



The role of Remote Auditing in Obtaining Evidence under the Coronavirus Pandemic (COVID-19)

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Abstract:

The purpose of this study is to explore the role of remote auditing in securing adequate and appropriate audit evidence in the context of COVID-19 pandemic. It aims to give an insight on concept, requirements, merits and limitations of remote auditing, as well as the role of artificial intelligence (AI) technologies in facilitating remote auditing processes and enriching the quality of audit evidence. The researchers used the descriptive approach for the theoretical part of the research and the descriptive analytical approach for the empirical part of the research to achieve the objectives of the study. A questionnaire was sent to the auditors from the Federal Board of Supreme Audit, private audit offices and academics in Iraq. The collected data were analyzed by using statistical package for the social sciences (SPSS) for testing the proposed research hypotheses. The results showed that there was a statistically significant relationship between remote auditing and audit evidence acquisition being sufficient and appropriate during COVID-19. The findings also showed that use of artificial intelligence technologies increases efficiency of remote auditing, strengthens audit evidence quality and reliability, and decreases audit procedure time and effort. The study suggests an increase in the use of remote auditing techniques, the digitization of technological resources and the development of the competencies of auditors in digital tools to facilitate high-quality auditing in the digital context.

Keywords: Remote Auditing; Audit Evidence; Artificial Intelligence; COVID-19; Audit Quality.

1. Introduction

The development of information and communication technologies has drastically changed the auditing profession and led to the emergence of new ways of conducting audit procedures. Of these, remote auditing has proven itself as an effective technique that allows the auditors to perform audit activities without having to physically go to the client's offices. This approach is based on the use of digital technologies, cloud technologies and communication technologies, such as video conferencing, electronic document exchange and artificial intelligence (AI) applications, for the collection and evaluation of audit evidence, whilst ensuring the quality and efficiency of the audit process. COVID-19 pandemic increased the implementation of remote auditing practices due to travel restrictions, lockdowns and social distancing. As such, auditors were forced to use technology solutions to provide sufficient and appropriate audit evidence and maintain continuity of audit efforts. AI technologies, such as expert systems, machine learning, robotic process automation, and continuous learning technologies, have proven useful when supporting the remote audit process, by providing better data analysis, audit efficiency, and audit evidence. The remote auditing has been investigated by several studies in different aspects. Teeter, Alles, and Vasarhelyi (2010) proposed one of the first conceptual models for remote auditing and found that information technology and continuous auditing techniques could assist in the electronic gathering of audit evidence and enhance audit efficiency. In the COVID-19 pandemic, Al-Tae (2021) studied the application of remote auditing in the Iraqi context and concluded that despite the presence of technological and organizational problems, remote auditing was a viable alternative to traditional auditing. Similarly, Morris, Hoitash, and Hoitash (2023) analyzed how audit firms adapted to remote work in response to the COVID-19 pandemic, finding that remote work, at first, had impacted audit effectiveness, but audit firms ultimately responded to the pandemic with increased use of digital technologies. More recent studies have further explored the effectiveness of remote auditing. Under certain conditions, the effectiveness of remote auditing could have a negative impact on audit quality, but it can be mitigated by designing and employing adequate technology and audit methods, the authors found (2025). In turn, Xu, Dellaportas and Li (2025) found that obtaining adequate and appropriate audit evidence to be one of the primary problems of remote audits and noted that digital competence and technological preparedness are crucial.

Additionally, Liao et al. (2025) found that robust IT infrastructure plays a crucial role in improving the effectiveness of remote auditing and helps auditors gather reliable audit evidence. Although there has been a considerable amount of literature published to date, these studies have largely concentrated on the feasibility of the remote audit, the technical difficulties of remote auditing or the effect of remote auditing on audit quality. Very little research has been conducted on the integrated use of AI technologies and remote auditing to ensure adequate and appropriate audit evidence, especially in the Iraqi auditing context. Hence, this study tries to fill this gap by addressing the role of remote auditing in obtaining audit evidence in the COVID-19 pandemic era from the Iraqi context and expand the existing auditing literature by providing empirical evidence from the Iraqi context.

Table 1. Summary of Previous Studies

Author(s)	Year	Study Objective	Methodology	Key Findings	Difference from Current Study
Teeter, Alles & Vasarhelyi	2010	To introduce the concept of remote auditing and its technological framework.	Conceptual study	Remote auditing can improve audit efficiency through information technology and continuous auditing techniques.	The current study empirically investigates obtaining sufficient and appropriate audit evidence using remote auditing supported by AI in Iraq.
Al-Tae	2021	To examine the implementation of remote auditing in Iraq during the COVID-19 pandemic.	Questionnaire survey	Remote auditing represents a practical alternative to traditional auditing but requires technological readiness and auditor training.	The current study extends the analysis by examining the role of AI technologies in supporting remote auditing.
Morris, Hoi-tash & Hoi-tash	2023	To evaluate auditors' remote work during COVID-19.	Empirical study	Audit firms gradually adapted to remote auditing despite initial challenges affecting audit quality.	The present study focuses specifically on the sufficiency and appropriateness of audit evidence.
Jin et al.	2025	To investigate the relationship between remote auditing and audit quality.	Field study	Remote auditing may influence audit quality; however, technological support reduces negative effects.	The current study focuses on audit evidence rather than overall audit quality.
Xu, Dellaportas & Li	2025	To identify challenges facing remote auditing.	Exploratory study	Obtaining sufficient audit evidence remains one of the major challenges in remote auditing.	The current study empirically examines this challenge within the Iraqi auditing environment.
Liao et al.	2025	To investigate the role of IT infrastructure in remote auditing.	Empirical study	Strong IT infrastructure enhances the effectiveness of remote auditing and improves audit performance.	The present study emphasizes the integration of AI technologies with remote auditing to obtain reliable audit evidence.

Source: Prepared by the researchers based on the reviewed literature.

1.1 Research Gap and Research Contribution

In the literature review conducted so far, the feasibility of remote auditing, technical problems, audit quality and the effects of digital transformation during the Covid-19 pandemic have been the dominant themes. There is, however, a lack of empirical studies that specifically focus on the use of remote auditing with the aid of AI technologies to ensure adequate and appropriate audit evidence, specifically in the Iraqi auditing environment. In addition, previous research has tended to focus on the impact of remote auditing or artificial intelligence on audit quality and reliability, but not both simultaneously. To address this research gap, the current study empirically investigates how remote auditing using artificial intelligence technologies (such as the expert system, machine learning, robotic process automation, and continuous learning) can help to acquire adequate and appropriate audit evidence in COVID-19. The study fills the gap of the existing literature by delivering empirical evidence from the Iraqi auditing environment to support further research and to make practical recommendations for auditors and regulators with respect to effectively using the remote auditing technology.

1.2 Operational Definition of Research Variables

For the purposes of this study, the research variables are operationally defined as follows:

Remote Auditing: -Remote auditing is the application of auditing procedures using information and communication technologies, but without the auditor's on-site presence. It includes the application of digital platforms, electronic documentation, video conferencing, cloud computing and AI applications in gathering, verifying and assessing audit evidence. For the purpose of this study, the concept of remote auditing was operationally defined as the level of use of information and communication

technology (ICT) by the auditors in conducting the audit procedures away from the client's premises. It is measured by the respondents' perceptions in a 5-point likert scale from Strongly Disagree (1) to Strongly Agree (5). The construct is measured by the questionnaire items for digital communication tools, electronic document exchange, virtual meetings, AI applications, and technology-enabled procedures to obtain enough and appropriate audit evidence.

Artificial Intelligence Technologies:

Artificial intelligence technologies are digital applications that assist with the auditor's auditing activities by processing the data intelligently and providing support for decisions by automation. Expert systems, machine learning, robotic process automation (RPA), and continuous learning technologies are the four aspects of AI in this study.

Audit Evidence: -Audit evidence is the information that the auditors gather to back up the opinion that they render. Based on the above definition, the audit evidence in this research is defined as evidence that has a number and quality that allows the auditor to obtain reasonable and objective conclusions during the audit procedure performed remotely. Operational definition of audit evidence is the extent to which the auditors believe that the evidence they have gathered using remote auditing is adequate, acceptable, reliable and relevant to support audit conclusions. This construct is measured on a 5-point Likert scale from (1 = Strongly Disagree) to (5 = Strongly Agree) on the basis of the items on the questionnaire representing the level of satisfaction with the audit evidence obtained in remote audits.

COVID-19 Environment: -COVID-19 environment refers to the extraordinary operating environment created by the pandemic, such as travel restrictions, lockdown, limited physical access to the audited entities, etc., which hastened the transition to remote auditing practices.

1.3 Research Variables:

The study focus is the relationship between the independent variable (Remote Auditing) and the dependent variable (Obtaining Audit Evidence). The application of AI technologies such as expert systems, machine learning and continuous learning, and robotic process automation, represents remote auditing; obtaining evidence means the auditor has acquired sufficient and appropriate evidence to support their professional judgment and provide an objective audit opinion in the exceptional circumstances created by the COVID-19 pandemic.

1.4 Research problem

The research problem lies in the auditor's shortcomings and negligence in performing the audit task due to the inability to obtain sufficient and appropriate audit evidence under the conditions of the COVID-19 pandemic. This is also linked to the auditor's failure to obtain such evidence through remote auditing procedures. Consequently, this will affect the auditor's opinion regarding the fairness and reliability of the financial statements, especially given the heavy reliance of many stakeholders on this opinion.

1.5 The importance of research:

-The importance of this research stems from the topic it addresses and its attempt to clarify the most significant developments that have affected the auditor's work due to the COVID-19 pandemic, which has impacted all aspects of life. The use of remote auditing as a working approach contributes to improving work efficiency and enhances the ability to obtain sufficient and appropriate audit evidence, thereby supporting the issuance of an objective professional opinion.

1.6 Research Objective:

The research aims to demonstrate the role of remote auditing in obtaining sufficient and appropriate audit evidence under the conditions of the COVID-19 pandemic. This is achieved through the following:

Explaining the concept of remote auditing, along with its key advantages and challenges.

Clarifying the concept of audit evidence and how it can be obtained during the COVID-19 pandemic.

1.7 Research hypothesis:

The auditor bears significant responsibility in monitoring and analyzing events resulting from the COVID-19 pandemic. The auditor is expected to perform audit tasks with integrity even under difficult conditions by using remote auditing procedures, thereby enabling the acquisition of sufficient and appropriate audit evidence to express an opinion on the fairness and reliability of financial statements. The following sub-hypotheses are derived from this main hypothesis:

Null Hypothesis: There is no statistically significant effect between remote auditing and the acquisition of audit evidence under the COVID-19 pandemic.

Alternative Hypothesis: There is a statistically significant effect between remote auditing and the acquisition of audit evidence under the COVID-19 pandemic.

2. Theoretical Framing of Research

2.1 Remote Auditing

Definition of Remote Auditing

The emergence of COVID-19 and the travel restrictions imposed worldwide, along with the ongoing need to conduct regulatory, legal, or urgent audits, have shifted audit efforts toward finding alternatives to traditional on-site auditing. Remote auditing has emerged as a viable alternative, especially since most companies restricted travel for critical business functions and many countries temporarily closed their borders. Remote auditing, also referred to as virtual auditing, can be defined as follows:

- A. Remote auditing is a method of conducting audits using documentary and electronic evidence through tools such as video conferencing, email, and telephone to obtain audit evidence. The overall objective is to objectively evaluate this evidence to determine the extent to which standard requirements are met. Remote auditing typically involves sharing and reviewing documents along with virtual interactions with audit sites through remote interviews or virtual site tours. It is also considered a complementary assurance tool that ensures business continuity when circumstances prevent auditors from being physically present, such as regional conflicts, natural disasters, or disease outbreaks like COVID-19 (Serag & Daoad, 2020, p. 12).
- B. It is also defined as the use of information and communication technologies to gather information, conduct interviews with audited entities, and perform audit procedures when face-to-face methods are not possible or desirable (ISO 9001 Auditing Practices Group Guidance on Remote Audits).
- C. Another definition describes it as a method of conducting audits remotely using documentary and electronic evidence, such as video conferencing, email, and telephone, with the aim of objectively evaluating evidence and assessing compliance with standards (FIOCERT, 2021, p. 3).

The researchers define remote auditing as a process performed wholly or partially by the auditor from home or any other location, relying on the availability of information technologies such as computers and other electronic devices, as well as internet connectivity and communication tools. This enables the auditor to obtain sufficient and appropriate audit evidence to express an independent and objective **professional opinion on the fairness and reliability of financial reports.**

2.2 Requirements of Remote Auditing

- A. Providing a dedicated workspace at home that ensures the confidentiality and security of audit documents.
- B. Maintaining a balance between work time and personal life.
- C. The auditor must possess specific skills, including:
 - a. The ability to plan and allocate tasks effectively.
 - b. Strong knowledge of technological tools, business software, and communication methods with external parties on internet.
- D. Availability of the necessary electronic devices to perform audit tasks.
- E. The ability to communicate clearly and effectively with managers and colleagues.

2.3 Advantages and Challenges of Remote Auditing (CPEA & CDGP, 2021, p. 8)

2.3.1 Advantages

- A. Getting back to normalcy during crises.
- B. Fewer auditors in the core office, which will reduce the administrative expenditure of rent and supervision costs and the adoption of additional office furniture.
- C. Providing more employment and decreasing congestion in the leading economic cities, which directly benefits the society by decreasing unemployment and traffic jam.
- D. Improving the speed of planning and accessing documents, which will also increase the quality of the audit by increasing their study of the records. Increased hiring of specialized auditors, who can take part in the interviews or certain audit stages remotely, without necessarily being on the spot.
- E. Enhancing the knowledge and application of technology by the individuals, i.e. video and image documentation, that can be used in improving reporting, documentation and remote training prospects in future.
- F. Alleviating the load of auditing on the company operations, since the collection and digitization of information can be decentralized over a period instead of being condensed in a brief audit process.
- G. Enhancement of work organization and checking of the necessary documents, their availability, and accessibility.

2.3.2 Challenges

- A. Difficulty for managers in monitoring employees' performance remotely.
- B. Social isolation of auditors, especially when work-life balance is not well managed, making it harder to build professional relationships.
- C. High costs of training and requalification.
- D. Difficulty in maintaining information confidentiality.
- E. Potential reduction in demand for some audit staff, which may negatively affect the profession.

2.4 Audit Evidence

Definition of Audit Evidence

- International Standard on Auditing (ISA 550) defines audit evidence as the information obtained by the external auditor to reach the conclusions on which the professional opinion is based. It includes evidence from documents, accounting records underlying the financial statements, and supporting information from other sources.
- Audit evidence refers to all accounting and non-accounting proofs and indications obtained by the external auditor that support the formation of an objective professional opinion on the fairness of financial statements as a whole (Abdullah, 2004, p. 129).
- It is defined as the foundations and methods that help transform claims or alleged assertions into verified assumptions (Farhan, 2011, p. 24).
- Audit evidence includes all information used by the external auditor to determine whether the information contained in the audited financial statements has been prepared in accordance with established standards (Al-Quraishi, 2011, p. 112).
- It also refers to all documents and indications that confirm the occurrence of economic transactions and events within the company, upon which the auditor directly relies when expressing an opinion on the financial position and the credibility of such transactions (Ayyashi & Shahed, 2017, p. 620). The researchers define audit evidence as all data and information obtained by the auditor from various sources that confirm the occurrence of economic events within the company and support the auditor's opinion regarding the credibility and fairness of financial statements.

2.5 Importance of Audit Evidence

The rationale is that audit evidence is important since it will enable auditors to understand the validity and quality of the information they have obtained. The audit evidence is of paramount significance to the auditor since it is on its basis that the audit opinion is formed and it is the main part of the audit or auditing work. International Accounting Standards Committee (IASC), which is a member of the International Federation of Accountants (IFAC) stresses that auditors should acquire adequate and relevant audit evidence by both tests of internal control systems and substantive procedures. This will allow them to examine the sufficiency and applicability of evidence in giving an opinion on financial statements, The Bali Declaration issued by the Asian Organization of Supreme Audit Institutions (ASOSAI) also states that the effectiveness of presenting results in audit reports largely depends on the quality of the audit performed and the soundness of the evidence supporting the auditor's observations (Al-Quraishi, 2011, p. 115).

2.6 Methods of Obtaining Audit Evidence

To collect sufficient and appropriate audit evidence, the auditor relies on the following methods (Juma'a, 2000, p. 174; Hijazi, 2010, p. 137; Kaid, 2012, pp. 138–140):

- A. Examination of the internal control system.
- B. Observation.
- C. Confirmations.
- D. Inquiry and tracing.
- E. Reconciliation.
- F. Analytical procedures.
- G. Comparison and linkage between information.
- H. Existence verification.
- I. Completeness (Hijazi, 2010, p. 131).

2.7 Characteristics of Appropriate Audit Evidence

Regardless of the variety of audit evidence used, the auditor's conviction depends on its sufficiency and appropriateness. Evidence must be relevant, reliable, and valid. Its effectiveness depends on objectivity, absence of personal bias, and measurability, The audit program defines the procedures for collecting evidence required to perform the audit. The second standard of generally accepted auditing standards requires auditors to obtain sufficient and appropriate evidence through inspection, observation, confirmations, and inquiries ;Thus, audit evidence must be characterized by both sufficiency and appropriateness (Lotfi, 2005, pp. 58, 318).

For audit evidence to be strong, convincing, and sufficient, it must be appropriate to the circumstances under which it is obtained. Since multiple methods of obtaining evidence exist, auditors may face exceptions. Therefore, certain criteria help auditors assess the reliability of audit evidence (Akbar, 2015, p. 228):

- Evidence obtained from external sources is more reliable than that from internal sources.
- Internal evidence becomes more reliable when supported by a strong accounting system and effective internal controls.
- Evidence obtained directly by the auditor or through assistants is more reliable than evidence provided by management.
- Documentary and written evidence is stronger than oral statements.
- The closer the evidence is directly linked to the item under examination, the stronger it is.
- Auditor independence and objectivity enhance the reliability and validity of evidence.
- Positive evidence is stronger than judgment-based or subjective evidence. Examples include physical inventory counts, legal documents, and confirmations.

The technologies discussed in this study are considered to be enabling technologies that will facilitate the implementation of remote auditing: Expert Systems, Machine Learning, Continuous Learning and Robotic Process Automation (RPA). The empirical study, however, is not developed on the specific effect of each of the artificial intelligence technologies but on the overall effectiveness of remote auditing in ensuring adequate and sufficient audit evidence.

2.8 Factors Affecting the Quality of Audit Evidence

Several factors affect the quality of the audit evidence obtained, which in turn affect the reliability and usefulness of the evidence to the auditor's professional judgement. One of these is the source of the evidence – there is a rule of thumb that evidence generated by external parties, rather than internal, is more likely to be trusted. The credibility of audit evidence is also influenced by the effectiveness of the client's internal control system because more reliable internally generated information is more reliable. In addition, developments in information technology and artificial intelligence have aided auditors in the gathering, verification and analysis of electronic evidence via remote methods. As a result, auditors need to assess the audit evidence to see whether it is sourced appropriately, relevant to the audit, reliable, timely, and consistent with other audit evidence before reaching an audit opinion.

2.9 Role of Remote Auditing in Obtaining Audit Evidence

The COVID-19 pandemic has affected many professions, including auditing, particularly in several stages of the audit plan. A key weakness in the auditing profession lies in the document examination stage, which typically requires audit teams to conduct on-site visits to clients. Under current working conditions that require physical distancing and remote work, auditing activities cannot cease. They must continue to support economic sectors, especially during such exceptional circumstances where businesses require maximum professional support.

Accordingly, auditors may need to develop alternative procedures to obtain sufficient and appropriate audit evidence that enables them to express an objective professional opinion on the fairness of financial statements. Information technology plays a critical role in this context, as it facilitates the implementation of remote work strategies and physical distancing, thereby limiting the spread of the virus.

A practical example is inventory observation. International Standard on Auditing (ISA 501), “Audit Evidence – Specific Considerations for Selected Items,” states that if inventory is material to the financial statements, the auditor must obtain sufficient and appropriate evidence regarding its existence and condition by attending the physical inventory count, unless impracticable (Al-Dhuneibat, 2008, p. 426).

In cases where sufficient evidence cannot be obtained, ISA 501 acknowledges that attending the physical inventory count may be impractical under circumstances such as the COVID-19 pandemic, due to risks to auditor safety. In such situations, auditors are required to perform alternative audit procedures. If adequate evidence still cannot be obtained, ISA 705 requires the auditor to modify the audit opinion due to scope limitation.

Professional bodies such as the American Institute of Certified Public Accountants and the Institute of Chartered Accountants in England and Wales have suggested several alternative procedures. These include the use of remote technologies that enable live visual observation of inventory, allowing auditors to select items in real time and request focused inspection to verify their existence and condition. It may also be appropriate to involve internal auditors in the inventory process remotely, in accordance with ISA 610 on using the work of internal auditors. Additional alternative procedures include:

- Examining purchase and sales documents related to selected inventory items, with attention to quantities and transaction dates.
- Increasing sample sizes.
- Reviewing inventory records prepared by management.
- Performing analytical procedures on purchase and sales volumes, gross profit margins, and sales rates.
- Analyzing inventory data across multiple locations.

In all cases, auditors must maintain professional skepticism. If they are unable to obtain sufficient and appropriate audit evidence regarding inventory existence and condition through alternative procedures, ISA 705 requires modification of the audit opinion due to scope limitation (SOCPA, 2020, p. 20).

Regarding the impact of COVID-19 on the auditor's evaluation of internal control, the auditor is responsible for understanding and assessing the internal control structure during the preliminary and planning stages of the audit. However, the pandemic has significantly affected internal control systems within organizations, which in turn impacts the auditor's ability to rely on these controls.

Organizations have had to adapt to changes caused by COVID-19, including widespread remote work, leading to modifications or temporary replacements of existing controls. Auditors must therefore adjust to these developments when conducting audits. The researchers conclude that auditors must consider the impact of the COVID-19 pandemic on how audit evidence is collected. This requires adapting audit plans and developing alternative procedures based on remote auditing techniques. These include the use of information and communication technologies to collect, store, retrieve, analyze, and transmit information.

3. Technical Analysis

3.1 Demographic Analysis

3.1.1 Demographic variables of the research:

In collecting field data, the researcher used the questionnaire method, as (65) questionnaires were distributed to the members of the research sample, from which (54) were retrieved, and among the retrieved forms (4) were invalid, (Thus, the total number of valid forms for statistical analysis is 50, i.e. 76% of the questionnaires distributed). This section illustrates the preliminary analysis of the practical side of the research by showing the demographic variables data of the research sample, represented by the auditors as follows:

A. Gender of the research sample:

Table 2. Gender of the sample's respondents

No.	Gender	frequency	Ratio
1-	Male	31	62%
2-	Female	19	38%
Total		50	100%

Table (2) shows that the largest ratio of the research sample gender are males and their number is 31 people by 62%, while the number of females is 19 by 38%, as shown in the following figure:

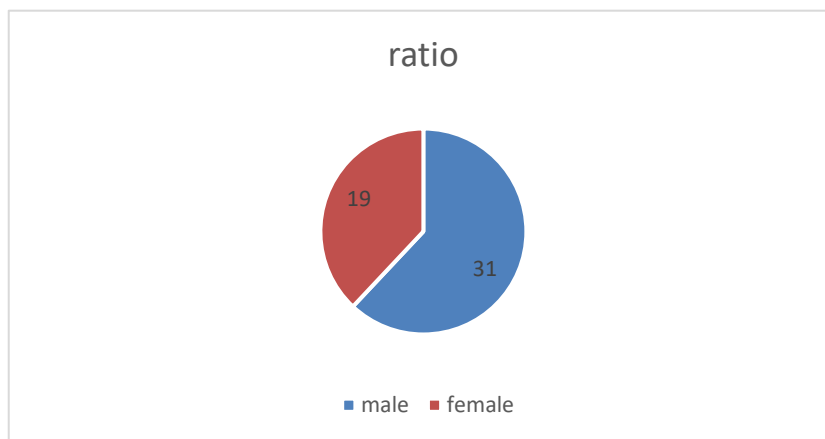


Figure 1. Gender of the sample's respondents

B. Age group:

Table 3. Age group of the sample's respondents

No.	Gender	frequency	Ratio
1 -	Less than 35 years old	8	16%
2 -	35 to 45 years old	20	40%
3 -	46 to 50 years old	10	20%
4 -	55 years and above	12	24%
Total		50	100%

The table (3) indicates that most of the age groups of the research sample fall between 35-45 years by 40%, and this indicates the adoption of the Federal Board of Supreme Audit (FBSA) on the groups of 35-45 years of average society in employment. While the group under 35 years shows the lowest percentage of 16%, which indicates a weak dependence on young groups, the category over 55 years of age is 24%. This shows a diversity in the age groups, with a significant disparity in the age of the research sample. The following figure shows age group ratios:

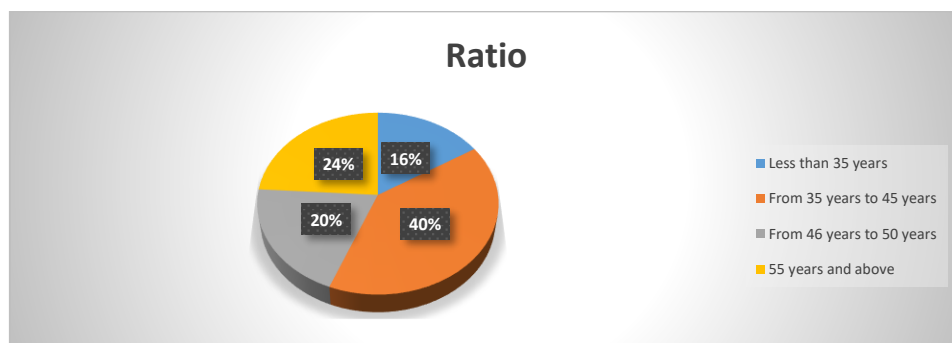


Figure 2. Age group of the sample's respondents

C. Qualification:

Table 4. Qualification of the sample's respondents

No.	Qualification	frequency	Ratio
1 -	PhD or equivalent	15	30%
2 -	Master or equivalent	21	42%
3 -	Bachelor	8	16%
4 -	Other	6	12%
Total		50	100%

Table (4) shows the scientific achievement of the research sample, as the percentage of master's degree holders is 42%, which is the highest percentage. Thus, it illustrates the focus on higher degrees in employment for the Federal Board of Supreme Audit (FBSA) and 15% of the doctorate degree holders, while the bachelor's degree obtained 16% and the other 4%. This indicates the interest of FBSA in the holders of higher degrees. These percentages objectively benefit the answers to the paragraphs of the distributed questionnaire, as shown in the following figure:

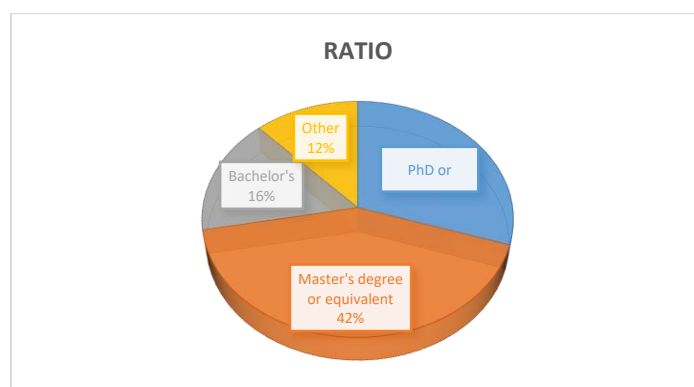


Figure 3. Qualification of the sample's respondents

D. Years of experience:

Table 5. Years of experience of the sample's respondents

No.	Years of experience	frequency	Ratio
1 -	Less than 10 years	10	30%
2 -	10 to 15 years	14	42%
3 -	16 to 20 years old	15	16%
4 -	20 years and above	11	16%
Total		50	100%

Table (5) indicates the level of experience for the research sample. It is 30% for those with experience between 16 - 20 years, 28% for those with experience from 10-15 years, 22% for those with experience from 20 years, and above and 20% for those with experience less than 10 years. This shows that most of the workers have sufficient and appropriate experience, which gives objectivity to their answers to the questionnaire questions, as shown in the following figure:

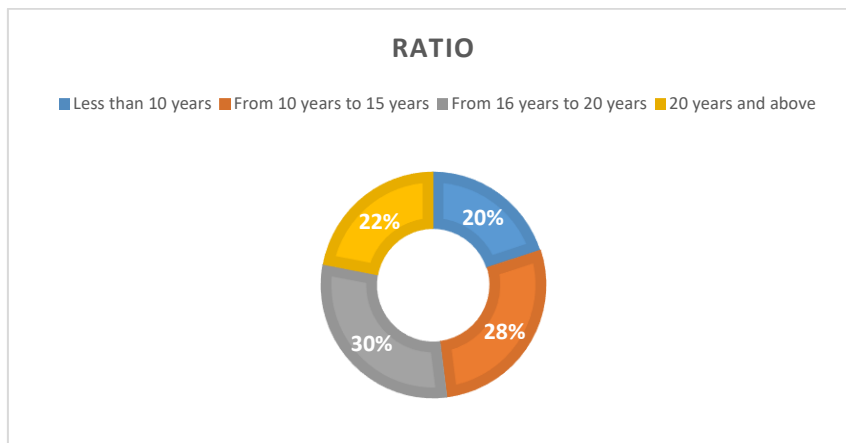


Figure 4. Qualification of the sample's respondents

E. Specialty:

Table 6. Specialty of the sample's respondents

No.	Specialty	frequency	Ratio
1 -	Accounting	33	66%
2-	Administration	8	16%
3-	Economy	2	4%
4-	Other	7	14%
Total		50	100%

Table (6) shows that 66% of the research sample are accounting specialties, and 16% are in management, while those who are other disciplines constitute 14%, and 4% for those who specialize in economics. This is consistent with their experience in audit work. The following form shows this:

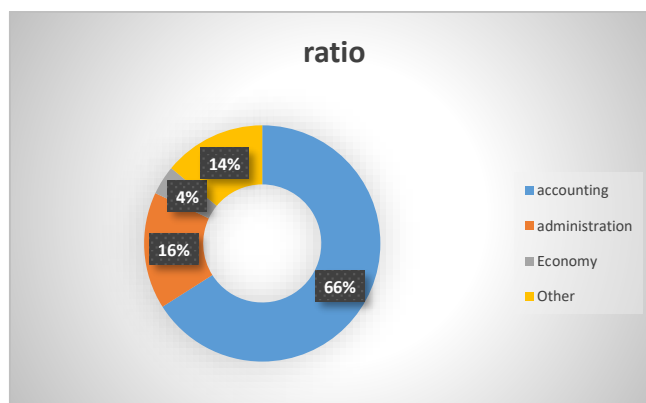


Figure 5. Specialty of the sample's respondents

3.1.2 Descriptive Statistics

The analysis Interpretation:

To complete the analytical aspect of the search, the score of answers to the questionnaire questions has been calculated. It reflects the opinion of the individuals of the search sample as follows:

Table 7. shows the distribution of grades for the paragraphs of the questionnaire

Mark	5	4	3	2	1
Answer	strongly agree	Agree	neutral	Don't agree	strongly disagree

Thus, the arithmetic mean of the answer paragraphs is calculated as follows:

Table 8. shows the calculation of the mean range of the answer paragraphs

Mean	From 1 to 1.79	From 80 to 2.59	From 2.60 to 3.39	From 3.40 to 4.19	From 4.20 to 5
Opinion	strongly agree	Agree	neutral	Don't agree	strongly disagree

The length of the median category was calculated through $(4 \div 5)$, which is equal to 0.80. That is, the distance between the answers is four categories starting from (1 - 5)

3.1.3 Calculation of the scale stability

Scale stability is calculated in alpha-kronbach as in Table (9) below:

Table 9. Scale stability is calculated in alpha-kronbach

Research axes		Cronbach's Alpha coefficient
First axis	The effectiveness of remote auditing considering the coronavirus pandemic	0.763
Second Axis	The importance of obtaining stability evidence in light of the Corona pandemic	0.750
Third Axis	The impact of the use of stability evidence under the coronavirus pandemic	0.741
Overall mark of stability		0.759

From the table (9), the overall stability rate of the research axes was found to be 0.759, thus considerably stable and good

3.1.4 The arithmetic means and standard deviation of the research sample:

A. The effectiveness of remote auditing considering the outbreak of the Corona pandemic

Table 10. shows the arithmetic mean and standard deviation of the first axis

No.	Questions	Answer					arithmetic mean	standard deviation	opinion	Rank
		strongly agree	Agree	neutral	Don't Agree	strongly disagree				
1	The auditor faces difficulty in accessing the evidence and people he needs to support his opinion in the audit process in light of the Coronavirus Pandemic, as travel restrictions will prevent him from visiting the customer's sites, which will force him to disclose in his report the scope restrictions of his usual procedures, so the auditor must consider adopting alternative procedures by adopting remote audit techniques.	28	21	1			4.54	0.54	Strongly agree	1
2-	Remote auditing relies on modern technology to deal with audits by communicating with the team and audited entities through video encounters, emails, or telephone to facilitate obtaining the data and information required to complete the audit work remotely.	23	25	2			4.1	0.57	Agree	7
3 -	Remote auditing contributes to timely and high-quality work completion.	17	20	10	2	1	4	0.92	Agree	9
4-	Remote auditing contributes to better documentation of the company's conditions through taking photos and using video information.	19	18	10	3		4.06	0.87	Agree	5

5-	Using remote auditing helps achieve objective results by properly documenting the audit process.	17	18	12	1	2	3.94	1.03	Agree	10
6-	Remote auditing contributes to reducing administrative costs by reducing the number of auditors present at the workplace.	22	21	7			4.3	0.70	Agree	6
7-	The use of remote auditing examines the largest number of items of financial operations, thus increasing the adequacy of the evidence supporting the auditor's opinion on the fairness and truthfulness of the financial statements.	20	20	6	3	1	4.1	0.97	Agree	8
8-	The auditor faces difficulty when performing remote audits due to his lack of knowledge in the field of technology techniques.	23	20	5	2		4.28	0.80	Strongly agree	3
9-	The use of remote auditing has difficulty maintaining the confidentiality of information.	20	24	5		1	4.24	0.79	Strongly agree	4
10-	The use of remote auditing leads to the dispensation of the services of some employees in audit offices, which reflects negatively on the status of the profession.	25	20	4	1		4.38	0.72	Strongly agree	2

It is noted from Table (10) that the arithmetic mean of the sum of the variables for paragraph (1) is (4.54) with a standard deviation of (0.54). This shows that most responses strongly agree that the auditor has difficulty accessing the evidence and the people he needs to support his opinion on the audit process during the coronavirus pandemic. Travel restrictions will prevent the auditor from visiting the customer's websites, which will force him to disclose in his report the scope restrictions of his usual procedures, and he must consider adopting alternative procedures represented by remote audit technique.

The arithmetic mean of paragraph (10) is (4.38) with a standard deviation of (0.72), and this confirms that most of the answers strongly agree that the use of remote auditing leads to the dismissal of the services of some workers in audit offices, which reflects negatively on the status of the profession.

The arithmetic mean of paragraph (8) is (4.28) with a standard deviation of (0.80), and this indicates that most of the answers of the research sample strongly agree that the auditor faces difficulty when performing remote auditing represented in the auditor's lack of knowledge in the field of technology techniques.

While the arithmetic mean of paragraph (9) was (4.24) with a standard deviation of (0.79), this indicates that most of the answers of the research sample went towards an opinion that the use of remote auditing faces difficulty in maintaining the confidentiality of information.

B. The importance of obtaining evidence considering the Coronavirus pandemic:

Table 11. shows the arithmetic mean and standard deviation of the second axis

No.	Questions	Answer					arithmetic mean	standard deviation	Opinion	Rank
		strongly agree	Agree	neutral	Don't Agree	strongly disagree				
1-	The auditor has difficulty accessing evidence and people he needs to support his opinion on the audit process during the coronavirus pandemic. Travel restrictions will be prevented from visiting the customer's	20	25	5			4.3	0.65	Agree	1

	sites, which will have to be disclosed in his report about the scope restrictions of his usual procedures due to the uncertain and unexpected nature of the effects of the pandemic. The auditor should consider adopting an alternative procedure, such as following a remote audit technique.									
2-	The external auditor must obtain sufficient and appropriate evidence to arrive at reasonable conclusions that are the basis for the expression of an opinion.	15	22	12	1		4.02	0.79	Agree	2
3 -	The external auditor assesses the evidence obtained to ensure the adequacy and adequacy of the evidence.	15	20	10	3	2	3.78	0.86	Agree	5
4-	If sufficient and appropriate evidence cannot be obtained within the time available for the audit if compared to the subsequent period, the external auditor should express a qualified opinion or refrain from expressing an opinion.	20	15	10	5		4	1.01	Agree	3
5-	It is difficult to conduct field visits to carry out inventory work or inventory control considering the pandemic, so alternative procedures are adopted to obtain evidence when counting inventory.	14	13	15	5	3	3.6	1.14	Agree	7
6-	Applying alternative audit procedures may provide sufficient appropriate audit evidence on the existence and condition of inventory.	18	14	11	6	1	3.84	1.11	Agree	4
7-	The auditor relies on other inventory control procedures without having to visit the site at this time as a comparison between the inventories for the year ended and the purchase lists obtained at the beginning of the following year to determine the current inventory.	13	17	15	5		3.76	1.00	Agree	6

It is clear from Table (11) that the arithmetic mean of paragraph (1) is (4.3) with a standard deviation of (0.65), and this indicates that most of the answers of the research sample agree that the external auditor evaluates the evidence obtained to ensure the adequacy and appropriateness of this evidence. Paragraph (2) is (4.02) and with a standard deviation of (0.79), indicating that most of the research sample's answers agreed that the external auditor should obtain sufficient and appropriate evidence so that he or she could reach reasonable conclusions as the basis for expressing an opinion. While the arithmetic mean of paragraph (4) is (4) with a standard deviation of (1.01), which indicates that the research sample agrees in the event that, if sufficient and adequate evidence could not be obtained within the time available for auditing compared to the subsequent period, the external auditor should express a qualified opinion or refrain from making an opinion

C. The impact of the use of evidence considering the Corona Pandemic: -

Table 12. shows the arithmetic mean and standard deviation of the third axis

No.	Questions	Answer					arithme- tic mean	standard deviation	opinion	Rank
		strongly agree	Agree	neutral	Don't Agree	strongly dis- agree				
1-	The use of remote au- diting improves the ability of individuals to prepare evidence with strong authen- ticity and high qual- ity.	17	20	10	2	1	4	0.94	agree	7
2-	The application of re- mote audit helps in obtaining highly ob- jective evidence.	19	20	10	1		4.14	0.80	Agree	5
3 -	The use of remote au- diting improves the auditor's ability to understand the inter- nal control system, thus determining the extent to which it is relied upon to pro- vide high credible ev- idence.	18	20	10	1		4.1	0.87	Agree	6
4-	The auditor's use of a technique that allows a visual presentation (video surveillance) using live video of in- ventory items allows him to immediately select some inventory items and ask the other party to high- light them to ensure the existence and con- dition of the inven- tory.	21	20	7	1	1	4.18	0.89	Agree	3
5-	If the auditor is un- able to conduct per- sonal interviews with departmental offici- als, interviews can be conducted elec- tronically via audio and photo, documen- tation and discussion of any queries.	20	22	6	1	1	4.18	0.92	Agree	4
6-	When the auditor is not convinced of the authenticity of these documents and rec- ords, he can take ad- ditional auditing pro- cedures to ensure the completeness and ac- curacy of the data proved by communi- cating electronically with the bank or the suppliers he deals with (the audited en- tity).	28	20	2			4.52	0.76	Strongly Agree	2
7-	The external auditor should obtain suffi- cient and appropriate evidence to be able to reach reasonable con- clusions as a basis for expressing an opin- ion.	28	20	2			4.52	0.58	Strongly Agree	1

It is clear from Table (12) that the arithmetic mean of paragraph (7) is (4.52) with a standard deviation of (0.58), which indicates that most of the answers of the research sample strongly agree that the external auditor should obtain sufficient and appropriate evidence in order to be able to reach reasonable results to be the basis for expressing an opinion.

While the arithmetic mean of paragraph (6) is (4.52) with a standard deviation of (0.76), which indicates that most of the answers of the research sample strongly agree that, when the auditor is not convinced of the validity of those documents and records, additional audit procedures can be taken to ensure that the completeness and accuracy of the data installed in them by communicating electronically with the bank or suppliers with whom he deals (the audited entity).

3.1.5 Hypothesis testing:

After reviewing the results of the statistical analysis of the research variables in order to test the hypotheses of the research as follows:

Testing research hypotheses through the correlation coefficient:

Table 13. Testing Research Hypotheses

Second Axis		First Axis	Second Axis	Third Axis
	Correlation coefficient	0.708	1	0.609
	Significance level	0.00		0.00
	Sample size	50	50	50
Third Axis	Correlation coefficient	0.678	0.609	1
	Significance level	0.00	0.00	
	Sample size	50	50	50

Statistically significant at a statistically significant level of 0.01

It is clear from Table (13) that the correlation coefficient between the first axis (the effectiveness of remote auditing in light of the outbreak of the Corona pandemic) and the second axis (the importance of obtaining evidence in light of the Corona pandemic) is 0.708, which confirms the existence of a strong positive relationship between the effectiveness of remote audit and the importance of obtaining evidence in light of the Coronavirus pandemic. This indicates an integrative relationship between research variables, and as a result, any increase in the effectiveness of remote auditing directly impacts the importance of obtaining evidence. From that, it is concluded that the level of statistical significance 0.00 is less than its value of 0.05, and as a result, the research hypotheses accept that there is a relationship between the role of remote auditing in obtaining evidence considering the outbreak of the Coronavirus pandemic. In the same context, there is a relationship between the second axis and the third axis (dependent variables) with a correlation coefficient of 0.609 under the level of significance of 0.00 indicating a direct correlation between the dependent variables as well.

3.1.6 Testing research hypotheses through analysis of variance ANOVA:

Table 14. shows ANOVA variance analysis

Variance Analysis	Sum of squares	Degree of freedom	Average Squares	F	Significance Level
Between groups	5.96	11	0.54	2.59	0.01
Inside groups	7.92	38	0.20		
Total	13.88	49			

It is noted from the variance analysis table (14) that the research hypothesis is accepted that there is a relationship between the role of remote audit in obtaining evidence in light of the outbreak of the Corona pandemic and its significance level (0.01).

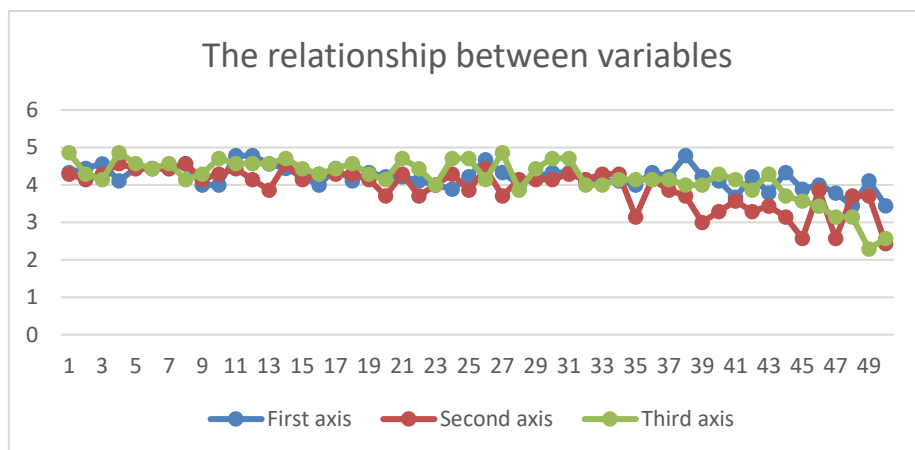


Figure 6. the relationship between the research variables

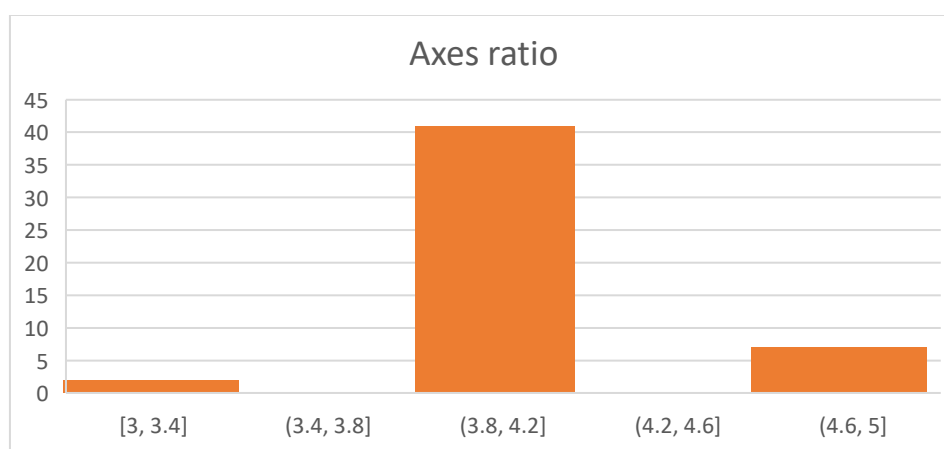


Figure 7. shows the Axes ratios

4. Technical Analysis Tools

4.1 Data Collection Tool

The questionnaire was used as the main instrument of data collection to accomplish the goals of the study. The questionnaire was designed based on the theoretical framework and previous studies related to remote auditing and audit evidence. It was divided into two parts. The first section consisted of demographic characteristics of the respondents, and the second section comprised the statements stating the research variables with five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5). The questionnaire was sent to the auditors belonging to the Federal Board of Supreme Audit, private audit offices and academics and the valid questionnaires were analyzed statistically.

4.2 Statistical Analysis Tools

Data collected were analysed with the Statistical Package for the Social Sciences (SPSS). The data were analyzed using several statistical techniques and testing the research hypotheses. The characteristics of the respondents and their responses were described using descriptive statistics, such as frequencies, percentages, arithmetic means and standard deviations. To test the reliability and internal consistency of the questionnaire, Cronbach's Alpha coefficient was used. In addition, the statistical methods required for hypothesis testing were employed to determine the relationship between remote auditing and obtaining audit evidence under the COVID-19 pandemic.

5. Conclusions

- A. Remote auditing is fundamentally the same thing except that it makes use of electronic media to get and analyze audit evidence objectively to assess adherence to auditing standards.

- B. It is also regarded as a contemporary auditing methodology that facilitates the auditors to make use of technology and be adjusted to the evolving environment of information.
- C. According to the findings of the field study, there is a necessity to create auditing practices during the COVID-19 pandemic following the modern methods of remote auditing.
- D. The given approach is based on the use of information and communication technologies to conduct audit activities effectively, allowing the auditing role to address its duties, satisfy the needs of the stakeholders, and address the challenges that are presented to auditors due to the pandemic.
- E. Remote auditing practices in organizations around the world have been accelerated due to the COVID-19 pandemic.
- F. Through communication technologies and data analytics, it has widened the scope of auditing, increased flexibility in timing, decreased cost of audit, lessened traveling costs, allowed the auditors to work at home and made auditing more efficient.

6. Recommendations

- A. The Federal Board of Supreme Audit and the Iraqi Association of Certified Accountants must establish comprehensive guidelines for the implementation of remote auditing, procedures to collect, verify and document electronic audit evidence, in line with the International Standards on Auditing (ISA).
- B. 3. Specialized training programmes and continuous professional development courses on the use of artificial intelligence, data analytics, cybersecurity and remote auditing should be organised by universities, professional associations and audit training centres to further develop the digital skills of auditors.
- C. Secure digital infrastructure should be built by audit firms and audited entities through the use of: Electronic Document Exchange, Cloud Based Document Management Systems, Encrypted Communication Platforms and Cybersecurity Solutions to enable effective implementation of remote auditing.
- D. 5Technical guidance should be provided by regulatory and professional bodies to assist auditors in obtaining sufficient and appropriate audit evidence, whilst preserving professional judgment, when using AI applications, such as expert systems, machine learning and robotic process automation (RPA).
- E. Audit firms should have internal policies and procedures for planning, supervising and documenting remote audit engagements, such as audit procedures for assessing the reliability of electronic audit evidence and the security of confidential client information.
- F. Future AI-related work is encouraged to investigate how individual AI technologies affect audit quality and audit evidence based on larger dataset, various industries, as well as comparing different countries.

7. Research Limitations

The present research, as with all empirical research, has its limitations and it is important to recognize these limitations when interpreting the results of this research. Firstly, the study was based on a non-probability convenience sample of auditors and academics, which can restrict the generalizability of the findings to the wider auditing community. Second, the study used a self-administered questionnaire as the main tool for gathering data, which meant that the results were based on participants' perception of the situation that could be subjectively influenced by them and/or social desirability. Third, the study was conducted exclusively from the viewpoint of auditors and academics, potentially lacking in the voice of audited entities (clients), which would give a more comprehensive picture of the effectiveness of remote auditing. Lastly, the study was carried out in the context of the Iraqi auditing environment in the era of COVID-19, so caution should be used when generalizing the results to other countries and organizational and regulatory environments.



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