

Remote Auditing : An Alternative Approach to Face the Internal Audit Challenges During The COVID-19 Pandemic

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مستخلص البحث

يهدف البحث إلى تحديد الأدوار التي يمكن أن يقوم بها نشاط المراجعة الداخلية في منشآت الأعمال المصرية لمواجهة أزمة انتشار فيروس كورونا (كوفيد-19) ، واكتشاف التحديات التي يمكن أن تواجه المراجعين الداخليين أثناء أداء أعمالهم خلال فترة انتشار الوباء . كما يهدف البحث إلى دراسة العوامل التي يجب أخذها في الاعتبار عند إعداد وتنفيذ خطة المراجعة الداخلية والتقارير عن نتائج المراجعة خلال فترة جائحة كورونا ، بالإضافة إلى اقتراح مدخل بديل لتسهيل أداء مهام المراجعة الداخلية بكفاءة خلال هذه الفترة وهو مدخل المراجعة عن بعد .

ولتحقيق هذه الأهداف ، اعتمد البحث على استخدام المدخل الإيجابي من خلال استخدام المنهج الاستنباطي لتحليل الدراسات السابقة المرتبطة بموضوع البحث واشتقاق فروض البحث ، بالإضافة إلى استخدام المنهج الاستقرائي لاختبار صحة فروض البحث في الواقع العملي في بيئة الأعمال المصرية . وقد تم ذلك عن طريق دراسة ميدانية أجريت على عينة مكونة من 95 مفردة ، شملت ثلاث فئات هي : فئة الأكاديميين ممثلة في أساتذة المحاسبة والمراجعة بكليات التجارة بالجامعات المصرية ، بالإضافة إلى أعضاء لجان المراجعة ، والمراجعين الداخليين ببعض الشركات المساهمة المقيدة في البورصة المصرية . وقد تم استخدام الاختبارات الإحصائية التي تتناسب مع طبيعة البيانات التي تم جمعها .

وبناءً على نتائج اختبار فروض البحث إحصائياً تم قبول الفرض الأول الذي ينص على أنه يوجد اتفاق بين آراء فئات عينة الدراسة بشأن أهمية الأدوار التي يمكن أن يقوم بها نشاط المراجعة الداخلية في منشآت الأعمال لمواجهة أزمة انتشار فيروس كورونا (كوفيد-19) ، كما تم قبول الفرض الثاني الذي ينص على أنه يوجد اتفاق بين آراء فئات عينة الدراسة بشأن التحديات التي يمكن أن تواجه المراجعين الداخليين خلال فترة انتشار فيروس كورونا (كوفيد-19) ، وكذلك تم قبول الفرض الثالث الذي ينص على أنه يوجد اتفاق بين آراء فئات عينة الدراسة بشأن العوامل التي يجب أخذها في الاعتبار عند إعداد وتنفيذ خطة المراجعة الداخلية والتقارير عن نتائج المراجعة خلال أزمة انتشار فيروس كورونا (كوفيد-19). وبناءً على نتائج الدراسة الميدانية يتضح أهمية تطوير أسلوب أداء نشاط المراجعة الداخلية خلال أزمة جائحة كورونا ، وذلك من خلال تطبيق أساليب المراجعة الحديثة ومن أهمها مدخل المراجعة عن بعد ، الذي يعتمد على استخدام تكنولوجيا المعلومات والاتصالات في أداء مهام المراجعة الداخلية بكفاءة ، مما يجعل نشاط المراجعة الداخلية قادراً على أداء الأدوار المنوط بها وتلبية احتياجات أصحاب المصالح من جهة ، والتغلب على التحديات التي تواجه المراجعين الداخليين خلال فترة انتشار الوباء من جهة أخرى .

الكلمات الرئيسية : فيروس كورونا (COVID-19) ، المراجعة الداخلية ، أنشطة المراجعة ، المراجعة عن بعد .

Abstract

The research aims to define the roles that the internal audit activity can play in Egyptian business enterprises to confront the crisis of the spread of the Corona virus (Covid-19), and discover the challenges that the internal auditors may face while performing their work during the period of the epidemic. The research also aims to study the factors that should be taken into consideration when preparing and implementing the internal audit plan and reporting on the audit findings during the Corona virus (COVID-19) crisis, in addition to suggesting an alternative approach to facilitate the performance of internal audit tasks efficiently during this period, which is the remote auditing approach.

To achieve these goals, the research relied on using the positive approach through the use of the deductive approach to analyze previous studies related to the research topic and derive the research hypotheses, in addition to using the inductive approach to test the validity of the research hypotheses in the real practice in the Egyptian business environment. This was done through a field study conducted on a sample of 95 individuals, which included three categories: the academics represented by the professors of accounting and auditing in the faculties of commerce in Egyptian universities, in addition to the members of the audit committees and the internal auditors of some joint stock companies listed on the Egyptian Stock Exchange. Statistical tests were used commensurate with the nature of the data collected.

And based on the results of the statistical hypothesis test, the first hypothesis was accepted, which states that there is agreement between the study sample groups about the importance of the roles that the internal audit activity can play in business enterprises to confront the crisis of the Corona virus (Covid-19). Also, the second hypothesis was accepted, which states that there is agreement between the study sample groups about the challenges that may face the internal auditors during the Corona virus (Covid-19) pandemic, as well as the third hypothesis which states that there is agreement between the study sample groups about the factors that should be considered when preparing and implementing the internal audit plan and reporting on the audit results during the Corona virus (Covid-19) crisis.

Also, based on the results of the field study, it becomes clear the importance of developing the method of performing the internal audit activity during the Corona pandemic crisis, through applying modern audit methods, such as the remote audit approach, which relies on using information and communication technology to perform internal audit tasks efficiently, which enables the internal audit activity to provide the roles assigned to it and meet the needs of stakeholders, and overcome the challenges facing the internal auditors during the period of the epidemic on the other hand.

Key words: Corona virus (COVID-19), Internal Audit, Audit Activities, Remote Auditing.

1. Introduction:

The spread of the Corona virus (COVID-19) during the past months is one of the most important issues that occupy the world's attention, and this is due to the seriousness of this virus, its rapid spread, and the lack of treatment for it yet, which represents a threat to humanity in general. The spread of the COVID-19 epidemic on a large scale in most countries of the world has led to the emergence of many effects in all fields, the most important of which are health, economic and social impacts (Ibrahim & Zayed, 2020). The accounting profession has also been affected by this crisis, as it does not work in isolation from the surrounding environment, and the greater the uncertainty associated with the business environment, the greater the challenges facing the accounting profession to carry out its various functions. The Covid-19 pandemic has caused an increase in the level of uncertainty for business enterprises, which creates many difficulties and challenges as for managing these enterprises and preparing financial reports when evaluating the current and potential material effects of the Corona virus outbreak on financial reports (Al-Tahan & Mahmoud, 2020).

Internal auditors were already experiencing changes and revising strategies before COVID-19. Digital transformation and other emerging technologies challenged many internal audit functions. For many enterprises, COVID-19 required reprioritizing priorities to respond to resiliency issues relating to the virus. Yet as organizations seek even more digital solutions to interact with customers and employees, internal audit should continue to help in managing these risks. There are many associated risks which are impacted by COVID-19, for example: cyber and fraud risks, reputation risks, supply chain risks, health & safety risks. Cyber security was a persistent threat before COVID-19, and not surprisingly, organizations continue to face increasing risks in this area because of COVID-19 outbreak.

Some studies (Deloitte, 2020; KPMG, 2020a,b) indicated that the decisions and precautionary procedures followed to deal with the crisis of the spread of the Corona virus in the world, such as social distancing and the application of the remote work system, had many accounting effects, and the most important of these effects is an increase and exacerbation the severity of the risks associated with the use of electronic accounting information systems in business enterprises, as a result of the increase in the number of the information systems users , whether from its employees or from external parties such as customers and suppliers, which represents a burden on the electronic information systems of the entity and increases the risk of malfunctions or Sudden cessation of work, which negatively affects the availability of data for users and limits their ability to obtain information, and harms the reputation of the entity and its competitive position.

These studies added that the exceptional circumstances and conditions resulting from the spread of the Corona virus also lead to an increased risk of electronic information systems being hacked due to weak and ineffective internal control procedures, which poses a threat to data security and confidentiality and increases the likelihood of its exposure to loss or distortion, and decrease the quality of the outputs of information systems. Therefore, the internal audit must evaluate the adequacy and effectiveness of control procedures over electronic accounting systems, assess the risks related to the security of information systems, and confirm that the management has properly identified these risks and has taken appropriate measures to manage these risks and limit their impact, while providing recommendations to the management regarding dealing with these risks when needed.

In the first quarter of 2020, internal audit functions responded to immediate needs and concerns, including temporarily redeploying staff to the business. For example, internal auditors have helped management to get recovery programs and activities started, and fill in gaps when needed and appropriate. Fortunately, due to the nature of their work, many internal auditors were already experienced at working remotely and able to adapt quickly to the new working environment. In the second quarter, many internal auditors continue to expand their continuous monitoring programs. They are also focusing on the increasing use of cloud services with the security implications, such as confidential video conferences, which provides the opportunity for internal audit activity to perform its assurance and consulting roles during the pandemic.

2. Research Problem :

Several studies (CIIA, 2018; KPMG, 2018,2019; Deloitte, 2019) have addressed the most important types of risks that the internal audit should focus on over the next few years, and provide recommendations for management to deal with these risks and manage them effectively to mitigate their effects. These risks include: the risks of digital transformation and digitization of operations, risks associated with electronic information systems and cyber-security, risks associated with the analysis and use of big data, risks of relationships with external parties such as customers and third-party relationships, risks of fraud and corrupt practices, risks of crises and disasters and response plans to them, risks related to the continuity of the entity, risks of changing laws, legislations and accounting standards.

Therefore, the internal audit must keep pace with the evolution of the surrounding environment to face the continuous changes and developments in the business environment, to improve the performance of the enterprise's activities and operations and help it achieve its objectives, so that the internal audit is actually a value-adding activity for business enterprises and their stakeholders. Therefore, the internal audit must expand its roles related to internal control, governance and risk management, to face the increase in risks associated with the crisis of the spread of the Corona virus (IIA, 2020a).

Internal audit activity annually perform a risk assessment of the organization and communicate the results to the audit committee and other stakeholders. Among other purposes, the risk assessment helps chief audit executives monitor their organization's risk profiles and determine the annual audit plan as the situation dictates (IIARF,2011) . At the onset of the Corona virus, some internal audit functions reacted by lending their risk management expertise to help resolve immediate service delivery and operational issues. Leveraging investments in data analytics to identify relevant key performance indicators facilitated the automated monitoring of risks. Continuous monitoring tools, which include attending management committee activities and participating in organizational task forces, enabled internal audit's ability to contribute to updating the organization's enterprise risk assessment.

This requires that internal auditors focus on their organization's changing risk profile, resulting in the reprioritization of their original plans. This revised focus can include allocating resources to priorities that require completion as soon as possible to assist with recovery and reentry efforts. Depending upon the industry, COVID-19 outbreak could increase credit, cyber, market, and liquidity risks, as well as their tolerances. For many sectors, operational, governance, and process risks were also affected. Especially of concern to internal audit were questions of how exceptions to controls and risk acceptances were granted, as well as third-party risks, including supply chain disruptions. As a result of these changes, internal auditors are reconsidering their annual audit plans and communicating with stakeholders to take any necessary changes. Flexible internal audit risk assessments increasingly consider current business impact analysis, including the impact of the pandemic on organizational profitability, service delivery, and overall enterprise risk management.

Internal auditors should also provide audit services for new and emerging risk areas. For example, some organizations made temporary changes to service delivery models to quickly restart operations, which made up for shortages in employees. These events led to the curtailment of specific traditional controls, requiring new risk mitigation strategies and enhanced audit monitoring. Other identified concerns were the ability of vendors and other third-party service providers to remain resilient. Finally, recovery planning is another example of internal auditors lending their expertise in facilitating organizational objectives.

Also, any major change requires clear communications with stakeholders; and the current crisis is no exception. Internal audit should keep strong relationships with the audit committee. During the crisis, audit committee members continued to rely on their internal audit functions to supplement and confirm status reports provided by management. In regulated industries, many internal auditors have comparable communications with their regulators. Communications include providing perspective on an organization's activities and communicating the effectiveness of planned risk management strategies. Some areas of focus include ensuring compliance with regulatory expectations, despite the challenges caused by COVID-19. Other reportable items include identifying control activities that have been suspended and tracking their eventual restoration, and ensuring the resolution of related risks. Another concern involves increased oversight of suppliers and other third-party service providers. As a result, internal auditors have dedicated more time to reviewing external assessment reports, because COVID-19 crisis exposed concerns at several organizations that discovered unexpected weaknesses in their vendors' resiliency capabilities.

Internal audit should also contribute to recovery and resiliency efforts through assists organizations by providing independent assurance and consulting services on the effectiveness of its response and management of the crisis. Internal auditors can provide unique organization-wide perspectives to stakeholders that include management, the audit committee and the board of directors about the impact of COVID-19 on their organizations. An organization's capability to provide employees with appropriate technology has been critical for productivity during the COVID-19 crisis. Although many organizations report increased productivity levels, others continue to investigate tools to monitor employee activity while working remotely. Fortunately, many internal auditors have been able to work remotely, enabling internal audit to contribute to the organization's and department's objectives.

A more significant challenge facing internal audit is helping organizations understand and manage the risks of remote working . Internal audit's unique skills in risk assessment and cumulative enterprise knowledge, internal auditors can deliver significant value to their organization and their colleagues. All businesses will face many challenges in the recovery phase of the virus. Management will need to prioritize and assign resources to a changed business environment. The focus on controls may be surrendered in the name of efficiency and creativity. These are no doubt critical for organizations to survive, governance, and the need to manage risk. Internal auditors can respond to this crisis by helping organization to navigate the challenges and eventually succeed. Internal audit is positioned to play a key role in crisis resilient ; Internal auditors' breadth of skills, position in the organization, and deep knowledge of operations can help their businesses prepare for the inevitable crisis and move the organization from crisis aware to crisis resilient, and help the organization to recover from major disruptive events.

So, This research aims to define the roles that internal audit activity can play in response to Corona virus (COVID-19) outbreak, and explore the challenges that may face the internal auditors during the pandemic, in addition to discuss the most important considerations of preparing and implementing the internal audit plan and reporting on the audit results during the crisis of COVID-19, and suggest to use remote auditing as an alternative approach to facilitate the performance of internal audit tasks efficiently during this crisis . In order to achieve the research objectives, the research will be divided into three sections, the next section includes summarizing the literature review, then the research methodology and the field study, and finally the research conclusion .

3. Literature Review:

Organizations are currently in unprecedented times, and facing tough decisions every day to manage through the COVID-19 pandemic. In these times, there are a number of different things to consider, internal audit can help provide assurance and consulting services to meet the needs of the senior management and the board.

3.1 Internal Audit Roles in Response to COVID-19 Pandemic :

Several studies (Deloitte, 2020 ; IIA, 2020a ; KPMG, 2020a) have discussed the roles of internal audit activity in response to COVID-19 pandemic. Among the most important roles that the internal audit activity can play are the following :

Table (1): The Roles of Internal Audit Activity in Response to COVID-19

Area of interest	Roles of internal audit activity
<p>Internal control</p>	<ul style="list-style-type: none"> * Internal audit should assess the changes, both temporary and permanent, in the organization's control environment, with a specific focus on automated business controls. * Because of more flexible working arrangements and greater access to systems to help organization recovery, user access controls may be compromised and conflict of interests may arise . So internal audit should monitor controls in place. * Internal audit should assess the design and implementation of new or amended controls resulting of changing work environment.

<p>Risk Management</p>	<ul style="list-style-type: none"> * During these times, many organizations are facing new risks and challenges. Internal audit should have on-going risk assessment process to continue meeting its responsibilities, and should adapt more dynamic risk assessment methodologies. * Emerging risk areas need to wider coverage , So internal audit should priorities risks and regular review and update the audit plan to reflect the emerging risks and the increasing needs of management. * Internal audit should updates the risk assessment process, including fraud risk assessment, review and assess changes within the organization and advise on changes to risk assessment process * Internal audit should update documentation Including risk registers, and update internal audit plan and internal audit schedule to reflect changes to the organization and the control environment.
<p>Governance</p>	<ul style="list-style-type: none"> * Internal audit should connect with the audit committee and key stakeholders to determine their needs and define elevated risks and recommend appropriate responses. * Internal audit should help manage regulator expectations by coordinating with the appropriate stakeholders. * Internal audit should discuss urgent findings with the audit committee and focus on the greatest risks. * It is also important to collaborate with other relevant stakeholders such as external auditor (who may rely on internal audit work) and regulators to determine any necessary changes in the internal audit plan and risk coverage
<p>Fraud Risk</p>	<p>As processes are changed or adapted to accommodate remote working or other operational changes, internal audit should review key processes for fraud risk, and identify any unmitigated gaps.</p>
<p>Optimizing Labor (human capital)</p>	<ul style="list-style-type: none"> * Internal audit should strategize how best to use the internal audit team's time. * Internal audit should reach out to key business leaders and offer assistance. For example, organization may be diverting critical facility operations to another location or creating redundancies in its supply chain for scale. There may be additional risk factors in these operational changes that need to be considered. * Internal audit resources may need to be redeployed to support the business internal controls over financial reporting programs and testing. * Internal audit should evaluate the adequacy and effectiveness of the organization plans to maintain health of workforce.
<p>Remote Working</p>	<ul style="list-style-type: none"> * Internal audit should evaluate organization's plans to mobilize a remote workforce, consider key risks and the impact to systems and technologies. Assess IT security and system access risk as roles change due to redeployment. * It is important to maintain clear and consistent lines of communication with audit teams and provide reminders to carry out the necessary actions to protect themselves and their families. * If an internal audit team can not physically visit a site, think of creative ways to still gain risk coverage. For example, if production plants have video surveillance, would internal audit be able to use those feeds to check whether critical physical controls are still working. * Internal audit should consider the impact of remote working on the organization's culture risk. Planning virtual team-building to Create an open format to share recent experiences that allows for that sense of belonging to feel like part of the team.

<p>Business Continuity Planning and Crises Management</p>	<ul style="list-style-type: none"> * Internal audit should support the business during implementing business continuity, and crisis management plans. * Internal audit should be represented on any crisis management teams. The experience, tools and views of the internal audit activity may be invaluable in developing such plans. * Internal audit should evaluate the effectiveness of the continuity plan and how the enterprise responds to the outbreak, and whether there is a need to adjust it . * Internal audit should asses the organization's responses and provide assurance that they are in line with good practice, and cover all key risk areas. * Internal audit should keep monitoring and real time reporting on key metrics for processes those are currently under stress. * Internal audit can support other activities of the firm considering the different skills of the internal audit team such as data analytics, project management, financial experience and deep knowledge of enterprise systems and operations. * Internal audit should attend project steering groups and provide real time assurance to help management to make decisions quickly. * Refocus and reprioritize scope areas in line with crisis response; * Identify and evaluate the organizational processes that are under the most stress during crisis situations. * Provide assurance over ongoing organizational crisis response efforts without affecting their efficiency; and Learn how to support their organizations in developing multi-tiered response plans (optimistic, moderate and critical) depending on future developments. * Make a post- crisis review and Look back on how the organization responded, and provide recommendations for improvement of crisis management procedures.
<p>Cyber Security</p>	<ul style="list-style-type: none"> * Companies may face potential increased vulnerability to cyber-attacks due to remote working environments, such as greater susceptibility to phishing and malware. As more transactions move online, internal audit should consider the impact to data security risk *Internal audit should assess the sufficiency and effectiveness of remote access controls *Internal audit should provide recommendations about raising awareness and bolstering threat detection and third party security plans to respond to cyber security risks.
<p>Supply Chain and Third- party Relations</p>	<ul style="list-style-type: none"> * Internal audit should evaluate processes in place to maintain and manage key supplier relationships and identify supply chain risks. * Internal audit should assess the sufficiency of available resources to maintain critical activities at suitable levels. * Evaluate how organization deals with changes in demand and customers' behavior. * Help management to identify key contractual clauses which may offer relief during the time of pandemic. * Reassess the organization's third party risk and consider the impact on the organization's overall risk assessment.

In these challenging times, internal audit activities have both an obligation and an opportunity to help their companies manage the most critical risks COVID-19 has either created or magnified. So, internal audit should directly connect with company's COVID-19 response team to identify operational risks and potential vulnerabilities, then offer insights to help mitigate these risks. The study of (Deloitte,2020) added that internal audit should :

- 1- Provide assurance that the response team is rolling out and executing its actions appropriately and effectively.
- 2- Provide leadership and support for compliance frameworks, processes and control activities related to COVID-19
- 3- Evaluate the emerging risks of new operating models and business practices and redirect attention to the most time-sensitive risks.
- 4- Understand COVID-19's impact on business and industry to assess existing and emerging COVID-19-related risks in key areas such as :
 - **Crisis management and response** : internal audit should look at increased cyber security threats, greater network connectivity needs, and increased mobile device usage as more employees work remotely.
 - **Workforce** : disruption may go beyond health risks to possible impacts on productivity, collaboration and adherence to company policies, as employees who now work from home may face new stress.
 - **Operations and supply chains** : may face disruption, possible declines in quality or availability, and new third-party risks.
 - **Finance and liquidity** : challenges may arise from revenue shortfalls, debt servicing requirements and rising customer credit risk. This may require changing SOX processes and controls.
 - **Tax and trade**: internal audit should deal with immigration issues, the implications of shifting business or suppliers to different jurisdictions, and the potential need to change the organizational structure.
 - **Strategy and brand** : may be affected by your response to the COVID-19 crisis, which may require changes in long-term plans, while defining your brand for years to come.

Other studies (Deloitte,2016 ; IIA Global,2014,2017) discussed the role of the internal audit activity in crisis management. While business continuity and crisis management have been prevailing topics for a number of years now, the COVID-19 outbreak have brought these areas to the forefront of doing business. Organizations who have effective crisis management programs have proved to be more resilient, flexible and efficient. In times of crisis, the management of many organizations argue that it is best to slow down Internal Audit activities to ease the burden of process owners, on the contrary however, internal audit has a vital role to play in such challenging times.

Many companies are struggling to cope with the challenges we are currently facing, partially because of the limited attention given to Business Continuity in the past. Business continuity management (BCM) prepares organizations for future incidents or crises that could interfere with the achievement of business objectives. Crisis management (CM) is a key component of BCM and deals with communicating pertinent information about the crisis to the organization's stakeholders. Internal audit's breadth and depth of skills and qualifications, position in the organization and in-depth knowledge of organization-wide operations position it well to make meaningful contributions to the development, implementation, and assessment of an organization's BCM and CM plans. Internal audit may perform a variety of key and supporting roles, depending on the existence and maturity of BCM and CM plans, as well as the severity of the crisis.

Internal audit's roles may involve assurance and consulting services before, during, and after a crisis. Assurance engagements are performed to verify that BCM and CM are effective, while consulting services are performed to help management focus planning activities and coordinate BCM and CM with risks and controls. Both assurance and consulting services require expert knowledge of key BCM elements including program governance, risk management, business impact analysis, and business continuity and recovery planning. Internal auditors are positioned to contribute to crisis management by providing organizations with practical insights into operations. The chief audit executive (CAE) should define internal audit's roles before, during, and after a crisis, taking care not to assume responsibility for the ownership or management of crisis-related risks. Internal auditors can provide two types of services related to business continuity management and crisis management :

(a) Assurance services :

Internal audit may perform periodic assurance engagements to verify that the BCM and CM plans are comprehensive, relevant to the current business operating environment, and communicated to the appropriate internal and external stakeholders. The frequency, nature, and extent of work performed will be driven by risks or requests from stakeholders to validate the effectiveness and relevance of planned efforts. Assurance engagements may include (Deloitte,2016) :

1- Providing assurance that crisis management plan :

- Includes all key business functions, and identifies all key stakeholders (internal and external) and methods for communicating status as the crisis is managed.

- Identifies key risk scenarios and specific response procedures.
 - Includes a disaster recovery component related to IT operations.
 - Is communicated and understood throughout the organization, and tested on a regular basis.
 - .
 - Provides procedures for post-crisis review and implementation of lessons learned.
- 2- Requests for review by the audit committee or executive management on the BCM program or portions thereof, including vendor or business partner reviews.
- 3- BCM reviews to evaluate plan completeness, maturity, and appropriateness based on organizational risks, growth, or divestitures.
- 4- Program risk assessments.
- 5- Reviews of existing provisions of an organization's partners as defined by contractual terms (i.e., right to audit clauses or defined service-level agreements).

(b) Consulting services

The focus of BCM can quickly turn toward the review and analysis of IT infrastructure because data access and transfer are considered core business functions. However, when providing BCM and CM advisory services, internal audit should consider broad organizational objectives and risks and not limit the engagement's emphasis to IT issues. BCM advisory engagements should not compromise internal audit's objectivity. Care should be taken not to accept responsibility for ownership or management of business continuity risks.

Then, Internal auditors can provide several types of consulting services related to business continuity management and crisis management, such as :

- Recommending the development of a BCM charter. The charter helps to establish program sponsorship and support within the highest levels of the organization. In addition to validating the BCM program's existence, a well-defined charter establishes a BCM governance structure and guidance regarding periodic re-evaluation of the charter. A governance structure approves BCM or CM decisions and provides a forum for visibility into organization, and associated internal and external communication.
- Evaluating whether an established BCM and CM governance structure is adequately funded, appropriate, and effective in serving the needs of the board, audit committee, or executive management. Internal audit may play a nonvoting member role or attend meetings to provide feedback on the role, charter, and efforts of such a body.
- Communicating and advising on whether BCM governance appropriately and effectively serves the needs of the board, audit committee, and executive management.
- Apprising the audit committee and the board of the risks associated with, and current best practices for, business continuity and crisis management.

Internal audit's evaluation of BCM plan may help ensure that it is relevant to organizational priorities in the event of a crisis. **There are typical activities in which internal audit may be engaged before a crisis:**

- Share knowledge of leading developments for BCM with executive management and the audit committee.
- Specifically consider BCM as a risk facing the organization and consider residual risks in the development of the annual audit plan.
- Evaluate key business partner arrangements for appropriate contractual terms, including service-level agreements, right-to-audit clauses, and requisite reporting to management regarding the partner's control environment.
- Advise management in its performance of BCM risk assessments or evaluate the accuracy of management's BCM risk self-assessments.
- Perform assurance engagements related to the BCM as part of the annual audit plan. Assurance engagements may include evaluation of plan components, communication protocols within the plan, and the operational aspects of the plan.

Internal audit may perform other roles during and after the crisis (IIA Global,2014,2017) :

During the Crisis :

- Monitor and assess the organization's response to an event and be an active participant on the crisis management team.
- Monitor outage details for subsequent audits.
- Serve on a crisis management committee to ensure that risks associated with a crisis are understood and provide recommendations on alternate courses of action to management, as appropriate.
- Participate in the wider crisis management and recovery process for the organization, as agreed upon and authorized.

After the Crisis:

- Evaluate and report on the effectiveness of the organization's recovery efforts.
- Continue to assess risk, provide guidance, and help develop business improvement efforts.
- Perform post-crisis reviews to identify opportunities for BCM improvement.
- Perform assurance engagements to evaluate whether management performed and appropriately considered the results of root-cause analysis to update the BCM and CM plans as needed, and participate in the organization wide recovery process as agreed upon and authorized.
- Working on recovery to normal business processes as a result of the unavailability of IT systems using alternate defined procedures to carry out activities for which normal processes have been disrupted.

Also, the disaster recovery plan, as a component of the BCM, may include requirements for internal audit to conduct an audit of the recovery process. Where this is the case, this additional work will need to be included in the initial draft plan and may lead to changes to those priorities. Additionally, where such a role has not been specifically assigned, the CAE should consider whether, following a risk-based assessment, internal audit should recommend to the BCM leadership team that particular aspects of data recovery should be audited. The types of audit work that might be undertaken include:

- An end-to-end review of the recovery process (i.e., whether it complied with the planned process and whether the plan proved to be detailed enough to deal with the issues that emerged).
- An audit of the effectiveness of the recovery process, including performance against defined metrics or plan components as well as effective and timely internal and external stakeholder/business partner communication.
- A review of controls and special processes introduced outside the normal control framework and potential impact on operational or financial risks for the organization.
- An audit of management's data recovery processes, which may include examining key data reconciliations performed by management to ensure data completeness and accuracy.
- A review of actual variations following activation of the plans, including recommendations that will allow for effective plan evolution. This also should apply to the internal audit activity's own plans.

3.2 Challenges for Internal Audit Activity During the Outbreak of COVID-19 :

When faced with COVID-19, internal auditors are dealing with new challenges which demand rapid responses, such as (Deloitte, 2020) :

- * Keep internal audit team connected and motivated while working in remote environment, through regular virtual meetings to share information, discuss findings and follow up the work progress.
- * Develop and maintain strong relationships with key stakeholders to build trust, credibility and transparency.
- * At this exceptional uncertainty, internal audit should become more substantive, and should use alternative means to gather evidence in absence of documentation.
- * In times of unprecedented change with high level of uncertainty, there will be more instances of internal control override, which increases fraud risks and provide new opportunities to both internal and external parties for

committing fraud (misappropriation of assets and financial reporting fraud), especially if employee terminations occur or employees suffer significant personal financial problems.

* In times of crises, internal audit should support management and other activities of the organization in areas where its expertise is relevant, which may affect independence and objectivity of internal audit activity. To ensure that independence and objectivity is not impaired, internal audit activity should limit its role to provide advice and not directly involved in implementation, and use distinct team to help and support management.

* internal audit activity should continue to provide high quality services though remote working, which require increasing budgets available for communication capabilities and using modern technologies such as Zoom and Skype for virtual meetings and workshops to ensure that quality is not compromised.

3.3 Internal Audit Considerations in Response to COVID-19 Pandemic :

Following the outbreak of COVID-19, enterprises environment and their ways of work are evolving rapidly and in unprecedented way. Internal audit is uniquely placed to play an important role to provide assurance and consulting services to help management to anticipate and mitigate emerging risk depends on its deep organizational knowledge and high skills. As the pandemic of COVID-19 continues, the internal audit managers should consider many things and think of potential responses (Deloitte, 2020 ; KPMG,2020a,b) :

* Internal audit should remote working to perform audit work and provide its assurance and consulting services without disrupting the critical operational areas during the crisis.

* Increasing the use of modern technologies to perform and deliver work such as Zoom and Skype for virtual meetings, and consider recording it to document work.

* Accelerating the deployment of analytics to deliver work remotely, increase coverage, reduce work interruptions to increase the added value of internal audit.

* In specific circumstances such as resources shortage, internal audit should discuss with the audit committee and the board about reducing the scope of work and canceling or deferring non-essential audit tasks.

* Internal audit should prioritize providing assurance on emerging risk areas (e.g. financial risks, changing work environment , government policy changes, changing customers behavior).

* Internal audit should Change audit procedures, including how data and analytics can be used as alternatives to traditional testing.

* If the pandemic continues, internal audit should adopt some practices that have proved to work effectively during the crisis, such as video conferencing and remote data analysis beside adopting a more flexible risk assessment and planning process to allow more flexibility in deploying resources in the future.

* Reprioritizing any upcoming audits based on their significance, regulatory requirements and the ability to execute them in a potentially disrupted environment.

* Reviewing annual internal audit plan and assess what changes are required. Reschedule or adapt audits to accommodate remote working and barriers to obtaining information.

3.4 Using Remote Auditing Approach to Face the Internal Audit Challenges during the COVID-19 Pandemic:

The current COVID-19 crisis forces internal auditors to adjust traditional way of working and adapt new auditing techniques and optimizing the use of technology. Given the travel restrictions and employees being obliged to work from home, remote auditing is not an option anymore, It has become a necessity. Because of the fast advances in technology, conducting remote audits is becoming more popular among organizations. Businesses already include high-tech strategies that allow audit teams to receive and share data, conduct interviews, and make observations with organizations from all over the world without the need of commuting for several hours to the audit site.

3.4.1 Remote Auditing Definition:

Remote audit, also known as virtual audit, is the method of conducting an audit remotely, using electronic methods such as video conferencing, email and telephone to obtain audit evidence, just like auditors would during an on-site audit. The overall aim is to evaluate this evidence objectively to determine the extent to which the audit criteria has been fulfilled. Remote auditing provides a springboard for tools such as file and screen sharing, video conferencing (Skype and Zoom are common platforms), and live data analysis. During this type of audit, auditors are able to adopt standard auditing techniques which they use during on-site audits, but through using modern technology.

(Teeter et al.,2010) defines remote audit as " the process by which internal auditors couple information and communication technology (ICT) with data analytics to gather and assess electronic evidence, interact with the auditee, and report on the accuracy of financial data and internal controls, independent of the physical location of the auditor" . And (ISO & IAF,2020) added that Remote audits refer to the use of information and communication technology (ICT) to gather information, interview an auditee, when face-to-face methods are not possible or desired

A remote audit is conducted partially or completely off site. Regardless of the chosen approach, which depends on audit objectives and requirements, the internal auditor will cover all what is usually covered on site but uses technology to collect data safely when a site visit is not possible or appropriate. So, there are two main approaches for conducting remote auditing:

(a) Partial Remote Audit : Is conducted through a combination of remote and on-site procedures, the remote portion of the audit shall follow the standard course of an audit while using technological tools to access the necessary evidence.

Partial remote audits are most effective in verifying compliance with standard requirements which require documentary evidence. A limited set of interviews or other visual evidence will also be collected remotely. The on-site part of the audit is intended to verify the conclusions of the remote audit and conduct additional verification of issues that could not be detected through the remote auditing process.

(b) Full Remote Audit : Is conducted completely remotely using technology to gather information as necessary to confirm compliance with Standards . In cases where onsite verification is not realistically possible within the current audit cycle, a full remote audit will be necessary. Full remote audit should follow the standard course of an audit while using technological mechanisms and tools to access the necessary evidence, including interviews using appropriate sampling techniques.

3.4.2 Benefits of Remote Auditing:

There are several reasons why conducting remote audits can be beneficial for companies and internal auditors (IIA, 2020b ; Kashyap, 2020 ; KPMG, 2021) :

* **Saving time and money by using technology:** Most of data is accessible from anywhere, such as a cloud portal, so there is no need to waste much time and cost to travel for checking documentation. By using remote auditing, there will be a significant reduction in time and cost spent on travelling to the audit locations. In addition, interviews and observations can be conducted through popular platforms like Skype or Zoom, which are regularly used by many of the companies already.

* **Avoiding traveling to difficult audit locations:** Some locations can be difficult to access for many reasons; maybe they are in an isolated area, or strict permits are needed to get in – even visas sometimes are required if audits are conducted internationally. With a remote audit, auditors can avoid these difficulties.

* **Expanding audit coverage:** Remote audits allow for more coverage when competing priorities of volume and time limitations occur.

* **The audit team will be more efficient :** Working from their home office environment, the audit team will feel more comfortable, since they will be able to use all the necessary tools, such as high-speed internet, monitors, printers, etc. This way, the productivity will be substantially increased and the audit team will need fewer hours to complete audit tasks and keep on schedule.

- * **Expand using of specialists:** Specialists can connect remotely for selected interviews or parts of audit planning, and they need not be present for a full audit.
- * **More flexible approach improves document reviews:** Remote reviews of plans and documentation, at the auditor's own pace, contribute to a higher quality review and a deeper dive into the documentation.
- * **Improved use of available technology strengthens documentation and reporting:** Using technology to capture video and photographic information contributes to improving their understanding and use of available technology. This contributes to better documentation of facility conditions, improved ability to report incidents and conditions to remote corporate personnel, and increased opportunities for future remote training tools.
- * **Logistics related to auditing are not needed anymore:** When conducting remote audits, usually organizations are relieved from logistics related to booking conference rooms and cleaning after the audit team leaves, as well as worrying about audit team accommodation, interruptions to employees' regular workflow, and other related inconveniences experienced during an onsite audit.

3.4.3 Remote Audit Activities:

Remote auditing requires some adjustments to audit approach, so it provides an opportunity to innovate the internal audit process. Therefore, the remote audit includes four basic activities (KPMG, 2021) :

First: Remote Audit Planning:

First, the internal audit manager must choose the suitable audit approach, taking into consideration the specific requirements and technology infrastructure, to ensure delivering an effective audit. For partial remote audits, the remote audit and the following on-site verification are considered as one single audit process and should be planned accordingly. The audit plan must describe which criteria/checkpoints will be audited remotely and which will be part of the on-site audit. Then the internal audit manager can start the detailed audit planning process which includes determined the appropriate scope of the remote audit, the audit plan should be developed and approved agreeing the technology and audit methods used and confirming the final audit plan.

The annual internal audit plan should be reviewed in light of the current circumstances to reassess its priorities. There may be an increased need for consulting activities e.g. related to business continuity management or crisis management and changes in the internal control environment, etc. The COVID-19 outbreak has shaken up entire business operations, processes have been adjusted to new situation and new risks have entered the risk landscape of organizations. Therefore, it is essential that internal audit takes up a proactive role by challenging the business and giving insights in relation to new risks.

Second: Preparing for the Remote Audit :

The internal audit team should invest sufficient time in preparing for the remote audit, and there are some key points to consider:

(a) Checking availability of the auditees: the internal auditors have to take into account some practicalities: define the key stakeholders and their needs and requirements, check availability of the auditees and how to cope with differences in time zones, if any .

(b) Evaluating Remote Audit Feasibility: The first step to ensure feasibility is determining what technology may be used, the internal auditors should select channels will be used for interaction. Therefore, it is really important to thoroughly investigate the different tools available, such as video - conferencing to enhance the communication with auditees. In addition, auditors and auditees should have competencies in using the selected tools.

Feasibility also depends on the online connection quality. A weak bandwidth or limited hardware capability may slow the process to the point of inefficiency. The audit process may be affected by the speed at which the auditee access and shows evidence by video, or through a tablet or computer.

(c) Assuring Confidentiality, Security and Data Protection: For the tools that will be used, it's important to ensure that they are in line with the required security and confidentiality guidelines and that they are easily accessible to all auditees. Besides, it is also important to look into a secure and user- friendly solution for document sharing.

(d) Setting the remote audit schedule: As a baseline, it is recommended to keep the duration of remote audits concise by well scoping audit on key risks. It's better to split the audit into separate audits and spread them into several sessions around different topics.

(e) Clarify the new processes: An important matter to consider is the kick-off meeting with all stakeholders where the scope and planning of the audit are discussed. The remote audit approach should be clearly explained to the participants, as well as the differences with face-to-face audits. Moreover, there are some important matters should be discussed with auditees, such as : How and when will the information be shared in the future, Which medium will be used, and if there any considerations related to confidentiality or authorizations.

Third : Conducting the Remote Audit :

A successful remote audit relies on optimize using of available tools and adequate connectivity (i.e. voice and video) between the internal auditor and the responsible parties of various activities in the enterprise. Once the connection is running, audit evidence will be collected via interview, review of documentation and records (via screen sharing) and observation of processes and activities (via video sharing if possible). All evidence will be reviewed and reported to support the audit findings and conclusions – the only difference is it will be done using remote techniques.

The remote audit will be conducted using a combination of documentary review and virtual meetings and interviews. Interviews will include appropriately sampled representatives of management and workers representatives. As the remote audit encourages the creation of virtual teams, an evaluation and reformulation of audit procedures will help the internal audit manager to delegate responsibilities to remote team members, and determine the technology and audit methodology needed to coordinate their efforts , so many procedures will necessarily be reengineered.

The conducting phase of a remote audit is quite similar to that of a traditional audit, with the main differences being that video conferencing will replace the interviews and documentation needs to be transferred through a document sharing platform. This requires some adjustments from the internal auditors and the auditees :

(a) Video conferencing tools: Video conferencing tools such as Skype for business, Zoom, Teams or Cisco WebEx will replace face-to-face interviews. When selecting the suitable tool, internal auditor should make sure that access to as well as data transferred through these tools is sufficiently secured. It is also important to anticipate the effects of technical issues (e.g. connectivity, sound quality, etc.) by testing beforehand, and It is also recommended to record video sessions to facilitate notes taking.

(b) Document sharing platform: Digital files could be uploaded on a shared platform or the remote auditor could receive temporary access to the databases of the audited firm. It is also important to pay attention to the accessibility and security of the platform as well as confidentiality of the information provided. Internal auditor should make sure that access is sufficiently restricted and secured by encrypting the data that is sent across the network, preferably end-to-end; enforce multi-factor authentication and make sure that information is removed in a timely manner from the platform and stored according to applicable archiving standards and data protection requirements.

(c) Alignment with the auditees: While working remotely, it is important for the internal auditor to keep in close contact with the auditees to remain aligned, and schedule recurring short meetings (e.g. daily or once every other day) to discuss the status of the audit but also to capture any worries or concerns.

Fourth: Remote Audit Reporting:

In addition to a standard on-site audit report, remote audit reports will also include details about the remote auditing methods that have been used and clarify the effectiveness of the audit in achieving the stated objectives. For remote audits, reporting protocols might need to be revisited with regard to their frequency and the way in which the internal audit activity reports to the audit committee and the board as sufficient interaction is crucial. Internal auditors should certainly pay attention to the following points:

(a) Focus on key risks: As businesses are already distressed, focus should be put on key risks rather than overloading management with lower risk findings. Additionally, the internal audit team should acknowledge that management has potentially limited capacity to remediate these issues on short notice.

(b) Validation of findings: Each observation needs to be discussed and validated with the auditees before finalizing the report. This is important because the use of video conferences may lead to misunderstandings between participants. Any feedback received should be incorporated in the report, and previously identified risks and opportunities should be updated accordingly.

(c) Documentation of new processes: It is also important to capture the extent to which different tools were used during the remote audit, and whether they were effective or not in achieving the audit objectives. If for any reason, some processes could not be audited remotely, this should be mentioned in the audit report .

3.4.4 Remote auditing limitations and Challenges:

There are various limitations related to conducting remote audits (IIA,2020b ; *Picciotti*, 2020 ; KPMG,2021) :

* **Remote audits are not approved by some certification and accreditation bodies:** Some certification and accreditation bodies still consider remote audits is not valid, and only approve traditional audits carried out onsite. The reason is that some certification bodies still have not decided how much of the required audit time can be conducted remotely in order to collect reliable audit evidence and trust the audit results.

* **High costs and difficulties related to using modern technology:** there are multiple hardware and software required conducting remote interview and review the electronic documentation. Sometimes, network connections are not very reliable, or the auditees can have difficulties with accessing the VPN to log into a database in order to show evidence. In addition, due to network issues, interviews and meetings can be interrupted, taking some time to reconnect and solve all the network problems. On the other hand, auditors conducting the remote audits should have the necessary technical knowledge to deliver this kind of audits, which means extra effort for the internal audit manager to train auditors on these techniques.

* **Insufficient training and experience of internal auditors:** Lack of training and experience of the internal auditors conducting remote audits can lead to the inability to collect sufficient audit evidence and assess it objectively. It is crucial for the internal audit team to have the necessary knowledge to correctly conduct audits using the technology. Remote auditing requires new competences, so internal auditors should :

- Be able to work with the technology solution(s) selected;
- Be able to handle the difficulties associated with picking up on verbal and visual cues when interviewing remotely;
- Develop new ways for selecting samples and following audit trails to ensure that samples are representative, are of their choosing, and that they remain in control of the audit process.

* **Reliability and trust of the audit :** Some auditors believe that audit can be trusted only if auditors have physical access to audit evidence. For example, remote audits can be seen by auditors as not suitable for auditing facilities.

* **Remote auditing makes it hard to build interaction with auditees:** Some areas can present difficulties during a remote audit involve manufacturing processes or product storage. Therefore, opportunities to provide hints and observations for improvement are lost. For example, an audit of the physical work environment such as the factory floor or warehouse for a manufacturing company, may not be suitable to be completed remotely.. In these cases, remote audits can use live video to gather the necessary audit evidence.

* **The lack of personal interaction create more opportunities for fraud:** The opportunity to present doctored documents and to omit relevant information is increased. This may call for additional planning, some different or additional audit procedures, or a follow-up once the barriers to a traditional audit lift.

In addition, (*Deloitte*,2020b) clarified some of the potential challenges that may face the internal auditors when conducting remote audits , and the appropriate actions to deal with and mitigate these challenges :

Table (2): The potential challenges of conducting remote audits , and the appropriate actions to deal with these challenges

Potential Challenges	Actions to mitigate these challenges
1- Inability to access locations may necessitate reprioritizing the audit plan to focus on audits that can be performed remotely.	Engage early with management and audit committee to agree changes. Prioritize availability of evidence, systems and topics that sit above field and manufacturing locations.
2- Timeliness of receiving information is harder to enforce when you operate remotely.	Keep on top of all document requests, with clear deadlines defined for receipt. Retain all requests in a single document and share this with management daily.
3- Risks associated with delays in receiving information, where there could be a lack of credibility of audit information received remotely.	Accelerate the deployment of analytics to increase coverage, focus on outliers, and reduce business interruption while providing valuable insights and assurance.
4- Lack of face-to-face interactions make it harder to build connection with management.	* Leverage newer conference facilities and agree with management in advance if appropriate to record the conversations as audit evidence. * Identify key management during planning and schedule calls in advance, progress updates and close-out discussions.
5- Training team members is more difficult remotely and it may take more time .	* Pre-fieldwork training through video allows for more effective feedback. * The internal audit manager should hold calls with each team member in advance of fieldwork to walkthrough their scope area and work programme and support preparation of test sheets.
6- In general, audit team is more efficient and focused when co-located , and it is harder for team members to share knowledge and stay aware of progress remotely.	Setting up regular team catch up calls in advance of and during fieldwork(e.g. daily stand-ups to share progress and emerging findings; more detailed weekly meetings and prior to the close meeting) to promote collaboration
7- Reports and work papers may take longer to get reviewed than they would in a normal business environment.	To improve efficiency, a video-meeting should be scheduled among the internal auditors to review reports and work papers in real-time.
8-Audit work may seem less structured when performed remotely compared to the work conducted in a normal business environment.	Internal auditors should adopt a set of guiding principles: <ul style="list-style-type: none"> • Support flexibility for where, when, and how work is performed. • Recognize open communication and clearly defined deliverables. • Proactively discuss tools and technologies, be open to more efficient technologies to improve the audit.
9- For global organisations, time differences may make it difficult to schedule calls with management and other team members.	When allocating resources, factor in time zones and locations of people working on the same or overlapping scope areas, determine feasibility of co-sourcing resources as appropriate.
10- Where team members are in different locations, sometimes language barriers make it harder to translate documents in real time .	Balance language skills across team members at planning stage to provide translation as needed, and review the need for external language support if needs are not aligned.

Also,(Tysiac,2020) provides some considerations for internal auditors when conducting a remote audit, especially If the organization is implementing remote audits for the first time during the Corona virus pandemic :

* **Define the scope, purpose, timing, requirements and method of each audit** : The Internal audit manager establish clear-cut rules of engagement between the organization activities and the audit team, Cover expectations of the key stakeholders, determine the frequency of status updates and engagements between defined points of contact.

* **Consider accuracy, completeness, relevance, and reliability of evidences**: These are four critical characteristics for audit evidences. Internal auditors have to use judgment, but the most important matter is how to collect reliable and relevant evidences that can be used in the electronic environment.

* **Beware of the potential for cyber attacks:** There seems to be increased risk related to hackers trying to take advantage of this Corona virus situation to get access to information systems. So, the internal auditors should use the security-enhanced technology to mitigate the risk of network attacks, password-protected documents, encrypted data and Public Key Infrastructure

* **Embrace flexible schedules:** This applies to clients as well as audit team members. So, Internal auditors should schedule regular check-in times with the auditors to evaluate progress, iron out issues and streamline the flow of communication.

* **Arrange audits so that audit activities are least disruptive to workflow :** Also, The Internal audit manager should appoint an onsite facilitator to manage audit logistics and resolve any technology-related problems.

Finally, remote auditing may not be a complete solution for all the challenges that Corona virus has created for auditors. But when it's possible to perform remote audit procedures in a thorough manner, they may be a valuable tool for auditors at this difficult time.

4. Research Methodology and Field Study:

The research relied on using the positive approach through the use of the deductive method to analyze previous studies related to the research subject and derivation of research hypotheses, in addition to the use of the inductive method to test the validity of research hypotheses in practice in the Egyptian business environment, through a field study conducted to provide a practical evidence from the Egyptian business environment on the agreement of internal auditors and users of internal audit reports on the roles that internal audit activity should play in response to Corona virus (COVID-19) outbreak, and the challenges that may face the internal auditors during the pandemic, in addition to examine the considerations of preparing and implementing the internal audit plan and reporting on the audit results during the crisis of COVID-19.

4.1 Sample Description and Data Collection:

The sample of the study included three categories: academics represented in the professors of auditing in the faculties of commerce in Egyptian universities, in addition to the members of audit committees, and internal auditors of some of the companies listed on the Egyptian stock exchange which operating in different economic sectors. The data was collected through a questionnaire designed and distributed to 120 individuals with 40 questionnaires for each category. The number of valid responses was 95 (79.2%) . The following tables shows the number of valid responses that have been used in statistical analysis for each category, and the qualifications and practical experience of the sample :

Table (3): The Number of Valid Responses for Each Category

Category	Frequency	Percent	Valid Percent	Cumulative Percent
Academic	33	34.7	34.7	34.7
audit committee	30	31.6	31.6	66.3
internal auditor	32	33.7	33.7	100.0
Total	95	100.0	100.0	

Table (4): The Qualifications of the Sample:

Certification	Frequency	Percent	Valid Percent	Cumulative Percent
Bachelor	25	26.3	26.3	26.3
diploma	12	12.6	12.6	38.9
Master	21	22.1	22.1	61.0
Phd	37	39.0	39.0	100.0
Total	95	100.0	100.0	

Table (5): The Experience of the Sample:

Experience	Frequency	Percent	Valid Percent	Cumulative Percent
less than 5 years	18	18.9	18.9	18.9
5-10 years	23	24.2	24.2	43.1
10-20 years	35	36.8	36.8	79.9
more than 20 years	19	20.1	20.1	100.0
Total	95	100.0	100.0	

Also, the responses were subjected to reliability analysis through calculating The Cronbach's Alpha coefficient to test the credibility and internal consistency of the study questions and variables. This test reflects the reliability of the sample responses to the questionnaire, the validity of the data for statistical analysis, and the extent to which the results obtained from the sample can be generalized to the study community (Al-Baladawi, 2007). As shown in the table no. (6), the Alpha Cronbach's coefficient was 0.934, and the value of the coefficient is higher than the statistically accepted 60%, reflecting a high degree of consistency and credibility in the data, and indicating that the data collected can be relied upon to complete the post-statistical examinations and hypotheses tests.

Table (6): Result of Reliability Analysis

Reliability Statistics	
Cronbach's Alpha	N of Items
.934	42

4.2 Research Hypotheses: The study tested three hypotheses, as follows:

First Hypothesis: There is agreement between the study sample groups about the importance of the internal audit roles in response to COVID-19 crisis.

Second Hypothesis: There is agreement between the study sample groups about the challenges that face the internal audit activity during the crisis of COVID-19.

Third Hypothesis: There is agreement between the study sample groups about the considerations of preparing and implementing the internal audit plan and reporting on the audit results during the crisis of COVID-19.

4.3 Results of Research Hypotheses Test :

The research hypotheses were tested through data analysis using the Statistical Package for Social Science (SPSS) to perform the necessary statistical analyses and tests at a level of confidence equal 5%. The researchers used statistical tests that are appropriate to the nature of the data collected, and the following is the results of the research hypotheses tests:

4.3.1 Results of The First Hypothesis Test :

The first hypothesis examines the agreement between the study sample groups about the importance of the internal audit roles in response to COVID-19 crisis , this hypothesis has been formulated for statistical testing in the form of null and alternative hypothesis as follows:

Null Hypothesis (H0) : There is no agreement between the study sample groups about the importance of the internal audit roles in response to COVID-19 crisis.

Alternative Hypothesis (H1) : There is agreement between the study sample groups about the importance of the internal audit roles in response to COVID-19 crisis.

This hypothesis was tested by analyzing the answers of the sample's categories on the first and the second question in the questionnaire. The first question measured the importance of the internal audit roles in response to COVID-19 crisis, represented by variables from X_{1-1} to X_{1-27} . While the second question aimed to determine if

there are other roles which internal auditors should perform in response to COVID-19 crisis , unlike the roles mentioned in the first question, represented by variable X_2 . The Five Leckert scale was used in the first and the second question, and the following weights have been allocated to the response of the sample members: (5) very important, (4) important, (3) neutral, (2) not important , (1) not important at all.

The descriptive statistics of the responses to the first and the second questions were calculated and analyzed using the One Sample T-test , and the results in the table no.(7) revealed that all variables have a mean greater than the default mean of the Leckert scale which is equal to (3), which reflects the agreement of the sample groups about the importance of the internal audit roles in response to COVID-19 crisis, which is likely to accept the alternative hypothesis. To test the validity of the first hypothesis, the One-Way ANOVA test was used to test the statistically significant differences between the answers of the three categories of the study sample on the first and second questions in the questionnaire, and the results in the table no.(6) showed that there were no statistically significant differences between the sample categories responses, where the calculated P-value were greater than 0.05 for the most of variables (except variables X_{1-4} , X_{1-10} , X_{1-13} , X_{1-23} , X_{1-26}), Which indicates the agreement between the study sample groups about the importance of the internal audit roles in response to COVID-19 crisis.

Table (7): The Results of One Sample T-Test and One-Way ANOVA Test for the First Hypothesis.

VAR	Variable Description	Mean	One Sample T-test		One-Way ANOVA	
			t	Sig.	F	Sig.
X ₁₋₁	Evaluate the changes that occurred in the entity's control environment as a result of Corona virus outbreak.	4.389	14.448	0.000	1.276	0.284
X ₁₋₂	Evaluate efficiency and effectiveness of internal control procedures in light of applying the remote working system.	4.558	24.733	0.000	1.746	0.180
X ₁₋₃	Evaluate the need to make some adjustments in the internal control procedures or to apply additional control procedures during the Corona virus outbreak.	4.579	28.632	0.000	0.222	0.801
X ₁₋₄	Evaluate the efficiency of the design of the new internal control procedures and the effectiveness of their application.	4.516	23.965	0.000	3.682	0.029
X ₁₋₅	Evaluate the ability of the entity's management to adequately and effectively identify and manage the risks associated with the spread of the Corona virus.	4.684	35.129	0.000	0.335	0.716
X ₁₋₆	provide the necessary recommendations to assist the entity's management in managing these risks and mitigating their effects.	4.515	25.430	0.000	0.505	0.605
X ₁₋₇	Expand the scope of the risk assessment process carried out by the internal audit activity to include the risks arising as a result of the outbreak of Corona virus.	4.578	31.006	0.000	0.360	0.699
X ₁₋₈	Evaluate the risks associated with modifying the work system and creating /canceling some operations and activities of the entity during the outbreak period.	4.463	23.167	0.000	1.107	0.335
X ₁₋₉	Increasing interest in assessing fraud risks for the main operations and activities, especially the operations that underwent modifications as a result of applying the remote working system.	4.537	25.827	0.000	1.978	0.144
X ₁₋₁₀	Continuous communication with the Audit Committee and key stakeholders to determine their needs for assurance and consulting services during the COVID-19 crisis.	4.453	20.804	0.000	3.898	0.024
X ₁₋₁₁	Discussing audit results and important observations with the Board of Directors and the Audit Committee, and providing recommendations for appropriate corrective actions.	4.432	24.179	0.000	1.827	0.167
X ₁₋₁₂	Continuous communication with the main parties responsible for governance in the entity, to continuously assess the impact of the spread of the virus on the entity's performance and its financial reports.	4.578	25.164	0.000	2.418	0.095
X ₁₋₁₃	Coordinate work with the external auditor and cooperate with the supervisory authorities to determine any other tasks necessary for the internal audit.	4.516	22.726	0.000	3.711	0.028
X ₁₋₁₄	Providing the necessary knowledge and making recommendations to the Board of Directors and the audit Committee regarding the most recent and pioneering developments in crisis management plans at the industry level, both internationally and locally.	4.579	25.164	0.000	0.284	0.754
X ₁₋₁₅	Evaluating the entity's performance in managing the crisis and facing the risks associated with the Corona epidemic, and making the necessary recommendations to continuously improve this performance.	4.557	28.109	0.000	2.281	0.108

X ₁₋₁₆	Evaluating the appropriateness and effectiveness of implementing the crisis management plan applied by the entity, and provide recommendations for its development as needed.	4.558	22.339	0.000	0.560	0.573
X ₁₋₁₇	Evaluating the efficiency and effectiveness of the plans and procedures applied by the enterprise to maintain the health and safety of workers.	4.505	20.168	0.000	1.083	0.343
X ₁₋₁₈	Evaluating the availability of sufficient and appropriate financial and human resources to implement the crisis management plan and maintain the enterprise's viability.	4.589	28.912	0.000	1.175	0.314
X ₁₋₁₉	Providing support for other activities in the entity during the pandemic through the experiences that the internal audit team has in various fields.	4.274	18.380	0.000	0.169	0.845
X ₁₋₂₀	Conducting a post-crisis review and preparing a report on the most important observations and lessons learned from the management of this crisis, which can be relied upon in developing expected crisis management plans in the future.	4.516	23.965	0.000	1.032	0.360
X ₁₋₂₁	Evaluating the entity's performance in maintaining the security and confidentiality of data in light of weak control procedures and the increase in number of users from inside and outside the entity during the pandemic.	4.474	22.107	0.000	2.391	0.097
X ₁₋₂₂	Evaluating the efficiency and effectiveness of plans and procedures to protect the security and confidentiality of data exchange between the entity and external parties such as customers and suppliers.	4.537	25.827	0.000	0.536	0.587
X ₁₋₂₃	Providing recommendations for developing mechanisms to prevent and detect breaches.	4.453	21.831	0.000	3.663	0.029
X ₁₋₂₄	Evaluating the performance in managing relationships with customers, suppliers, and other external parties during the corona virus crisis.	4.495	25.069	0.000	0.056	0.946
X ₁₋₂₅	Evaluating the adequacy of the resources available to maintain the functioning of the entity's main operations and to fulfill its contracts during the crisis period.	4.579	26.731	0.000	2.983	0.056
X ₁₋₂₆	Assisting the management in identifying the critical activities that suffer from bottlenecks as a result of the spread of the Corona virus crisis, and providing the necessary recommendations to treat them.	4.558	26.259	0.000	5.234	0.007
X ₁₋₂₇	Evaluate the risks related to the entity's relationship with external parties, and make recommendations to management regarding how to deal with changes in the volume of demand and customer behavior during the epidemic period.	4.432	21.578	0.000	0.099	0.905
X ₂	Other Roles	0.2105	-66.338	0.000	1.625	0.203

Based on the previous results, the null hypothesis was rejected and the alternative hypothesis was accepted, which states that there is agreement between the study sample groups about the importance of the internal audit roles in response to COVID-19 crisis.

4.3.2 Results of The Second Hypothesis Test:

The second hypothesis examines the agreement between the study sample groups about the challenges that face the internal audit activity during the crisis of COVID-19, this hypothesis has been formulated for statistical testing in the form of null and alternative hypothesis as follows :

Null Hypothesis (H0) : There is no agreement between the study sample groups about the challenges that face the internal audit activity during the crisis of COVID-19.

Alternative Hypothesis (H1) : There is agreement between the study sample groups about the challenges that face the internal audit activity during the crisis of COVID-19.

This hypothesis was tested by analyzing the answers of the sample categories on the third and the fourth question in the questionnaire. The third question measured the agreement of the sample groups about the challenges that face the internal audit activity during the crisis of COVID-19, represented by variables from X₃₋₁ to X₃₋₅. While the fourth question aimed to determine if there are other challenges can face the internal audit activity during the crisis of COVID-19, unlike the challenges mentioned in the third question, represented by variable X₄. The Five Likert scale was used in these questions, and the following weights have been allocated

to the responses of the sample members: (5) strongly agree, (4) agree, (3) neutral , (2) don't agree , (1) don't agree at all .

The descriptive statistics of the responses to the third and the fourth questions were calculated and analyzed using the One Sample T-test , and the results in the table no.(8) revealed that all variables have a mean greater than the default mean of the Leckert scale which is equal to (3), which reflects the agreement of the sample groups about the challenges can face the internal audit activity during the crisis of COVID-19. which is likely to accept the alternative hypothesis. To test the validity of the second hypothesis, the One-Way ANOVA test was used to test the statistically significant differences between the answers of the three categories of the study sample on the third and fourth questions in the questionnaire, and the results in the table no.(8) showed that there were no statistically significant differences between the sample categories responses, where the calculated P-value were greater than 0.05 for all the variables, Which indicates the agreement between the study sample groups about the challenges that face the internal audit activity during the crisis of COVID-19.

Table (8): The Results of One Sample T-Test and One-Way ANOVA Test for The Second Hypothesis

VAR	Variable Description	Mean	One Sample T-test		One-Way ANOVA	
			t	Sig.	F	Sig.
X ₃₋₁	Increasing the likelihood of fraudulent practices occurring as a result of the ineffectiveness of traditional control procedures in light of the restrictions associated with the outbreak of the virus.	4.326	15.560	0.000	2.086	0.130
X ₃₋₂	Increasing the level of audit risk as a result of the high uncertainty associated with the spread of the virus, which requires additional and unconventional audit procedures.	4.411	17.975	0.000	2.563	0.083
X ₃₋₃	The usual audit procedures are insufficient to obtain sufficient and appropriate evidence.	3.926	9.102	0.000	0.619	0.541
X ₃₋₄	The need to maintain a high level of quality audit services despite the difficulties and high risks associated with planning and implementing audit work in light of the Corona epidemic.	4.516	23.965	0.000	0.184	0.832
X ₃₋₅	Internal audit team must adhere to professional standards and ethics, especially independence and objectivity, while performing some advisory services during these circumstances, such as proposing to add or amend some internal control procedures.	4.515	23.965	0.000	1.761	0.178
X ₄	Other challenges	0.1368	- 80.77	0.000	0.632	0.534

Based on the previous results, the null hypothesis was rejected and the alternative hypothesis was accepted, which states that there is agreement between the study sample groups about the challenges that face the internal audit activity during the crisis of COVID-19.

4.3.3 Results of The Third Hypothesis Test:

The third hypothesis examines the impact of applying the proposed framework of value-based internal audit on the added value of internal audit activity for Egyptian business enterprises and their stakeholders, this hypothesis has been formulated for statistical testing in the form of null and alternative hypothesis as follows :

Null Hypothesis (H0) : There is no agreement between the study sample groups about the considerations of preparing and implementing the internal audit plan and reporting on the audit results during the crisis of COVID-19.

Alternative Hypothesis (H1) : There is agreement between the study sample groups about the considerations of preparing and implementing the internal audit plan and reporting on the audit results during the crisis of COVID-19.

This hypothesis was tested by analyzing the answers of the sample groups on the fifth and the sixth question in the questionnaire. The fifth question measured the agreement of the sample groups about the considerations of preparing and implementing the internal audit plan and reporting on the audit results during the crisis of COVID-19, represented by variables from X₅₋₁ to X₅₋₇ . While the sixth question aimed to determine if there are other considerations of preparing and implementing the internal audit plan and reporting on the audit results during the crisis of COVID-19, unlike the considerations mentioned in the fifth question, represented by variable X₆ .The Five Leckert scale was used in these questions, and the following weights have been allocated to the responses

of the sample members: (5) strongly agree, (4) agree, (3) neutral , (2) don't agree , (1) don't agree at all .

The descriptive statistics of the responses to the fifth and the sixth questions were calculated and analyzed using the One Sample T-test , and the results in the table no.(9) revealed that all variables have a mean greater than the default mean of the Leckert scale which is equal to (3), which reflects the agreement of the sample groups about the considerations of preparing and implementing the internal audit plan and reporting on the audit results during the crisis of COVID-19, which is likely to accept the alternative hypothesis.

To test the validity of the third hypothesis, the One-Way ANOVA test was used to test the statistically significant differences between the answers of the three categories of the study sample on the fifth and the sixth questions in the questionnaire, and the results in the table no.(9) showed that there were no statistically significant differences between the sample categories responses, where the calculated P-value were greater than 0.05 for the most of variables (except variables X_{5-2} , X_{5-3} , X_{5-7}), Which indicates the agreement between the study sample groups about the considerations of preparing and implementing the internal audit plan and reporting on the audit results during the crisis of COVID-19

Table (9): The Results of One Sample T-Test and One-Way ANOVA Test for the Third Hypothesis

VAR	Variable Description	Mean	One Sample T-test		One-Way ANOVA	
			t	Sig.	F	Sig.
X_{5-1}	Arranging the priority of the risks that are focused on in the internal audit plan in proportion to its likelihood and impact.	4.726	34.102	0.000	2.431	0.094
X_{5-2}	Updating the internal audit plan constantly according to the needs of the management and stakeholders, in light of the increase and diversity of risks associated with the outbreak of the virus.	4.410	21.347	0.000	4.826	0.010
X_{5-3}	Working on designing and implementing additional and non-traditional audit procedures to obtain sufficient and appropriate evidence, using modern means of communication such as Zoom, Skype and video conference technology to conduct personal interviews with company employees in light of social distancing restrictions.	4.589	26.982	0.000	4.366	0.015
X_{5-4}	applying a high level of professional skepticism, and rely on personal assessments during all stages of the audit process to overcome the fundamental uncertainty associated with the spread of the virus.	4.505	23.791	0.000	0.560	0.573
X_{5-5}	Developing a strategy for optimal use of the time and resources available for the internal audit activity during the Corona crisis, in a way that contributes to adding value to the enterprise and its stakeholders.	4.453	21.831	0.000	0.742	0.479
X_{5-6}	Using modern technology in achieving continuous communication between members of the internal audit team, exchanging information and observations, and discussing the results reached up to date.	4.590	26.982	0.000	2.718	0.071
X_{5-7}	Disclosing the constraints and difficulties associated with performing the audit work in the internal audit report.	4.505	19.403	0.000	3.920	0.023
X_6	Other considerations	0.1053	- 91.45	0.000	0.530	0.590

Based on the previous results, the null hypothesis was rejected and the alternative hypothesis was accepted, which states that There is agreement between the study sample groups about the considerations of preparing and implementing the internal audit plan and reporting on the audit results during the crisis of COVID-19.

5. Research Limitations:

The research was limited to study the internal audit activity's roles, challenges and considerations during the crisis of COVID-19, as an internal (in-house) activity, and didn't address the other sources for internal audit services such as outsourcing or co-sourcing. Also, the field study was limited to three categories: academics and audit committees members as common users of internal audit reports, and internal auditors of the companies surveyed as responsible for providing assurance and consulting services, and preparing internal audit reports.

6. Conclusion:

The spread of the COVID-19 epidemic on a large scale in most countries of the world has led to many effects in all fields, the most important of which are health, economic and social impacts. The Covid-19 pandemic has caused an increase in the level of uncertainty for business enterprises, and the decisions taken to deal with the virus, such as social distancing and the application of the remote work system, have had many effects. One of the most important of these is increasing the risks associated with the use of electronic accounting information systems in business enterprises, as a result of weak and ineffective internal control procedures applied, which poses a threat to data security and confidentiality of the entity's information and increases its exposure to loss or distortion, and negatively affects the quality of the output of information systems.

Therefore, the internal audit must expand its roles related to internal control, governance and risk management, in addition to performing some other roles in the field of maintaining the security and confidentiality of information and managing crises and disasters to face the increase in risks associated with the Corona pandemic. This requires focusing on the use of modern technology in data analysis and activating modern audit methods such as continuous auditing and remote auditing to keep pace with the development of the surrounding environment, and to help business enterprises to face the continuous changes and developments in the business environment, improving the performance of these enterprises and their operations and helping them to achieve their objectives, so that the internal audit is actually a value-adding activity for businesses and their stakeholders.

So, This research aims to define the roles that internal audit activity can play in response to Corona virus (COVID-19) outbreak, and explore the challenges that may face the internal auditors during the pandemic, in addition to discuss the most important considerations of preparing and implementing the internal audit plan and reporting on the audit results during the crisis of COVID-19, and suggest to use remote auditing as an alternative approach to facilitate the performance of internal audit tasks efficiently during this crisis

To achieve its goals, the research relied on using the positive approach through the use of the deductive approach to analyze previous studies related to the research topic and derive the research hypotheses, in addition to using the inductive approach to test the validity of the research hypotheses in the real practice in the Egyptian business environment. This was done through a field study conducted on a sample of 95 individuals, which included three categories: the academics represented by the professors of accounting and auditing in the faculties of commerce in Egyptian universities, in addition to the members of the audit committees and the internal auditors of some joint stock companies listed on the Egyptian Stock Exchange. Statistical tests were used commensurate with the nature of the data collected.

And based on the results of the statistical hypothesis test, the first hypothesis was accepted, which states that there is agreement between the study sample groups about the importance of the roles that the internal audit activity can play in business enterprises to confront the crisis of the Corona virus (Covid-19). Also, the second hypothesis was accepted, Which states that there is agreement between the study sample groups about the challenges that may face the internal auditors during the Corona virus (Covid-19) pandemic, as well as the third hypothesis which states that there is agreement between the study sample groups about the factors that should be considered when preparing and implementing the internal audit plan and reporting on the audit results during the Corona virus (Covid-19) crisis.

Also, based on the results of the field study, it becomes clear the importance of developing the method of performing the internal audit activity during the Corona pandemic crisis, through applying modern audit methods, such as the remote audit approach, which relies on using information and communication technology to perform internal audit tasks efficiently , which enables the internal audit activity to provide the roles assigned to it and meet the needs of stakeholders , and overcome the challenges facing the internal auditors during the period of the epidemic on the other hand.

Remote audit is exactly the same as the traditional audit but using electronic means to remotely obtain audit evidence and evaluate it objectively in order to determine the extent of conformity to the audit criteria. Remote audit is the future of auditing ; its advantages are unquestionable, although there are still some barriers to overcome. Remote auditing is one of the modern audit methods which presents an opportunity for internal auditors to leverage technology and adapt to a changing information environment.. Also, remote auditing is an

alternative method for efficient and productive auditing, not only from the point of view of the company, but to the audit team as well. The value of this audit method resides in its potential to provide flexibility to achieving the audit objectives.

The COVID-19 pandemic has spurred the adoption of remote audits in organizations across the world, but subsequent time and costs savings suggest remote auditing will remain popular into the future. Adopting communications and analytic technology to extend the scope, change the timing, and reduce the costs of audit processes. enable auditors to work remotely, reduce travel costs and latency, and increase efficiency and coverage. Remote auditing can be just as effective as more traditional face-to-face methods, and for some, the outcome is even better. While the COVID-19 pandemic forced many auditors to explore remote options, the long-term impact of remote auditing can be substantial. If internal auditors take enough time to plan remote auditing and remain mindful of communication skills, they can continue to add value to their organizations as relevant partners to management.

Finally, in light of the research problem, objectives and limitations, and the results achieved in both theoretical and field sides, the researchers recommend the following:

- 1- Paying more attention to information technology governance and developing control procedures for the security of electronic information systems during the crisis of COVID-19 .
- 2- Developing the skills and expertise of workers including the internal audit team in dealing with modern technology through training programs.
- 3- Increasing the qualifications and practical experience of the internal auditors in the field of crisis and disaster management, and asking for help of some specialized experts in some aspects of which the internal audit team doesn't have the sufficient experience.
- 4- Increasing reliance on the use of modern technology in data analysis and activating modern audit methods such as continuous auditing and remote auditing to overcome the restrictions imposed by social distancing procedures and the application of the remote work system.
- 5- The management and those responsible for preparing financial reports should adopt transparency and adequate disclosure of the impact of the Corona virus pandemic on the enterprises' performance, financial position and expected cash flows, while expanding disclosure of the assumptions related to the future and the risks associated with the outbreak of the virus.
- 6- The annual reports of companies should include sufficient information regarding crisis management and its impact on the company, which contributes to rationalizing the decisions of the users of financial reports.
- 7- Developing Egyptian accounting and auditing standards to include guidelines for measurement and disclosure during crises and disasters, in addition to provide adequate guidance to auditors to help them providing high quality audit services under exceptional circumstances.

Also, the researchers believe in the importance of conducting more future research on some topics related to the research topic, the most important of which are:

- 1-The impact of COVID-19 on the internal control environment and the auditor's responsibility.
- 2-The impact of COVID-19 on audit procedures and auditor's report.
- 3-The impact of COVID-19 on audit quality.
- 4-The impact of COVID-19 on auditor's evaluation of the entity's viability.
- 5-The impact of COVID-19 on audit fees.
- 6-The impact of COVID-19 on the audit expectation gap.
- 7- The impact of COVID-19 on investment and financing decisions.
- 8- The impact of COVID-19 on projected cash flows and company's value.
- 9- The impact of using remote auditing approach on the internal audit quality .

7. References

- *Al-Baldawi, Abdel-Hamid Abdel-Majeed. 2007. Methods of scientific research and statistical analysis: research planning, data collection and analysis manually and using SPSS. Dar-Alshorouq. Third edition.
- *Al-Jabali, Walid Samir Abdel-Azim 2020. The impact of the spread of the Coronavirus COVID-19 pandemic on preparing and reviewing financial statements - a field study. *The Scientific Journal of Accounting Studies*, Issue 1, 1145-1205.
- *Al-Tahan, Ibrahim Mohamed and Abdel-Hamid Al-Issawi Mahmoud. 2020. The current and potential impacts of the Corona virus outbreak on the financial reporting environment in light of international and Egyptian accounting standards: an exploratory study. *Alexandria Journal of Accounting Research*, Faculty of Commerce - Alexandria University, 4(2) , 296-379.
- *Deloitte .2016. Facing the UnKnown : Crisis Management and the Role of Internal Audit . Available at : www.Deloitte.com .
- *Deloitte .2019. Internal Audit Insights 2019: High-impact areas of focus. Available at : www.Deloitte.com .
- *Deloitte .2020a. Internal Audit Considerations in Response to COVID-19. Available at : www.Deloitte.com
- *Deloitte .2020b. Delivering remote internal audits responding to COVID-19. Available at : www.Deloitte.com.
- *Ibrahim, Mohamed Zidan and Mohamed Abdel Moneim Zayed 2020. The accounting implications and implications of the Coronavirus (COVID-19) crisis - An analytical view from an accounting perspective. *Alexandria Journal of Accounting Research*, Faculty of Commerce - Alexandria University, 4(2) ,1-28.
- * International Organization for Standardization(ISO) & International Accreditation Forum (IAF) .2020. ISO 9001 Auditing Practices Group Guidance on: Remote Audits. Available at : www.iso.org.
- * Kashyap ,Vinod .2020. Remote Audit During and Beyond COVID –19. The 50th World Continuous Auditing and Reporting Symposium. November 6 &7, 2020.
- *KPMG. 2018. Top 10 in 2018 : Considerations for Impactful Internal Audit Departments. Available at : www.KPMG.com .
- *KPMG. 2019. 20 Key Risks to Consider by Internal Audit before 2020. Available at : www.KPMG.com .
- *KPMG. 2020a. COVID-19: The Impact on Internal Audit. March 2020. Available at : www.KPMG.com .
- *KPMG. 2020b. Impact of the COVID-19 Crisis on Internal Audit Functions of Financial Institutes. April 2020. Available at : www.KPMG.com .
- * KPMG .2021. Remote Auditing for Internal Auditors. Available at : www.KPMG.com
- * Mahmoud, Abdel-Hamid Al-Essawi and Ibrahim Mohamed Al-Tahan. 2020. The implications of the Covid-19 pandemic on the environment and activities of the external audit with an exploratory study of the reality of the Egyptian professional practice environment. *Alexandria Journal of Accounting Research*, Faculty of Commerce - Alexandria University, 4(2) , 448-535.
- * *Picciotti , Daniella* .2020. Remote Auditing: An ISO 9001 Auditor's Perspective. Retrieved from : <https://www.theauditoronline.com/remote-auditing-an-iso-9001-auditors-perspective/> .
- *Teeter, Ryan A. , Michael G. Alles , Miklos A. Vasarhelyi . 2010 .The Remote Audit . *JOURNAL OF EMERGING TECHNOLOGIES IN ACCOUNTING* , Vol. 7, 73–88.
- *The Chartered Institute of Internal Auditors (CIIA) .2018. Risk in Focus 2019: Hot Topics for Internal Auditors (Dublin) , Online Issue ,1-43.

- * The Institute of Internal Auditors (IIA) .2012. Internal Audit Sphere: The Role of Internal Audit in Tough Times. September, 1(3) ,1-25, Available at: [www. theiia .org](http://www.theiia.org).
- *The Institute of Internal Auditors (IIA) Global. 2014. Business Continuity Management . Available at : www.theiia.org.
- *The Institute of Internal Auditors (IIA) Global. 2017. Global Perspectives and Insights: Crisis Resilience. Available at : www.theiia.org.
- *The Institute of Internal Auditors (IIA) Belgium. 2020a. Impact of COVID-19 on Internal Audit. Available at : www.theiia.org.
- * The Institute of Internal Auditors (IIA) .2020b. Remote Auditing for COVID –19 and Beyond : Short-term and Long-term Implications. Available at: [www. theiia .org](http://www.theiia.org)
- *The Institute of Internal Auditors Research Foundation (IIARF) .2011. Internal Auditing's Role in Risk Management . March 2011. Available at : www.theiia.org.
- * Tysiac, Ken. 2020. Remote auditing comes to forefront during pandemic. **Journal of Accountancy**. Online Issue. Retrieved from : <https://www.journalofaccountancy.com/news/2020/mar/remote-auditing-during-coronavirus-pandemic.html>

Web Sites :

- * <https://www.quality.org/knowledge/evolution-remote-audits>
- * <https://isotracker.com/blog/preparing-your-organization-for-remote-audits-tips-and-resources/>.
- * [https://www.bsigroup.com/en-GB/our-services/certification/remote-audit /](https://www.bsigroup.com/en-GB/our-services/certification/remote-audit/).
- * [https://advisera.com/blog/2020/01/27/what-are-benefits-and-barriers-when-performing-remote-audits /](https://advisera.com/blog/2020/01/27/what-are-benefits-and-barriers-when-performing-remote-audits/).
- * <https://www.nqa.com/en-gb/coronavirus/remote-audit-prep>

Appindex

Dear Respondent,

After greeting and appreciation...

The researchers are conducting a field study entitle **(Remote Auditing : An Alternative Approach to Face the Internal Audit Challenges During The COVID-19 Pandemic)**

Prepared By

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Mona Mohammed Daoud

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This research aims to define the roles that the internal audit activity can play in business enterprises to confront the crisis of the spread of the Corona virus (Covid-19). The research also aims to discover the challenges that the internal auditors may face while performing their work during the period of the epidemic, in addition to studying Factors that must be taken into consideration when preparing and implementing the internal audit plan and reporting on the audit findings during the Corona virus (COVID-19) crisis.

To link the theoretical aspect of this study with aspects of practice, this questionnaire has been prepared, which includes a set of questions that reflects the variables be measured through the research.

The two researchers hope to cooperate with you in answering the questions contained in the questionnaire accurately as possible. The researchers confirm that your opinion adds a great scientific value to the research and if you wish to know the results, the results will reach you for knowing the benefits of the research.

Researchers

Personal Data:

Name (Optional):

Qualification:

- Bachelor
- Master
- Diploma
- Doctorate

Experience:

- Less than 5 years
- 11-20 years
- 5-10 years
- More than 20 years

-

(1) The following are some of the roles that the internal audit activity can play to confront the Corona epidemic crisis, please specify how important each role is from your point of view :-

The roles of internal audit activity to confront the Corona epidemic crisis	Very important	Important	I don't know	Not important	Not important at all
<p><u>In the area of internal control:</u></p> <ul style="list-style-type: none"> • Evaluate the changes that occurred in the entity's control environment as a result of Corona virus outbreak. • Evaluate efficiency and effectiveness of internal control procedures in light of applying the remote working system. • Evaluate the need to make some adjustments in the internal control procedures or to apply additional control procedures during the Corona virus outbreak. • Evaluate the efficiency of the design of the new internal control procedures and the effectiveness of their application. <p><u>In the area of risk management:</u></p> <ul style="list-style-type: none"> • Evaluate the ability of the entity's management to adequately and effectively identify and manage the risks associated with the spread of the Corona virus. • provide the necessary recommendations to assist the entity's management in managing these risks and mitigating their effects. • Expand the scope of the risk assessment process carried out by the internal audit activity to include the risks arising as a result of the outbreak of Corona virus. • Evaluate the risks associated with modifying the work system and creating /canceling some operations and activities of the entity during the outbreak period. • Increasing interest in assessing fraud risks for the main operations and activities, especially the operations that underwent modifications as a result of applying the remote working system. <p><u>In the area of governance:</u></p> <ul style="list-style-type: none"> • Continuous communication with the Audit Committee and key stakeholders to determine their needs for assurance and consulting services during the COVID-19 crisis. 					

<ul style="list-style-type: none"> • Discussing audit results and important observations with the Board of Directors and the Audit Committee, and providing recommendations for appropriate corrective actions. • Continuous communication with the main parties responsible for governance in the entity, to continuously assess the impact of the spread of the virus on the entity's performance and its financial reports. • Coordinate work with the external auditor and cooperate with the supervisory authorities to determine any other tasks necessary for the internal audit. <p><u>In the area of crisis management and business continuity :</u></p> <ul style="list-style-type: none"> • Providing the necessary knowledge and making recommendations to the Board of Directors and the audit Committee regarding the most recent and pioneering developments in crisis management plans at the industry level, both internationally and locally. • Evaluating the entity's performance in managing the crisis and facing the risks associated with the Corona epidemic, and making the necessary recommendations to continuously improve this performance • Evaluating the appropriateness and effectiveness of implementing the crisis management plan applied by the entity, and provide recommendations for its development as needed. • Evaluating the efficiency and effectiveness of the plans and procedures applied by the enterprise to maintain the health and safety of workers. • Evaluating the availability of sufficient and appropriate financial and human resources to implement the crisis management plan and maintain the enterprise's viability. • Providing support for other activities in the entity during the pandemic through the experiences that the internal audit team has in various fields. • Conducting a post-crisis review and preparing a report on the most important observations and lessons learned from the management of this crisis, which can be relied upon in developing expected crisis management plans in the future. 					
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<p><u>In the area of data security protection:</u></p> <ul style="list-style-type: none"> • Evaluating the entity's performance in maintaining the security and confidentiality of data in light of weak control procedures and the increase in number of users from inside and outside the entity during the pandemic. • Evaluating the efficiency and effectiveness of plans and procedures to protect the security and confidentiality of data exchange between the entity and external parties such as customers and suppliers. • Providing recommendations for developing mechanisms to prevent and detect breaches. <p><u>In the field of customer relations and supply chain:</u></p> <ul style="list-style-type: none"> • Evaluating the performance in managing relationships with customers, suppliers, and other external parties during the corona virus crisis. • Evaluating the adequacy of the resources available to maintain the functioning of the entity's main operations and to fulfill its contracts during the crisis period. • Assisting the management in identifying the critical activities that suffer from bottlenecks as a result of the spread of the Corona virus crisis, and providing the necessary recommendations to treat them. • Evaluate the risks related to the entity's relationship with external parties, and make recommendations to management regarding how to deal with changes in the volume of demand and customer behavior during the epidemic period. 					
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(2) In your opinion, are there other roles that the internal audit activity can play to confront the Corona epidemic crisis?

() Yes () No

If yes, please mention these roles :

.....

.....

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(3) The following are some of the challenges faced by the internal audit during the crisis of the Corona virus, please specify the extent of your agreement with each of them from your point of view :

Challenges faced by the internal audit during the crisis of the Corona virus	Strongly Agree	Agree	I don't know	I don't Agree	I don't Agree at all
<ul style="list-style-type: none"> • Increasing the likelihood of fraudulent practices occurring as a result of the ineffectiveness of traditional control procedures in light of the restrictions associated with the outbreak of the virus. • Increasing the level of audit risk as a result of the high uncertainty associated with the spread of the virus, which requires additional and unconventional audit procedures. • The usual audit procedures are insufficient to obtain sufficient and appropriate evidence. • The need to maintain a high level of quality audit services despite the difficulties and high risks associated with planning and implementing audit work in light of the Corona epidemic. • Internal audit team must adhere to professional standards and ethics, especially independence and objectivity, while performing some advisory services during these circumstances, such as proposing to add or amend some internal control procedures. 					

(4) In your opinion, are there other challenges that could face the internal audit activity during the Corona epidemic crisis?

Yes No

If yes, please mention these challenges :

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(5) The following are some of the considerations that must be taken into account when preparing and implementing the internal audit plan and reporting on the audit results during the crisis of the Corona virus, please specify the extent of your agreement with each of them from your point of view:

considerations of preparing and implementing the internal audit plan and reporting on the audit results during the crisis of the Corona virus	Strongly Agree	Agree	I don't know	I don't Agree	I don't Agree at all
<ul style="list-style-type: none"> • Arranging the priority of the risks that are focused on in the internal audit plan in proportion to its likelihood and impact. • Updating the internal audit plan constantly according to the needs of the management and stakeholders, in light of the increase and diversity of risks associated with the outbreak of the virus. • Working on designing and implementing additional and non-traditional audit procedures to obtain sufficient and appropriate evidence, using modern means of communication such as Zoom, Skype and video conference technology to conduct personal interviews with company employees in light of social distancing restrictions. • applying a high level of professional skepticism, and rely on personal assessments during all stages of the audit process to overcome the fundamental uncertainty associated with the spread of the virus. • Developing a strategy for optimal use of the time and resources available for the internal audit activity during the Corona crisis, in a way that contributes to adding value to the enterprise and its stakeholders. • Using modern technology in achieving continuous communication between members of the internal audit team, exchanging information and observations, and discussing the results reached up to date. • Disclosing the constraints and difficulties associated with performing the audit work in the internal audit report. 					

(6) In your opinion, are there any other considerations that must be taken into account when preparing and implementing the internal audit plan and reporting on the audit results during the crisis of the Corona virus ?

() Yes () No

If yes, please mention these considerations :

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Thank you for cooperation with us