Pobrane z czasopisma Annales H - Oeconomia **http://oeconomia.annales.umcs.pl**
Data: 01/11/2026 14:02:28

DOI:10.17951/h.2022.56.3.169-186

A N N A L E S
UNIVERSITATIS MARIAE CURIE-SKŁODOWSKA
LUBLIN – POLONIA

VOL. LVI, 3 SECTIO H 2022

MAŁGORZATA Z. WIŚNIEWSKA

malgorzata.wisniewska@ug.edu.pl
University of Gdańsk. Faculty of Management
101 Armii Krajowej St., 81-824 Sopot, Poland
ORCID ID: https://orcid.org/0000-0002-5193-2153

MARTA ROMBALSKA

m.rombalska@polmed.pl
Centrum Medyczne POLMED
Os. Kopernika 21, 83-200 Starogard Gdański, Poland

MAŁGORZATA SZYMAŃSKA-BRAŁKOWSKA

m.bralkowska@ug.edu.pl
University of Gdańsk. Faculty of Management
101 Armii Krajowej St., 81-824 Sopot, Poland
ORCID ID: https://orcid.org/0000-0002-4328-108X

Remote Quality Management System Audit. Auditors' and Auditees' Perspective and Lessons Learned

Keywords: remote auditing; internal audit; pandemic; advantages; disadvantages

JEL: M21; M42; M49

How to quote this paper: Wiśniewska, M.Z., Rombalska, M., & Szymańska-Brałkowska, M. (2022). Remote Quality Management System Audit. Auditors' and Auditees' Perspective and Lessons Learned. *Annales Universitatis Mariae Curie-Skłodowska, sectio H – Oeconomia*, Vol. 56, No. 3.

Pobrane z czasopisma Annales H - Oeconomia **http://oeconomia.annales.umcs.pl**
Data: 01/11/2026 14:02:28

Abstract

Theoretical background: The pandemic situation affected the functioning of each organization, including the assessment of quality management systems. The implementation of remote audits, including remote internal audits, has become an urgent necessity.

Purpose of the article: The purpose of this article is to present the results of research on potential difficulties in conducting remote internal audit, from the perspective of auditors and auditees. The auxiliary goal is to collect and organize definitions of remote audit and describe its essence in the light of scientific literature and other sources of a formal nature.

Research methods: A review and critical analysis of the literature, the method of a diagnostic survey, and then the method of synthesis and logical reasoning were used.

Main findings: Several bottlenecks related to certain difficulties can be identified. Both auditors and audited persons should not waste time searching for relevant documents or records. There is a need to check in advance to what extent the applied information technology is efficient, effective and available to all interested parties during the audit. It is necessary to clarify the roles and tasks before and during audits, and to make sure in advance that all resources, both tangible and intangible, are available during the audit.

Introduction

Conducting an audit is an indispensable condition for the functioning and supervision of any management system. It is the result of the audit that shows whether the system is effective and contributes to the proper course of processes implemented in the organization. The term "audit" comes from the Latin word *auditio* and means "listening", "hearing", but also "news", "rumour". It is related to verbs such as "take care" or "learn" (Ligarski, 2018, pp. 261–271). Although the audit of management systems is a relatively young phenomenon, the audit itself dates back to 3500 BC. Initially in Mesopotamia, then in Egypt, Greece, China and Rome, the auditors focused mainly on overseeing various financial transactions (Dasek & Zawadzka, 2017). Originally, it was associated with publicly (aloud) presenting and listening to reports on the financial situation of a given public institution. The auditor was usually a person from the audience who, after carefully listening to the transmitted information, expressed the opinion about it. The primary goal was to verify the integrity of those responsible for fiscal matters. Auditors were usually elected by the local community. The audit at that time consisted of "hearing bills", because only a few could write and read (Dasek & Zawadzka, 2017). On the other hand, the historical function of the auditor is associated with messenger (herald) providing official statements issued by the rulers of a country or lands. His role was to check whether the messages from the ruler were communicated properly (Ligarski, 2018, pp. 261–271). A form of modern financial audit was developed in 1941, in the United States, when 24 founding members established the Institute of Internal Auditors (IIA). Gradually, the area of the audit has widened and now, depending on its essence and scope of interest, this type of activity focuses on many management issues, helping an organization to achieve its goals in an economic, effective and efficient manner (Winiarska, 2015). The concept of audit entered the sphere of quality in the 1970s. As Zymonik writes, the term "quality audit" was

Pobrane z czasopisma Annales H - Oeconomia **http://oeconomia.annales.umcs.pl**
Data: 01/11/2026 14:02:28

introduced for the first time in the third edition of the EOQC (European Organisation for Quality Control) Dictionary. A decade later, the definition of a quality audit was included in the first terminology standard ISO 8402, issued in 1986 (Zymonik, 1995), and then in subsequent editions of the ISO 9000 series standards, which was also reflected in all national editions of terminological standards related to quality – PN-EN 28402:1993, PN-ISO 8402:1996, PN-EN ISO 9000:2001, PN-EN ISO 9000:2006, PN-EN ISO 9000:2015. Currently, according to the edition of ISO 9000 series standards from 2015, the audit is used to assess the effectiveness of the quality management system in order to identify risks and determine whether the requirements are met. It is defined as "systematic, independent and documented process for obtaining objective evidence (…) and evaluating it objectively to determine the extent to which the audit criteria (…) are fulfilled" (ISO 19011, 2018). As it is commonly known, audits can be divided into internal (first party) and external audits, and these, in turn, are classified into supplier (second party) and certification (third party) audits. Internal audits play a very important role in any management system. The need to conduct them results directly from the requirements of individual standards (e.g. ISO 9001, ISO 14001, etc.). The Institute of Internal Auditors defines it as "an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes" (Grzesiak, 2021). This assessment and the tasks related to it were put to the test during the pandemic, which limited the performance of audits of management systems in organizations. Difficulties, caused mainly by the necessity to isolate and keeping distance, concerned both the auditors and the audited entities.

The purpose of this article is to present the results of research on potential difficulties in conducting remote internal audit, from the perspective of auditors and auditees. The auxiliary goal is to collect and organize definitions of "remote audit" (RA) and describe its essence in the light of scientific literature and other sources of a formal nature. The subjects of the research are internal auditors and management, including quality representatives in a private medical entity.

In the work, as research methods, a review and critical analysis of the literature, the method of a diagnostic survey, and then the method of synthesis and logical reasoning were used. The article, after its introductory part, concerns the following issues: discussion of the concept and meaning of RA, presentation of the advantages and disadvantages related to RA, presentation of the research methodology, presentation and discussion of the results. The article ends with conclusions and suggestions for future research. Additionally, limitations related to the conducted research were indicated.

We took up this topic because, as it was shown in the literature section, there is a shortage of works on this subject, especially in Poland, and above all in the field of health care. A similar opinion was found in the work by Kafel and Rogala (2022). Another issue is the importance of this process in the proper and smooth functioning of any organization, not only the medical one.

Pobrane z czasopisma Annales H - Oeconomia **http://oeconomia.annales.umcs.pl**
Data: 01/11/2026 14:02:28

Literature background

During the coronavirus pandemic, which officially began in Poland in March 2020, different auditors began their activities in the remote system (Sidor-Rządkowska, 2021, p. 73). Conducting an audit in a remote form is not a new phenomenon and does not only concern the period of the pandemic. Even before the global pandemic, the accounting and auditing profession faced the need to revise the strategy and methodology they use to perform activities, as well as introduce a complex process of digitization and digital transformation (Serag & Daoud, 2021a, 2021b). Audits of this type have long been referred to as 4.0 audits. They are implemented in various industries and meet various requirements (Dai & Vasarhelyi, 2016). As a result of the literature review available in the repository of the Main Library of the University of Gdańsk in March 2022 (Directory of Open Access Journals, Complementary Index, Medline, OpenAIRE, Academic Search Ultimate, Business Source Ultimate, ScienceDirect, Emerald, Health Source: Nursing/Academic Edition, Supplemental Index, Springer Nature Journals, MasterFILE Premier, Legal Source, SocINDEX with Full Text, GreenFILE, Central & Eastern European Academic Source, Emerald Insight, Digital Access to Scholarship at Harvard, JSTOR Journals, Health Source – Consumer Edition, Political Science Complete), after introducing the phrases "remote audit" and "remote auditing", and then narrowing the search to scientific, peer-reviewed articles in English, 46 records were obtained, of which, after removing duplicates – 22 papers were identified devoted to the issue of RA. The works were dated 2000–2022. Interestingly, nearly 70% of articles (15 papers) concerned RA focused on the assessment of the implementation of various clinical processes in healthcare. For example, the undertaken research and considerations concern the use of RA during the assessment of: the correctness of the radiotherapy process (Roué et al., 2007), remote medical consultations (Ufodiama et al., 2022), ongoing medical care in clinics (Hoy et al., 2014), the correctness of keeping electronic medical records (Hasegawa et al., 2020) or the correctness of the feedback intervention utilizing a local non-ID (infectious diseases) trained pharmacist (Khadem et al., 2019). Two of the articles concern RA in terms of the assessment of the effectiveness of the quality management system (Teeter et al., 2010). Single cases concern such areas as: sales processes, education, automation, IT processes. Due to the relatively small number of articles, the following part of the work was additionally based on selected publications obtained using the snowball method and available from current Google Scholar resources.

First of all, the analysis of selected literature sources allowed for the definition of "remote audit". RA can be defined in various ways. According to Teeter et al. (2010), who refer to the financial audit, the term "remote auditing" means the process by which auditors couple information and communication technology (ICT) with data analytics to assess and report on the accuracy of financial data and internal controls, gather electronic evidence, and interact with the auditee, independent of the physical

Pobrane z czasopisma Annales H - Oeconomia **http://oeconomia.annales.umcs.pl**
Data: 01/11/2026 14:02:28

location of the auditor. As Serag and Daoud (2021b) convince, it 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". They add that 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 (Serag & Daoud, 2021b). Remote auditing (or remote assessment) can be also defined as "the facilitation of assessment of a conformity assessment body from a location other than that being physically present" (Nowicki & Kafel, 2021), "the process by which internal auditors link information and communication technologies with data analytics to collect and evaluate electronic evidence, interact with the auditee and report on the accuracy of obtained data and internal controls, independently from the auditor's physical location" (Teeter et al., 2010), or as "the facilitation of an audit of a client by an auditor (…), who is not physically on-site" (Castka et al., 2021).

According to Tysiac (2020), there are two main approaches for conducting remote auditing:

– full RA – conducted completely remotely using technology to gather information as necessary to confirm compliance with standards; in cases where on-site 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,

– partial RA – 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 RAs 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 RA and conduct additional verification of issues that could not be detected through the remote auditing process.

Partial RA (or assisted remote audit) can be also defined as "an audit that is conducted partly remotely and partly on-site. It typically occurs when at least one auditor (not technical expert or interpreter) of the audit team is able to be on-site while the rest of the team are not due to the travel or other restrictions" (Castka et al., 2021).

To sum up, the primary difference between conventional audits and RAs is the absence of in-person, face-to-face interactions, which changes how things like walk-throughs, visual inspections, interviewing, and other audit procedures must be performed. Importantly, when performing engagements remotely, internal auditors leverage technology to carry out the audit work (Tysiac, 2020).

Pobrane z czasopisma Annales H - Oeconomia **http://oeconomia.annales.umcs.pl**
Data: 01/11/2026 14:02:28

Remote auditing, next to the on-site auditing, is one of the audit methods described in ISO 19011 (2018) standard, in Annex A1 (see Table 1).

Table 1. On-site and remote audit

The extent of involvement between the auditor and the auditee	Location	
	On-site	Remote
Personal interaction	– conducting interviews – completing checklists and questionnaires with the participation of the auditee – conducting document review with the participation of the auditee – sampling	Using interactive means of communication: – conducting interviews – completing checklists and questionnaires – conducting document review with the participation of the auditee
No personal interaction	– document review (e.g. records, data analysis) – observations of the work performed – conducting on-site visits – completing checklists – sampling (e.g. of products)	– conducting a documentation review (e.g. records, data analysis) – observation of work performed by means of supervision (taking into account social and legal requirements) – data analysis

Source: (ISO 19011, 2018).

Before the pandemic, there were various other documents that described the possibility and principles of RA. There are guidelines and standards developed by the International Organization for Standardization (ISO) and International Accreditation Forum (IAF): *IAF ID 12:2015 – Principles on Remote Assessment*, *ISO/IEC 17011:2017 – Conformity Assessment – Requirements for Accreditation Bodies Accrediting Conformity Assessment Bodies*, or *IAF MD 4:2018 – IAF Mandatory Document for the Use of Information and Communication Technology (ICT) for Auditing/Assessment Purposes*. Their analysis allows us to conclude that the guidelines can be applied to both external and internal remote auditing, especially when it comes to multi-site organizations.

Bearing in mind the above considerations, it can be confirmed that RA is not a new form of assessing the functioning of an organization and is applicable to various areas of interest, including management systems, e.g. quality management system. It is a process that allows to supplement and, if necessary, replace traditional on-site audits in the organization. RA is one form of technology-enhanced audits (TEA) (Castka et al., 2020).

Nevertheless, the course of each audit (both internal and external), including the remote one, should be consistent with the stages described in the ISO 19011 standard. However, as Staniaszek et al. (2020) convince, the process for RA should include at least the following steps: 1) planning and verifying eligibility/feasibility of RA; 2) preparation to test connectivity, collecting documents, and determining virtual interviewees; 3) execution of documentation review including satellite imagery,

Pobrane z czasopisma Annales H - Oeconomia **http://oeconomia.annales.umcs.pl**
Data: 01/11/2026 14:02:28

videos, and photographs as appropriate; 4) live interactions and worker interviews, and 5) reporting of findings and corrective action plan as needed. As ISO experts emphasize, the value of RA method resides in its potential to provide flexibility to achieving the audit objectives. In order to realize the benefits of this audit method, all interested parties should be aware of their role in the process, inputs, expected outputs, and risks and opportunities that will provide the basis to achieve the audit and audit program objectives (*ISO 9001 Auditing*..., 2020). For this reason, conducting RA involves not only opportunities, but also some risk. They have been clearly indicated in the guidelines developed by ISO in cooperation with IAF (2020). These circumstances result primarily from the need to use ICT (see Table 2).

Table 2. Risk and opportunities during RA

ICT	Potential use	Risks	Opportunities
Video call (synchronous) (e.g. Skype, WebEx, ZOOM, Hangouts)	– conducting interviews – guided site tours	– security and confidentiality violations – differences in time zones – authentication of the person – low quality of communication – the possibility to observe the organization in a more autonomous and free way is weakened as the auditor does not command the camera – the possibility to observe reactions from several auditees to communication may be weaker	– interview with relevant personnel working remotely, e.g. home office, project teams in design and development – opening/closing meeting in multisite audits – remote site/activities where physical observation is not critical – travel time/costs reduction and associated environmental impacts – greater geographical range
	– documentary review with auditee participation	– security and confidentiality violations – potential difficulty in responding to documentation requests – increased time required (potentially time-consuming process) – potential data manipulation – interaction with auditees may be weakened – diminished quality of information collected	– document reviews where site travel is not feasible, e.g. first stage audits where site visit is not critical to the achievement of objectives and time/travel constraints exist – multi-site (good for remote sites where site visit can be skipped or where annual visits within the audit program are not necessary, but some follow up is needed) – travel time/costs reduction
Surveys, applications	– filling out checklists and questionnaires	– guarantee of authenticity – need to pre-develop checklist and possibly prepare the respondent to answer them, which increases costs	– better knowledge of the organization, applicable at the preparation stage of the audit – allows to prepare audit work, which needs to be verified during the audit by gathering other evidence – allows the organization to prepare to the on-site visit

Pobrane z czasopisma Annales H - Oeconomia **http://oeconomia.annales.umcs.pl**
Data: 01/11/2026 14:02:28

ICT	Potential use	Risks	Opportunities
Document and data review (asynchronous) (e.g. web document review)	– viewing records, procedures, workflows, monitors, etc.	– security and confidentiality – procedural difficulty in document viewing (e.g. accessing remotely and navigating in the organization website) – increased time required (potentially time consuming process) – potential data manipulation – lack of interaction with the auditees does not allow clarification of issues – transparency (auditee loses perception of what is being audited and sampled)	– eases organization and allows for a more flexible use of time by the audit team – allows for better, more independent from the auditee and deeper exploration of information – possibility of integrating expertise that would not be able to travel to the site – provides good basis for understanding the organization's quality management system, and potentially provides audit trails that the auditor may utilize during interviews
Video (synchronous) (e.g. drone, live stream)	– monitoring of remote or high risk work – guided site visit – ability to view high risk processes or operations – witnessing running processes	– risks inherent in the use and presence of equipment (e.g. drone drop, use of equipment, unfavorable weather conditions) – quality of image full appreciation of the site, equipment and conditions – veracity of the data	– easy monitoring of high risk tasks – increased sampling – ideal for auditing activities where the safety requirements do not allow the presence of the audit team, or to observe places and facilities where the ratio travel time versus audit time is high – good for complementing field visits in outdoor activities (e.g. forest and agricultural sites, mining)
Video (asynchronous) (e.g. surveillance camera, video recordings purposely taken for audit)	– monitoring of activities that are not ongoing at the time of the audit – process videos – call center voice recordings – recorded training webinars	– security and confidentiality – quality of image – full appreciation of the site, equipment and conditions – veracity of the data	– higher profitability (possibility of selecting only the moments of interest of the video) – possibility of observing places, hard to reach facilities and improving sampling

Source: (*ISO 9001 Auditing*..., 2020).

Considering the above, one can certainly admit that very important in remote auditing is flexibility in performing tasks (flexible working hours), allowing to perform all audit activities in one place, as well as no need to travel to the audited unit, which minimizes costs (Serag & Daoud, 2021a, 2021b; Al-Taee, 2021). Research by Lois et al. (2020) confirms that factors such as cost and time traditionally play an important role in optimising internal continuous auditing. Therefore, as Ghosh and Abeysiriwardhane (2021) claim, even after the end of the pandemic, many organizations will choose to maintain the RA system, as they understand that the cost-benefit ratio is very efficient and meets the requirements of interested parties. As Barretto et al. (2022) convince, the degree of maturity in the use of telecommunication technologies during the pandemic irrevocably expanded the use of distance communication for all stakeholders. What was a limitation became an interesting opportunity. Moreover, certainly the reduction of complicated logistics, including

Pobrane z czasopisma Annales H - Oeconomia **http://oeconomia.annales.umcs.pl**
Data: 01/11/2026 14:02:28

the need to audit more buildings or locations, is a decisive factor in reducing the time of auditors' work. Auditors can carry out these activities in their office or at home (Stadnicka & Pacyna, 2010, p. 76). An auditor will no longer need to physically be at the location that the audit is being performed, which may help with a lot of the logistics planning between the two parties. This allows for meetings and interactions to be handled remotely as opposed to booking meeting rooms and interrupting the host organizations employees' normal workday (Gallo, 2020; Parsons, 2020, p. 7).

When it comes to the use of technology, the advantageous aspect is certainly the ability to isolate yourself from potential sources of threat (e.g. infected people), but also the ability to communicate with various groups of experts, primarily from outside the organization (Szymańska, 2012, p. 27). Serag and Daoud (2021a) note that remote auditing favours the participation of more people at a given time, since team members can participate through various electronic devices, requiring only the existence of a videoconferencing application. Researchers also emphasize the importance of other, non-substantive issues, such as the atmosphere, e.g. family atmosphere, which is important when the auditing person conducts the assessment from home. Serrano and Wellbrock (2021) point out how the possible interference of the family context during the interviews, such as the unexpected appearance of a child, a pet or any other element common to people's homes, actually contribute to greater empathy and humanization of the auditing practice, traditionally formal and stressful for the audited teams. On the other hand, the lack of physical contact is a limitation during the audit. Basing RA on technology is not free from the risk of uncontrolled data leakage, especially when there is a system failure or other disruptions. Additionally, each failure, even a minor one, delays the course of the audit and affects its effectiveness (Krzyszkowska-Dąbrowska, 2020, p. 60). Moreover, the lack of an actual presence in a given organization limits the observation of various behaviours or working conditions, important in the context of the processes being carried out. A decisive disadvantage of RA is also the limitation of non-verbal communication, allowing the auditor or auditee to accurately observe the direction of sight, gestures and, in general, body language. Research conducted by Carlisle and Jenkins (2021) proves that there is a risk that messages sent during RA may be misunderstood by both parties to the audit. The findings highlight the need for auditors to maintain professional scepticism during video interactions and when interacting with client personnel who are known to have limited training and experience because auditors may overrely on evidence obtained during these interactions. The researchers also point out that for some types of management standards, when work safety and human health are the important issues, RA is not advisable. One can mention here the ISO 45011 standard (Kafel & Rogala, 2022).

To sum up, it can be seen that the remote auditing process has some advantages and disadvantages. However, as it was shown, the advantages are greater than the disadvantages (e.g. Serag & Daoud, 2021a, 2021b; Al-Taee, 2021; Lois et al., 2020; Ghosh & Abeysiriwardhane, 2021), and, therefore, the organizations worldwide are embracing the e-audit system as it is easier to maintain and less costly. It seems that

Pobrane z czasopisma Annales H - Oeconomia **http://oeconomia.annales.umcs.pl**
Data: 01/11/2026 14:02:28

RAs are the future of the auditing system, and their advantages are unquestionable. They are a far more efficient approach to the auditing process, and it is not only from the point of view of the company being audited but also from the point of view of the audit team as well. RA, or e-audit, is gaining popularity in the auditing industry, and many businesses rely on it (Putrevu, 2021). Of course, the limitations of this type of process cannot be forgotten. As confirmed by the research results, difficulties in communication and building trust are the biggest challenges, as well as limited access to the auditee's individuals and data. Not without the significance is the auditee's unwillingness to schedule meetings, existing time zone differences, or the use of paper-based documents (Eulerich et al., 2021).

Research methods

The research facility is a network, multi-site medical organization operating on the e-commerce market. The organization operates on the basis of its own medical centers, which, in turn, cooperate with nearly 3,000 partner day clinics in Poland. Its offer of services includes the following forms of care: basic and specialist medical care, full medical diagnostics, rehabilitation, dentistry, aesthetic medicine, and home visits. In addition, the medical offer includes a genetic clinic where genetic tests can be performed on children and adults. The medical facility has a quality management system certificate according to the ISO 9001 standard, version 2015.

The research problem undertaken in the work is the answer to the following question: Whether and what difficulties were associated with the implementation of internal remote audit in a selected organization during a pandemic? Our research was conducted in the second half of 2021 in two groups of stakeholders. The first were internal auditors appointed to perform their functions in all medical centers belonging to the medical entity. The second group consisted of quality management representatives, responsible for preparing a given facility for the audit and present during its implementation on behalf of this facility. The research sample was complete and included all internal auditors and all quality management representatives. This approach, in our opinion, proves the strength of our method. The respondents were asked to fill in the questionnaire and were assured of the anonymity of the survey. For this reason, the metrics-related questions were not used. Two research questionnaires were prepared – one for auditors and one for quality management representatives (see Tables 3 and 4). The questionnaires contained statements subordinated to the individual stages of the audit, according to the ISO 19011 standard. This tool was used to assess the difficulty of conducting/participating in RA. The Likert scale was used, where 1 means: *there were definitely no difficulties*, 2 – *there were no difficulties*, 3 – *yes and no*, 4 – *there were difficulties*, 5 – *there were definitely difficulties*. In the final part of the questionnaire, the respondents were optionally asked for their opinion on special precautionary measures that should be taken during RA.

Pobrane z czasopisma Annales H - Oeconomia **http://oeconomia.annales.umcs.pl**
Data: 01/11/2026 14:02:28

Results and discussion

A total of 8 internal auditors (100%) and 41 quality management representatives (93% of 44), participated in the study. First, the auditors' responses (see Table 3) were examined. The analysis of their responses allows us to conclude that RAs were not perceived by them as difficult or very difficult to perform. The vast majority of auditors did not notice any difficulties in the remote form of this process. Similar observations, although on a much larger group of people, were made by Eulerich et al. (2021) claiming that internal auditors perceive no difference in the efficiency and effectiveness of RAs relative to traditional audits. Additionally, the same authors claim that the transition to RAs caused by the COVID-19 pandemic does not appear to adversely affect internal audit quality.

Table 3. The auditors' responses

Audit stages		Scale					No. of responses in total
		1	2	3	4	5	
		No. of responses					
1	Initiating audit						
1.1	Establishing contact with auditee	5	2	1	0	0	8
1.2	Determining feasibility of audit	6	2	0	0	0	8
2	Preparing audit activities						
2.1	Performing review of documented information	5	2	1	0	0	8
2.2	Planning details and assigning work to audit team	5	3	0	0	0	8
2.3	Preparing documented information for audit	5	3	0	0	0	8
3	Conducting audit activities						
3.1	Assigning/confirming roles and responsibilities of guides and observers	5	3	0	0	0	8
3.2	Conducting opening meeting	6	2	0	0	0	8
3.3	Communicating during audit	6	2	0	0	0	8
3.4	Audit information availability and access	5	2	1	0	0	8
3.5	Reviewing documented information while conducting audit	5	2	1	0	0	8
3.6.	Collecting and verifying information	5	2	1	0	0	8
3.7	Generating audit findings	5	3	0	0	0	8
3.8	Determining audit conclusions	5	3	0	0	0	8
3.9	Preparation of and conducting closing meeting	5	2	1	0	0	8
4	Preparing and distributing audit report						
4.1	Preparing audit report	6	2	0	0	0	8
4.2	Distributing audit report	6	2	0	0	0	8
5	Completing audit	6	2	0	0	0	8
6	Conducting audit follow-up	6	2	0	0	0	8

Source: Authors' own study.

Some problems (as indicated by the answers "yes and no"), but only to individual auditors, caused such issues as: "establishing contact with auditee"; "performing review of documented information"; "audit information availability and access"; "reviewing documented information while conducting audit", "collecting and verifying informa-

Pobrane z czasopisma Annales H - Oeconomia **http://oeconomia.annales.umcs.pl**
Data: 01/11/2026 14:02:28

tion"; or "preparation of and conducting closing meeting". The problems, especially when it comes to the stages of the audit related to the need to inspect the documentation and/or verify it, seem obvious, because during RA there is a large limitation in the free and flexible access to various types of procedures, instructions or records that are usually found in the auditee's workplace and are easy to review at any time. Such a review or verification, e.g. of the correctness of record keeping, their completeness and legibility, requires coordination and cooperation with the auditee, assistance in the form of directing the camera to a specific type of document, and also takes time. As shown by the results of research conducted by Castka et al. (2021), in most of the organizations the documents and records are shared through various means, i.e. sharing files, providing access to internal systems, or emailing documents. Apart from documents and records, firms can be asked to provide video footage of their facilities and/or particular processes before the audit or during the audit. This, of course, takes time and requires prior preparation. On the other hand, the same group of researchers emphasizes that auditors have more privacy during RA and can concentrate on the review of documents without interruptions that are typical during an on-site audit. Although when it comes to the need to view specific, additional documents on a regular basis, it is certainly associated with delays. As Eulerich et al. (2021) show, auditees may respond slower in RA, and finding and sharing documentation may take longer. The same problems are noticed by Teeter et al. (2010) who conceded that documentation currently provides a significant hurdle to RA. Many organizations still continue to have a substantial amount of data generated by paper documents; conversion of these documents into digital form is prone to manual entry errors and potential falsification.

The second group of problems noted by our respondents seems to be related to the lack of full interaction, e.g. during closing meetings or in a situation requiring obtaining and then verifying the information obtained during an audit. As Teeter et al. (2010) point out, throughout the evidence collection process, interpersonal interaction impacts the effectiveness and outcome of the audit. As with virtual teams, RA has the added challenge of limited sensory perception when the auditor is not physically present to conduct observations, interviews, etc. The same authors add that videoconferencing can replace many routine face-to-face audit meetings, but not those where all the subtlety and nuance of a conversation must be analyzed, such as an interview with someone suspected of committing fraud or interactions aimed at reducing auditor-client stress. On the other hand, there are papers showing that the lack of physical presence contributes to the objectivity of the audit. It seems that an auditor will be more neutral in RA as he/she will not be influenced by auditee management and will try to find their own source of information to confirm the claims given in financial reporting. There are the arguments showing that when auditors are not physically present at an auditee's premises, he/she will show higher level of skepticism, compared to traditional audit when an auditor may place too much reliance on auditee management presentations (Mizdraković et al., 2021).

Pobrane z czasopisma Annales H - Oeconomia **http://oeconomia.annales.umcs.pl**
Data: 01/11/2026 14:02:28

As mentioned, our respondents could optionally comment on what protective measures are most important to them to ensure the security of the data obtained during RA. The more that their transmission takes place by e-mail and by cloud-based exchange. This approach has long been used in RAs (Accorsi, 2013). Using cloud storage, users can remotely store their data and enjoy the on-demand high-quality applications and services from a shared pool of configurable computing resources, without the burden of local data storage and maintenance (Wang et al., 2013). Importantly, all auditors recognized that "the security of data transmission is the highest priority" during the audit. The respondents also concluded that it is also necessary to "use a trusted, secured Internet connection" (3 people), as well as "protect the documentation being sent with a password" (3 people), and "encrypt messages" (3 people). Attention was drawn to the need to ensure that "outsiders do not witness the interviews" (in the case of a "home office") (3 people), which involves the need to provide a separate room and use headphones. The second group of respondents were auditees (quality management representatives) (see Table 4).

Table 4. The auditees' responses

Audit stages		Scale					No. of responses in total
		1	2	3	4	5	
		No. of responses					
1	Initiating audit						
1.1	Establishing contact with auditor	26	13	2	0	0	41
1.2	Determining feasibility of audit	25	16	0	0	0	41
2	Preparing audit activities						
2.1	Creating conditions for performing review of documented information	21	17	3	0	0	41
2.2	Creating conditions for audit planning	24	16	0	1	0	41
2.3	Assigning work to our people before and during audit	24	16	1	0	0	41
2.4	Creating conditions for preparing documented information for audit	22	18	1	0	0	41
3	Creating conditions for conducting audit activities						
3.1	Assigning/confirming roles and responsibilities of guides and observers	25	14	2	0	0	41
3.2	Creating conditions and participation in the opening meeting	26	13	2	0	0	41
3.3	Creating conditions for communicating during audit	26	13	1	1	0	41
3.4	Creating conditions for audit information availability and access	25	14	2	0	0	41
3.5	Creating conditions for reviewing documented information while conducting audit	25	15	1	0	0	41
3.6	Creating conditions for collecting and verifying information	25	14	2	0	0	41
3.7	Creating conditions for generating audit findings	26	13	2	0	0	41
3.8	Creating conditions for determining audit conclusions	27	14	0	0	0	41
3.9	Creating conditions and participation in closing meeting	28	11	2	0	0	41
2.	Creating conditions for preparing and distributing audit report						
4.1	Creating conditions for preparing audit report	28	11	1	1	0	41
4.2	Creating conditions for distributing audit report	29	10	2	0	0	41
5	Creating conditions for completing audit	28	12	1	0	0	41
6	Creating conditions for conducting audit follow-up	27	12	2	0	0	41

Source: Authors' own study.

Pobrane z czasopisma Annales H - Oeconomia **http://oeconomia.annales.umcs.pl**
Data: 01/11/2026 14:02:28

The collected responses do not indicate particular difficulties during the audit. The vast majority of respondents perceive the individual stages of the audit as very easy or easy. Nevertheless, for individual respondents some problems (answers – "yes and no") are caused by "creating conditions for performing review of documented information". There are also some signals for issues such as: "creating conditions for audit information availability and access", "creating conditions for collecting and verifying information"; "creating conditions for distributing audit report"; "creating conditions for preparing documented information for audit"; or, e.g. "creating conditions for reviewing documented information while conducting audit". the observed difficulties are, therefore, similar to those indicated by some auditors. Also in this case, the risk factor is located in the effective transfer of the necessary documentation and access to specific people in real time. However, as experts point out (Picciotti, 2020), this risk level here relates not only to the access of the organization's documents, databases, and personnel, but also to the technology to be used for RA. WebEx, Zoom, Skype, Teams, or Google Meet, and any other platform has a risk of not functioning throughout the audit day. In addition, Wi-Fi is another risk to take into consideration. Attention should also be paid to another important issue, which is the need to protect the audited organization against cyber-attacks, which in times of environmental instability is a serious threat (Li & Liu, 2021). Additionally, it can be assumed that individual problems with the documentation and the conditions for making them available may also result from the lack of appropriate skills in using electronic documentation. The above assumptions are reflected in the results of research on internal RA, carried out by Lois et al. (2020). Their respondents highlighted the protection of personal data, the avoidance of cyber-attacks and training as major continuous internal auditing goals. The impact of data protection measures against cyber-attacks as well as employees' skills and training were found to be significant. In our study, however, there are also some, but single problems of an organizational nature, e.g. related to such issues as: "establishing contact with auditor"; "creating conditions and participation in the opening meeting"; "creating conditions and participation in closing meeting"; "assigning work to our people before and during audit"; "creating conditions for completing audit", or "creating conditions for conducting audit follow-up". It seems that they result from a lack of skill and insufficient preparation or knowledge in this regard. As already mentioned, this factor is very important during such audits. The research results presented by Grzesiak (2021) show that internal audit stakeholders have limited knowledge of the role and responsibilities of internal auditors and the purpose of their work. Although this author's research concerns traditional audits, it seems that even more so, it may be a problem in the case of RAs, for similar observations were made in the work by Serag and Daoud (2021a, 2021b) addressed to RA. The surveyed group of our respondents also included individual people who considered that there were some difficult tasks for them. They are related to: "creating conditions for audit planning"; "creating conditions for preparing audit report"; "creating conditions for communi-

Pobrane z czasopisma Annales H - Oeconomia **http://oeconomia.annales.umcs.pl**
Data: 01/11/2026 14:02:28

cating during audit". In our opinion, also in this case, it can be assumed that these situations may be caused by the lack of skill and experience in participating in RA. This situation may change because, as shown by the results of research conducted by Eulerich et al. (2021), the perception of efficiency and effectiveness increased as the internal auditor's experience with RAs increased. Additional analyses showed that expected success of RAs predominantly depends on the auditee support. This, in turn, means the need to share experiences between employees. Moreover, as specialists emphasize, preparation for RAs is key and determines the success of the audit. This includes communications between auditors and auditees with regard to the focus of the audit, preparation for and testing of technologies and sharing of documents and records (Castka et al., 2021).

As for the opinion of this group of respondents on the specific protective measures during the audit, none of them commented on this matter. This is probably due to the fact that this aspect of the audit was covered by the auditors themselves, which meant that for the quality management representatives this issue was no longer a problem. Especially that both the auditors and the audited persons belong to the same organization.

Conclusions

The overall aim of any audit, including the remote one, is to determine the extent to which the audit criteria has been fulfilled. Some organizations have been experimenting with remote auditing for years, however, the importance of RA increased during the pandemic. The course of this type of audit does not differ from the traditional audit and should comply with the requirements of ISO 19011. However, as it has been shown, the importance of flexibility in this area is emphasized, due to the specific conditions of application. RA is one that is conducted partially or completely off-site. The choice of the form of the audit depends on the situation.

Having in mind the research problem undertaken in this work, one can conclude that RA is not free from problems, however, as it was confirmed by different specialists and scholars, the advantages are greater than the disadvantages. It seems that virtual audits are the future of the auditing system and this type of auditing will remain with us forever. The more so as there are more and more crisis-related situations in the environment of each organization.

When analyzing the responses of the auditors and auditees, several bottlenecks related to certain difficulties were identified. These observations may be a lesson for the analyzed organization for the future. The first one is surely the proper preparation for making the documentation available and submitting it for evaluation during the audit. Both auditors and audited persons should not waste time searching for relevant documents or records. This means that, as much as possible, paper documents should be transformed into electronic documents, easy to find and use. Another issue is to check

Pobrane z czasopisma Annales H - Oeconomia **http://oeconomia.annales.umcs.pl**
Data: 01/11/2026 14:02:28

in advance to what extent the applied information technology is efficient, effective and available to all interested parties during the audit. In this case, it is very important to effectively protect against data leakage, which means the need for ongoing training, taking into account such issues as: protection against cyber-attacks, the correct encoding of documents and data, the ability to properly store and send them. The above research also shows that it is necessary to clarify the roles and tasks before and during audits, and in particular, to make sure in advance that during the audit, all persons covered by the scope of a given audit are available without undue delay. This definitely requires investment in the appropriate computer hardware and communication system that should be installed on it. The above means that on the side of medical centers, it is crucial to check the availability of all resources, both tangible and intangible, in advance. It also seems right to conduct audit simulations before the actual internal audit. They can allow for earlier detection of possible weaknesses. This approach allows to save time and avoid unnecessary stress and rush that usually occur during each audit. This, in turn, can contribute to better mutual interaction during remote auditing. It seems that the lack of sufficient interaction could be a problem for some people in this organization. However, this issue also applies to other organizations.

As authors, we are aware of the limitations of our research. There is certainly too little work on internal RAs of management systems. Thus, we could not make many comparisons of our results with others. Then, despite the fact that we used a diagnostic survey addressed to the full sample of respondents, our research should be repeated due to the fact that the situation has changed. Both in terms of pandemic and increasing qualifications. Certainly, a more complete picture would be provided by the additional use of qualitative methods, e.g. observations, interviews or interviews with respondents. For this reason, future research should continue to minimize these limitations.

The results of our study are of cognitive importance, providing a better understanding of an issue that is not yet widely scientifically described. On the other hand, they have practical implications, allowing other organizations to better prepare for their remote audits. Indeed, learning from the mistakes of others is a less costly lesson.

References

Accorsi, R. (2013). A secure log architecture to support remote auditing. *Mathematical and Computer Modelling*, *57*(7–8), 1578–1591. **doi:10.1016/j.mcm.2012.06.035**

Al-Taee, S.H.H. (2021). Effects of the remote auditing in Iraq during COVD-19. *Economic Annals-XXI*, *187*(1–2), 197–205.

Barretto, C.R., Drumond, G.M., & Méxas, M.P. (2022). Remote audit in the times of COVID-19: A successful process safety initiative. *Brazilian Journal of Operations & Production Management*, *19*(3), 1–17. **doi:10.14488/BJOPM.2021.048**

Carlisle, M., & Jenkins, G.J. (2019). *The Effect of Communication Mode on Evidence Persuasiveness in Remote Auditor-Client Interactions*. Retrieved from https://ssrn.com/abstract=3105452

Pobrane z czasopisma Annales H - Oeconomia **http://oeconomia.annales.umcs.pl**
Data: 01/11/2026 14:02:28

Castka, P., Searcy, C., & Mohr, J. (2020). Technology-enhanced auditing: Improving veracity and timeliness in social and environmental audits of supply chains. *Journal of Cleaner Production*, *258*, 120773. **doi:10.1016/j.jclepro.2020.120773**

Castka, P., Zhao, X., Bremer, P., Mirosa, M., & Wood, L. (2021). *Remote Auditing and Assessment during the COVID-19 Pandemic in New Zealand and China. Learnings from the Food Industry and Guidance for the Future. A Report for New Zealand China Food Protection Network*. Retrieved from https://ir.canterbury.ac.nz/bitstream/handle/10092/102272/Remote%20Auditing.pdf?sequence=2

Dai, J., & Vasarhelyi, M.A. (2016). Imagineering Audit 4.0. *Journal of Emerging Technologies in Accounting*, *13*(1), 1–15. **doi:10.2308/jeta-10494**

Dasek, T., & Zawadzka, P. (2017). Ewolucja audytu wewnętrznego na świecie. *Studenckie Prace Prawnicze, Administratywistyczne i Ekonomiczne*, *22*, 35–46. **doi:10.19195/1733-5779.22.3**

Eulerich, M., Wagener, M., & Wood, D.A. (2021). *Evidence on Internal Audit Effectiveness from Transitioning to Remote Audits Because of COVID-19*. Retrieved from https://ssrn.com/abstract=3774050; **doi:10.2139/ssrn.3774050**

Gallo, I. (2020). *What Are Benefits and Barriers When Performing Remote Audits?* Retrieved from https://advisera.com/9001academy/blog/2020/01/27/remoteaudit-benefits-and-barriers-for-iso-standards/

Ghosh, S., & Abeysiriwardhane, A. (2021). The influence of information technology on the implementation of the International Safety Management (ISM) code: A shift from paper-based to paperless ships. *Maritime Technology and Research*, *3*(3), 299–311. **doi:10.33175/mtr.2021.249024**

Grzesiak, L. (2021). An internal audit expectation gap in Poland. *Annales Universitatis Mariae Curie-Skłodowska Lublin Polonia*, *LV*(3), 37–50. **doi:10.17951/h.2021.55.3.37-50**

Hasegawa, H., Takahashi, A., Kanaji, S., Kakeji, Y., Marubashi, S., Konno, H., Gotoh, M., Miyata, H., Kitagawa, Y., & Seto, Y. (2020). Validation of data quality in a nationwide gastroenterological surgical database: The National Clinical Database site-visit and remote audits, 2016–2018. *Annals of Gastroenterological Surgery*, *5*(3), 296–303. **doi:10.1002/ags3.12419**

Hoy, W., Manning, R., Tungatalum, L., Hoy, P., Mott, S., Eddy, D.D., & Ball, P.A. (2014). A profile of sales audits of a remote Aboriginal community's general store: 1992 and 2011. *Australian & New Zealand Journal of Public Health*, *38*(1), 94.

ISO 9001 Auditing Practices Group Guidance on Remote Audits. (2020). Retrieved from https://committee.iso.org/files/live/sites/tc176/files/documents/ISO%209001%20Auditing%20Practices%20Group%20docs/Auditing%20General/APG-Remote_Audits.pdf

ISO 19011. (2018). *Guidelines for Auditing Management Systems*. Geneva: ISO.

Kafel, P., & Rogala, P. (2022). Auditing management systems in digital transformation era. *International Journal for Quality Research*, *6*(1), 193–206. **doi:10.24874/IJQR16.01-13**

Khadem, T., Kraft, J., & Bariola, J.R. (2019). A targeted remote audit and feedback intervention utilizing a local non-ID trained pharmacist. Open Forum Infectious Diseases, *6*(Suppl. 2), S702–S703. **doi:10.1093/ofid/ofz360.1763**

Krzyszkowska-Dąbrowska, M. (2020). *Praca zdalna. Praktyczny poradnik*. Kraków: Wolters Kluwer.

Li, Y., & Liu, Q.A. (2021). A comprehensive review study of cyber-attacks and cyber security. Emerging trends and recent developments. *Energy Reports*, *7*, 8176–8186.

Ligarski, M.J. (2018). Istota audytu i jego rola w systemie zarządzania jakością. In R. Knosala (Ed.), *Innowacje w zarządzaniu i inżynierii produkcji* (t. 2, pp. 261–271). Opole: Oficyna Wyd. Polskiego Towarzystwa Zarządzania Produkcją.

Lois, P., Drogalas, G., Karagiorgos, A., & Tsikalakis, K. (2020). Internal audits in the digital era: Opportunities risks and challenges. *EuroMed Journal of Business*, *15*(2), 205–217. **doi:10.1108/EMJB-07-2019-0097**

Mizdraković, V., Kljajić, M., & Hadrović Zekić, B. (2021). Internal auditing in COVID-19 environment: Is remote auditing a solution? *FINIZ*, 3–7. Retrieved from https://portal.finiz.singidunum.ac.rs/Media/files/2021/3-7.pdf; **doi:10.15308/finiz-2021-3-7**

Pobrane z czasopisma Annales H - Oeconomia **http://oeconomia.annales.umcs.pl**
Data: 01/11/2026 14:02:28

Nowicki, P., & Kafel, P. (2021). Remote certification processes during global pandemic times. *SHS Web of Conferences*, *92*. Retrieved from https://www.shs-conferences.org/articles/shsconf/pdf/2021/03/shsconf_glob20_01037.pdf; **doi:10.1051/shsconf/20219201037**

Parsons, E.M. (2020). *Overcoming Barriers of a Remote Compliance Audit*. Ferris State University. Retrieved from http://fir.ferris.edu:8080/xmlui/bitstream/handle/2323/6943/ElishaParsonsSpring2020final.pdf?sequence=1&isAllowed=y

Picciotti, D. (2020). Remote quality management system audits: An ISO 9001 auditor's perspective and lessons learned. *Quality*, *59*(13), 52–55.

Putrevu, J. (2021). The efficacy of remote auditing in ensuring and enhancing the efficiency of the internal audit. In *Proceedings of the 8th International Conference on Opportunities and Challenges in Management, Economics and Accounting* (pp. 135–151). Retrieved from https://www.dpublication.com/wp-content/uploads/2021/11/31-4087.pdf

Roué, A., Venselaar, J.L.M., Ferreira, I.H., Bridier, A., & Van Dam, J. (2007). Development of a TLD mailed system for remote dosimetry audit for 192IR HDR and PDR sources. Radiotherapy & Oncology, 83(1), 86–93. **doi:10.1016/j.radonc.2007.02.011**

Serag, A.A.E., & Daoud, M.M. (2021a). Using modern audit methods to overcome the challenges facing the audit profession in the COVID-19 pandemic. *Trade and Finance*, *41*(2), 1–10. Retrieved from https://journals.ekb.eg/article_166213_760e6505b9799652caddcdcf6ffec67e.pdf; **doi:10.21608/caf.2021.166213**

Serag, A.A.E., & Daoud, M.M. (2021b). Remote auditing: An alternative approach to face the internal audit challenges during the COVID-19 pandemic. *ATASU Journals*, *25*, 228–259. **doi:10.21608/ATASU.2021.181073**

Serrano, R.M., & Wellbrock, W. (2021). How to set up an audit programme? ISO 19011. *International Journal of Auditing and Teaching Practices*, *1*(1), 1–16.

Sidor-Rządkowska, M. (2021). *Kształtowanie przestrzeni pracy, Praca w biurze, praca zdalna, coworking*. Warszawa: Wolters Kluwer.

Stadnicka, D., & Pacyna, A. (2010). *Audity wewnętrzne systemu zarządzania jakością, środowiskiem i bezpieczeństwem*. Rzeszów: Oficyna Wyd. Politechniki Rzeszowskiej.

Staniaszek, M., Fischer, S., & Anderton-Tyers, T. (2020). *Research Report: Sustainability Auditing Good Practices in Response to COVID-19*. Retrieved from https://www.isealalliance.org/sites/default/files/resource/2020-09/Auditing-Response-Covid19_ASI_09-2020.pdf

Szymańska, A. (2012). *Globalizacja a nowe koncepcje zarządzania przedsiębiorstwem*. Kraków: Wyd. UP.

Teeter, R.A., Alles, M.G., & Vasarhelyi, M.A. (2010). The remote audit. *Journal of Emerging Technologies in Accounting*, *7*(1), 73–88. **doi:10.2308/jeta.2010.7.1.73**

Tysiac, K. (2020). Remote auditing comes to forefront during pandemic. *Journal of Accountancy*, *229*(4). Retrieved from https://www.journalofaccountancy.com/news/2020/mar/remote-auditing-during-coronavirus-pandemic.html

Ufodiama, C.E., Touyz, S.J.J., Fitzgerald, D.A., Hunter, H.J.A., McMullen, E., Warren, R.B., & Kleyn, C.E. (2022). Remote consultations: An audit of the management of dermatology patients on biologics during the first wave of the COVID-19 pandemic. *Journal of Dermatological Treatment*, *33*(5), 2697. Retrieved from https://www.tandfonline.com/doi/abs/10.1080/09546634.2022.2037496; **doi:10.1080/09546634.2022.2037496**

Wang, C., Chow, S.S.M., Wang, Q., Ren, K., & Lou, W. (2013). Privacy-preserving public auditing for secure cloud storage. *IEEE Transactions on Computers*, *62*(2), 362–375. **doi:10.1109/TC.2011.245**

Winiarska, K. (2015). Rozwój audytu wewnętrznego na świecie. *Zeszyty Naukowe Uniwersytetu Szczecińskiego nr 864 Finanse, Rynki Finansowe, Ubezpieczenia*, *76*(2), 143–153. **doi:10.18276/frfu.2015.76/2-12**

Zymonik, J. (1995). Audyt systemu zapewnienia jakości w przedsiębiorstwie. *Przegląd Organizacji*, *12*, 34–37.