

Factors Affecting Audit Quality with Remote Audit as a Moderation Variable (Case Study at Certification Body - XYZ)

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ABSTRACT

This research aims to analyze the factors that influence the quality of remote audits carried out by the XYZ Certification Body during the emergency period of the Covid 19 pandemic. Researchers try to identify the extent to which remote audits carried out can influence the quality of the audit itself by analyzing the variables involved. The emergency pandemic period is the right momentum to implement a new method of auditing which is carried out massively using a long-distance method between the auditor's location and the auditee due to a large-scale social restriction based on government policy. This research uses quantitative methods with primary data collected through questionnaires to selected organizations as well as secondary data from company reports, with output analysis of the influence between independent and dependent variables moderated by remote audit as a moderator variable, using the SEM PLS 4 tool so that its significance can be determined of these variables. From this research it can be concluded that remote audits do not have a significant effect on reducing audit quality and it is hoped that this activity can be used as an option in the future to be carried out either fully remotely or in a hybrid scheme. The managerial implication of this research is the need to develop auditor competency by carrying out regular training, involvement of

Certification Body in calibrating auditor capabilities and the use of information technology and computer-assisted audit techniques which are useful tools for auditors and auditees to support the implementation of this activity.

Key words: Remote Audit; Audit; Quality Audit; Auditor, SEM PLS4; Certification Body.

INTRODUCTION

The COVID-19 pandemic has caused significant impacts in almost all countries around the world, including Indonesia. Various industrial sectors, both on a small and large scale, including vital sectors, are also affected by this outbreak which further worsens a country's economy. Various government policies have been issued to minimize the impact of this outbreak including social restrictions, where people's space for movement is very limited including office and industrial activities, but essential industries are still allowed to operate with strict regulations and permits.

Certification Body (LS) XYZ is one of the multinational private companies headquartered in Germany, engaged in *testing, inspection & certification* (TIC) services, which also feels the impact of restrictions on community activities in providing services to various industrial sectors. Therefore, each LS under the

auspices of the Association of Indonesian Certification Bodies (ALSI), in coordination with the government through the National Accreditation Committee (KAN) strives to continue to carry out its functions because the services and services provided are closely related to the continuity of the company in various related business sectors. As is known that testing, inspection and certification services have become one of the requirements of customers of various organizations in running their business.

Therefore, referring to these conditions, the government through KAN issued policy No. 004/KAN/04/2020 related to the activities carried out by each Certification Body in order to ensure the consistency of the suitability of business actors or clients who have been certified by conducting audit activities remotely 'remote' by considering the risk aspects if the visit is carried out and the ability of the organization in terms of the ability to provide documents and information technology to be used. The above policy is in line with policies that have also been issued previously by the IAF (International Accreditation Forum, Inc) or International Accreditation Forum which has regulated these conditions in IAF MD 4, IAF ID 3 and IAF ID 12.

Based on this policy, each LS can continue to carry out its functions in audit activities with a *remote* 'remote' method to all organizations that are clients of LS XYZ, of course based on the aspects that have been determined. From the internal data obtained by the author, it is known that the total number of clients is ± 3604 clients, spread for various standards both ISO, IATF, RSPO and ISPO series. But in this case, the author will focus on conducting research on certified clients of the most dominant standard, namely the ISO 9001 Standard version 2015 (Quality Management System), where ISO9001: 2015 is a generic standard that is applicable in various business sectors. This is in line with the information from the official ISO website, where there are 3 management system standards that are most widely implemented both in Indonesia and the

World, namely ISO9001 for Quality, ISO14001 for the Environment and ISO45001 for K3, as explained in Table 1 & 2. (Source; The ISO Survey of Management System Standard Certifications 2022).

Table 1 - The most widely applied ISO standards in the World

Standard no	Total valid certificates	Total number of sites
ISO9001:2015	1.265.216	1.666.172
ISO14001:2015	529.853	744.428
ISO45001:2018	397.339	512.069

Table 2 - The most widely applied ISO standards in Indonesia

Standard no	Total valid certificates	Total number of sites
ISO9001:2015	9.348	13.058
ISO14001:2015	3.328	4.350
ISO45001:2018	2.617	3.467

Based on the KAN policy implemented since April 2020, each LS has carried out its audit activities using the remote 'remote' method, from the number of certified LS XYZ clients, based on the data obtained and referring to remote vs face-to-face audit activities that have been carried out during the pandemic in 2020 – 2022, are as follows:

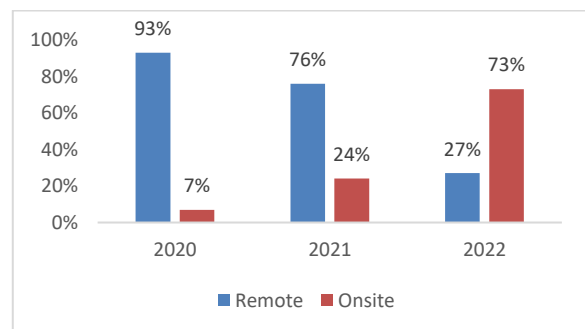


Figure 1. Percentage of Remote and Onsite activities 2020 – 2022

Based on Figure 1, it is known that audit activities in the 2020-2021 period were mostly carried out remotely, while in 2022, there has been a downward trend for face-to-face/field audits due to the easing pandemic conditions.

The implementation of *remote* audits 'remote' can be said to bring many benefits both felt by LS and clients. As quoted from litzenberg

& Ramirez (2020), revealed that there are several advantages including:

- a) Reduce travel costs.
- b) Increase the intensity of the examination.
- c) Improve competence, especially in the field of information technology that can strengthen documentation and reporting.
- d) Improve document review results.
- e) Mitigate audit burden on operational costs.

However, during the implementation of remote audits carried out does not mean there are no obstacles, some of the challenges faced according to litzenberg & Ramirez (2020), and several other sources are as follows:

- a) Direct and detailed observations have not been able to be effectively carried out.
- b) Lack of communication with auditors to dig deeper into information.
- c) Make it difficult to collect data and documents that are in accordance with the aims and needs of the auditor.
- d) Lack of direct personal interaction that can open up opportunities for fraud.
- e) There is a potential for falsification of documents sent by clients to auditors through online platforms (Achmad, 2020).

Although the remote audit is carried out with various challenges, LS XYZ must follow the policies set both by KAN and also by the International Accreditation Forum (IAF) so that the implementation of this audit can still be carried out without reducing the quality of the audit. According to Angelo (1981), Pinello, *et al.* (2019), defines audit quality as an inspection activity that allows auditors to find inconsistencies or material misstatements and report the violation as a nonconformity. In conducting an audit, the auditor must comply with audit standards, audit code of ethics, and methodology or guidelines determined by the authority. Kusumawati (2018), audit quality is defined as a management instrument to assess or confirm activities through systematic and independent testing to determine whether the implementation in the standard and internal company has been implemented effectively

and the activities carried out with good quality to achieve company goals. Knechel and Shefchik (2014), explain that the inputs that become the framework of audit quality, consist of independence, objectivity, knowledge, experience, and professional skepticism of auditors.

The pandemic condition has subsided and a policy has been issued from the government that there will be no more community social restrictions in December 2022 and in June 2023, the government has officially revoked the status of the Covid-19 Pandemic in Indonesia. Therefore, KAN issued a policy related to audit activities that are again carried out face-to-face and there is already a ban on remote audits. On the one hand, this is a good policy with Indonesia's recovery from the pandemic, the rise of economic conditions and the regrowth of various business sectors, but when viewed from the other side, the remote audit activities carried out, can be an opportunity for all LS and clients to be able to study more deeply about the audit activities. Until now, remote audit activities can still be carried out for accreditation that is not KAN accreditation, so this is a challenge in the future to examine more deeply the possibility of remote audits can be carried out for certification in KAN accreditation.

Problem Formulation

Some of the research described in the introduction, it is known that remote auditing can have a positive and negative effect on audit quality. Therefore, the author wants to know the factors that affect audit quality with *remote audit* as a moderation variable, then the formulation of the problem is:

1. What is the level of audit quality, independence, competence, objectivity, audit experience, professionalism skepticism and remote auditing?
2. What are the factors that affect the quality of *remote audits* conducted by LS XYZ?
3. What is the feasibility of *remote audit* as one of the methods that can be applied to LS XYZ?

4. What is the strategy of implementing remote audit on LS XYZ?

Research Objectives

Based on the problem formulation, the objectives of this study are to:

1. Analyze the level of audit quality, independence, competence, objectivity, audit experience, professionalism skepticism, and remote auditing.
2. Analyze the factors that affect the quality of remote audits on LS XYZ.
3. Analyze the feasibility of remote audit as one of the methods that can be applied to LS XYZ.
4. Formulate a strategy for implementing remote audit on LS XYZ.

Research Scope

The scope of research is a ISO9001:2015 certified client who has been audited both remotely and face-to-face. Based on LS XYZ internal data, there are ± 1110 clients in the audit cycle each year.

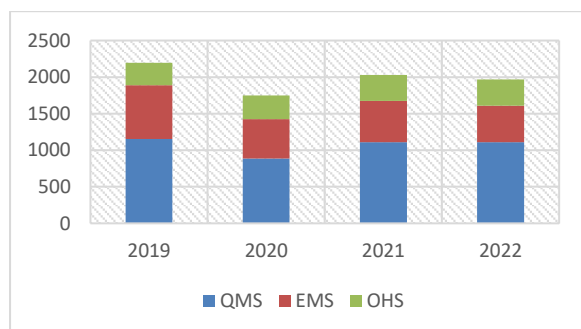


Figure 2. Percentage of Remote and Onsite activities 2020 - 2022

THEORETICAL REVIEW

ISO

ISO is an international standard-setting body consisting of representatives from each country's national standards body. At first, the abbreviation of the name of the institution was IOS, not ISO. But nowadays the abbreviation ISO is often used, because in Greek "isos" means equal. ISO was founded on February 23, 1947 in Geneva, Switzerland. The standards set are in the form of world industrial and commercial standards. Although ISO is a non-governmental organization, its ability to set

standards that often become law through national approvals or standards makes it more influential than most other nongovernmental organizations, and in practice it becomes a consortium with strong relationships with government parties (Anonim, 2007).

Audit

Audit is a systematic, independent and documented process of obtaining audit evidence and evaluating it objectively to determine the extent to which audit criteria are met (ISO 19011:2018 Clause 3.1). Based on the definition of auditing, systematic means carried out based on planned procedures. Independent means carried out independently. Objective means the process of evaluating audit findings based on records, statements of fact or other information relevant to audit criteria based on strong evidence.

Remote Audit

Basically, the implementation of remote audits is the same as the implementation of conventional audits, but the difference lies in the technical implementation carried out virtually using information technology devices. Remote audit is a method of audit assignment carried out using the help of information technology, so that auditors do not meet directly with audits (Litzenberg & Ramirez, 2020). Meanwhile, according to ISO 19011:2018, remote audits are carried out when face-to-face methods are not possible.

Audit Quality

According to Yusuf (2019), concluding that audit quality is all the possibilities that auditors have when conducting the audit process in finding violations or errors in client reports, and in carrying out the audit process auditors are guided by applicable standards and codes of ethics. However, there is no universally accepted absolute definition of audit quality because it is quite complex and has a wide variety of concepts. In addition, perceptions of audit quality also

vary among stakeholders depending on the involvement and lens through which to assess audit quality. Low audit quality causes many problems, this results in the need to research factors that affect the quality of audits carried out by auditors as a form of trust from stakeholders to provide adequate confidence in quality audit results.

Previous Research

According to Saleem's research (2021), this pandemic adds excessive challenges to auditors due to limited access during the audit. Research by Albitar, et al. (2020), concluded that the occurrence of a pandemic had a negative impact on audit quality. According to Darmawan (2020), stating that the policies implemented by the government to overcome the pandemic such as social distancing, work from home and even lockdowns make it difficult for auditors to verify the findings they get during the audit, even auditors really can only stick to the explanation given by clients regarding the findings obtained by auditors.

Based on research by Serag (2021), states that remote audits are the same as face-to-face / traditional audits but the difference is using the help of technology intermediaries. According to Blidisel, et al. (2023), stated that auditors in Rome think remote audits can improve the efficiency of their work. According to Zhafirah, et al. (2022), stated that remote audit has a positive and significant effect on audit quality. So is research. Ariyanto (2022), stated that the use of remote audits during the pandemic had a positive or significant effect on the performance of the Riau Provincial Representative BPK.

Based on research by Saddam, et al. (2022), stated that the impact of audits during the pandemic was quite significant, both on saving audit costs and audit procedures so that it could make it difficult for auditors to review document adequacy. However, the use of good systems and modern technology can prevent this from happening. Along with this, according to Koerniawati (2021), states that remote audits have different audit

procedures compared to conventional audits. Remote auditing also has the same effectiveness and efficiency as conventional auditing, so there are several advantages and disadvantages of remote auditing. And according to Trisnaningsih, et al. (2022), stated that in the entire audit process it can be concluded that there is no difference in the planning process and reporting process in remote audit and onsite audit, the difference only exists in field work where remote audit is technically more difficult.

RESEARCH METHODS

This study used primary data and secondary data, primary data was taken from XYZ Certification Body client surveys, questionnaire question data was obtained from audit activities carried out to determine their perceptions of audit activities and secondary data was taken from literacy studies and some previous research. Taking the number of respondents in this study using the *purposive sampling method*, meaning that the respondents taken are in accordance with the specific purpose or purpose of the researcher. Researchers select and determine their own clients who are respondents, in this case clients / organizations are selected with variations in the division of industry risk levels from low, medium, high and various business sectors that have a minimum of 1x face-to-face audit and audit experience. The survey was conducted in the period August – October 2023 to ± 92 clients/organizations from a total of ±1110 certified.

Data Processing and Analysis Techniques

The data analysis method used in this study is a quantitative method approach where the analysis used is descriptive statistics and hypothesis testing. Descriptive statistical methods are data analysis to obtain the distribution of respondents' answer responses through structural equation model (SEM) analysis with Partial Least Square (SEM-PLS) to analyze the influence between variables and software used for SEM-PLS analysis there is a SmartPLS4 program.

Respond

The target respondents questioned were 92 clients/organizations that had been audited both face-to-face and also *remotely* 'remotely' in the Greater Jakarta area and major cities in Indonesia.

Data Collection Techniques

Data collection techniques are carried out by conducting questionnaires. Researchers will provide several questions through google form which will then be filled with questions asked by researchers. Furthermore, if there are several answers that still require explanation, an interview will be conducted with respondents. Data collection will be carried out in August – October 2023.

Research Variables

The variables of this study consist of dependent, independent, and moderated variables.

1. The dependent variable contained in this study is audit quality (Y). The indicators used to measure audit quality in this study were adopted from the research of Sukriah et al. (2009).
2. The independent variable (Independent) is symbolized by the symbol (X). There are 5 variables that become independent variables in this study, namely; Independence (X1), Competence (X2), Objectivity (X3), Audit Experience (X4) and Skeptical Auditor Professionalism (X5). The indicators used to measure each independent variable in this study were adopted from the research of Sukriah et al. (2009) with modifications.
3. The moderator variable in this study is Remote Audit. This moderator variable is symbolized by the symbol (Z). Remote audit is used as a moderator variable because it can strengthen or weaken the influence of the independent variable on the dependent variable

Frame of Mind

This study was conducted to analyze factors that affect audit quality, analyze *remote audit* as a moderator variable that moderates factors that affect audit quality, and make

recommendations for the implementation of LS XYZ audits.

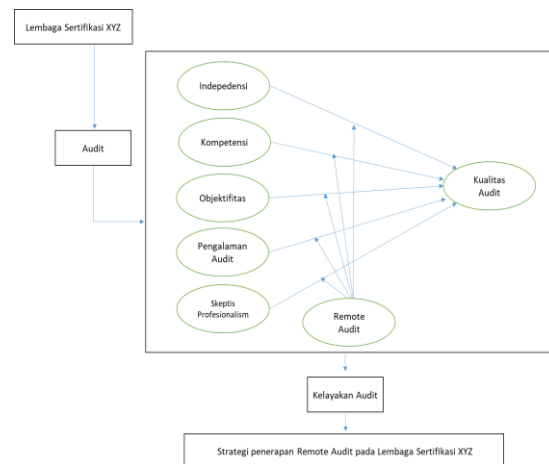


Figure 3 Framework of Thought

Research Hypothesis

Based on the framework in Figure 3, the research hypothesis is formulated as follows:

H1	Independence has a positive effect on audit quality.
H2	Competency has a positive effect on audit quality.
H3	Objectivity has a positive effect on audit quality.
H4	Audit experience has a positive effect on audit quality.
H5	Skeptical professionalism positively affects audit quality.
H6	Remote auditing moderates the effect of independence on audit quality.
H7	Remote audit moderates the effect of competence on audit quality.
H8	Remote auditing moderates the effect of objectivity on audit quality.
H9	Remote auditing moderates the effect of experience on audit quality.
H10	Remote auditing moderates the influence of skepticism on audit quality.

Descriptive Analysis

Descriptive analysis in this study uses 2 (two) methods, namely respondent analysis and ranking analysis. Respondent analysis is used to describe the characteristics of LS XYZ clients both in terms of business sector / level of risk; location; position of respondents; length of work; educational background and gender. Ranking analysis is used to determine the average value of each indicator on the variable after collecting

questionnaire data obtained from respondents. The average value will be used to determine the size or size of respondents' assessment of each indicator that will be a research priority.

Structural Equation Modeling (SEM)

Structural equation modeling (SEM) is a statistical technique used to build and test statistical models which are usually in the form of causal models so that they can be used to explain the relationship between several variables (Yamin and Kurniawan 2009). SEM is a statistical technique that can analyze patterns of relationships between latent constructs and indicators, latent constructs with one another, and measurement errors directly (Durianto et al. 2004). According to Yamin (2022), evaluation in SEM PLS includes 2 (two) things, namely evaluation of measurement models (Outer Model) and evaluation of structural models (Inner Model). The SEM model presented is developed based on the relationship between variables and their indicators

ANALYSIS AND DISCUSSION

Descriptive Analysis of Respondents

The results of data analysis from 92 respondents show where the characteristics are seen from the business sector and the level of organizational risk, location, position / position, length of work and educational background.

- a) Respondents by business sector consisted of fabrication or manufacturing by 55.4%, sales/distribution by 14.9%, service offices by 11.9%, service companies by 8.9%, and the rest of other clients from other business sectors. So from the results of the survey, the author considers it quite representative of the number of samples from the total client population.
- b) Respondents based on the location of the organization, spread across major cities in Indonesia, namely 42% are in West Java as the largest client population, followed by DKI Jakarta; 16%, Central

Java; 12%, Batam; 9%, Bantam; 7%, East Java; 6% and Sumatra, Kalimantan and Sulawesi; 5%.

- c) Respondents based on positions in the Organization, from the survey results, 37% as *Quality Management Representative*, this position is a party who has responsibility for direct monitoring of the running of the management system in the company, 33% as Manager / General Manager, this position has the responsibility and control of the running of the management system in the company and 26% as Supervisor / Asst MGR who is directly involved in the running of the management system in the company. So that the data further strengthens the validity of the questionnaire from each LS XYZ client/organization.
- d) Respondents based on length of work in the Organization, 46.5% have worked between 5-10 years and 40.6% worked more than 10 years and 12.9% worked less than 5 years. In this case, respondents have sufficient work experience in their respective business sectors so as to further strengthen the data / information obtained.
- e) Respondents based on educational background, respondents with S1 and S2 education dominated the survey results, namely 61% and 22%.

Analysis of Respondents' Assessments

This section explains how respondents provide answers to each statement on the questionnaire sheet, then calculate the average value to determine the size or size of the respondent's assessment. The greater the average score, the better and smaller the average score, the less good the assessment based on the respondent's survey. Focus will be given to each indicator that has the smallest average value to be a priority for the research variable.

1) Audit Quality

Of the 9 audit quality variable indicators, there is 1 indicator with the smallest average value (4.38), namely "the audit

report contains objective findings and conclusions", which means that respondents undervalue its fulfillment because the audit report has not explained the audit findings comprehensively and described the conclusions objectively on the overall audit results.

2) Independence

Of the 7 independent variable indicators, there is 1 indicator with the smallest average value (4.53), namely "access to documents related to the scope & standards of auditing" which means that respondents undervalue its fulfillment due to limited access to documentation that is still constrained by availability, so that at the time of the audit, document representation in a particular process cannot be explored comprehensively.

3) Competence

Of the 9 indicators of competency variables, there are 2 indicators with the smallest average value (4.54), namely "auditors have good ethics, broad-minded, observant, firm and open to improvement" and "auditors have the expertise to conduct interviews and are able to prioritize and focus on important things", which means respondents undervalue their fulfillment due to limited access that occurs both to the processes / parts of the organization being audited and the availability of documentation which must be prepared at the time of the audit so that this becomes a perceived obstacle to its implementation.

4) Objectivity

Of the 6 indicators of objectivity variables, there is 1 indicator with the smallest average value (4.40), namely "the auditor refuses to accept the audit assignment if at the same time he has a cooperative relationship with the party being audited", which means that respondents undervalue its fulfillment due to a long-standing cooperative relationship between certification bodies, especially auditors assigned to clients or cooperation between auditors and

auditors Outside the audit activity itself so that it is considered to reduce the objectivity of the audit activity.

5) Audit Experience

Of the 5 audit experience variable indicators, there is 1 indicator with the smallest average value (4.28), namely "the longer you work as an auditor, you can find out relevant information to make decisions", which means that respondents undervalue their fulfillment because the decisions taken by the auditor are considered not yet comprehensively represent the actual condition of the results of the audit activity.

6) Skepticism of auditor professionalism

Of the 6 variable indicators of professionalism skepticism, there is 1 indicator with the smallest average value (4.07), namely "auditors do not easily trust the audit evidence provided and ask for additional evidence", which means that respondents underestimate that fulfillment occurs because there are still auditors who are considered to directly believe in the audit evidence presented without critically examining and asking for additional audit evidence if they feel they still need further investigation.

7) Remote Audit

For 8 indicators of remote audit variables, there is 1 indicator with the smallest average value (4.30), namely "reviewing documents in the *remote audit* process takes a fast time by converting records into format (PDF) and uploading them.", which means that respondents undervalue fulfillment because it still takes longer to prepare the requested documents both from physical and non-physical documents that must be converted into format certain.

Measurement Model Testing

According to Ghozali and Latan (2020: 53), evaluation of the measurement model or called *the outer model* is carried out to assess the validity and reliability of the model. In this case, it is used to determine the

relationship between constructs with variable indicators.

Convergent Validity

The values evaluated for convergent validity are outer loading and average variance extracted (AVE) values. The outer loading value describes how much correlation each indicator has with a construct (Yamin, S. & Kurniawan, 2011). Convergent validity is considered feasible when the outer loading value ≥ 0.6 . Meanwhile, the AVE value

describes how much the manifest variable represents its latent construct. The larger the AVE, the more the manifest variable represents its latent construct. Convergent validity is considered feasible when the AVE value ≥ 0.5 . The results on the Loading Factor value of each dimension where the results of validity testing show that all research indicators have a loading factor value of > 0.5 . Thus no indicators were eliminated from the research model.

Tabel 3 Convergent Validity (AVE)

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	(AVE)
Independence	0.949	0.949	0.958	0.766
Competence	0.973	0.974	0.977	0.823
Audit Quality	0.973	0.974	0.977	0.843
Objectivity	0.959	0.961	0.967	0.831
Audit Experience	0.971	0.972	0.977	0.895
Remote Audit	0.969	0.971	0.975	0.867
Auditor Skepticism	0.947	0.987	0.956	0.783

Source: Data Processed (2023)

Based on Table 3, there is no overall problem with the AVE value of each dimension where the results of validity testing show that all research indicators have an Average Variant Extracted (AVE) value of > 0.5 . Thus no indicators were eliminated from the research model.

Discriminant Validity

Analysis of discriminant validity is done to see the extent to which a construct differs from other constructs, meaning that a construct is only used to measure what should be measured. The method used to evaluate the degree of validity of

discriminants is the evaluation of criteria *Fornell-Lackervalue outer loading*, then HTMT

Analisis Fornell-Lacker

Discriminant validity by evaluating the *Fornell-Lacker* criterion to ensure that the construct is valid provided that it shares more variants with its own construct, rather than with other constructs. The evaluation is done by looking at the *square root AVE* in each construct must be larger than the AVE of other constructs (Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, 2014).

Table 4 Discriminant Validity Testing: Fornell-Lacker

	IN	FERRY	Have been	OBJ	PENG	REM	CREATE
In	0.875						
Ferry	0.811	0.907					
Quality	0.777	0.762	0.918				
Objective	0.655	0.529	0.627	0.912			
Peng	0.607	0.602	0.841	0.539	0.946		
Remo	0.464	0.481	0.729	0.558	0.709	0.931	
Skeptical	0.216	0.316	0.234	0.203	0.292	0.264	0.885

Source: Data Processed (2023)

Analysis Heterotrait-Monotrait Ratio (HTMT)

Heterotrait-Monotrait Ratio (HTMT) is an evaluation of the degree of correlation between two perfectly measured constructs. If the HTMT value between two constructs is

close to 1, then the smaller it is *discriminant validity* on the model. At least it is necessary to ensure that the HTMT value is less than 1. Based on Table 9, the HTMT value in each correlation between constructs is < 1, so this research model has a good level of validity.

Table 5 Discriminant Validity Test (HTMT)

	IN	FERRY	Have been	OBJ	PENG	REM	CREATE
IN							
FERRY	0.843						
Have been	0.808	0.782					
OBJ	0.683	0.543	0.646				
PENG	0.631	0.618	0.865	0.555			
REM	0.481	0.493	0.748	0.577	0.732		
CREATE	0.209	0.321	0.226	0.205	0.294	0.266	
BRAKE x CREATE	0.125	0.076	0.022	0.062	0.044	0.234	0.249
REM x PENG	0.366	0.431	0.690	0.224	0.723	0.704	0.037
SEM x COMP	0.589	0.673	0.533	0.304	0.495	0.396	0.053
REM x OBJ	0.310	0.256	0.245	0.647	0.216	0.542	0.052
REM x IND	0.665	0.590	0.489	0.368	0.421	0.320	0.098

Source: Data Processed (2023)

Structural Model Testing

Evaluation of structural models or *inner models* aims to predict relationships between latent variables (Ghozali and Latan, 2020: 67), structural model measurements can be seen in indicators which include:

R2 (R square)

Analysis is used to determine how much *R² variability* of endogenous variables can be explained by exogenous variables. The greater the value, the more exogenous the variable describes the endogenous variable. According to Hair (2014), there are three divisions of criteria, namely the value of 0.19 for weak; 0.33 for moderate; and 0.67 for substantial. The closer to the value of 1, the level of prediction accuracy is said to be perfect (Hair Jr., J.F., Ringle, C., Sarstedt, 2011).*R²R²*

Tabel 6 R² (R square)

	R-square	R-square adjusted
Audit Quality	0.910	0.899

Source: Data Processed (2023)

It can be seen from Table 6, that endogenous variables of audit quality can be explained by

exogenous variables; Independence, competence, objectivity, audit experience and auditor skepticism amounted to 91.0%.

F2 (F square)

F-Square measurement or *effect size* is a measure used to assess the relative impact of an influencing variable (exogenous) on the affected variable (endogenous). The measurement (*F-square*) is also called the effect of change R2. *F-Square criteria* according to Hair et al. (2021), if value = 0.02, a small effect of the exogenous variable on endogenous, if value = 0.15, a moderate/moderate effect of the exogenous variable on endogenous, and if value = 0.35, a large effect of the exogenous variable on endogenous

Model fit test (Model Fit)

SRMR is a measure of model fit, which is the difference between the data correlation matrix and the model estimate correlation matrix. Hair et al. (2021), SRMR value of < 0.08 indicates model fit.

Table 7 Standardized Root Mean Square Residual

	Saturated model	Estimated model
SRMR	0.050	0.052
d_ ULS	2.814	3.011
d_ G	4.925	5.009
Chi-square	2003.903	2004.298
NFI	0.741	0.741

Source: Data Processed (2023)

Path Coefficient Significance Testing

This test is intended to see the relationship between latent variables and other latent variables (*path coefficient*) and to answer the hypothesis in this study, bootstrapping

techniques are carried out. Bootstrapping technique is a technique of recalculating random sample data to obtain t-statistic and *p-value* values by testing *path coefficients*.

Table 7 Hasil Uji Direct Effect / Path Coefficient

	Ori Sample	Mean	STDEV	T State	P Value
It's → me	0.218	0.216	0.090	2.411	0.016
Comp → Kua	0.254	0.275	0.128	1.981	0.048
Obj → Kua	0.226	0.216	0.097	2.336	0.020
Peng → Kua	0.204	0.179	0.079	2.562	0.010
Create → Kua	-0.073	-0.065	0.053	1.382	0.167
Rem x Ind → Apple	-0.049	-0.060	0.104	0.475	0.634
Rem x Komp → Apple	0.102	0.101	0.112	0.911	0.362
Rem x Obj → Apple	0.131	0.119	0.065	2.005	0.045
Rem x Peng → Kua	-0.111	-0.114	0.068	1.622	0.105
Rem x Skep → Kua	0.035	0.025	0.065	0.529	0.597

Source: Data Processed (2023)

The results of the evaluation of the direct effect or moderation influence (path coefficient) of the relationship between the latent variable and other latent variables can be declared significant if the *t-statistics* value >1.96 and the *p-value* <0.05. Based on Table 7, several independent variables are declared significant influential and there are variables that do not significantly affect the dependent variable.

Hypothesis Testing

After doing various evaluations, either *outer* And *inner model* Then the next step is to do

hypothesis testing. Hypothesis testing is used to explain the direction of the relationship between the independent and dependent variables. The hypothesis test can be seen from the T-statistical value which shows the significance of the variable and value *original sample/path coefficient* which indicates the nature of the relationship between variables (positive or negative). In Table 8, display the lower and upper bounds of the 95% confidence interval to see the magnitude of the influence of each variable and the F result² to show how much influence it has in the measurement model.

Table 8 Hypothesis Test Results

Hipotesis	Hypothesis Statement	P Val	T State	95% Trust Gap		F2
				Lower limit	Upper limit	
H1 Accepted	Audit Independence → Quality	0.016	2.411	0.055	0.410	0.093
H2 Accepted	Audit Competence → Quality	0.048	1.981	0.048	0.547	0.147
H3 Accepted	Objectivity → Audit Quality	0.020	2.336	0.039	0.417	0.154
H4	Audit Experience → Quality	0.010	2.562	0.025	0.331	0.116

Accepted						
H5 Rejected	Skepticism → Audit Quality	0.167	1.382	-0.173	0.033	0.042
H6 Rejected	Remote Audit x Independence → Audit Quality	0.634	0.475	-0.137	0.318	0.010
H7 Rejected	Remote Audit x Audit → Competency	0.362	0.911	-0.276	0.155	0.038
H8 Accepted	Remote Audit x Objectivity → Audit Quality	0.045	2.005	-0.236	0.037	0.249
H9 Rejected	Remote Audit x Audit Experience → Quality	0.105	1.622	-0.107	0.155	0.125
H10 Rejected	Remote Audit x Skepticism → Audit Quality	0.597	0.529	-0.011	0.236	0.016

Source: Data Processed (2023)

Based on testing the significance of *the path coefficient* and the hypothesis in Table 8, the results of the hypothesis can be concluded as follows:

1. Hipotesis 1 (H₁)
It was concluded that H₁ was accepted and H₀ was rejected and the independence variable had a significant effect on the quality of the audit.
2. Hipotesis 2 (H₂)
It was concluded that H₂ was accepted and H₀ was rejected and the competency variable had a significant effect on the quality of the audit.
3. Hipotesis 3 (H₃)
It was concluded that H₃ was accepted and H₀ was rejected and the variable objectivity had a significant effect on the quality of the audit.
4. Hipotesis 4 (H₄)
It was concluded that H₄ was accepted and H₀ was rejected and the audit experience variable had a significant effect on audit quality.
5. Hipotesis 5 (H₅)
It was concluded that H₅ was rejected and H₀ was accepted and the skepticism variable had no significant effect on the quality of the audit.
6. Hipotesis 6 (H₆)
It was concluded that H₆ was rejected and H₀ was accepted and it can be concluded that no moderation relationship occurred, or remote audit did not moderate the effect of independence on audit quality.
7. Hipotesis 7 (H₇)

It is concluded that H₇ is rejected and H₀ is accepted and it can be concluded that there is no moderation relationship, or remote audit does not moderate the effect of competence on audit quality.

8. Hipotesis 8 (H₈)
It is concluded that H₈ is accepted and H₀ is rejected and it can be concluded that a moderation relationship occurs, or remote audit moderates the effect of objectivity on audit quality. Referring to the results of *the path coefficient* with a positive direction (+0.131), it can be said that remote audit strengthens the influence of objectivity on audit quality.
9. Hipotesis 9 (H₉)
It is concluded that H₉ is rejected and H₀ is accepted and it can be concluded that no moderation relationship occurs, or remote audit does not moderate the effect of audit experience on audit quality.
10. Hipotesis 10 (H₁₀)
It was concluded that H₁₀ was rejected and H₀ was accepted and it can be concluded that no moderation relationship occurred, or remote audit did not moderate the influence of skepticism on audit quality.

Audit Remote Credentials

After knowing the results of hypothesis testing and which variables affect the quality of *remote audits*, then to answer the research objectives on how feasibility, in this case it can be explained by looking at the significance of the probability value and t-statistics of each moderator variable in the

model and the measurement results F^2 (*f-square*). From the results of hypothesis testing described in Table 8, the significance of probability values and statistical t occurs in the objectivity variable, it is known that *the remote audit* variable moderates the influence of objectivity significantly with the *p-value* is 0.045 (*p-value* < 0.05) and t-statistics is 2.005 (t-statistics > 1.96), this can be interpreted that *remote audit* What is done can strengthen the influence of objectivity on audit quality.

F-Square measurement or F^2 *effect size* is a measure used to assess the relative impact of

an influencing variable (exogenous / independent) on the affected variable (endogenous / dependent). In this case, F^2 can provide a qualitative picture of the influence of the results of hypothesis testing that has been carried out (Juliandi, 2018). *F-Square criteria* according to Hair et al. (2021): If value = 0.02, a small effect of the exogenous variable on endogenous; if value = 0.15, moderate/moderate effect of the exogenous variable on endogenous; and if value = 0.35, the large effect of the exogenous variable on endogenous. The conclusion of *the F-Square* value can be seen in Table 9.

Table 9 F-Square

Hypothesis Statement	F2	Effect
Remote Audit x Independence → Audit Quality	0.010	Small
Remote Audit x Audit → Competency	0.038	Small
Remote Audit x Objectivity → Audit Quality	0.249	Keep
Remote Audit x Audit Experience → Quality	0.125	Small
Remote Audit x Skepticism → Audit Quality	0.016	Small

Source: Data Processed (2023)

The conclusion of the *F-Square* test in Table 9 is how much *remote auditing* can affect exogenous variables such as; independence, competence, objectivity, audit experience and septicism towards endogenous variables or audit quality. From the table, it can be seen that the variables of independence, competence and skepticism when *remote audits* are carried out, moderation effects have little or no major impact on audit quality. Likewise for audit experience variables, where when *remote audits* are carried out, the moderation effect has a small to moderate impact which means that it can have an effect on audit quality. As for the objectivity variable, when *the remote audit* is carried out, the moderation effect has a moderate impact towards high or has a considerable effect on the quality of the audit, but in a positive direction where the results of *the path coefficient* show (+0.131), meaning that *the remote audit* positively affects the objectivity variable on audit quality.

Of these exogenous variables, it is known that 3 variables (independence, competence and skepticism) have a small effect on the

quality of *remote audits*. Likewise, the audit experience variable has a small to medium effect, which means it can affect audit quality, but because the *p-value* is not significant, namely 0.105 (*p-value* > 0.05), it is still said to have a small effect to affect the quality of *remote audits*. And for the variable objectivity that has a moderate effect towards large but because the direction of *the path coefficientis* positive, it can be said to have a considerable effect and positively affect the quality of *the remote audit*. From these results, by looking at how much influence the moderation effect has, it can be concluded that *this remote audit* is feasible as one of the methods that can be applied to LS XYZ because it does not have a major effect negatively affecting the quality of the audit itself.

Remote audit implementation strategy

Based on the results of research that has been described in the previous chapter, it is known that; audit quality is significantly influenced by most of its independent variables except 1 variable (skepticism). While *remote audit* as a moderator variable mostly does not

moderate the influence of independent variables on audit quality except for 1 variable only (objectivity) and these variables based on research have a positive effect. From these results, it is said that audit activities carried out remotely, as long as an auditor has attitudes and abilities that exist in independent variables, it does not significantly affect the quality of *remote audits*.

Therefore, continuous evaluation can be carried out as a strategy for implementing *remote audits* in the future by referring to the results of respondents' assessments compared to the results of outer model testing (loading factor) and hypothesis testing. If the respondent's assessment results

are low, but have a high loading factor value and have a large influence based on hypothesis testing, then further evaluation is carried out. The implementation of this remote audit activity can be done with a *full remote audit* scheme or with a *hybrid scheme* where a combination of face-to-face or remote 'remote' audits can be carried out at once. Of course, by considering several aspects such as the level of business risk, technical implementation of activities and information technology capabilities owned by each organization. It is explained in Table 10, that the evaluation results can be used as a reference for the Certification Body to determine the strategy for implementing *remote audit activities* in the future.

Table 10 Implementation Strategy

Variable	Indicator	Deployment strategy
Independence	Access documents according to the scope and standards audited	Coordination with the client/auditing party in terms of providing access to audited documents and standards. Create <i>share folder</i> access in easy document delivery.
Competence	Knowledge of management systems and audited sectors	Improving auditor competence, carrying out calibration of audit understanding (<i>auditor experience</i>)
	Knowledge of audit principles, processes, and methods. Good ethics, broad-minded, observant, firm and open to improvement. Interview skills, prioritization and focus on what matters	<i>Exchange & Sharing Session</i>) related to; processes, audit methods, applicable laws and regulations. Involvement of auditors in supervisory activities to the Certification Body periodically such as internal and witness audits. LS's involvement with regulators/governments related to regular rule/regulation updates to improve auditors' competence in understanding regulations that intersect with standards.
Objectivity	Not influenced by subjective views Refuse to accept audit assignments if they have a cooperative relationship with auditors.	Establish policies to maintain the objectivity of auditors in the implementation of their duties. Regular socialization for skill up and <i>awareness</i> of each auditor as well as involvement in <i>impartiality</i> and <i>code of conduct</i> training.
Audit Experience	More and more audits, adding to the experience of an auditor. The longer you are as an auditor, you can find out relevant information to make decisions.	Improve monitoring of auditor utilization so that this can increase experience in auditing in various sectors. Monitoring auditor knowledge to be developed in different business sectors / job / schedule balancing auditors. Arrangement of auditor team formation on audit projects (senior and junior auditors) to improve technical and non-technical capabilities.

Source: Data Processed (2023)

CONCLUSION AND ADVICE

Conclusion

Several strategic policies as managerial implications can be carried out by the Certification Body to continue to improve its

services so that the implementation of *remote audit* activities can still be an option and solution in the future, including:

1. Continuous education and training to improve the ability of assigned auditors.

2. Implementation of *Auditor Experience Exchange* (AEE) activities periodically as a forum for communication and also calibration of auditor understanding both related to regulations, standards and audit processes and methods.
3. Coordination with stakeholders, such as:
 - a. Government and relevant ministries to ensure dissemination of laws and regulations, legal requirements and policies relating to audit activities, principles and methods.
 - b. National Accreditation Committee (KAN) to ensure involvement in supervisory activities to Certification Bodies periodically such as internal and *witness* audits.
 - c. The organization as a customer to ensure socialization of technical aspects of audit implementation, such as the organization's ability to be ready to access documentation and information technology used.

Suggestion

Suggestions that can be given for further similar research are:

1. Expanding the scope of research, which is not only limited to organizations that apply quality management standards (ISO9001) but also to other ISO standards such as: ISO14001 (Environment), ISO45001 (Occupational Health and Safety) & ISO27001 (Information Security).
2. Add other variables that can affect the quality of the audit such as information technology used, time constraints allocated, level of organizational risk. Then it is expected to expand the range of research samples, not only to the dominant industrial/manufacturing sector but also to other sectors such as mining, construction, plantations so that research results can be used more widely.

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REFERENCES

1. Achmad, F. (2020). The implementation of remote audit as an implication of the Covid-19 outbreak. *Media Auditor Issue* 54, 10 – 13.
2. Achmad Badjuri. (2012). Analysis of factors affecting the quality of public sector audit examination results. *Dynamics of Accounting and Banking*.
3. Albitar, K., Gerged, A. M., Kikhia, H., & Hussainey, K. (2020). Auditing in times of social distancing: the effect of COVID-19 on auditing quality. *International Journal of Accounting & Information Management*. Arthur A. Thompson. 2016. *Crafting and executing strategy: the quest for competitive advantage, concepts and readings*. New York: McGraw-Hill Education.
4. Anonymous. (2007). Fruit packaging is glimpsed abroad ignored by one's own country. <http://www.trubusonline.co.id/members/ma/mod.php?mod=publisher&op=viewarticle&cid=&artid=900>. [October 10, 2007]
5. Ariyanto (2022). The Effect of Remote Audit Implementation on the Performance of BPK Examiners of Riau Provincial Representatives During the Pandemic Period
6. Tedjasuksmana. (2021). Technology Optimization During the Pandemic through Remote Audit in the Internal Audit Profession.
7. Badara, M.S., dan Saidin, S.Z. (2013). "Impact of the Effective Internal Control System on the Internal Audit Effectiveness at Local Government Level". *Journal of Social and Development Sciences*: 16-23.
8. Badjuri, Achmad. (2012). Factor Analysis of Factors Affecting the Quality of Public Sector Audit Examination Results. (Empirical Study on BPKP Central Java Representative). *Dynamics of Accounting, Finance and Banking*, November 2012, P:120 135 Vol. 1 No. 2.
9. Blidisel, et al. (2022). *Auditors' perceptions on work adaptability in remote audit: a COVID-19 perspective*.
10. Cahyono, A. D., Wijaya, A. F., & Domai, T. (2015). *The influence of competence, independence, objectivity, task complexity, and auditor integrity on the quality of audit*

- results. ISSN: 2088-7469. Malang: Journal of Reformasi, Vol. 5(No. 1), 1–12.
11. Chin. (2000). Partial least squares for IS researchers: *an overview and presentation of recent advances using the PLS approach*.
 12. Darmawan, E. (2020). *Challenges of Audit Implementation during a Pandemic*. SOLUTION Ministry of Industry Supervision Magazine, 10(2), 34–37.
 13. De Angelo, L.E. (1981). “Auditor size and audit quality”, *Journal of Accounting and Economics*, Vol. 3, pp. Hal. 16.
 14. Dityatama. (2015). *The influence of internal auditor’s competency and independency to the internal auditor’s due professional care and the implication to the internal audit quality*. *Research Journal of Finance and Accounting*, 6(6): 179–190.
 15. Duriyanto et al. (2004). *Strategy Memimpin Pasar “Brand Equity Ten”*.
 16. El-moneim, Asmaa Abd & Daoud, Mona Muhammed. (2020). *Remote Auditing: An Alternative Approach To Face The Internal Audit Challenges During The Pandemi Covid-19 Pandemic*. *Journal of Business Research*. Faculty of commerce Tanta university.
 17. Garson GD. (2013). *Validity and Reliability*. Asheboro (US): Statistical Associates Publishing.
 18. Ghozali, I. (2014). *Structural Equation Modelling (SEM): Alternative Method with Partial Least Square*. Diponegoro University Publisher. Semarang.
 19. Hair JF, Black WC, Babin BJ, Anderson RE. (2009). *Multivariate Data Analysis*. Edisi ke-7. New York: Pearson.
 20. Hair et al. (2014). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Los Angeles: Sage.
 21. Hanjani, A. and Rahardja. (2014). *The Effect of Auditor Ethics, Auditor Experience, Audit Fees, and Auditor Motivation on Audit Quality* (Study on Public Accounting in Semarang). *E-Journal Accounting*
 22. Haryono, S. (2016). *SEM Method for Management Research with AMOS Lisrel PLS*. Bekasi: Main Personalist Intermedia.
 23. Hurtt, R. K. 2007. *Professional Skepticism: An audit specific model and measurement scale*. Working paper, Baylor University.
 24. [ISO] 19011-2018. *ISO 19011 Guidelines for Auditing Management Systems*
 25. [ISO] *The ISO Survey of Management System Standard Certifications 2022*.
 26. Institut Akuntan Publik Indonesia. (2011). *Professional Standards of Certified Public Accountant*. Jakarta: Salemba Four.
 27. Indonesian Institute of Accountants (IAI). (2016). *Financial Accounting Standards revised 2016*. Indonesian Institute of Public Accountants. 2011. *Public Accountant Professional Standards (SPAP)*. Jakarta: Salemba Empat.
 28. Ibrahim, Mohamed Zidan and Mohamed Abdel Moneim Zayed (2020). *The accounting implications and implications of the Coronavirus (COVID-19) crisis - An analytical view from an accounting perspective*. *Alexandria Journal of Accounting Research*, Faculty of Commerce – Alexandria University, 4(2) ,1-28.
 29. Koerniawati. (2021). *The Remote and Agile Auditing: A Fraud Prevention Effort To Navigate The Audit Process In The Covid-19 Pandemic*.
 30. Khasanah, A., & Suryatimur, K. P. (2021). *Impact of Covid-19 on Company Audit Quality (Literature Study)*. *Scientific Journal of Accounting and Business*, Vol. 6(2), p.30-38.
 31. Khoirunnisa, W., Fadhilah, W. A., Astuti, W. W., Mawarni, Y. I., & Gunawan, A. (2021). *Remote Audit Quality Review during the Covid-19 Pandemic*. *Proceedings of the 12th Industrial Research Workshop and National Seminar*, 1162–1166.
 32. Knechel, W. R., & Shefchik, L. B. (2014). *Audit quality in The Routledge companion to auditing* (D. Hay, W. R. Knechel, & M. Willekens (Eds.). New York: Routledge.
 33. Kusumawati, Andi dan Syamsuddin. (2018). *The effect of auditor quality to professional skepticism and its relationship to audit quality* *International Journal of Law and Management*, Vol. 60, Issue 4.

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