INFORMATION SYSTEMS AND CAPABILITIES AUDITORS INVESTIGATIVE TO EFFECTIVENESS IMPLEMENTATION AUDIT PROCEDURE IN PROVING FRAUD
(Case Study of the Regional Inspectorate of Karo Regency)

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ABSTRACT
This study aims to examine and analyze the effect of accounting information systems and the ability of investigative auditors on the effectiveness of implementing audit procedures in proving fraud. This research is descriptive statistical analysis, data quality test, classical assumption test, multiple linear regression and hypothesis testing. The independent variables in this study are the flow of accounting information systems and the ability of investigative auditors while the dependent variable is the effectiveness of the implementation of audit procedures in proving fraud. The total population in this study was 47 with use purposive sampling. This study uses primary data. The data analysis used was multiple linear regression with Microsoft Excel and software programs Statistical Package for the Social Sciences (SPSS) 25. The results of this study prove that simultaneously the accounting information system and the investigative auditor’s ability have a significant effect on the effectiveness of implementing audit procedures in proving fraud. The effectiveness of the implementation of audit procedures in proving fraud. Study This is the development of research previously by proving that accounting information systems and the ability of investigative auditors influence the effectiveness of the implementation of audit procedures in proving fraud. Study done at the Regional Inspectorate of Karo Regency.

Keywords: Accounting Information Systems, The Ability Of Investigative Auditors, The Effectiveness Of Implementing Procedures Audit, Proof Of Fraud

I. INTRODUCTION
In the current modern era, a phenomenon that still occurs is the problem of fraud or fraud practices such as abuse of authority, giving facilitation payments or gratuities, bribery, illegal levies, the misuse of state money that should be for the benefit of the community for personal gain are considered as acts of corruption and are common in this country. According to (Permana et al, 2017) Corruption comes from the Latin, corruption-corrumpere which means rotten, broken, shaken, turned around or bribe.

Based on Presidential Instruction (Inpres) No. 1 of 2013 concerning the Corruption Eradication Plan which contains government action to order all apparatus at the central and regional levels to carry out corruption eradication. Corruption cannot be completely eliminated, but hopes to reduce corruption should be realized soon (Hidayat, 2017).

The Regional Inspectorate is a regional government supervisory element led by an Inspector.
who in carrying out his duties is responsible to the Regent through the Regional Secretary. The Regional Inspectorate has the task of assisting the Regent in fostering and supervising the implementation of government affairs. Where in regulation government Regent of Karo No 38 of 2016 about assignments principal, use as well explanation task where is the inspectorate of the karo district chapter 2 paragraph 1 inspectorate area has the task of helping the Regent foster as well supervise application affairs government which is the authority of the region as well task servant feature region In order for an auditor to find the results that optimal until must understand investigative methods in eradicating corruption, therefore an audit investigation becomes a necessity basic, because results investigative audit is an integral part in process proof exists indication of fraud (fraud), before proceeding to the process litigation (mechanism settlement of disputes through the courts).

In the event that proving indications of fraud is the goal of an investigative audit in order to achieve it effectively, the auditor has several general responsibilities that must be fulfilled, including an investigative audit carried out by officers who jointly have the necessary expertise. The auditor must have the ability to prove the existence of possible fraud occurred and has previously been indicated by various parties.

The increasing complexity of business activities is resulting in increasingly high risk of misinterpretation and presentation of financial statements. This makes it difficult for users of financial statements to evaluate quality financial reports due to increasingly complex Accounting Information Systems (AIS) that they have to rely on independent auditor's report on audited financial statements to ensure the quality of these financial statements so that an effective audit procedure is needed so that the auditor's report can be received as quickly as possible so that it can be determined whether there is an act of fraud. Auditors always faced with complex, multiple, different and interrelated tasks. (Pradutaningrum & Januarti, 2012) states that auditors of financial statements are advised to change the audit strategy related to the change caused by information technology (IT) used client.

One of the corruption cases that occurred in the Karo Regency area was quoted from Daily SIB Thursday, July 22, 2021 The Karo Prosecutor's Office named a suspect and detained the Head of Tanjung Pulo Village with the initials DS regarding alleged irregularities in the use of the Village Fund Allocation (ADD) and Village Fund (DD) budgets for 2018 and 2019, Wednesday (21/7) evening. Prior to being detained, DS was still a witness on Monday (28/6). The suspect was first examined in one of the corruption rooms at the Karo District Attorney's Office. This is based on the results of an examination from the Karo District Inspectorate, "Kajari Karo Fajar Syah Putra SH MH told the press at the Karo Prosecutor's Office, Wednesday (21/7) evening. He explained that the suspect was immediately detained for the next 20 days starting from Wednesday (21/7). (Source: https://www.harianSIB.com seen on Sunday, 08 January 2023).

From this case, we can see that the public and the state apparatus work together carry out proof of fraud committed by the village head. From the results of the inspectorate audit, it can be seen that the auditor has investigative audit skills which affect the effectiveness of audit procedures see from the results of the audit that was able to show fraud committed by the village head. The auditor must have sufficient knowledge of Computer Information Systems to plan, direct, supervise, and review the work undertaken to implement audit procedures, depending on the audit approach used. SA Section 335 (PSA No. 57) describes the level of skill and competence an auditor must have when carrying out an audit within the scope of computer information systems. According to (Gondodyoto, 2017), knowledge of information technology and accounting needs to be given at the training and education stage. Research conducted by (Brazel, 2014) concludes when expertise SIA increases, there will also be an increase in the auditor’s performance in carrying out tasks related to SIA. Auditors with higher AIS expertise should have the knowledge base required to prepare an effective auditing and time budgeting program within a high AIS scope.

Seeing a wider scope (Rengganis, 2015) says that the use of information technology represented by skill and knowledge, system usage and perceived usefulness has a positive and
significant effect on auditor performance. Furthermore Information and Communication Technology (ICT) can also support campaign efforts and help mobilize people against corruption. Meanwhile according to (Lee & Lio, 2014) revealed that in China ICTs have two different effects on corruption: ICTs help uncover corruption cases and ultimately help reduce corruption.

The following studies provide different empirical results; research from (Pondalisa, 2020) The auditor's information system expertise has a positive effect the effectiveness of the implementation of audit procedures in proving fraud. The investigative auditor's ability has a significant positive effect on effectiveness implementation of audit procedures in proving fraud there is also research from (Pradynawati, 2019) The Ability of the Investigative Auditor Does Not Affect the Effectiveness of the Implementation of Audit Procedures In Proof of Fraud. The Experience of Investigative Auditors Influences the Effectiveness of the Implementation of Audit Procedures in Fraud Executions However, in contrast to Hidayat's research, (2017) Skill s i stem information auditors No influential positive , the ability of the auditor investigation positive effect significant on effectiveness implementation procedure internal audits proof fraud. Likewise with research (Sembiring, 2022) The auditor's information system expertise has no significant effect on the effectiveness of carrying out audit procedures in proving fraud, The investigative auditor's ability has a significant effect on the effectiveness of the implementation of audit procedures in proving fraud, Influence auditor's information systems expertise and investigative auditor's ability simultaneously have a significant effect on the effectiveness of audit procedures in proving fraud.

II. LITERATURE REVIEW

According to the Association of Certified Fraud Examiners (ACFE) in (Tuanakotta, 2012) fraud is acts that are against the law that are carried out intentionally for a specific purpose (manipulation or giving false reports to other parties) carried out by people from within or outside the organization to gain personal or group benefits directly or indirectly harming other parties. Fraud is an act that contains an element of intent, intention, benefiting oneself or another person, deception, concealment or embezzlement, and abuse of trust with the aim of obtaining illegal benefits which can be in the form of money, goods/properties, services, and not paying for services, which is carried out by one or more individuals charged with governance, employees, or third parties. The Supreme Audit Agency of the Republic of Indonesia, (2017).

According to the Association Of Certified Fraud Examinations (ACFE) in (Tuanakotta, 2012) fraud is divided into 3 types, namely: 1. Financial Report Fraud, Financial statement fraud can be defined as fraud committed by management in the form of material misstatement of financial or non-financial financial statements. 2. Misappropriation of assets Illegal taking of assets in everyday language is called stealing. But the legal term "taking" assets illegally (unlawfully or against the law) carried out by someone who is authorized to manage and supervise certain assets is called embezzlement. Misappropriation of assets can be classified into cash fraud as well as inventory and other asset fraud. As well as fraudulent payments. 3. Corruption Corruption in the context of this discussion is corruption according to the ACFE (Association of Certified Fraud Examiners). Corruption According to the ACFE, is divided into conflicts of interest, bribes, illegal gifts, and extortion.

Auditing

According to (Arens et al., 2011) put forward the definition of Auditing is " Auditing is the accumulation and evaluation of evidence about information to determine and report on the degree of correspondence between the information and established criteria. Auditing should be done by a competent, independent person " Translated is “Auditing is the collection and evaluation of evidence about information to determine and report the degree of conformity between that information and established criteria. Auditing must be carried out by people who are competent in the description.

Audit procedures are detailed instructions for gathering certain types of audit evidence that must be obtained at certain times in an audit (Arens et al., 2011). The auditor performs this procedure so that there are no irregularities in conducting the audit program. The third standard of field work
states that several audit procedures that must be carried out by the auditor include (Arens et al., 2015), namely:

1. **Inspection**
   Inspection is a detailed examination of documents or the physical condition of something. This audit procedure is mostly carried out by auditors. By inspecting a document, the auditor will be able to determine the authenticity of the document.

2. **Observation**
   Observation is an audit procedure used by the auditor to see or witness the implementation of an activity. Objects observed by the auditor are employees, procedures and processes.

3. **Request of statement**
   Inquiry is an audit procedure that is carried out by asking for information orally. The audit evidence produced from this procedure is oral evidence and documentary evidence.

4. **Confirmation**
   Confirmation is a form of investigation that allows the auditor to obtain information directly from independent third parties. Besides the auditor using the audit procedures mentioned in the standard, the auditor performs various other audit procedures to gather audit evidence that will be used as a basis for expressing an opinion on the audited financial statements. The quality of the auditor can be seen from how far the auditor carries out the audit procedures listed in the audit program.

5. **Search**
   In carrying out this audit procedure, the auditor traces the data since the first time the data was recorded in the document, followed by tracking the processing of the data in the accounting process. This audit procedure is mainly applied in documentary evidence.

6. **Examination of Supporting Evidence**
   Examination of supporting evidence is an audit procedure that includes, firstly, inspection of documents supporting a transaction or financial data to determine fairness and correctness. Second, comparison of these documents with related accounting records.

7. **Calculation of Audit Procedures**
   The first is a physical calculation of tangible resources such as cash or supplies on hand, and the second is accountability for all printed serial numbered forms. Physical calculations are used to evaluate physical evidence of the quantity on hand, while printed serial numbered form accountability is used to evaluate documentary evidence supporting the completeness of accounting records.

8. **Scanning**
   Scanning is a rapid review of documents, records and lists to detect elements that seem unusual that require further investigation.

9. **Re-performance**
   This audit procedure is a repetition of activities carried out by the client. Generally re-performance is applied to calculations and reconciliations that have been performed by the client.

10. **Computer Assisted Audit Techniques (TABK) SA section 327**
    Computerized audit techniques provide guidance to auditors on the use of computers in audits in computer information systems environments.

**Effectiveness**

According to (Gibson, 2013) effectiveness is an assessment made with respect to individual, group and organizational achievements. In connection with the things stated above, in short the meaning of effectiveness is doing or doing something right on target "doing the right things". The level of effectiveness itself can be determined by the overall integration of organizational goals and activities, the adaptability of the organization to changes in the environment.

Measuring the effectiveness of an activity program is not a very simple thing, because effectiveness can be studied from various perspectives and depends on who evaluates and interprets it. The criteria or measures regarding the achievement of goals are effective or not (Ding, 2014) that is:

1. **Achievement of goals** is the overall effort to achieve goals must be seen as a process. Therefore, in...
order to ensure the achievement of the ultimate goal, phases are needed, both in terms of the stages in achieving the parts and in the sense of periodization. The achievement of goals consists of several actors, namely: The timeframe and targets which are concrete targets.

2. Integration is a measurement of the level of ability of an organization to socialize, develop consensus and communicate with various other organizations. Integration concerns the process of socialization.

3. Adaptation is the ability of an organization to adjust to its environment. For this reason, benchmarks for the process of procurement and filling of labor are used.

Effectiveness has three levels as based on (Ponalisa, 2020), including:

1. Individual effectiveness is based on an individual perspective that emphasizes the work of employees or members of the organization.

2. Group Effectiveness There is a view that in fact individuals work together in groups. So group effectiveness is the total contribution of all group members.

3. Organizational Effectiveness consists of individual and group effectiveness. Through the influence of synergy, the organization is able to get work of a higher level than the sum of the work of each of its parts.

**Forensic Accounting**

Forensic accounting is the application of accounting discipline in a broad sense, including auditing of legal issues for legal settlements inside or outside the court of (Tuanakotta, 2012). Forensic accounting can be applied in the public and private sectors, so if you include different parties, forensic accounting according to (Tuanakotta, 2012) from the Journal of Forensic Accounting writes “Simply put, forensic accounting is legally accurate accounting. That is, accounting that is sustainable in some adversarial legal proceedings, or in some judicial or administrative reviews.” (Simply put, forensic accounting can be said to be accurate accounting for legal purposes, or accounting that stands up to the test in the arena of disputes during court proceedings, or in the process of judicial review, or administrative review).

The definition of (Tuanakotta, 2012) emphasizes that the size of forensic accounting is legal and statutory provisions, different from accounting in accordance with Generally Accepted Accounting Principles (GAAP). From the several definitions of forensic accounting above, it can be concluded that forensic accounting is the application of discipline accounting based on skills in investigating and analyzing which aims to resolve financial problems which are carried out based on the regulations established by law. A forensic accountant uses his knowledge of accounting, legal studies, investigations and criminology to uncover fraud, find evidence and then the evidence will be brought to court if needed (Albrecht et al., 2012).

Forensic accounting in the public sector in Indonesia is more prominent than forensic accounting in the private sector (Albrecht et al., 2012). In general, forensic accounting in the two sectors is not different, there are only differences in the stages of the entire series of forensic accounting divided into various institutions. (Tuanakotta, 2012) argues that there are institutions that carry out audits of state finances, there are several institutions that are part of the internal government, there are court institutions, there are institutions that support activities to fight crime in general, and corruption in particular such as the Financial Transaction Reports and Analysis Center. (PPATK), and other institutions such as the Corruption Eradication Commission (KPK). There are also non-governmental organizations that function as pressure groups.

**Investigative audit**

An investigative audit is an in-depth study of facts. This research is based on information obtained which may come from complaints/reports, allegations and facts, as well as further analysis of these facts which ultimately becomes the basis for proving or not prove the complaint/report or allegation the. (Tuanakotta, 2012). There are several interesting axioms related to the investigative audit of (Tuanakotta, 2012), namely: 1. Fraud is hidden, fraud has procedures to hide all aspects that can mobilize other parties to create the occurrence of the fraud. The efforts made by people who commit fraud to cover up their fraud are very sophisticated so that almost everyone (investigative
Auditors) can also be fooled. 2. Carrying out two-sided evidence, the auditor must understand whether there is evidence that convinces the person concerned is not committing fraud. Likewise, conversely, convincing someone that he has not committed a fraudulent act, until the auditor obtains evidence that the person concerned has committed a fraudulent act. 3. The existence of a fraud, the presence of an act of fraud or corruption can be examined if it is not decided by a judge through the process of a legal assembly. Thus, in conducting an investigative audit, an auditor in a report is not permitted to share an opinion regarding the mistakes or responsibilities of one of the parties responsible for the formation of an act of fraud or corruption. The auditor only states that the reality and process of the event, along with the parties involved in the formation of the event, are based on the evidence that has been collected.

**Auditor Capabilities**

According to (Nasution, 2016) the auditor’s ability to disclose fraud is the quality of an auditor in explaining the unfairness of the financial statements presented by the company by identifying and proving fraud, which he mastered. Auditor's ability, namely the expertise and proficiency to carry out tasks, including gathering evidence, making a judgment, evaluating internal control, and assessing audit risk (Hatran, 2016).

The abilities that must be possessed by an investigative auditor are basic knowledge of accounting, auditing, internal control, investigations and so on. After that the auditor must have the technical ability to master laws and regulations, or make hypotheses and collect facts, and finally an investigative auditor must have mental behavior such as being independent and complying with the standards of (Tuanakotta, 2012). Covering the limitations of the owner of the capital. This professionalism is called an agent or manager, the manager is a person who is trusted by the owner of capital to make decisions and this often creates a potential conflict of interest which is often called Sunarto’s agency theory, (2010).

**Auditor Information System Capability**

According to (Laudon, 2012) information systems are interrelated components that work together with one another to collect, process, store and display information to support decision making, coordination, regulation, analysis and visualization in groups or organizations. To protect data integrity as well as the effectiveness and efficiency of organizing computer-based information systems. According to (Laudon, 2012) data needs to be provided at various stages or levels for each, including:

1. **Pre Post Qualification**
   Auditors in the future will not only work conventionally as accountants, but will not stay away from working in the data technology area. There is a need to set minimum knowledge standards in the field of technology and on an ongoing basis it requires training with knowledge of the art of data technology in ongoing professional guidance activities.

2. **Conceptual Knowledge/ Practical Skill**
   Data technology knowledge is conceptual or instant expertise. Learning and training are required to share conceptual knowledge, technical skills and basics for further self-development. SA Section 335 (Statement of Auditing Standards (PSA) Number. 57) Auditing in the Personal Computer Information System Area (PC), paragraphs 04 through paragraph 06 describe the level of expertise and competence an auditor must have when conducting an audit in the area of personal computer information systems and provide guidance when delegating work to assistants with personal computer data system expertise or when carrying out work carried out by other independent auditors or experts who have skills in the field of personal computer data systems.

**Framework Study**

This research framework describes the relationship between variables that was built based on theoretical studies and supported by previous research. The results of previous studies indicate that accounting information systems and investigative auditor abilities have an effect on the effectiveness of audit procedures in proving fraud. However, several other studies have shown different results, resulting in inconsistencies in research results regarding the factors that influence the effectiveness of...
audit procedures in proving fraud. According to (Nasution, 2012) the auditor’s ability to disclose fraud is the quality of an auditor in explaining the unfairness of the financial statements presented by the company by identifying and proving fraud. According to (Romney & Steinbart, 2015) a system is a series of two or more components that are interrelated and interact to achieve a goal. Referring to the theoretical basis and foundation, as well as previous research that was previously found, the conceptual framework can be described as follows:

![Conceptual Framework](image)

**Picture 1. Framework Think**

**hypothesis Study**

H1: The accounting information system has a positive effect on the effectiveness of audit procedures in proving fraud

H2: The investigative auditor’s ability has a positive effect on the effectiveness of audit procedures in proving fraud

H3: Accounting information systems and the ability of investigative auditors have a positive effect on the effectiveness of audit procedures in proving fraud

**III. METHOD STUDY**

In this research method used is a survey research method which is study field Which done to sample from something population certain Which collection the data done with use questionnaire (Simanjuntak, et al., 2023). Method study survey used For get data from place certain with do collection data with circulate questionnaire or interview (Sugiyono, 2018). Design study This is descriptive. Studi descriptive called Also studies causal. Study This use approach quantitative Which used researching population or sample certain, collection data use instrument study, analysis data characteristic quantitative or statistics with objective For test hypothesis Which has set (Sugiyono, 2018). Researcher use design study This For give empirical evidence as well as analyzing the influence of accounting information systems, the ability of investigative auditors on the effectiveness of audit procedures in proving fraud.

This research consists of 3 variables consisting of accounting information systems, investigative auditor skills and the effectiveness of audit procedures in proving fraud. The variables in this study are described in the research indicators used to develop research instruments. The population in this study were employees who worked at the Karo District Inspectorate, totaling 43 people. In this study, the formulation of sample criteria was based on research objectives, where the capacity and capability of each Inspectorate employee was believed to be able to answer research problems. The respondents studied were all employees of the Karo inspectorate related to audit activities. Then the number of research samples is 30 people. The instrument in this study was a questionnaire that was distributed to the respondents who studied were executors of audit activities (Situmorang & Simanjuntak, 2019). Preparation of a questionnaire based on indicators of each variable taken from previous studies. The data analysis technique used in this study was multiple linear regression with Partial measurements using Microsoft Excel and the Statistical Package for the Social Sciences (SPSS) 25. Multiple linear regression is a statistical technique that allows simultaneous and partial testing of relatively complex sets of relationships. Complex relationships can be built between one or more questionnaires based on indicators of each variable taken from previous studies.
Analysis Data

By using quantitative methods, it is hoped that researchers will get more accurate measurement results of the responses given by respondents (Situmorang & Simanjuntak, 2021). So that data in the form of numbers can be processed using statistical methods.

Descriptive statistics

Descriptive statistics are used to analyze data by describing samples of data that have been collected under actual conditions without the intention of making generally accepted conclusions or generalizations. Descriptive statistics provide an overview or description of a data seen from the average value (mean), standard deviation, variance, maximum, minimum, sum, range, kurtosis, and skewness (distribution skewed) (Ghozali, 2018).

Data Quality Test

Testing the quality of the data there are two kinds of testing, namely as follows:

Validity test

Validity test is used to measure whether or not a questionnaire is valid. A questionnaire is said to be valid if the questions on the questionnaire are able to reveal something that will be measured by the questionnaire. This validity test uses a significant value below 0.05. So it can be concluded that each of the question indicators on the questionnaire is valid when the significance value is below 0.05 (Ghozali, 2018).

Reliability Test

Reliability is a tool for measuring a questionnaire which is an indicator of a variable or construct. A questionnaire is said to be reliable or reliable if one's answers to these statements are consistent or stable over time. Reliability measurement can be done in 2 ways, namely: 1. Repeated Measure or repeated measurement, here someone will be given the same question at different times, then see whether the answer remains consistent with the answer. 2. One shot or measuring only once, here the measurement is only once and then the results are compared with other statements or measuring the correlation between the answers to the statements. To measure reliability, the Cronbach Alfa (α) statistical test was used. A variable is said to be reliable if it gives a Cronbach's Alpha value > 0.60. Whereas otherwise, the data is said to be unreliable (Ghozali, 2018).

Classic assumption test

To test the classical assumptions on this primary data, the researchers conducted a normality test, multicollinearity test, and heteroscedasticity test.

Normality Test

The normality test aims to test whether in the regression model, the confounding variables or residuals have a normal distribution. It is known that the t-test and F-test assume that the residual values follow a normal distribution. If this assumption is violated, the statistical test becomes invalid for small sample sizes. There are two ways to detect whether the residuals are normally distributed or not, namely by graphic analysis and statistical tests (Ghozali, 2018).

Graphical analysis uses histogram graphs and probability plots. If the data spreads around the diagonal line and follows the direction of the diagonal line or the histogram graph shows a normal distribution pattern, then the regression model fulfills the assumption of normality. However, graphical analysis can be misleading if you are not careful, visually it looks normal even though statistically it could be the other way around. Therefore, in this study, apart from using graphical analysis, it was also equipped with a statistical test using the non-parametric Kolmogorov-Smirnov (KS). In the KS test, it was seen from the probability number of the significance of the residual data. If the probability number is less than 0.05, this variable is not normally distributed (Ghozali, 2018).

Multicollinearity Test

The multicollinearity test aims to test whether the regression model finds a correlation between the independent (independent) variables. A good regression model should not have a correlation between the independent variables. If the independent variables are correlated with each other, then these variables are not orthogonal. An orthogonal variable is an independent variable
whose correlation value among independent variables is equal to zero (Ghozali, 2018).

To detect whether there is multicollinearity in the regression model, it can be seen from the Variance Inflation Factor (VIF) value and the Tolerance value. These two measures indicate which of each independent variable is explained by other independent variables. Tolerance measures the variability of the selected independent variables that are not explained by other independent variables. If the tolerance value is < 0.10 or equal to the VIF value > 10, then in the regression model there is multicollinearity that cannot be tolerated and these variables must be removed from the regression model so that the results obtained are not biased (Ghozali, 2018).

**Heteroscedasticity test of the bag**

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from one residual observation to another. If the residual variance from one observation to another observation remains, then it is called homoscedasticity and if it is different it is called heteroscedasticity. A good regression model is homoscedasticity or heteroscedasticity does not occur. To detect the presence of heteroscedasticity, it can be seen if there are certain patterns on the scatterplot graph, such as dots that form certain regular patterns (wavy, widened then narrowed) (Ghozali, 2018).

**Significance Test**

Significant tests in this study consisted of the Significant Test of Individual Parameters (Statistical t Test), Simultaneous Significant Test (F Statistical Test) and the Coefficient of Determination Test ($R^2$).

**Individual Parameter Significance Test (Statistical Test t)**

Partial hypothesis testing aims to determine the effect and significance of each independent variable on the dependent variable. Partial testing of the regression coefficients partially uses the t-test at a confidence level of 95% and an error rate in the analysis ($\alpha$) of 5% with the condition that the degree of freedom (df) = nk, where n is the sample size, k is the number of variables. The basis for returning decisions is:

- If $t$-count < $t$-table: $H_0$ is accepted and $H_1$ is rejected
- If $t$-count > $t$-table: $H_0$ is rejected and $H_1$ is accepted

**Test (Statistical F Test)**

Fraud conviction through the intervening variable, namely the effectiveness of audit procedures. degree of freedom (df1) = k - 1, degree of freedom (df2) = nk. The basis for decision making is:

- If $f$-count < $F$-table: $H_0$ is accepted and $H_1$ is rejected
- If $f$-count > $F$-table: $H_0$ is accepted and $H_1$ is rejected

**Determination Coefficient Test ($R^2$)**

The coefficient of determination $R^2$ basically measures how far the model's ability to explain the variation of the independent variable. The value of the coefficient of determination is between 0 and 1 ($0 < R^2 < 1$), a small value of $R^2$ means that the ability of the independent variables to explain the variation of the independent variable is very limited. A value close to 1 means that the independent variable provides almost everything: $H_0$ is accepted and $H_1$ is rejected: $H_0$ is rejected and $H_1$ is received the information needed to predict the variation of the dependent model. The fundamental weakness of using the coefficient of determination is the bias towards the number of independent variables included in the model. To overcome this problem, another suitable measure of eligibility has been developed. This modified measure of $R^2$ imposes a penalty for adding an explanatory variable which does not significantly reduce the residual. This size is called adjusted $R^2$. The multiple linear regression equation is formulated as follows:

$$Y = a + b_1 X_1 + b_2 X_2 + e$$

**Information:**

$Y$ = Effectiveness of implementing audit procedures in proving fraud  
$a$ = Constant  
$b$ = Regression Coefficient
X1 = Auditor information system
X2 = Ability of investigative auditors
e = Error

IV. RESEARCH RESULTS AND DISCUSSION

Testing Quality Data (Evaluation Outer Model)

This study consists of seven constructs, namely: accounting information systems, investigative auditor abilities and the effectiveness of audit procedures in proving fraud. Data analysis in this study used multiple linear regression with SPSS 25 data processing software tool whose purpose is to find out direct effect and indirect effect of the independent variables on the dependent variable. Measurement model testing is used to assess construct validity and instrument reliability study. This is because a concept and research model cannot be tested in a model prediction of relational and causal relationships if the measurement model has not passed the purification stage. Testing outer model consists from testing validity And testing reliability. Testing validity aim For measure valid or nope indicator Which represent variable latent/construct in study. Testing validity in study This ie test validity construct or validity quantitative Which consists from validity convergent And validity discriminant (Simanjuntak et al., 2023).

a. Testing validity

A questionnaire is said to be valid if the questions on the questionnaire are able to reveal something that will be measured by the questionnaire. This validity test uses a significant value below 0.05. So it can be concluded that each question indicator on the questionnaire is valid when its significance value is below 0.05 (Ghozali, 2018).

Table 1
Validity Test Results of Auditor Expertise Variables in Auditor Information Systems (KSIA)

<table>
<thead>
<tr>
<th>Pernyataan</th>
<th>Sig (2-Tailed)</th>
<th>Keterangan</th>
</tr>
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<tbody>
<tr>
<td>KSIA 1</td>
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<td>Valid</td>
</tr>
<tr>
<td>KSIA 2</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td>KSIA 3</td>
<td>0.000</td>
<td>Valid</td>
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<tr>
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</tr>
<tr>
<td>KSIA 10</td>
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<td>Valid</td>
</tr>
</tbody>
</table>

Source: Processed Data (2023)

Table 2
Validity Test Results of Investigative Audit Ability (KAI) Variables

<table>
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<tr>
<th>Pernyataan</th>
<th>Sig (2-Tailed)</th>
<th>Keterangan</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAI 1</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td>KAI 2</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td>KAI 3</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td>KAI 4</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td>KAI 5</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td>KAI 6</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td>KAI 7</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td>KAI 8</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td>KAI 9</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td>KAI 10</td>
<td>0.000</td>
<td>Valid</td>
</tr>
</tbody>
</table>

Source: Processed Data (2023)
Table 3
Results of the Variable Validity Test on the Effectiveness of the Implementation of Audit Procedures in Proof of Fraud (EPA)

<table>
<thead>
<tr>
<th>Pernyataan</th>
<th>Sig (2-Tailed)</th>
<th>Keterangan</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPA 1</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td>EPA 2</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td>EPA 3</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td>EPA 4</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td>EPA 5</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td>EPA 6</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td>EPA 7</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td>EPA 8</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td>EPA 9</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td>EPA 10</td>
<td>0.000</td>
<td>Valid</td>
</tr>
</tbody>
</table>

Source: Processed Data (2023)

From the table above, it is known that all research variable instrument items are valid, with a significant value less than 0.05.

b. Testing Reliability

Ghozali, (2018) The reliability test tests whether the results of the questionnaire can be trusted or not. The criteria for a variable to be said to be reliable or not are:
1. $\alpha \geq 0.60$ means a reliable instrument.
2. $\alpha < 0.60$ means the instrument is not reliable.

From the results of data processing using the SPSS program assistance, the reliability test results are obtained as follows:

Table 4
Reliability Test Results

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Cronbach’s Alpha</th>
<th>Keterangan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auditor expertise in auditor information systems</td>
<td>0.850</td>
<td>Reliabel</td>
</tr>
<tr>
<td>Investigative Audit Capabilities</td>
<td>0.920</td>
<td>Reliabel</td>
</tr>
<tr>
<td>Effectiveness of Implementing Audit Procedures in Proving Fraud</td>
<td>0.910</td>
<td>Reliabel</td>
</tr>
</tbody>
</table>

Source: Processed Data (2023)

The Cronbach’s alpha value for the three variables shows results above 0.6. Thus it can be concluded that the questions in this questionnaire are reliable because they have a Cronbach’s alpha value greater than 0.6. This shows that each question item used will be able to obtain consistent data, which means that if the question is asked again, an answer that is relatively the same as the previous answer will be obtained.

Testing Classic Assumption

To test the classical assumptions on this primary data, the researchers conducted a normality test, multicollinearity test, and heteroscedasticity test.

a. Normality Test

The normality test aims to test whether in the regression model, the confounding variables or residuals have a normal distribution. It is known that the t-test and F-test assume that the residual values follow a normal distribution. If this assumption is violated, the statistical test becomes invalid for small sample sizes. There are two ways to detect whether the residuals are normally distributed or not, namely by graphical analysis and statistical test (Ghozali, 2018).

In addition to using graphical analysis, this study was also equipped with statistical tests using the non-parametric Kolmogorov-Smirnov (KS). In the KS test, it can be seen from the probability number of the significance of the residual data. If the probability number is less than 0.05, this variable is not normally distributed (Ghozali, 2018).
Normality test results use PP Plot showing that the data is moving approaching the diagonal line, which means found that distribution of distributed data normally. on the histogram general is under normal curve, then can concluded that variable data study normally distributed. Kolmogorov-Smirnov test produce Asymp. Sig. (2-tailed) of 0.200 which is more big or above value 0.05, then concluded normal distribution of data.

b. Multicollinearity Test

To detect whether there is multicollinearity in the regression model, it can be seen from the Variance Inflation Factor (VIF) and Tolerance values. These two measures indicate which of each independent variable is explained by the other independent variables. Tolerance measures the variability of the selected independent variables which are not explained by other independent variables. If the tolerance value < 0.10 or the VIF value > 10, then in the regression model there is multicollinearity which cannot be tolerated and these variables must be removed from the regression.
model so that the results obtained are not biased (Ghozali, 2018).

### Table 5
Multicollinearity Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficients</th>
<th>Collinearity Statistics</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Auditor Expertise in Auditor Information Systems</td>
<td>0.288</td>
<td>3.473</td>
</tr>
<tr>
<td></td>
<td>Investigative Auditor Capability</td>
<td>0.288</td>
<td>3.473</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Effectiveness of Implementing Audit Procedures in Proof of Fraud

Source: Processed Data (2023)

Multicollinearity test produce *tolerance* For Internal Auditor Expertise System Auditor Information as big 0.288, and Investigative Auditor Ability of 0.288, as well as VIF for style Auditor's expertise in nature System Auditor Information as big 3,473. and Investigative Auditor Capability as big 3,473. those results show *tolerance* is above 0, 10 and VIF is below 10, then can concluded No happen multicollinearity in the regression model study This.

### c. Heteroscedasticity test

The heteroscedasticity test in this study was carried out using a statistical approach through the Glejser test using a significance level of 0.05. The assessment criteria for heteroscedasticity testing with Glejser are as follows:

- If the significant value is < 0.05, it can be concluded that the regression model used is not feasible.
- If the significant value is > 0.05, it can be concluded that the regression model used is feasible.

### Table 6
Heteroscedasticity Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2.107</td>
<td>1.304</td>
<td>.545</td>
<td>1.616</td>
</tr>
<tr>
<td></td>
<td>Keahlian Auditor</td>
<td>.098</td>
<td>.061</td>
<td>.545</td>
</tr>
<tr>
<td></td>
<td>DalamSistemInformasi Auditor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kemampuan Auditor Investigatif</td>
<td>-.103</td>
<td>.061</td>
<td>-.578</td>
</tr>
</tbody>
</table>

a. Dependent Variable: abs_res

Source: Processed Data (2023)

N value sig. Internal Auditor Expertise System Auditor Information of 0.121, and Investigative Auditor Ability 0.101 Where second variable free own mark significant more big from 0.05 up results calculation This meet the test requirements symptom heteroscedasticity. Thus it can be concluded that the data of this study did not contain symptoms of heteroscedasticity.

### Analysis Multiple Linear Regression

The results of the regression analysis are in the form of regression coefficients for each independent variable.

### Table 7
Multiple Linear Regression Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unstandardized Coefficients</td>
<td>Standardized Coefficients</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>std. Error</td>
</tr>
<tr>
<td>1</td>
<td>1.105</td>
<td>2.145</td>
</tr>
<tr>
<td></td>
<td>Auditor Expertise in Auditor Information Systems</td>
<td>.502</td>
</tr>
<tr>
<td></td>
<td>Investigative Auditor Capability</td>
<td>.486</td>
</tr>
</tbody>
</table>
Based on the above equation, then can interpreted as following:

The constant (a) is 1.105, which means if Effectiveness Implementation Internal Audit Procedures Proof Fraud No influenced by variables or other factors will still worth 1.105 unit. Coefficient regression Internal Auditor Expertise System Auditor Information (b1) marked positive of 0.502, which means enhancement One unit from Internal Auditor Expertise System Auditor Information will increase Effectiveness Implementation Internal Audit Procedures Proof Fraud as big 0.502 units. Coefficient regression Investigative Auditor Capability (b2) marked positive of 0.486, which means enhancement One unit Investigative Auditor Capability will increase Effectiveness Implementation Internal Audit Procedures Proof Fraud of 0.486 units.

**Partial Hypothesis Test Results (t test)**

In determine magnitude \( t_{table} \) Obtained at alpha (0.05) with use formula: \( df = nk; df = 30 - 3; df = 27 \), so that \( t_{table} = 2.051 \). \( t_{table} \) value the will compared to with mark \( t_{count} \) below this is the aim For know There is or nope influence Partial between variable free to variable bound (Ghozali, 2018).

**Table 8**

<table>
<thead>
<tr>
<th>Coefficients *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
</tr>
<tr>
<td>Auditor Expertise in Auditor Information Systems</td>
</tr>
<tr>
<td>Investigative Auditor Capability</td>
</tr>
</tbody>
</table>

Hypothesis test results Partial can interpreted as following:

a. Based on table on obtained \( t \) value count of 5.001 > \( t_{table} \) 2.051 and value significant of 0.000 < 0.05, then can concluded skill internal auditors system information auditors influential significant to effectiveness implementation procedure internal audits proof fraud.

b. Based on table on obtained \( t \) value count as big 4.857 > \( t_{table} \) 2.051 and value significant of 0.000 < 0.05, then can concluded ability investigative auditors influential significant to effectiveness implementation procedure internal audits proof fraud.

**Simultaneous Hypothesis Test ( Uji F)**

In determine magnitude \( F_{table} \) obtained at alpha (0.05) with use formula: \( df_1 = k - 1; df_1 = 3 - 1; df_2 = 2, \) and \( df_2 = nk; df_3 = 30 - 3; df_3 = 27 \) so \( F_{table} \) is 3.35. The \( F \) value of the table will compared to with \( F_{count} \) under this is the aim For know There is or nope influence simultaneous between variable free to variable bound.

**Table 9**

<table>
<thead>
<tr>
<th>Simultaneous Hypothesis Test Results ( T test F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANOVA *</td>
</tr>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>Regression</td>
</tr>
<tr>
<td>residual</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Effectiveness of Implementing Audit Procedures in Proof of Fraud

b. Predictors: (Constant), Investigative Auditor Ability, Auditor Expertise in Auditor Information Systems

Source: Processed Data (2022)
Based on F test results obtained mark \( F_{\text{count}} \) as big (155.594) > from \( F_{\text{table}} \) (3.35) and mark significance (0.000) < \( \alpha \) (0.05). Based on results the can concluded that skill internal auditors system information auditors, and capabilities investigative auditors in a manner simultaneous influential significant to effectiveness implementation procedure internal audits proof fraud

### Coefficient of Determination Result

The coefficient of determination \( (R^2) \) is essentially used to measure the ability of the model to explain the dependent variable.

<table>
<thead>
<tr>
<th>Summary Model b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Investigative Auditor Ability, Auditor Expertise in Auditor Information Systems
b. Dependent Variable: Effectiveness of Implementing Audit Procedures in Proof of Fraud
Source: Processed Data (202 3)

Coefficient determination or \textit{adjusted R-Square} produce mark of 0.914 or 91.4%, then can concluded influence skill internal auditors system information auditors, and capabilities investigative auditors to effectiveness implementation procedure internal audits proof fraud as big 91.4% the remaining 8.6% is influenced by other factors/variables \textit{Forensic audit}, \textit{Professional judgment Investigative Auditing} and \textit{Investigative Auditor Experience}.

### Discussion Results Study

1. The effect of the auditor’s information systems expertise on the effectiveness of the implementation of audit procedures in proving fraud (Case Study of the Regional Inspectorate of Karo Regency)

   Based on the results of the t-test, the \( t_{\text{count}} \) value is 5.001 > \( t_{\text{table}} \) 2.051 and a significant value is 0.000 < 0.05, it can be concluded that the auditor's information systems expertise has a significant and significant effect on the effectiveness of audit procedures in proving fraud, based on these results, hypothesis 1 is accepted. This may be due to several factors, including the educational background of the respondents who are predominantly from economics and law, therefore expertise in the use of information systems in the effectiveness of implementing audit procedures has an effect. to the development of the times.

   These results are inconsistent with research conducted by (Sembiring, 2022) which states that the variable auditor information system expertise has no significant effect on the effectiveness of implementing audit procedures in proving fraud as well as research conducted by (Hidayat, 2017) which states that auditor information system expertise does not has a positive effect, but for the investigative auditor's ability variable, it has a significant positive effect on the effectiveness of implementing audit procedures in proving fraud, this is in accordance with this research. the effectiveness of the implementation of audit procedures in proving fraud . This is possible because in the current era the majority of systems in government already use electronic-based data (\textit{paperless}). Also

2. The influence of the investigative auditor's ability on the effectiveness of implementing procedures in proving fraud (Case Study of the Regional Inspectorate of Karo Regency)

   Based on the results of the t-test, it was found that the calculated \( t \) value was obtained as big 4.857 > \( t_{\text{table}} \) 2.051 and value significance of 0.000 < 0.05, then can concluded ability investigative auditors influential significant to effectiveness implementation procedure internal audits proof fraud, Based on these results hypothesis 2 is accepted.

The results of this study are in line with Hidayat's research (2017) which states that the ability of investigative auditors has a significant positive effect on the effectiveness of implementing audit procedures in proving fraud. There is a possibility that the Investigative Auditor's Capability has an
influence on the Effectiveness of the Implementation of Audit Procedures in Proof of Fraud. So that procedural ability and implementation has become their daily activities. Coupled with the background of the respondents from the fields of Economics and Law who are at a mature age so that carefulness and compliance with procedural implementation is relatively high. However, this research is not in line with Pradynawati's research (2019) which states that the ability of investigative auditors has no effect on the effectiveness of implementing audit procedures in proving fraud.

3. The influence of accounting information systems and the ability of investigative auditors simultaneously on the effectiveness of the implementation of audit procedures in proving fraud.

(Case Study of the Regional Inspectorate of Karo Regency)

Based on the results of the F test obtained mark F_{count} as big \( (155.594) \) > from \( F_{table} (3.35) \) and mark significance \( (0.000) < \) alpha \( (0.05) \). Based on results the can concluded that skill internal auditors system information auditors, and capabilities investigative auditors in a manner simultaneous influential significant to effectiveness implementation procedure internal audits proof fraud. Based on these results hypothesis 3 is accepted. It turns out that the auditor's expertise in using information systems, when collaborated with the auditor's basic abilities, turns out to have a great impact on the effectiveness of the implementation of audit procedures to prove fraud.

This can happen because in the current era the majority of existing systems in government use electronic - based data (paperless). So that the ability of the auditors themselves must also be supported by other capabilities, which in this case are information systems. Especially in this study, the respondents were of mature age who were able to adapt to the times to use technology in all their jobs.

This is also supported by research by (Sembiring, 2022) and (Ponalisa, 2020) The effect of auditor information systems expertise and investigative auditor abilities simultaneously have a significant effect on the effectiveness of audit procedures in proving fraud

V. CONCLUSION

Conclusion from study This can conclude that accounting information system effect on the effectiveness of audit procedures in proving fraud at the district inspectorate. Karo, investigative audit capabilities influence against _ the effectiveness of audit procedures in proving fraud at the district inspectorate. Karo , accounting information systems and investigative audit capabilities affect the effectiveness of audit procedures in proving fraud case studies at the district inspectorate. Karo

The results of this study can provide practical implications for local government in particular District Inspectorate. Karo , namely empirical evidence that accounting information systems affect the effectiveness of audit procedures in proving fraud, investigative audit ability influences the effectiveness of audit procedures in proving fraud. Local governments can pay more attention to accounting information systems and investigative audit capabilities by background employee criteria behind Which understand process audits as well as give training – audit related training to employees so that the audit process becomes even better.

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