APPLICATION OF AUDIT INFORMATION SYSTEMS TOWARDS AUDITORS PERFORMANCE WITH APLICATION OF INFORMATION TECHNOLOGY AS INTERVENING VARIABLE

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Abstract: This study aims to determine the effect of the implementation of audit information system on auditor performance with information technology as intervening variable. The primary data is derived from respondents of around 100 questionnaires to auditors of Bandung public accountants. The sampling method used is purposive sampling, and the analysis used in the study is descriptive analysis, and the analysis methods to test hypotheses is done through path analysis, and correlation coefficients.

The results of this study indicate that the application of audit information system, the application of information technology and auditor performance has been done well. The application of audit information system has a significant effect on auditor performance, as well as a significant effect on information technology, but the application of information technology has no significant effect on auditor performance. Furthermore, based on the trajectory coefficient shows that the application of an information system audit has a strong relationship to the auditor's performance while the application of information technology has a weak relationship with the auditor's performance.

The application of information system auditing does not have a significant effect on auditor performance with the application of information technology as an intervening variable. This is due to the t-count value is smaller than the t-table value, which is 0.09748051 < 2.04227, with a mediation coefficient of 0.125744. This means that the presence of technology as a mediation of the application of information system audits does not significantly influence auditor performance.

Keywords: Application of audit information system, auditor performance, information technology, path, analysis.

Introduction

The auditor's performance is the result of an evaluation of the work that has been done compared to the predetermined criteria. In defining performance, performance as a pattern of actions is implemented to achieve goals and measured by comparing it with various standards. Thus it can be said that the auditor's performance is the result of an evaluation of the auditor's work in carrying out checks that are measured based on applicable audit standards. Arfan (2010) states that if in carrying out audits auditors have met the applicable audit standards it will produce a good performance.

In this era, audit information system developed in focus with the hope of producing a good auditor performance. This is not only for financial transactions but also for evaluating controls in audit information system. For example, regarding security, segregation of tasks to risk management whose purpose is to protect information and ensure that controls in the computerized process are effective. In conducting audits, an auditor uses information technology to carry out the audit process, both by using software and hardware in the form of a computer device. Agoes (2013) states that computer technology has developed very fast, even faster than large estimates of people, and is very influential in modern life. Computer development also affects the working patterns of auditors in carrying out them

profession. This happens because the company/organization that is the object of examination has used the computer as its data processor. Many accounting systems, payroll, inventory, etc. have been computerized, thus encouraging examiners to understand more about computers or processing data electronically.

According to Budi (2008), the success of auditor performance is also inseparable from the availability of information technology (IT) needed in conducting audits. In conducting audits, auditors must deal with an internal control system where at the moment the auditee has implemented many different information technology systems. An auditor as the party responsible for carrying out and implementing the audit process should be equipped with technological facilities, both to communicate with the client/auditee or to carry out the audit process. This is intended so that the performance provided by the auditor can be maximized so as to avoid errors in reporting the audit results.

Based on the above, this study was designed to find out how the application and influence of information system audit on auditor performance with the application of information technology as a mediating variable.

Literature Review

Audit Information System. The Audit information system is the process of collecting data and evaluating the evidence to determine whether a computerized application system is in accordance with the standard computer-assisted internal control system.

According to Supriyati, et al (2013) Information Systems is a system consisting of a series of sub-systems of information on data management to produce information that is useful in decision making. While Gondodiyoto (2007) said that information systems can be defined as a collection of elements/resources and network procedures that are interrelated in an integrated manner, integrated into with a certain hierarchical relationship, and aims to manage data into information. It can be concluded that information systems are a collection of components from a piece of integrated information to achieve the goal of becoming information.

An audit is basically a systematic and objective process in obtaining and evaluating the evidence of economic action to provide assertions and assess how far the economic action is in accordance with the applicable criteria and report the results to the relevant parties. The stages used in the information system audit are in principle the same as audits in general. This stage is planning that produces an audit program that has been adjusted so that the audit process will run effectively and efficiently, and is done with auditors who are experienced in their fields and can be completed with the time agreed with the client/auditee. In implementing Audit Information, IT Auditors gather evidence that supports the audit process with various techniques, including conducting surveys, interviews, observations, and documentation reviews (including source-code reviews if needed). The evidence taken by the auditor is also electronic evidence (data in the form of softcopy).

If at a high level of IT usage, the audit that is more used is an audit with a computer or using CAAT (Computer Aided Auditing Technique). In this technique, the auditor analyzes data on the company's transaction processes both in sales, purchases, inventories and customer activities, and others. In terms of security in the system, the auditor is often required to have technical expertise in testing the security of the system. The use of Information System Audit guidelines in Indonesia is attestion, while the standard used in auditing information technology is standard issued by ISACA, namely ISACA IS Auditing Standard. ISACA also publishes IS Auditing Guidance and IS Auditing Procedure. This standard must be fulfilled by an IS Auditor. Likewise, with the rules that exist in

professional accounting organizations (IAPI in Indonesia, AICPA in the USA, CICA in Canada). In terms of the internal control system commonly used is CobiT.

According to Agoes and Hoesada (2009) in Ron Weber, identifying the information auditing system as follows: is a process of gathering and evaluating evidence to determine whether the computer system used can protect the assets of the organization, able to maintain data integrity, can help achieve organizational goals effective, and use resources owned efficiently. SI or IT audits are relatively new compared to financial audits and along with the increasing use of IT (Information Technology) to encourage business activities. According to Herawaty, an information audit is "The process of collecting and evaluating evidence to determine whether a computer system can protect assets, maintain data integrity, enable the achievement of organizational goals effectively and use resources efficiently" (p.96).

In the research of Sasongko (2002) regarding information system audit: analysis of factors that influence its application to the Public Accounting Firm in Indonesia. These factors include the age of KAP, the need, and encouragement of awareness of KAP, ability, and education from KAP personnel, the existence of SPAP / PSA instructions and the ability of SI audit techniques. As time passes gradually to the age of KAP, the progress demands KAP, so that progress demands KAP on the importance of skills and skills in SI audits because of the increasingly advanced technology used in a company. According to Amrul and Eny (2009: 1), "Knowledge (knowledge) is the main source for achieving competitive advantage" (p.1.1). According to Sasongko (2002) "Thus increasing age will increase maturity in carrying out an information audit system, so that the SI audit produced by KAP will be better" (p.2)

According to Gondodiyoto (2009) in ISACA, the SI Audit is mainly:

1. Audit-related to the audit of data-management information systems or information technology governance (IT Governance), whether the information system has been managed in accordance with CobIT criteria.
2. Good planning and organizing, acquisition and implementation, delivery and support, and monitoring has been carried out.
3. In harmony with business objectives.
4. Governance includes aspects: people, technology, facilities, application systems, and data.
5. Audit of the process/methodology followed in the development of the information system (System Development Life Cycle) so that what is audited is the process of compliance with the methodology / standard (SDLC review).
6. Audit of the application system itself, so what is audited is whether the application system is effective (doing the right thing, according to the user requirement) efficiently (doing thing right), fulfilling economic feasibility, operational feasibility, guaranteed security, and so on (review system or review the post-implementation system application).
7. In its development, various variations have been identified, including: audit outsourced IS, review of Enterprise Resources Planning (ERP), Review of Business Plan Contribution (BPC), from an IT perspective, Review of Business Processes Engineering (BPR), e-commerce review, internet review banking, review of mobile computing, computer forensic, audit of internet usage in an organization, and so on.

Because it is expensive and the importance of information, it makes it aware and encourages obtaining guaranteed information resources so that the company conducts an audit. One of these factors is the importance of SI controls and audits. According to Gondodiyoto (2009), the factors that drive the importance of SI control and audit are:

1. Detecting that the computer is not managed in a less directed manner, no vision, mission, information technology planning (IT Plan), top management organizations lacking care, no training, and good personnel career patterns, etc.
2. Detect the risk of data loss.
3. Detect the risk of wrong decision making due to information on the results of the computerized system process is wrong/slow/incomplete.
4. Maintain company assets, especially information system assets, because the value of hardware, software, and personnel is generally high.
5. Detect the risk of computer errors.
6. Detect the risk of computer misuse (fraud).
7. Maintain confidentiality, meaning that the IT-based information system (what else is designed with a public network) should have the ability to protect data, be safe, maintain the privacy of the user and so on.
8. Improve the evolutionary control of computer use, that is, not to let an organization/company conduct computerization uncontrollably so that there is a waste or inadequate level of security.

In carrying out inspection tasks, SI auditors must adhere to the code of ethics (professional ethics) as stated in the IS Standards, Guidelines and Procedures for Auditing and Control Professionals (ISACA 2005), the point being that each SACA certification (especially CISA), should:

1. *Support implementation, of and encourage complainance with, appropriate standards, procedures and controls for information system.*
2. *Perform their duties with due diligence and professional standard and best pratices.*
3. *Serve in the interest of stakeholders in a lawful and honest manner, while maintaining high standards of conduct and charaters, and not engage in acts discreditable to the profession.*
4. *Maintain the privacy and confidentiality of information obtained in the course of them duties unless disclosure is required by legal authory. Such information shall not use for personal benefit or release for inappropriate parties.*
5. *Maintanain competency in their respective fields and agree to undertake only those activities, which they reasonably except to complete with professional compentence.*
6. *Inform appropriate parties of the result of work performed, revealing of significant facts know them.*
7. *Support the professional educationof stakholders in enhancing their undersanding of information system security and controls.* (pg.4)

So if the member (CISCA certification holder) does not do his work in accordance with the code of ethics, then it can be subject to sanctions in the form of disciplinary law and revocation of certification in the organization.

Information Technology. Information technology is a combination of technology and information. Technology is a mediator or tool used in the management of a data so that the results of managing the data to produce information. The role of technology has a strong relationship with information. The role of information technology also plays a positive role in the ownership of companies or investors in decision making, with the use of computers as technology to accelerate business owners and investors in obtaining existing information.

According to Putri (2009) quoted from Halim, the definition of information technology is policies, standards and infrastructure development such as hardware and networking which are only one small part of the company's format other than processes and procedures, suppliers, partners and so on. Information Technology (IT) itself consists of computer technology and communication technology so that with these two elements, people can be online on the internet.

According to Simarmata (2006), "technology is a product that is carried out by humans by utilizing (tools, processes, and resources)" (p.2)
"Information technology is an item that has various kinds and capabilities that are used in making storage and dissemination of data and information. The main components are three, namely computers (computers), communication (communication), and skills" (Simarmata, 2006: 3).

In Fatahilla's (2008) study of information technology in its application, there are two factors that influence its application to the Public Accounting Firm in Indonesia. These factors are the utilization of computer performance in the KAP office, Utilization of audit software in KAP.

Three things contained in the technology are skills, logic (logarithms), and hardware (hardware). In the view of technology management, technology is interpreted,

1. Technology as meaning to fulfill a purpose contained in what is needed to change resources (resources) to a product or service.
2. Technology does not change as knowledge of the resources needed to achieve a goal.
3. Technology is a body of science and engineering that can be applied in the design of products and/or processes in research to gain new knowledge.

Based on the definition above, it can be concluded that information technology is a combination of computer technology and telecommunications technology consisting of hardware (software) and software (software) so that in its use can provide information that is useful for the wearer in making a decision.

Auditor Performance. Auditor performance is the work result achieved by an auditor in carrying out his profession as an auditor and the work results can be at the value of the work accomplished by the audit itself. The word performance has a broad meaning but the authors limit the word performance which only relates to the performance of individuals and companies. Here are some notions of performance:

duties while according to Esya (2008). Performance is a behavior or response that produces a result, product or task completion can be completed quickly, precisely and in accordance with the expected so that the objectives set are achieved, at any time the performance is only in the form of a response, but usually in the form of a product.

Esya (2008) argues that "performance is a success achieved from one's workability which is strongly influenced by basic skills possessed and external conditions such as facilities, leadership, work environment, and others" (p.28).

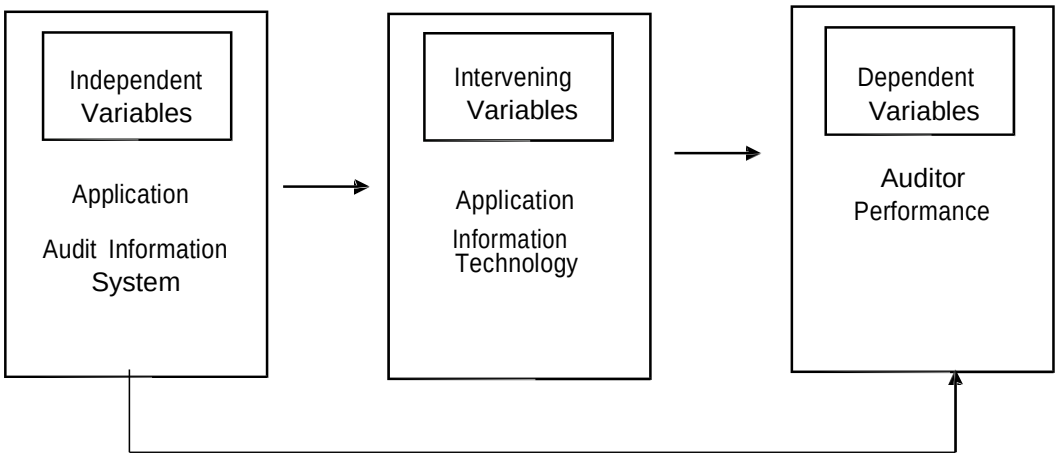
Esya (2008), a person's performance is strongly influenced by the background of the cultural environment, skills, and knowledge possessed by someone including:

1. The existence of a comprehensive policy that must be known by each employee, both in connection with the objectives and operational instructions of the leadership in the work environment, so that every employee is expected to understand the situation and know the environment.
2. Conformity between knowledge, skills possessed by an employee and tasks that are the responsibility of the employee.
3. Knowing the working mechanism and the provisions of the applicable legislation, both written and unwritten. This is needed in order to ensure that they do not hesitate and fear that they will err.
4. Knowing how to carry out the work carried out by superiors and themselves as subordinates.

5. Having knowledge and communication skills, so those harmonious relationships are established.
6. Understand the feeling of others, which are related to carrying out joint tasks. (p.35)

From the description above, it can be concluded that performance is the result of an activity carried out by both individuals and groups in carrying out their duties. In the performance element, there is also a way of working someone, how the attitudes that arise from the work environment both as individuals and as a group and other factors that relate to the individual itself in the company.

The following is a framework for thinking about independent variables with independent variables brokered by intervening variables. In other words, this framework is about Information System Audit of Auditor Performance with Information Technology as an Intervening Variable.



The relationship of information system audit variables is a relationship that explains the relevance of the auditor's performance variables by mediating the variables of information technology implementation. The relationship of one variable to another produces a guess or hypothesis that can be tested for its truth..

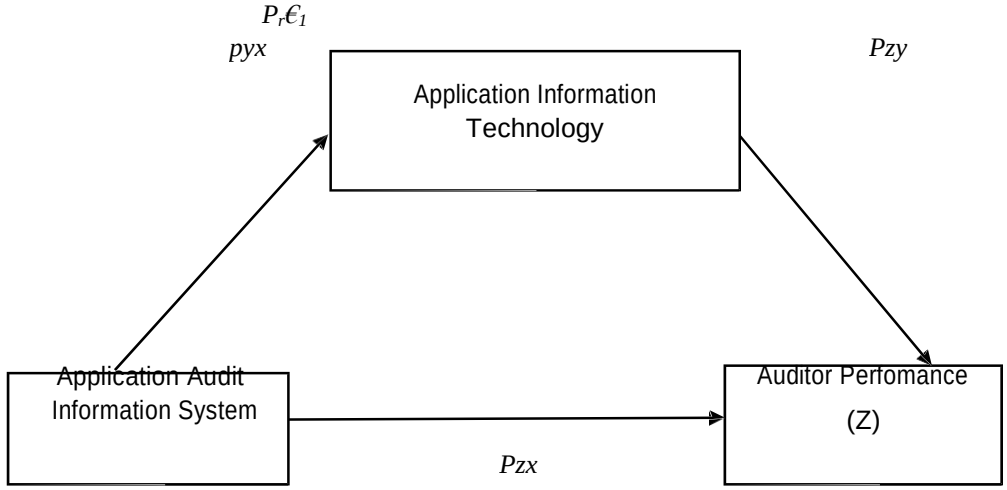
Methodology

The method used in descriptive and associative research methods. Indriantoro and Supomo (2012) define that the descriptive method is a method of collecting, presenting and analyzing data so that it can provide a fairly clear picture of the object that can be examined and draw conclusions based on the research conducted. And the associative method is a method to find out the relationship between two variables or more and know the effect. By using this type of research, a theory can be built that can function to explain the relationship or influence that exists.
The population in this study was all Public Accountants (KAP) in the Bandung area. The sample consisted of 30 external auditors working at a public accounting firm located in the Bandung area. The basis for selecting this sample uses a purposive sampling method. According to Indriantoro and Supomo (2002), purposive sampling is a method of selecting samples based on objectives, which is more specific, namely the selection of samples using consideration (judgment sampling) consideration of the working period of auditors and special auditor education.

The instruments used in this study were questionnaires, Likert scale size primary data, and then processed using Pearson Correlation to find out how the role of the application of information system audits applied to auditor performance with the application of information technology as an intervening

variable. The processing of questionnaire data is processed in correlation coefficient analysis, hypothesis testing, path analysis and determination coefficient with statistical methods with the help of SPSS (statistical package for social science). According to Ghozali (2013) "Path analysis (function analysis) serves to determine the direct and indirect effects, as a causal variable (exogenous variables) to other variables which are variable consequences (endogenous variables). Path analysis is an extension of multiple linear regression analysis. The use of regression analysis to estimate the quality relationships between variables (casual models) that have been predetermined based on theory. Pathway analysis alone cannot determine causal relationships and also not causality between variables. The relationship between causality between variables has been formed with a model based on the theoretical basis. What can be done by path analysis is to determine the pattern of relations between three or more variable and cannot be used to confirm or reject the imaginary causality hypothesis "

Figure 3.1. Hypothesis testing



Information:

Pxy : *standardized coefficients,* path coefficients direct effect of X on Y.
Pzx : *standardized coefficients,* path coefficients direct effect of X on Z.
Pzx : *standardized coefficients,* path coefficients direct effect of X on Y.

In figure 3.1. it can be explained that the application of information system audits may have a direct effect on auditor performance, but it may also not have a direct effect, namely passing information technology first and then to auditor performance. Logically, the higher the level of application of information system audits by public accountants is likely to improve auditor performance indirectly with the use of high information technology.

Based on the picture of the path model above proposed a relationship based on the theory that the application of information audits has a direct influence on auditor performance (pxy). However, the application of an information system audit also has an indirect relationship to auditor performance, namely the implementation of information system audits to information technology (PXY) and then to auditor performance (PZY). information system (pzx) coupled with added indirect influence that is from the application of information system audits to information technology (pxy) multiplied by information technology to auditor performance (pzy).

The joint effect or the X and Y against Z coefficients is calculated as follows:

Direct effect of X to Z	= pzx
Indirect effect	= pyx.pzx
Total effect (X to Z cortex)	= PZX+(PYZ.PZY)

Ghozali (2013: 251) explains that a direct relationship occurs when a variable affects other variables without a third variable that intervenes in the relationship between these two variables. Then on each dependent variable (endogenous variable), there will be an arrow leading to this variable and this function to explain the amount of unexplained variance by that variable. So the Py€ arrow from Y shows the number of variance Y that is not explained by X at py€1 = ඥ1 ൬ ⁄ . Path coefficient is a standardized regression coefficient. Path coefficients are calculated by making two structural equations namely regression equations that show hypothesized relationships. In this case, there are two equations

$Y = p_{yx} X + p_y €_1$ (1)

$Z = p_{zx} X + p_{zy} Y + p_z €_2$ (2)

Standardize coefficient for X in equation (1) will give p_{yx}. Whereas the coefficients for X and Y in equation (2) will give P_{zx} and p_{pzy} values.

Result and Discussion

4.1. Application of Audit Information System

Table 4.1. is the result of the application of an information system audit shows that of the five highest average indicators of the indicator of the application of an information system audit is an information system audit technique that is equal to 4.3 which means that the indicator is very well done.

Tabel 4.1. Application of Audit Information System

Indicator	N	Mean	Interpretation
Tenure of KAP	30	4.06	Good
Need for encouragement and awareness of KAP	30	4.13	Good
Special knowledge/education from personnel	30	4.08	Good
Instructions/SPAP/ rules	30	4.15	Good
Audit Information System Technique	30	4.3	Very Good
Total	30	4.15	Good

While the lowest of the indicators in the application of information system audits is the value of KAP with an average value of 4.06 which means that the indicator is done well. For indicators of

needs, encouragement, and awareness of KAPs with an average value of 4.13, special knowledge/education from personnel with an average value of 4.08, and instructions / SPAP / rules with an average value of 4.15 performed well on the five public accounting firms in the region Bandung.

4.2. Application of Information Technology

Table 4.2. The following is the result of a questionnaire about the implementation of an information system audit on public accountants in the Bandung area.

Table 4.2. Application of Information Technology

Item	N	Mean	Interpretation
Utilization of computer performance	**30**	**3.91**	**Good**
Utilization of audit software	**30**	**4.31**	**Very Good**
Average		**4.11**	**Good**

Table 4.2 shows that the highest average indicator is the utilization of audit software which is equal to 4.31 which means that KAP Bandung uses software very well. While the average value of computer performance is 3.91 with good value. The word usefulness of software audit is greater than the effectiveness of computer performance.

4.3. Auditor performance

The following table 4.12 is the result of a questionnaire about the auditor's performance in KAP in the Bandung area.

4.3. Auditor Performance

Item	N	Mean	Interpretation
Objective Factors	30	4.16	Good
Subjective Factors	30	4.07	Good
Average		4.12	Good

Source: Author

Table 4.3. shows that the average of the two auditor performance indicators is 4.12 with good interpretation. Objective factor indicators have an average value of 4.16 with good interpretations, subjective factor indicators have an average value of 4.07 with good interpretation.

4.5. Variable Effect

Correlation coefficient analysis.

a) The variable correlation coefficient application of information system audit and positive auditor performance is 0.567 means that the relationship is in the direction where the auditor's performance will be higher if the application of information system audit is higher. And the correlation between the two variables is significant at 0.001, where the value (sig) is smaller than 0.05. And the coefficient of determination (KD) is (0.567X0.567) 100% = 32%

b) The variable correlation coefficient application of the information system audit and the application of positive information technology is 0.464, which means that the relationship is in the same direction, meaning the higher the implementation of the information system

audit, the more necessary use of information technology. And the correlation between the two variables is significant at 0.010, where the value (sig) is smaller than 0.05. And the coefficient of determination is (0.464X0.464) 100% = 21%

c) The correlation coefficient of 0.475 has the purpose of the relationship between the variables of the application of information technology and the auditor's performance is sufficient and in the same direction (because the results are positive). In the same direction, the higher the application of information technology, the higher the auditor's performance. Correlation between two variables is significant at 0.008. If the number of significance (sig) <0.05 then the relationship between the two variables is significant. And the coefficient of determination is (0.475X0.475) 100% = 22.6%

4.6 T-Test Application of Information Audit System (X) on Auditor Performance (Z)

The t statistic test is used to determine whether or not there is the influence of each independent variable individually on the dependent variable tested at the 0.05 level of significance.

Table 4.6. Coeffcients[a]

Model	Unstandardized Coeffcients		Standradized Coeffcients	t	sig
	B	Std.Error	Beta		
(Constant)	11.58	11.153		1.038	0.308
1. PASI	0.151	0.511	0.441	2.575	0.016
2. PTI	0.793	0.793	0.271	1.58	0.010

a.dependent variable: KA

Seen in Table 4.6. in the sig column (significance) the Coefficients result of the implementation of an information system audit with a sig value of 0.016. Then compared to the 0.05 probability standard it turns out that the sig value is smaller than the probability standard of (0.016 <0.05), then Ha1 is accepted and Ho1 is rejected, meaning that there is significant influence between the application of an information system audit on auditor performance.

T-Application of Technology Test (Y) Against Auditor Performance (Z)

Based on the sig column (significance) table 4.6. above, it can be seen that the variable coefficients apply information technology with a sig value of 0.126. Then compared to the 0.05 standard probability, it turns out that the sig value is more than the value of the probability standard or (0.010 <0.05), then Ha3 is rejected and Ho3 is accepted, meaning that there is significant influence between

information technology on auditor performance.

T-Test Application of Information System Audit (X) on the Application of Information Technology (Y) In Table 4.7, it can be seen that the acquisition of sig Coefficients in the application of information system audits is equal to 0.126. The sig coefficients are greater than the standard probability of five percent (0.126> 0.05). This comparison means that Ha is rejected and Ho is accepted, meaning that there is no significant influence between the application of an information system audit of information technology.

Table 4.7. Statistical Test Results

Model	Unstandardized Coefficients	Standardized	t	Sig.

			Coefficients		
	B	Std. Error	Beta		
(Constant)	7.681	3.943		1.948	.061
1 PASI	.184	.066	.464	2.770	.126

Path Analysis

The following path analysis processing techniques function to find out the direct or indirect effects as the causal variables (exogenous variables) on a set of other variables which are the result variables (endogenous variables)

Based on SPSS processed, the following results are obtained:

1. The effect of X on Z is the application of an information system audit to the auditor's performance of 0.441
2. Effect of the application of information system audits on information technology (X to Y) of 0.464
3. The effect of information technology on the performance of auditor Y against Z is 0.271
4. The effect of implementing an information system audit on auditor performance through the application of information technology is (X → Y → Z) of 0.464 X 0.271 = 0.125744

The total effect (X to Z correlation), which is 0.441+ 0.125744 = 0.566744

Calculate the standard error from the indirect effect coefficient as follows: $S_{\rho_{yx}\rho_{zy}}$

$$= \sqrt{(0.271)^2(0.66)^2 + (0.464)^2(0.502)^2 + (0.66)^2(0.502)^2}$$

$$S_{\rho_{yx}\rho_{pzy}} = \sqrt{(0.509041) + (0.4673) + (0.687604)} = 1.2899399$$

$$\text{Value } t = \frac{\rho_{yx}\rho_{zy}}{S_{\rho_{yx}\rho_{zy}}} = 0.09748051$$

Because the value of t count = 0.09748051 is smaller than the value of t table with a significance level of 0.05 that is equal to 2.04227, it can be concluded that the mediation coefficient 0.125744 does not significantly influence. In other words, information technology as a mediating variable does not significantly influence auditor performance.

Conclusion

1. The implementation of public accountant information system audits and the application of information technology by public accountants in the Bandung area has been done well. It can be concluded that the application of information systems and technology audits in their efforts to excel in carrying out information system audits is in line with the development of technology and its application by auditors. And then based on the t-test found that the application of an information system audit (X) has a significant effect on auditor performance (Z), as well as information technology (Y) has an effect on auditor performance (Z), but an information system audit (X) has no effect on performance auditor (Y).
2. Auditors in the Bandung area have a good performance, where the auditor has done his job on time and in accordance with the target, using the facilities and infrastructure to the maximum to get the work results that are in accordance with audit standards and quality.
3. The application of an information system audit has a strong and positive relationship to the auditor's performance. This unidirectional relationship means that if an information system audit is implemented, an increase in implementation will encourage auditors to produce better performance. And this boost contributes a maximum of 32%.

4. The application of an information system audit has the strength of a weak and positive relationship to the application of information technology. This unidirectional relationship means that if an information system audit is increased, it is necessary to increase the application of technology. And this boost contributes a maximum of 21%.
5. Application of information technology has the strength of a moderate and positive relationship to auditor performance. This unidirectional relationship means that if the application of information technology is increased, the increase will result in better auditor performance. And this boost contributes a maximum of 22.6%.
6. Path analysis is a function to determine the direct or indirect influence of the mediating variable between Information System Audit and Auditor Performance shows that information technology as a mediating variable does not significantly influence auditor performance.

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