.

1.1.5 Hypotheses for study.

(H: 1) We assume that there is no significant correlation between the increase in the rate of financial crimes and the development of technology.

(H: 2) We assume that there is no significant relationship between the criminal accounting infrastructure and the increase in financial crimes.

(H: 3) We assume that there is no statistically significant relationship between the skills of a criminal accountant and the reduction of financial crimes.

2. THE CONCEPT OF FORENSIC ACCOUNTING AND AREAS OF APPLICATION

2.1. The Concept of Forensic Accounting

Forensic accounting, "with the use of investigative techniques, accounting and trade skills ideas for integration, testimony in court and for use by expert witnesses, and developing thoughts, solving complex financial riddles, corruption investigation, harm it is an intuitive approach used in decision-making, determining the company value and resolving other financial discussions" (Akyel, 2011:68).

It is a professional field that aims to reach the real or closest to the real results by reinterpreting the financial events that have been submitted to the court by expert persons or institutions in accordance with generally accepted accounting standards in terms of law and accounting.

Forensic accounting for the Decision of legal problems between individuals and institutions, as a result of the intertwining of legal and accounting information, he enters scientific fields such as economics and psychology and reveals real information using research, evidence collection and audit techniques. Forensic accounting is the solution of unsolved problems by collecting existing evidence with financial ability and research (Kasap, 2013:121).

It is a branch of science that targets the truth by using research, interrogation, evidence collection and analysis techniques by using sciences such as accounting, law, psychology, criminal science at the stage of transferring to the court or legal disputes that have been transferred to the court.

It would be wrong to seek the solution of judicial events only with the knowledge of law. Financial disputes should be resolved by expert persons. Every financial document it cannot be said that it reflects the truth. Forensic accounting, revealing the true face of financial events it requires careful and methodological work using research techniques Forensic accounting, in the events that occur as a result of the commercial activity of the law and accounting expresses the intersection at the solution point. Forensic accounting covers a comprehensive level of knowledge about the functioning of the economy, law and trade areas to help judicial bodies make decisions, as well as an understanding of the specialized use of this information .

Of the economic losses caused by accounting fraud occurring in enterprises the fact that it reaches high amounts, financial and economic disputes, the increase in cheats aimed at deceiving users of financial statements have expanded the scope of accounting science and revealed the profession of 'Forensic Accounting'. One of the reasons for the emergence of forensic accounting also, the increase in the number and types of cheating occurring in businesses is that businesses want to expose and prevent cheating.

The development of accounting science leads to the emergence of new professions related to accounting science. The accounting profession, which is involved in countering the laundering of proceeds from crime, takes an important part in combating these crimes with forensic accounting *The definitions related to forensic accounting in the literature are as follows;*

Research of the concepts and techniques of forensic accounting via auditing, accounting and law it is a service in which financial and social disputes are resolved, within the scope of which it is used In forensic accounting practices, investigative techniques are used to uncover fraudulent actions With the help of these techniques, it is aimed to collect evidence against individuals or institutions that commit financial crimes To the issues related to forensic accounting; generally accepted accounting practices it is prepared by accounting principles, monitoring that it has not been prepared, financial analysis, valuation of business assets (especially in transfer, merger, and division transactions), budget and many examples can be given such as cash management, manipulations that may occur in the stock market, insurance As can be understood from the definitions, at the intersection of accounting and legal sciences located in forensic accounting, document fraud, financial statement fraud, credit card fraud, tax fraud, embezzlement, corruption, bankruptcy, merger, division, and transfer procedures in case of disagreement on issues such as the determination of the valuation of the business such as profits and real it can be used in the subject. Disputes and cases that have been submitted to the judiciary in when this is taken into consideration, the necessity of forensic accounting in our country and its implementation by making the necessary legal regulations are of great importance.

2.2. Reasons that Require the Profession of Forensic Accounting.

For enterprises, the state, and the courts to keep up with the development of sciences as a result of their need for specialized people or organizations to be able to reveal financial cheats the forensic accounting profession was needed. Forensic accounting, it is not revealed why the cheats were performed, but how the cheats were performed. Forensic accountant, in October, in addition to accounting knowledge by adding research techniques to the solution of problems and disputes and the truth it helps to reveal.

With the development of information technologies, the difficulty of controlling enterprises with high transaction volumes, the increasing fraudulent actions of business top managers, and scandals in large international enterprises prove the need for forensic accounting. On financial issues along with the disputes that have been submitted to the court, it is obvious that lawyers and courts make great use of forensic accountants in the relationship between law and tax.

Due to the development of technology, the increase in the data of enterprises due to fraud and corruption it played an important role in its increase. The increase in financial crimes committed using various technologies that have emerged in the business world and society in recent years has led to the emergence of the forensic accounting profession.

the increase in cyber crimes and security requirements for these crimes that the court has the necessary expertise and skills required for the conduct of Investigation The development of communication and communication network has facilitated the follow-up of illegal actions but has also made it difficult to detect these actions It has become mandatory for the authorities fighting these crimes to have more technical information One of the biggest reasons for the necessity of forensic accounting is that businesses are helpless against increasing fraud and, as a result, the services they expect from accountants it is changed their quality. The detection of fraud in enterprises is considered to be the duty of accounting and auditors are expected to provide services in this direction. But the auditors only check the compliance of accounting records of enterprises with generally accepted accounting standards. Therefore, detection and the detection of cheats in enterprises was understood that they could not help with their issues and there was a need for a forensic accounting profession The financial crimes that occurred, together with lawyers and law enforcement during an investigation or a lawsuit if they're not getting an education in a field related to accounting, internal control, credit management, organization, planning, budgeting, recordkeeping, capital and need help topics for tax records.

One of the reasons for the need for forensic accounting is the phenomenon of professional specialization. Professional specialization is seen as a necessary condition in all fields. People are expected to know all the details in the field they are knowledgeable about. Lawyers and judges are specialists in legal science. However, these people cannot be expected to be specialists in the fields of accounting and finance. Therefore, in specialized accounting, and finance, commercial there is a need for forensic accountants who are experts in these issues in solving cases submitted to the courts on issues such as relationships. This situation reveals the necessity of forensic accounting.

Another reason for the need for forensic accounting is that, with globalization, enterprises with the increase of international investments and these investments, increasing fraud, corruption and they are disagreements. In general, the following reasons have been effective in the formation of the field of forensic accounting (Bosket, 2000: 56-57).

- As a result of the complexity of commercial transactions, individuals and institutions are increasingly they have started applying to the courts.
- In society, relations between individuals and institutions and the state have begun to cause problems.
- Corruption committed by employees in enterprises is increasing, and it is becoming more difficult to uncover and prevent corruption.
- There are increasing numbers and large amounts of business failures Lawyers and courts need expert support in the cases they encounter.

3. Forensic accountant infrastructure.

A forensic accountant who does not accept the apparent value of the records and looks at the back of the records, doubts about the documents , the true intention of the people behind the apparent purposes Investigation , preparation of a report as an expert witness , especially the possibility of a person lying He is defined as a person who realizes what he is , reveals the truth to the smallest detail by conducting very detailed interviews with individual competent and knowledgeable professionals who provide support for the

purpose of detecting crimes through case support consultations, expert testimony and fraud audit summarizes the information obtained, interprets and uses it in an appropriate way They are the ones who can offer.

An expert has to come to real conclusions and start with these conclusions Analysis, examination, investigation and supervision in an orderly manner in order to reach his opinion They are experts and certified professional members who carry out investigative operations the events faced by a forensic accountant are different from the point of view of a classical accountant. He needs to somehow approach him , detect fraud, fraud, manipulation of financial statements, money laundering or in the courts In cases where an expert testifies, in addition to being an accountant, he must approach events with skepticism and inquiry at the stages of Investigation, analysis, Control and examination of evidence.

The powers acquired by him are applied to the principles of accuracy, honesty and impartiality.

Forensic accountant must use it appropriately. A forensic accountant should be curious, persistent, creative, cautious, skeptical, organized, being independent and honest are the most important characteristics. Reliability, His professional knowledge and moral values are important. As a distinctive feature, he must be able to think correctly and speak correctly.

To become a good forensic accountant, it is necessary to have analytical abilities, written and oral communication ability, creative intelligence and business acumen. He must be able to interview people who do not agree to cooperate and get the necessary information from them

Forensic accountant must be able to have a sufficient level of feeling of doubt. Due to the financial reporting scandals that have occurred in recent years, the ability to conduct a thorough analysis is also a necessary and important skill for forensic accountants in terms of the ability to detect possible frauds.

Another advantage of a forensic accountant is that he is inquisitive and investigation should be fully aware that procedures can be violated and inspections can be hacked with tricks. Therefore, if a forensic accountant makes a mistake, he should examine the cases with a level of investigative curiosity that can reveal all the signs of fraud on the use of their accounting knowledge and personal abilities in several different ways. Specialists who will work in the field of Forensic Accounting, attention to detail and Approach carefully and get a questioning way of thinking.

3.2 The impact of forensic accounting on the independent audit process

Although the concepts of forensic accounting and independent audit are similar, the concepts of both are different from each other. Independent audit is one of the concepts that make up forensic accounting, of them. Forensic accounting is the practice of using independent audit techniques to uncover and prevent fraud and ensure justice. An independent audit is based on an opinion on whether the financial statements reflect the truth, regardless of whether fraud exists or not. Forensic accounting, on the other hand, deals with financial statements and accounts. he won't suck.2009

If there are fraudulent transactions or corruption in their records, it can help that they can be prosecuted by supporting them with evidence. In this context, forensic accounting is a research activity on top of an independent audit. Forensic accounting uses independent audit methods and analyses to provide evidence of fraudulent transactions to the courts.

Forensic accounting has a significant impact on an independent audit. As a result of the independent audit work, a conclusion is reached as to whether there is a fraudulent transaction, fraud, or corruption.

Forensic accounting services contribute to justice by identifying those who committed these financial crimes after an opinion has been issued and exposing the wrongdoings of these people The following are being carried out

Forensic accounting is an important service as well as an independent audit, even though there is no legal regulation and application area in Turkey. The implementation of forensic accounting in our country and the establishment of legal regulation will solve many judicial problems and ensure justice It will speed up your search for a place to stay.

Under the current system, to give a sight at the end of the independent auditor's audit revealed the existence of fraud after the contact moves to the state judiciary, clarification requests, and fraud, and to solve the issue in court, the expert system uses the system to perform the following expertise is the purpose of the shortcomings and limitations of the application of the system in the judicial system to resolve disputes that can be analyzed in the following manner. In this context, the expertise of the system to take the place of the judicial system, which is more skeptical forensic accounting and investigative services are needed activity in recent years, corporate scandals, fraud, and corruption due to the high occurrence of misstatements in the financial statements of the detection and

Prevention has become increasingly important. It has become necessary not only to present the auditor's opinion but also to verify and reveal the truth behind the representations of the financial statements. With the development of technology and globalization, fraud and corruption harm and discredit not only companies but also the business world and the economies of countries. The increase in fraud and corruption and the lack of independent audits despite many regulatory agencies' need for forensic accounting services. Increased competition and the development of information technologies have increased the scale of business transactions and the size of financial transactions and records that are complex and difficult to control. Some of them took advantage of this situation to intensify their financial crime tendencies and commit fraud using various new methods, and they began to trust these institutions. The companies did not cope well with this situation.

In recent years, in addition to international scandals such as Enron and WorldCom, there have also been major scandals in the Turkish banking sector. As a result of the negligence of audit firms in these major scandals, a new audit service, forensic accounting, has emerged to detect and prevent fraud. In an independent audit, the auditor provides an opinion on the financial statements by generally accepted audit standards and using audit techniques. Forensic accounting services are provided by forensic accountants with expertise in the fields of law, psychology, criminology, and textual science.

Heknowse in many fields of accounting, auditing, and finance and can analyze any accounting transaction. He has researched this topic in detail. Accountants and forensic accounting services are just one area. The calculation of losses due to fraud and corruption is based on forensic accounting, and forensic science and covers a wide range of activities, including embezzlement and money laundering.

Forensic accounting is responsible for resolving cases brought to court as a result of insurance fraud, various financial crimes, and commercial disputes via The purpose of forensic accounting is to identify alleged or existing wrongs and the people who committed them. The purpose of forensic accounting is to determine the extent of the damage caused by fraud and to present the evidence obtained to the company and the courts. Forensic accounting also creates an environment that facilitates fraud prevention and detection activities in companies (Singleton et al., 2006:15).

3.3 The Differences between a Forensic Accountant and an Auditor Decisively.

Accountants are engaged in the activities of keeping accounting records of enterprises, ensuring compliance of records with laws and standards, and fulfilling notifications and statements of the enterprise. The responsibilities of accountants are directly related to the financial statements or

it is to report whether it is indirectly affected by illegal transactions. Auditors, on the other hand, come up with an opinion by generally accepted accounting standards. puts. The objectives of the financial statements are to comply with generally accepted accounting standards it is to offer reassurance about whether he is prepared or not. The responsibilities of the auditors are to detect transactions that are contrary to the legislation, to notify the business management and institutions such as CMB, BRSA, and POA, and to explain the opinion about the financial statements in the report. A forensic accountant has a more skeptical approach than auditors. The independent auditor is the financial is responsible for assuring the accuracy of the information by determining the audit risk of the financial statements, and whether the statements contain errors and fraud.

The auditor shall ensure that the information on the activities of the enterprises, complies with the previously determined criteria it is the person who collects and evaluates evidence related to these activities to determine and report its degree and reports the financial statement to interested parties. The independent auditor is expected to provide a reasonable assurance that there are no errors or fraud in the financial statements. The assurance given by the independent auditor that there are no errors and fraud, in the financial statements does not mean that everything is true. Independent audit activity percent of information is carried out in the form of selecting and checking information by sampling way rather than face control.

The auditor is engaged in a study aimed at assuring interested parties about the audit results by collecting sufficient evidence regarding the activities of the enterprise. For this reason, an independent auditor cannot be expected to conduct a one-on-one fraud audit.

We can Decipher the differences between a forensic accountant and an auditor as follows

In the audit work, the auditor tries to find errors and incompatibilities, forensic the accountant applies all known cheating methods to suspect situations he investigates from the side.

- Auditor; Compliance with the regulations stipulated by institutions such as CMB, SEC, BRSA.
- when investigating, the forensic accountant conducts a forensic investigation, fraud supervision, and criminal elements found he is interested in the solution of events.
- The Auditor expresses his opinion on the honesty of management in the presentation of the financial statements when presenting, the forensic accountant considers fraudulent transactions in general or the occurrence of financial crimes, deals with identifying the responsible parties, and identifies the damage.
- The responsibility of auditors is to find deficiencies and errors in the financial statements to apply audit techniques and to form an opinion on the financial statements. Forensic accountants, on the other hand, detail information or claims based on facts, by asking questions such as who, what, where, why, and how about suspects or known they collect evidence and carry out certification.
- In terms of the language used in reporting, forensic accountants are more than auditors they use qualified, clear, and stable language.
- Forensic accountants, unlike auditors, work in a criminal atmosphere and they also provide services at the pre-trial or court stage.
- Forensic accountants, unlike auditors, conduct more detailed research, all they investigate and study in detail are the relevant documents, documents, and events.
- Forensic accountants, unlike auditors, understand that internal control systems and processes he is more competent in how they can be misused or misused.

These competencies are based on types of cheating, methods of preventing internal control activities, and system it is aimed at disrupting plans.

The examinations of forensic accountants are carried out in a process of mental inferences and continuous evaluation When the independent auditor writes a report on the financial statements, the generally accepted audit uses his standards. A forensic accountant, on the other hand, performs legal and investigative activities such as writing analysis, and investigation. he uses much broader techniques than the fields of criminology ,they independent auditor discussed the scope of the audit with the previous auditors of the company he can determine. In this way, the forensic accountant does not have a resource like the previous forensic accountant via While the independent auditor uses the records, documents, and customer current accounts of the business, the forensic accountant uses a lot of information such as e-mail records, photos, and camera recordings of the business it uses wider resources.

3. The essence of forensic accounting as elements of the system forensic registration. Classification of forensic records

The system of forensic registration consists of separate, but interrelated records, each of which includes a group of homogeneous objects. Consequently, "accounting is a subsystem of forensic registration accumulating information about homogeneous objects Yalyshev defines forensic accounting as a "subsystem forensic registration, combined by general, private and specific goals and objectives, as well as a single accounting procedure, methods and forms of their concentration, systematization and processing of information of the same type in nature about registration objects, conducted for information forensic support of the process of disclosure, investigation and prevention of crimes The task of forensic records, as well as the whole system forensic registration, - emphasizes F.G. Aminev, - is the most effective use for investigation and disclosure crimes of information contained in the objects of accounting (traces of hands seized from the scene of incidents; in the files of subjective portraits, in collections of microfibrils, etc.). The number of types of accounting directly depends on the number of objects taken into account. With the appearance of a new object of registration , a new independent type of accounting inevitably arises. Despite the fact that each forensic accounting differs from another by the data taken into account, as well as by the methods and forms of accounting, they are all united by the unity of goals.

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The use of a combined method can be the calculation of committed crimes, information about which is recorded on information retrieval maps In an automated crime center databank accordingly, the forms of such accounting are deposit and machine.

The processing and issuance of registration of information of criminal significance is carried out by manual and automated methods. Manual this method is rarely used today. Introduction the role of electronic computing technology in the activities of law enforcement agencies and the further improvement of information support for the detection and investigation of crimes based on new information technologies will make it possible to abandon the manual method of processing and issuing information, and fully automate this process.

4. International Law on the Prevention of Laundering Crime Efforts.

The globalization method is gaining momentum and the capital stream in the world, wherein has expanded to equal volume, in the fight in opposition to prepared crime and terrorism cooperation within the global arena is inevitable. Countries at the worldwide level multilateral battle against the ongoing chance of laundering crime determining the standards and realizing that cooperation is a vital position it plays. Responsibility inside the fight towards Decriminalization of crime in the global arena many establishments put in force policies on the subject and this regard available. A number of these are; monetary movement project force, Europe global financial institution, IMF, Interpol, a worldwide Capital company of marketplace boards, United nations, worldwide 26 Afyon Kocatepe college, I.I.B.F. Journal (C.X I, S I, 2009) consisting of the Drug manage the program and the Secretariat of the network of countries agencies are21 The combat in opposition to laundering the proceeds of crime is likewise each countrywide and the most essential who is accountable for developing international guidelines the intergovernmental organization monetary motion mission force (economic movement venture force-FATF) This corporation is A.B.D, Japan, Germany, France, with the aid of seven evolved nations consisting of the UK, Italy, and Canada founded in 198923 The motive of this corporation is to Decode countrywide and global strategies on the way to fight laundering crime within the subject to broaden and put in force. Mainly for coverage makers' consciousness of countrywide criminal regulations with its activities and the implementation of the important legal reforms in the fight in opposition to the crime of laundering, he is trying to offer The corporation offers the unlawful drug trade coping with associated financial troubles and laundering the proceeds of crime member countries with the standardization of law geared toward preventing Deconstructing the non-stop exchange of records among he does The financial motion assignment force published in 1990Recommendation choice forty binding on the member states, new laundering on the improvement of techniques and strategies, in 1996 and 2003 it's been revised. Published by way of the organization in 2001, eight unique Criminalization of the financing of terrorism by way of recommendation it is foreseen. The corporation was based on October 22, 2004, as "via couriers with cash transfer", which regulates subject 9. The choice of special advice has been published. 40 Revised advice selections and 9 precise pointers The choice of the international locations each with the

crime of laundering and the financing of terrorism contains the measures they ought to take concerning the battle by way of no longer complying with the 40 advice choices published with the aid of the corporation, proceeds of crime and measures to be carried out inside the scope of the combat in opposition to terrorism showing weakness in its discipline and cooperating within the international.

5. virtual analysis techniques

Through deploying virtual analysis techniques, expert judgment, and investigative competencies, forensic accountants can work smarter and more efficaciously at some point of their investigations.

This technological develop has transformed the guide paper path exam into a powerful, multi-faceted research, and in a fraction of the time. *A few strategies available to the forensic accountant encompass:*

5.1 Benford's law

One of the maximum famous virtual evaluation processes is an investigative method known as Benford's regulation. It is primarily based on a mathematical regulation that there are expected frequencies or occurrences of digits in a list or statistics set that became randomly generated, which includes in a widespread ledger. This approach, which was first diagnosed in the past due Eighteen Eighties by an astronomer and mathematician named Simon Newcomb, become advanced by Frank Benford within the Twenties while he become a physicist for the overall electric powered organization.

Benford's regulation presents a completely unique method to information evaluation, permitting the forensic accountant to discover non-conforming, bizarre wide variety patterns as it applies to a agency's accounting statistics. Our quantity system uses the digits 0 thru 9 and Benford's regulation become capable of empirically display that in a large records set, the chances for the distribution of digit occurrences could follow an anticipated digital frequency.

Therefore, Benford concluded that numbers beginning with 1 will occur greater regularly than numbers beginning with 2, and numbers starting with 2 will occur extra regularly than numbers starting with 3, and so forth. Applying Benford's regulation, the predicted share of numbers in a big records set with the first digit being 1 is 30.1 percent, even as the anticipated share of numbers within the facts set with the primary digit being 2 is 17.6 percentage, and as the numbers get higher in fee, the proportion in their use will become greater rare.

The idea for Benford's application changed into that human moves are not random, in that individuals will invent numbers that they're aware of or may want to effortlessly create and tend to copy them. Clearly going on, non-manipulated numbers, together with numbers that could occur inside the ordinary course of commercial enterprise, will be inclined to comply with Benford's law.

There are many sensible applications of Benford's law that forensic accountants have available to effectively evaluate large quantities of facts whilst evaluating the accounting records of a goal organisation to the anticipated digit frequency of Benford's law. As an example, when making use of those digital analysis strategies, invented numbers in a corporation's accounting information, which include payments for non-existent items or services, are not likely to follow the series of Benford's regulation.

5.2 Hyperlink evaluation

Link evaluation establishes associations between humans and facts by means of identifying commonplace traits that won't otherwise be obvious from an exam of remoted statistics. Using laptop software, this approach can be a powerful resource to investigate huge quantities of economic statistics, uncovering patterns or commonalities that link people and entities by way of demonstrating relationships that seemed superficially unrelated. Further, through using digital evaluation software program, databases may be joined (related) to create a brand new grasp database; then a look for matching traits, which include cellphone numbers or addresses, can be carried out in an effort to identify commonalities inside the statistics set.

5.3 Hole analysis

Hole analysis involves figuring out gadgets unaccounted for in a sequentially numbered or dated set of documents or transactions. When an accounting system has quality inner controls, all numbered documents ought to appear sequentially, although they were not utilized, together with voided exams or invoices. Utilising virtual analysis software, the forensic accountant can identify gaps in the facts, such as sure lacking bill or check numbers in a agency's accounting machine, after which increase a method to look

into and check out the findings. Hole evaluation also can be executed on a number of dates, for instance, to hit upon when a commonly ordinary transaction is absent.

5.4 Duplicate Numbers test

The duplicate numbers test is used to perceive uncharacteristic recurrences of specific numbers, as an instance, take a look at numbers, invoice numbers, and dollar quantities. Using digital analysis software, the forensic accountant can discover numbers that appear like unusual because of their frequency. As an instance, dollar quantities dispensed may be evaluated by means of reviewing the findings in a percentage chart, noting the proportion of overall statistics and the percentage of overall disbursements for each transaction category. When an observation of a particular class yields duplicate numbers, this could seem suspicious, and applicable conclusions can be drawn via in addition investigation.

5.5 Rounded Numbers check

The rounded numbers take a look at is conducted on the equal foundation as the replica numbers test, although the purpose of this evaluation is to decide the ordinary frequency of rounded numbers. In fashionable, rounded numbers can be a likely sign of an expected amount, considering individuals tend to estimate when they create fabricated numbers. As a consequence, the forensic accountant ought to investigate each incident of deviant occurrences of rounded numbers to determine the validity and purpose of the transaction.

So The forensic accounting professional has been converted from the early-degree necessary accountant to a multi-specialised professional, applying detective- like qualities to financial sports. Although the forensic accountants' understanding has its foundational base within the abilities possessed by a CPA, a success investigations require not most effective solid accounting talent, however also bloodhound- like tracking and meticulous analytical skills.

For that reason, forensic accountants should be right with numbers, however also have to possess a wide sort of skills to appearance past the numbers a good way to discover the connections, or the actual rationale of the transactions that are not obvious or predicted. Integrating the numerous strategies stated in this article, which includes studies via open-source intelligence, a extra understanding of verbal exchange and interpersonal competencies, and having sufficient understanding of digital evaluation generation, is all a part of what makes a forensic accountant so special.

6. Areas of Activity of via infrastructure Forensic Accounting .

Forensic Accounting covers a wide field of investigation, which includes many industrial areas, as it was partially tried to convey above. Accounting knowledge through this profession and his skill began to be used in solving issues that were transferred to the judiciary. A forensic accountant who performs in-depth and useful analyses sheds light on current issues and to reveal and find the place of justice assists. Areas of activity of forensic accounting; administrative support, litigation support (legal support), expert testimony (expert testimony) to examine it under three main headings mainly in the form of it is possible.

6.1 Administrative Support

A forensic accountant assists management in possible or existing fraud crime investigations they can be. For example, in business management, if one of your employees is corrupt help from a forensic accountant when you suspect receive Forensic accountants are also each regarding the records of all kinds of transactions, relationships, and institutions they can help the company management in the problems that arise due to possible internal and external errors. The company's management has been notified by government agencies on the grounds of violation of legal regulations regarding penalties against the company, or negligence filed by shareholders against the company, gross negligence, can benefit from forensic accountants whether there are possible administrative errors in cases of mismanagement or fraud against others In various countries research conducted shows that businesses lose 6% of their annual income through tricks performed using different ways and methods.⁴⁴ As fraud auditors, forensic accountants can determine by whom and in what ways fraud is committed in the enterprise Business hill management, on the other hand, to be able to get more loans, raise stock prices on the stock market, share to increase profit, strengthen the image of the enterprise in the eyes of public opinion, pay little tax, he can perform accounting tricks to make the financial statements of the enterprise look different from

what they are for very different reasons, such as distributing little profit.⁴⁶ Forensic accountants can take an active part in the detection of all these cheats. Forensic accountants, to be able to reveal the above-mentioned fraud related to financial statements, financial notification, rate analysis, and falsified data used in order to determine the possibility. They analyze it using certain data examination techniques, such as Benford's Law. Dr. Franc Benford discovered in 1930 that the first digits in the natural numbers he determined that its distribution was not random. Instead, again, each other formulated by him the following has revealed a predictable pattern. According to this model, for example, the first in a number.

while the probability of the figure being one is about 30%, the first the probability that the figure is nine is only 4.6%. Benford's Law, with today's computers together with financial, tax and economic data it can be used to reveal deviations. By comparing the frequency of appearance of the first digits in a list of numbers, the fraudulent numbers and it is possible to reveal mistakes in the office of treasurer or accountant.⁴⁸ This law is based on the comparison of the frequencies of the appearance of numbers, that is, their frequencies, with the frequencies of the first numbers that appeared in a real accounting universe. If the frequencies change in a way that does not comply with Benford's Law, this means that it shows the existence of a deliberate act by the creator, that is, an accounting trick.⁴⁹ Numerical analyses performed using Benford's Law reveal the extractor is a useful tool in determining the possibility of cheating due to its characteristics

6.2 Litigation Support (Legal Support)

Litigation support, before a judicial case or a lawsuit is the accounting support provided to the relevant lawyer during. It's more about economic loss. For example, as a result of a breach of contract calculating the resulting financial loss is a typical litigation support. The issues that forensic accountants can help lawyers in this respect are the presentation of the necessary data and the data collected it is collected at two basic points such as analyzing the necessary data in the process of revealing the relevant, sufficient and accurate data that lawyers will need in a legal transaction as part of the identification and presentation activity. In the analysis process, the purpose of evaluating the financial data to be submitted to the court and helping lawyers interpret these findings is included. General the case that a forensic accountant will provide as the support covers the following issues:

Refuting or supporting a claim to provide the necessary documents for Reviewing documents to identify missing points and make a preliminary assessment of the situation Damage (compensation) of the expert on the other side to study the requisition report and to review the reports on the missing or good aspects of the current situation, To assist in interviews and discussions aimed at bringing the case to a conclusion waiver To attend the hearing to listen to the witness of the other side and "to have the witness of one side questioned by the lawyer of the other side" to help with the process.

A forensic accountant is a civil law or criminal in the trial of the law; the plaintiff, the defense and even the judge have very little accounting aspect of the issue he can work for the court in cases that he understands or cannot understand at all. When working with the plaintiff, the forensic accountant their efforts are normally accounting operations or it is aimed at proving fraud related to their records. Of forensic accountants, in corruption cases, in business appraisals,

damage and loss estimates, insurance disputes, problems arising from agreements, problems arising from patents, rights and trademarks, in separation or merger cases related to businesses, bankruptcy cases, financial related to divorce in disputes and problems between enterprises. Decisively litigation support can be provided. Forensic accountants can even be asked to help in murder cases. The forensic accountant tries to hide the fraudulent activity with an intensive effort or in order to determine whether there is an attempt to change the accounting records by examining it, sometimes it can also reveal the motive for a murder. Forensic accounting services have equal value and impact on behalf of the defense may be used. In these cases, mostly for the forensic accountant, the objective is to describe the scenario presented or predicted to be presented by the plaintiff side. to refute, or to neutralize. Defense the forensic accountant is "rational" in the eyes of the court to the plaintiff's thesis in order to create a "doubt" he can be assigned to develop a contrasting thesis.

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6.3 Expert Testimony (Expert Testimony)

An expert witness from time to time from a forensic accountant to provide testimony, consultancy or arbitration demand it. A lawyer may involve a forensic accountant in a hearing in order to obtain an expert opinion. Such a specialist the opinion is usually based on the expertise of the forensic accountant it is about their fields. The goal, the arguments are clarify the facts and events that need to be interpreted reliably by supporting them with the testimony of an expert witness. It is not uncommon for the plaintiff and the defendant to both have experts on their side.

Which side's facts and events are more in their statements it is noted that it presents effectively An expert will provide case attorneys with facts, issues and in order to assist in determining the strategy related to the litigation process as a consultant can be included. The expert was not included for the purpose of testifying at the hearing or expressing an expert opinion. Both the plaintiff and the defendant may be injured by the expert within the scope of the specified purposes. In some complex accounting cases the court is also presented by opposing parties can benefit from consultants for the purpose of clarifying the information An expert from may be asked to make final decisions in the discussion The appointment of the expert may be by the court or by agreement of the opposing parties.

Forensic accountants are involved in the enactment of the law, its follow-up and even, in some cases, in civil or criminal errors and white collar crimes it can help the courts in a targeted manner. Forensic accountants can carry out investigations in a specific case, provide litigation support as a forensic accountant and after that, the findings he obtained as an expert they can testify based on it. Audit any of the evaluation or forensic accounting they can provide litigation support as a forensic accountant when audit and evaluation works related to one aspect are performed by others After that, the work done as an expert and a certain they may testify about the appropriateness or inappropriateness of the results reached in the incident Forensic in any investigation.

6.4 Forensic Accounting technology

Forensic accounting generation like OCR (Optical individual recognition) enables forensic accountants to search around documents for keywords and kind documents via date levels (Chris,2020). He states that AI (synthetic Intelligence) technology might also examine statistics quicker than humans, in general, might ever do. It makes the work of the rhetorical bourgeois a variety of within your budget, charges powerful, and lets the forensic bourgeois go searching out relevant files even quicker. Cloud adoption has additionally facilitated the forensic bourgeois performs their work easier and more economically. It lets files be shared remotely to shop for lots of time amongst colleagues and purchasers (Chris, 2020). Cloud adoption can be a version for facultative convenient, on-call network get entry to share a pool of configurable computing sources that can be quickly provisioned and unfastened with the smallest control effort or provider interaction (Mell & Grance, 2009). Cloud adoption is perceived as a growing technology and a new paradigm for accomplishing business activities (Lyer & Henderson, 2010). The carrier version in cloud adoption is classified as supported by the user's wishes, particularly (1) Infrastructure as a provider (IaaS), anywhere users have control over the operation structures, storage, community, and applications most of the organization

(2) Platform as a carrier (Paas), anywhere users have control over programs but not over the Infrastructure (three) And pc code as a service (SaaS), anywhere users completely get the right of entry to services from the provider dealer and no control over the applications or infrastructure. The kind of cloud readying is divided into both public cloud (nonexclusive) and private cloud (distinct) (Mell&Grance, 2009). The packages cover an amazing variety of areas complete records processing, social media, mission control, e-mail, net development, statistics garage, accounting, file hosting, and aware taking (Shimba, 2010)

7. Principles of Forensic Accounting

7.1 Independence

Forensic accountants should be independent of the field of activity in which they conduct investigations. Investigation whether it was initiated from the inside or by external referrals through legal means, if the person is from the inside of the enterprise, the forensic accountant should be able to work independently enough from the course of the investigation against the management of the enterprise rather than being responsible, a different notification to fulfill this responsibility through the channel the possibility must be given. If the forensic accountant is independent or hired by an organization, the notification responsibility is through a notification channel different from the one intended for the board of directors person who is at a higher hierarchical level than every person who is considered likely to be defective should be aimed at the "top manager". If it is independent and commissioned by law enforcement, judicial authorities or other external authorities, it should be defined to whom the notification responsibility belongs when making the assignment. A forensic accountant should be objective when conducting a forensic accounting investigation.

7.2 Professional Competence

Forensic accounting investigations should be carried out with skill and professional care. All judicial accounting personnel within the investigation team he must have technical competence, education and experience related to his task. Forensic accountant to fulfill investigative responsibilities must have the necessary knowledge, skills and teaching

by using people who have the dir or other necessary skills in the investigation team, or

he should gain these abilities by including them in the work. When more than one forensic accountant participates in a specific task, one of them is responsible for managing the task and

he should be appointed as the "responsible person" to ensure that all aspects of the investigation are completed and documented fully and correctly Execution with forensic accountants, lawyers and they must comply with the highest standards of professional conduct expected of regulatory authorities, accountants and auditors. Forensic accountant in their daily activities within the scope of their general work will face or ongoing forensic accounting that he will need in an interview or interrogation with persons related to certain events related to his investigation must have the ability to communicate. The forensic accountant must be perfectly skilled in reporting the findings of the investigation.

The ability to communicate verbally, to those who participate in the service or as an expert witness, it is necessary when testifying about the findings of the investigation or the conclusions reached on the basis of these findings. The ability to communicate in writing, for those who participate in its services, or for law enforcement or judicial authorities it is necessary for special reporting summarizing the results. Forensic accountants are a continuous continuously improve their technical competencies with vocational education they should increase. Forensic accountants are required when conducting forensic accounting investigations they should show professional care

7.2 Scope of Work

The scope of the forensic accounting investigation should include the examination and evaluation of the transactions in question, computer or other records, reports for a specific date or period. Such an investigation, the ongoing risks of evaluation of the level in order to determine whether it is properly defined and taken care of for all administrative issues related to the effective management of risks for disciplines (such as budgeting and strategic planning), policies, practices, procedures and the existing board internal audit systems, all applicable laws and regulations, as well as each types of specific activities, functions, operations and such a it will cover other specific aspects of the work under investigation related to the goals and objectives of the investigation. The study of an individual or individuals the scope of the forensic accounting investigation, where it will be carried out for the group, should include the examination of the records of these persons and the transactions related to the goals and objectives of the investigation.⁸¹ accountant, Forensic Accounting, Management, Computer Systems, finance, operations, risk management (insurance) and security information and report on this information, definition, measurement, analysis and evaluation should review the credibility and integrity of the testimony. Forensic accountants, on operations

to ensure policies, plans, procedures, laws and regulations that have a significant impact they should examine the systems established for. They should report their findings on compliance or disobedience. The forensic accountant should review the methods related to the preservation of assets and if possible, he should confirm the physical presence of these assets. How these assets are protected with a risk management program, rational predictions it should be reviewed and evaluated in order to determine whether the risks have determined by taking into account. The forensic accountant should evaluate which assets been used or are being used in order to determine whether rational forecasts have been implemented adequately, effectively and economically by the administration. Forensic the accountant must ensure that the results are based on the goals and objectives determined (such as budgeting and strategic planning) to determine whether the operations and programs are compatible and whether the operations and programs are being carried out as planned he should examine it.

8. Financial criminals.

Financial criminals use various techniques and technologies to perpetrate financial crimes such as fraud, embezzlement, and money laundering. Some of the common techniques and technologies used by financial criminals are:

Social engineering: Social engineering is a technique used by financial criminals to manipulate individuals into divulging confidential information or performing an action that benefits the criminal. This technique involves using psychology to trick individuals into disclosing sensitive information such as passwords, login credentials, or personal details.

Insider trading: Insider trading involves using confidential information to gain an unfair advantage in financial markets. Insider trading can be difficult to detect, as it often involves individuals who have privileged access to confidential information.

Ponzi schemes: Ponzi schemes involve using new investors' funds to pay returns to earlier investors, giving the impression of a profitable investment. Ponzi schemes can be difficult to detect, as they often involve complex financial transactions and false documentation.

Cyberattacks: Cyberattacks involve using technology to gain unauthorized access to computer systems or networks, often with the aim of stealing sensitive information or disrupting operations. Financial institutions are often targeted by cybercriminals due to the large amounts of money they handle.

Money laundering: Money laundering is the process of making illegally obtained funds appear to have been obtained through legal means. Money laundering can involve complex financial transactions across multiple jurisdictions, making it difficult to trace.

Phishing: Phishing is a type of social engineering that involves sending fraudulent emails or messages to individuals, often impersonating a trusted source, to obtain sensitive information such as login credentials or credit card details.

Malware: Malware is malicious software that is designed to harm or gain unauthorized access to computer systems or networks. Financial criminals use malware to gain access to financial systems or steal sensitive information.

Identity theft: Identity theft involves stealing an individual's personal information, such as social security numbers, credit card details, or passwords, to commit financial fraud.

Money mules: Money mules are individuals who are recruited by financial criminals to launder money. These individuals are typically paid a commission to transfer money between accounts or to withdraw cash from an account and transfer it to the criminal.

Cryptocurrencies: Cryptocurrencies are increasingly being used by financial criminals to facilitate money laundering and other financial crimes. Cryptocurrencies provide anonymity and can be used to transfer funds across borders without the need for a financial institution.

8.2 Technology used to assist forensic accounting in detecting financial crimes

Technology plays a critical role in assisting forensic accountants in detecting financial crimes. Some of the technologies used to assist forensic accounting in detecting financial crimes include:

Data analytics: Data analytics involves using software tools to analyze large amounts of financial data to identify patterns and anomalies that may indicate fraudulent activities. Forensic accountants use data analytics to identify irregular transactions, suspicious activities, and other indicators of fraud.

Artificial intelligence and machine learning: Artificial intelligence (AI) and machine learning (ML) algorithms can be used to analyze large amounts of data and detect patterns that are difficult for humans to identify. AI and ML can be used to identify unusual transactions, patterns of behavior, and other indicators of fraud.

Blockchain technology: Blockchain technology can be used to create a transparent and immutable record of financial transactions, making it difficult to manipulate or alter financial records. Forensic accountants can use blockchain technology to trace financial transactions and identify irregularities.

Digital forensics: Digital forensics involves analyzing electronic devices and data storage devices to gather evidence of financial crimes. Forensic accountants use digital forensics to recover deleted or altered data, trace financial transactions, and identify evidence of financial crimes.

Fraud detection software: Fraud detection software uses algorithms and rules-based engines to identify suspicious activities and transactions. Forensic accountants can use fraud detection software to monitor financial transactions and detect fraudulent activities in real-time.

Cloud computing: Cloud computing allows forensic accountants to store and access large amounts of financial data and analysis tools from anywhere with an internet connection. This enables forensic accountants to collaborate with other investigators and work more efficiently.

Visualization software: Visualization software allows forensic accountants to visualize and analyze financial data in a more intuitive and understandable way. This can help forensic accountants identify patterns and trends that may indicate fraudulent activities more easily.

Social media analysis: Social media analysis involves monitoring social media platforms to identify potentially fraudulent activities, such as fake profiles or false information. Forensic accountants can use social media analysis to detect financial crimes, such as money laundering, and identify potential connections between individuals.

Biometric authentication: Biometric authentication involves using unique physical characteristics, such as fingerprints or facial recognition, to verify a person's identity. Forensic accountants can use biometric authentication to verify the identity of individuals involved in financial transactions and detect fraudulent activities, such as identity theft or impersonation.

Robotic process automation (RPA): Robotic process automation involves using software robots to automate repetitive tasks, such as data entry or reconciliation. Forensic accountants can use RPA to automate data analysis and monitoring, enabling them to detect fraudulent activities more quickly and efficiently.

Cloud-based data storage and analysis: Cloud-based data storage and analysis allows forensic accountants to store and analyze large amounts of financial data in the cloud, enabling them to access it from anywhere and collaborate with other investigators more easily.

Conclusion and recommendations

We conclude from this study that the increase in the number of financial crimes is due to the inadequacy of the laws and legislations imposed to reduce this type of crime, in addition to the lack of uniform laws related to financial crimes around the world (meaning each country imposes different standards and laws) and that there is a weakness in the infrastructure for the application of criminal accounting, especially in the presence of developments and technology and the many crooked methods used by financial criminals, which made it difficult to identify crimes by classical methods, so there is a need to use the development of the Forensic accounting infrastructure and the development and provision of special skills in the Forensic accountant to be able to solve financial crimes, especially in the presence of Technological developments and deep learning via machine learning technologies make it easier to solve and reduce financial crimes.

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