Journal of Ecohumanism
2025
Volume: 4, No: 2, pp. 1248 – 1261
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i2.6315

Strengthening Internal Quality Auditors' Effectiveness in Higher Education

Dwi Hariyanti[1], Jaelani La Masidonda[2], Jacomina Vonny Litamahuputty[3], Fertyno Situmeang[4], Septina Louisa Siahaya[5]

Abstract

This study investigates the factors in the work environment that mediate the effects of internal quality auditors' performance at private universities (PT) in the Maluku Region. This research uses a quantitative method and is the subject of research at private universities in the Maluku Region. Research implementation in 2021–2023. The research sample was an internal quality audit of 45 auditors with saturated sample criteria. The tool is inferential analysis using SEM with a PLS approach. The results showed that internal factors had the greatest total influence on the performance of internal auditors, amounting to 0.673, followed by work environment factors (0.384) and internal factors (0.168). Our findings highlight the importance of PT focusing on internal and external factors as well as a good work environment to encourage the performance of higher education institutions in Maluku. The study reveals that internal and external factors affect auditor performance at work. Work environment, independence, authority, technical competency, and work environment affect higher education internal audit performance. According to the attribution theory, work environment, independence, authority, and technical skill do not affect performance the most.

Keywords: *Internal Factors, External Factors, Work Environment, Performance of Internal Quality Auditors, Private University.*

Introduction

This article aims to broaden the understanding of how internal and external factors affect the performance of higher education internal auditors as mediated by the work environment. Understanding the factors that influence the internal control system has become the focus of research on companies and governments (Aziz et al., 2015; Khairunnisa et al., 2022; Shu et al., 2018). According to Abdo *et al.*, (2022) dan Kooli & Abadli (2022), emotional intelligence, personality, and human resources affect the performance of internal auditors. Similar research is also carried out, but the object is universities; the research explains that the performance of university internal auditors is influenced by independence, competence, and work environment (Mokono & Nasieku, 2018). In addition, according to Pitaloka & Sofia (2014), competence and work environment also influence the performance of internal quality auditors in universities.

According to some scholars, the competence factor does not significantly influence the internal auditors of private universities (Bello et al., 2018; Setyaningrum & Kuntadi, 2019; Suharto et al., 2020). Research by Hariyanti & Masidonda (2020) shows that the competency factor of internal auditors at higher education institutions cannot encourage auditor performance without supporting other factors, such as leadership commitment. On the other hand, the factors of independence, leadership committees, and infrastructure facilities affect the work of internal quality auditors at universities (Sari et al., 2017). In line with that, the performance of internal quality auditors in universities can encourage improving the ability of human resources, competencies, and support of university leaders (Sunnari et al., 2021). Some of these studies are conducted without grouping internal and external factors. The author will currently group performance factors into internal and external factors. In addition, the author also tested the work environment as a mediation variable.

[1] Department of Accounting, Politeknik Negeri Ambon, Indonesia, Email: dwi.hariyanti1976@gmail.com
[2] Department of Management, Universitas Darussalam Ambon, Indonesia, Email: jaelanilamasidonda123@gmail.com
[3] Department of Accounting, Politeknik Negeri Ambon, Indonesia, Email: vonnylita77@gmail.com
[4] Department of Accounting, Politeknik Negeri Ambon, Indonesia, Email: mis.situmeang@gmail.com
[5] Department of Accounting, Politeknik Negeri Ambon, Indonesia, Email: septinasiahaya@gmail.com

Journal of Ecohumanism
2025
Volume: 4, No: 2, pp. 1248 – 1261
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i2.6315

The basis for grouping internal and external factors refers to attribution theory. Followed by McGee & Sammut (2015), attribution theory explains that a person's actions are influenced by internal and external forces and his expectations of performing well. Likewise, the expectation is that the internal quality audit of universities will exert internal and external factors to increase their performance. In addition, the basis for conducting work environment testing refers to opinions from (Pitaloka & Sofia, 2014; Qaid et al., 2022; Robison et al., 2018), explained that a positive work environment and ethical governance are also included in an effective model that can encourage individuals to perform well. This opinion is expected to be implemented by the university's internal quality auditors, but it differs from reality.

Higher education's role in carrying out its role refers to various applicable regulations. One of them is Law 12/2012 on higher education, Article 53, which states that universities (PT) must conduct and develop an internal quality assurance system (SPMI) and an external quality assurance system (SPME). The quality of PT education will be audited by the PT internal auditor, also known as the Internal Quality Auditor (AMI), and external auditors carried out by the National Accreditation Board for Higher Education. This paper discusses the internal quality audit of PT because many phenomena occur in the practice of internal auditors of university quality. One of them is the lack of optimal internal quality auditors in PT, which will affect the results of external audits (Kooli & Abadli, 2022).

The research shows that the way the Maluku region does internal quality audits has not been the best or has not worked well. Implicit evidence indicates that 6 of the 27 universities in the Maluku region, or 22%, are accredited. The remaining 78% are not accredited (figure 1). The results of the institution's accreditation received a "Good/C" rating of 66.7%, while 33.3% received a "Very Good" accreditation rating (LLDIKTI Wilayah XII, 2022). The results of this accreditation show that the internal audit of PT has not run well. Here is a graphic representation of the number of colleges, their numbers, and their accreditation status:

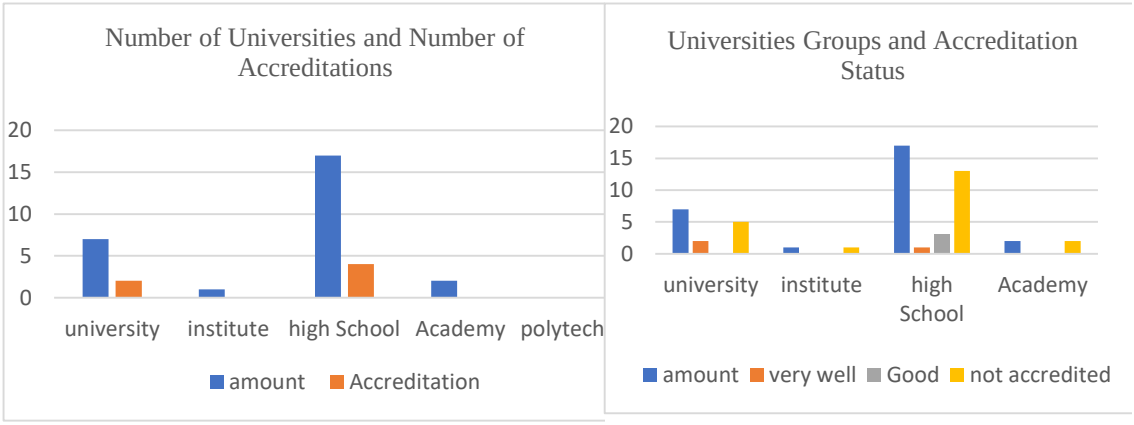

Figure 1. Number of Universities and Accreditation Status of Institutions

Source. Higher Education Service Agency Report by December 2022

Figure 1 shows that private universities in the Maluku region consist of 7 universities, 1 institute, 17 high schools, and 2 academics, so the total number of universities is 27. Institutional accreditation data shows that universities are 11%, universities are also 11%, and institutes and academics are not accredited. Thus, the number of higher education institutions that have not been accredited is 78%. The implicit data explains that the results of external quality audits from the National Accreditation Agency for Higher Education *(BAN PT)* reflect the performance of internal audits of higher education quality (Mokono & Nasieku, 2018). Other implicit evidence as a supporter of this research is the accreditation of study programs in LLDIKTI (Higher Education Service Institutions) Region XII as follows:

Journal of Ecohumanism
2025
Volume: 4, No: 2, pp. 1248 – 1261
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i2.6315

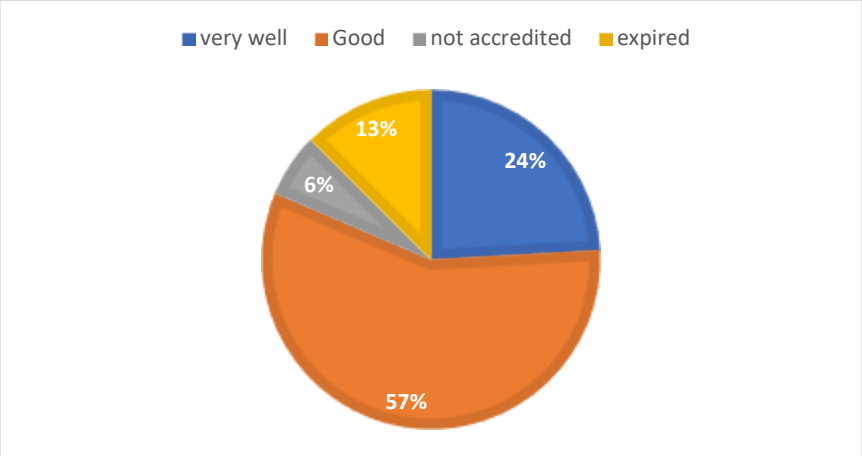

Figure 2. Study Program Accreditation and Status University by Higher Education Service Agency

Source. Higher Education Service Agency Report by December 2022

Figure 2 explains that the number of study programs in the Higher Education Service Agency is 133. Out of a total of 6% that have not been accredited, 12.5% are expired, while the status of the "good/C" grade is 57% and only gets a "very good" score of 25%, namely 33 study programs. Based on these data, it shows that study programs that must receive attention are those that have not been accredited and have an expiration of 18.5%. In addition, the C or "good" accreditation rating needs to be improved.

The above event shows that internal audit has not been working as well as it could have. This is evidenced by the results of accreditation, which are still very concerning (Figures 1 and 2). In line with that, according to Abdo *et al.,* (2022) and Robison *et al.,* (2018), if the performance of the internal audit is good, it will significantly impact external audit results (accreditation) and vice versa, and good internal audit must receive support from its auditors. According to Kooli & Abadli (2022) dan Mersha *et al.,* (2022), good internal auditor performance is a person who carries out his role efficiently and effectively and allows the achievement of a good system to improve the performance of certain PT's or institutions.

Based on the phenomenon mentioned above, researchers tried to see the performance of internal auditors in universities, especially in relation to factors that affect the performance of internal auditors in universities. The approach used to solve the problem is quantitative, using the PLS version of SEM as a data processing tool.

Theoretical Framework

Internal and External Factors Affect the Work Environment

In this paper, researchers group the factors that affect the performance of internal quality auditors into two groups, namely, internal and external factors. This research refers to McGee & Sammut (2015), which explains that attribution theory holds that a person's actions are strongly influenced by internal and external forces, both internal (forces from within a person) and external (forces emerging from outside), that will shape the work environment and be able to encourage one's performance. McGee & Sammut (2015) Argue that internal forces (personal attributes such as ability, effort, knowledge, and commitment) and external forces (environmental attributes such as rules) are determinants of a person's behavior. Thus, these two factors are the most important determinants of behaviour.

Internal and external attributions have been stated to affect individual performance evaluations (Hariyanti & Masidonda, 2020). According to Hoai & Nguyen (2022), a person will differ in determining how to treat and influence individual attitudes and satisfaction towards work. Researchers currently use attribution

Journal of Ecohumanism
2025
Volume: 4, No: 2, pp. 1248 – 1261
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i2.6315

theory because researchers will conduct empirical studies to determine the factors that influence the quality of audit results, especially the auditor's personal and external characteristics.

This attribution theory is in line with the results of research from Qaid *et al.,* (2022) and Rudhani *et al.,* (2017), who explained that internal factors, such as indicators of attitude, nature, ability, effort, and self-motivation, positively affect the work environment. While external factors with predictors of leadership commitment have a positive effect on the work environment (Baheri et al., 2017; Yulianti et al., 2022). According to (Hariyanti & Masidonda, 2020)External factors such as infrastructure indicators, leadership commitment, and regulations from leaders have a positive effect on the performance of internal auditors. In this study, we assumed that:

Hypothesis 1: Internal factors have a positive and significant effect on the work environment.

Hypothesis 2: External factors have a positive and significant effect on the work environment

Internal and External Factors on Internal Auditor Performance

Many previous researchers have researched internal auditors (Alqudah et al., 2019; Nanda, 2018; Putri et al., 2022). According to Yulianti *et al.,* (2022), in performance ethics, emotional intelligence is an indicator of internal factors mediated by scepticism that positively affects the quality of internal auditor performance. In line with that, internal factors such as independent indicators and competence have a positive effect on internal auditor performance (Abdo et al., 2022; Meah et al., 2021). In contrast to Andi Hardianti *et al.,* (2022), who explained that competence negatively affects internal auditor performance, while integrity and work experience mediated by intelligence positively affect internal auditor performance. On the other hand, Riwukore *et al.,* (2022) Explained that the performance of internal auditors will be higher if influenced by a good leadership style and a good work environment. According to Dzomira (2020) dan Hoai & Nguyen (2022), explaining that commitment and leadership quality are variables that have a positive and significant influence on the performance of internal auditors. To answer the questions raised in the research, the hypothesis in this study is to test the correlation of internal auditor performance with:

Hypothesis 3: Internal factors have a positive and significant effect on the performance of internal auditors.

Hypothesis 4: External factors have a positive and significant effect on the performance of internal auditors.

Internal and External Factors to Internal Auditor Performance with Work Environment as an Intervening Variable

This research refers to the attribution theory of McGee & Sammut (2015), explaining that a person's actions are strongly influenced by internal (forces from within a person) and external (forces emerging from outside) forces that will shape the work environment and can encourage one's performance. According to Dzomira (2020), if someone works in a good work environment, they will be able to encourage their performance. On the other hand, the work environment is the basis of the system; it sets the tone for the entire internal audit mechanism and encompasses ideology, ethical principles, and team spirit within the company. Management style has a significant impact (Abdo et al., 2022). Peltier-Rivest (2018) and Irianto et al. (2018) also found that a positive work environment and ethical governance are also included in an effective model that can encourage individuals to perform well. Thus, a good work environment always creates a positive impact on employee performance (Aristana et al., 2022). In this study, we assumed that:

Hypothesis 5: Internal and external factors have a positive and significant effect on the performance of internal auditors mediated by the work environment

Method

We have already developed a conceptual model with the help of some hypotheses. This study used

Journal of Ecohumanism
2025
Volume: 4, No: 2, pp. 1248 – 1261
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i2.6315

quantitative analysis using the partial least squares (PLS)–structural equation modelling (SEM) technique to validate the conceptual model. PLS is an SEM equation model with an approach based on variance or component-based structural equation modelling. PLS is a powerful analysis method because it does not assume current data with certain scale measurements, small sample numbers (Hoai & Nguyen, 2022).

This study examines the influence of dependent variables (internal auditor performance) on independent (internal, external, and environmental factors). Internal factors include the auditor's commitment to carrying out his role, knowledge, experience, and independence (Hariyanti & Masidonda, 2020). External factors include management responsibility, infrastructure, regulation, and finance. Work environment factors as mediator indicators are organizational culture, a code of ethics, performance rewards, and HR policies. While the performance of internal auditors is the number of recommendations by the plan, identified risks, and timeliness in preparing reports, the best recommendations to be received by the organization (Abdo et al., 2022).

The research was carried out at private universities in the Maluku region. The number of universities in the Maluku region is 27 private universities (table 1). The research sample consisted of 45 auditors from all private universities. Sample determination, using samples saturated with criteria: a) already have internal quality auditor (AMI) certification; b) have at least conducted an audit for 2 years. The research was conducted in February–December 2022. This research was carried out at private universities in the Maluku region due to the low number of universities accredited by the institution. Therefore, researchers want to find the causes of what factors affect the performance of internal auditors are not optimal. The stages of the research process are as follows:

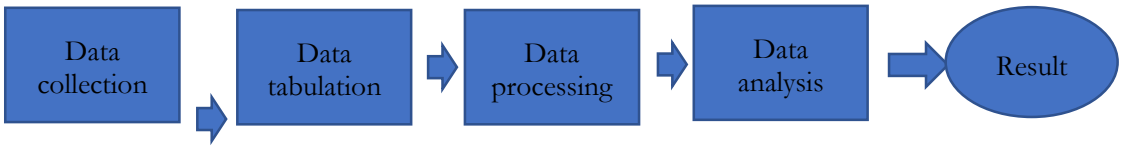

Figure 3. Process Analysis

Table 1. List of Questionnaire Samples

No	Position	Quantity
1	Chief Auditor	27
2	Auditor Member	18

Figure 3 explains that in the first stage, researchers collected data by distributing questionnaires directly to respondents. Questionnaires prepared using the Likert scale are questions that indicate the level of respondents' agreement or disagreement (Akiharu Kitagawa, 2022). According to him, the Linkert scale measures the attitudes, opinions, and perceptions of a person or group of people about social phenomena. In the second stage, researchers tabulate data from the data collection results. Furthermore, researchers processed data using SEM (Structural Equation Modeling), facilitated by the Partial Least Square (PLS) program. In the last stage the researcher analyses the data from the PLS results and immediately conducts a discussion.

Results

Measurement Models (Outer Model)

This study conducted PLS-model measurements. PLS has two models, namely the measurement model (outer model) and structural model (inner model), and is processed based on item scores (Hoai & Nguyen, 2022). Testing measurement models in this research aim to evaluate items that reflect their constructs.

Journal of Ecohumanism
2025
Volume: 4, No: 2, pp. 1248 – 1261
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i2.6315

Empirical analysis aims to validate models and construct reliability that reflect parameters in latent variables or constructs built on empirical theories and studies (Mersha et al., 2022). The following are the results of the outer model study in this study:

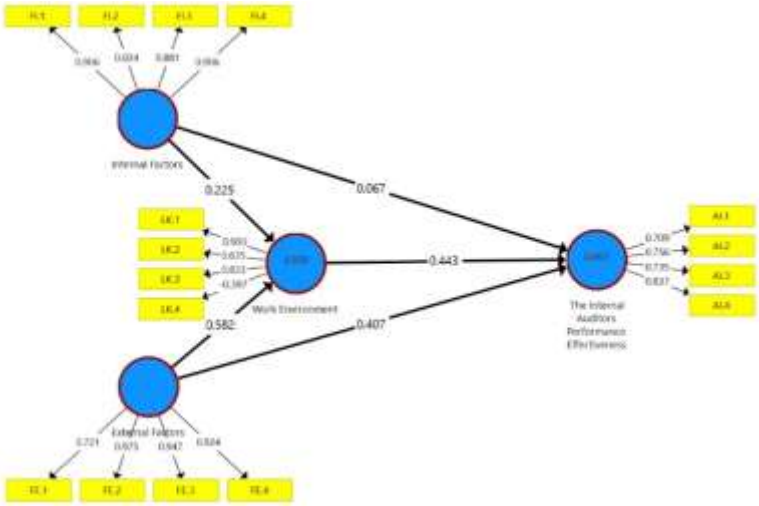

Figure 4. Outer Model

Figure 4 shows that each item's convergent validity results are used to figure out how well the measurement model works. Convergent validity testing in PLS can be seen from the outer loading of each item against its latent variable if 0.5 or more is considered high enough (Akiharu Kitagawa, 2022). The analysis results on the outer model show that two items have a loading factor of less than 0.50, namely FI.2 (0.024) and LK.4 (-0.397). These items are knowledge (FI. 2) and HR development policy (LK.4). The results of this test show that knowledge does not reflect the performance of internal quality auditors. Work environment factors also cannot be described by HR career development policies. This finding is in line with Fauziah et al., (2022) and Kooli & Abadli (2022) This explains the performance of internal quality auditors as described by human resources and auditor knowledge.

The results of the analysis need to be assessed for validity. Researchers use assessments based on discriminant validity. Followed by Z. W. and W. N. Jie Feng (2018) Who explained the Peruvian measurement model for assessing validity with the discriminant validity method? This assessment uses cross-loading values (Mersha et al., 2022). If the cross-loading value of each item of the relevant variable is greater than the cross-loading value of another variable, then the item is said to be valid (Hoai & Nguyen, 2022).

Table 2. Result of Discriminant Validity

	Internal factors	External factors	Working environment	Internal auditors' performance
Internal factors	0.906			
External factors	0.401	0.898		
Working environment	0.485	0.672	0.817	
Internal auditors' performance	0.438	0.740	0.723	0.761

** The coefficient on the diagonal part is the root of AVE; The coefficient outside the diagonal is the correlation coefficient between constructs; AVE = Average Variance Extracted*

Based on Table 2, researchers measured the model with discriminant validity criteria if the AVE root of a construct was greater than the correlation coefficient with other constructs (Hoai & Nguyen, 2022). The analysis results in Table 1 show that the value of the discriminant validity internal variable factor of 0.906

Journal of Ecohumanism
2025
Volume: 4, No: 2, pp. 1248 – 1261
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i2.6315

is higher than the correlation value between external, environmental, and performance variables. Likewise, the discriminant validity value of 0.898 for external factor variables exceeds environmental variations, and internal quality auditor performance varies. On the other hand, for the environmental variable, the discriminant validity value of 0.87 is greater than the internal auditor's performance of 0.723. Thus, it can be concluded that the outer model of this research has fulfilled the validity of discrimination.

Fit Model

Model fit can be measured by three model fit indices: SRMR, model determination (Rm^2), and goodness of fit coefficient (GoF) (Z. W. and W. N. Jie Feng, 2018). In the SEM model with the Partial Least Square (PLS) approach, the model match level will be the standardised root mean square residual (SRMR) value (Hu & Bentler, 1999). SEM-PLS adopts SRMR to determine the difference between sample covariance and covariance produced by SEM-PLS (Z. W. and W. N. Jie Feng, 2018). SRMR represents the average value of all residual standardised residuals and ranges from 0 to 1. A model with a good fit will have an SRMR value smaller than 0.08 and a poor fit status if it is more than 0.10.

Table 3. Model Fit Test Results with SRMR and NFI

Index	Statistic	Good Fit Limits	Poor Fit Limits
SRMR	0,092	< 0,08	> 0,10
NFI	0,715	> 0,50	< 0,50

Table 3 shows that the model proposed in this study has an SRMR value of 0.092, which means less than 0.10. The results of this SRMR test indicate that the model has a very good fit status. That is, the model built by the researcher is very good, according to the theory. Meanwhile, the NFI value of 0.715, which exceeds 0.50, also explains that the model match rate is good. The fit of the inner structural model can also be measured using the GoF (goodness of fit) value, which is used to measure how well the model is produced (Hoai & Nguyen, 2022). According to him, the GoF magnitude has a value range of 0–1; the closer to 1, the value, the better the model. A GoF value of more than 0.33 indicates a good model fit.

Table 4. Index Goodness of Fit (GoF)

Variable	Communality	R^2
Internal factors	0.822	
External factors	0.806	
Working environment	0.668	0.507
Internal auditors' performance	0.579	0.644
Total	2.875	1.151
Average	0.719	0.576
Index (GoF)	0.643	

** The communality value is taken from the AVE value*

Table 4 shows that the Index value (GoF) of 0.643 means 0.33 more and tends to be close to 1, which means that the model built by the researcher is compatible with the theory. When viewed partially, internal factor variables have a value of 0.822, external factors have a value of 0.806, the environment has a value of 0.668, and the auditor's work is 0.579, so these results also exceed the minimum limit of 0.33. That is, partial testing also proved the compatibility of the research model with theory. Thus, all variables' index (GoF) results are eligible to test for model fit. The model proposed by the researcher, namely internal external factors, has a positive and significant effect on the performance of internal quality auditors both directly and through the work environment, which is very compatible with the theory of attribution (Schmitt, 2015). The suitability of other models can be judged from several calculations, such as the model's coefficient of determination (Rm^2). The model's coefficient of determination is calculated using all the coefficients of determination (R^2). The R^2 value for the work environment variable is 0.507. The value

Journal of Ecohumanism
2025
Volume: 4, No: 2, pp. 1248 – 1261
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i2.6315

shows that internal and external factors explain the variation in the work environment by 50.7%, while other variables explain the rest. The R^2 for the internal auditor performance effectiveness variable is 0.644. The value shows that the variation in the effectiveness of internal auditor performance explained by internal factors, external factors, and work environment is 64.4%, while other variables explain the rest. Hair et.al (2014) state that, in general the coefficient of determination is high if it is 0.20 or more, while in the results of this model, the average coefficient of determination is 0.576 (more than 0.20).

Inner Model Structure

Inner model testing aims to determine the path coefficient and inner model of T-statistics, which show the significance level of changes in independent variables to dependent variables (Z. W. Jie Feng, 2018). Hypothesis testing is based on the results of the analysis of the PLS-SEM model, which contains all supporting variables for the hypothesis test. The hypothesis model is calculated using SmartPLS version 3.2.7 to determine the significance of the path coefficient in the model or the significance of the hypothesis's support (Memon et al., 2021). According to him, the path coefficient is significant if p is less than 0.05.

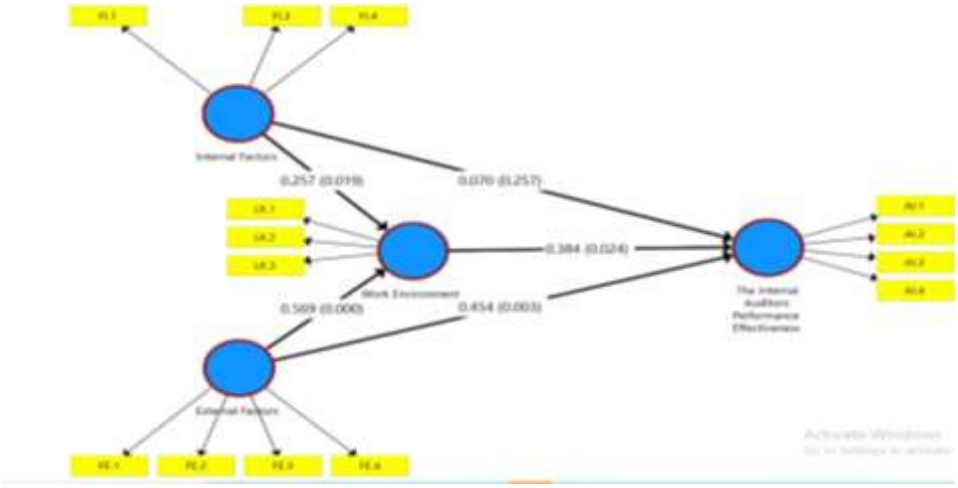

Figure 5. Hypothesis Model

Figure 5 explains that Koefeisen's internal factor pathway to internal auditor performance is 0.257. This indicates that the path coefficient is greater than its significance level of 0.05, thus giving an insignificant decision. That is, the performance of the internal quality auditor of higher education does not directly and significantly influence the performance of the internal quality auditor of higher education. According to Hariyanti & Masidonda (2020), which explains that no matter how good internal auditors own the internal factors, they will not be able to significantly affect the performance of internal quality auditors if external factors and a good work environment do not support them.

The path coefficient for external factors' direct effect on internal quality auditors' performance is 0.003. This shows that external factors have a positive and significant impact on the performance of internal auditors. In line with Riwukore et al. (2022), explain that the performance of internal auditors will be higher if influenced by a good leadership style and a good work environment. According to Dzomira (2020) and Hoai & Nguyen (2022), explain that commitment and leadership quality are variables that have a positive and significant influence on the performance of internal auditors.

Journal of Ecohumanism
2025
Volume: 4, No: 2, pp. 1248 – 1261
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i2.6315

Table 5. Path Coefficient Test Results on The Inner Model

	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Endogen Work environment, R 2 = 50.7%				
Internal factors → Work environment	0.257	0.124	2079	0.019
External factors → Work environment	0.569	0.129	4,407	0.000
Endogenous internal auditors' performance, R 2 = 64.4%				
Internal factors → internal auditors' performance	0.070	0.105	0.666	0.257
External factors → of internal auditors' performance	0.454	0.161	2,827	0.003
Work environment → internal auditors' performance	0.384	0.185	2072	0.024

**ns = p > 0.05; * = p < 0.05*

Based on Table 5, it can be explained that internal factors of the work environment have a coefficient with a positive direction. This result shows that the path coefficient of 0.257 with a t-statistic of 2.0791 (p = 0.038) indicates that internal factors significantly affect the work environment. Good internal auditor factors will be able to affect a good work environment. External factors in the work environment have a coefficient with a positive direction. The results of this calculation show that the path coefficient of 0.569 with a t-statistic of 4.407 (p = 0.006) indicates that external factors significantly affect the work environment. Good external factors will be able to form a good environment.

Internal factors on the performance of internal auditors have a coefficient with a positive direction. The calculation results show that the path coefficient of 0.070 with t-statistics of 0.666 (p = 0.506) gives the decision that internal factors have an insignificant effect on the performance of internal auditors. That is, if the auditor has good internal factors, it is able to encourage better internal auditor performance. External factors to the performance of internal auditors have a coefficient with a positive direction. This shows that the path coefficient of 0.454 with a t-statistic of 2.827 (p = 0.005) gives the decision that external factors have a significant effect on the performance of internal auditors. That is, if the aditor is supported by good external factors, it will be able to improve its performance.

The effect of the work environment on the performance of internal auditors has a coefficient with a positive direction. The calculation results show that the path coefficient of 0.384 with a t-statistic of 2.072 (p = 0.039) gives a decision that the work environment has a significant effect on the performance of internal auditors. That is, internal auditors if working in a good performance environment are able to improve their performance. The work environment on the performance of internal auditors has a coefficient with a positive direction. The calculation results show that the path coefficient of 0.384 with a t-statistic of 2.072 (p = 0.039) gives a decision that the work environment has a significant effect on the performance of internal auditors. That is, internal auditors if working in a good performance environment are able to improve their performance.

Table 6. Results of Indirect Influence

	Indirect influence coefficient	Standard Error	Statistic t	P

Journal of Ecohumanism
2025
Volume: 4, No: 2, pp. 1248 – 1261
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i2.6315

Internal factors → work environment → internal auditors' performance	0.099	0.081	1.222	0.222
External factors → work environment → internal auditors' performance	0.218	0.108	2.018	0.044

**ns = p > 0,05; * = p < 0,05*

Table 6 shows that indirect influence on the performance of internal auditors is the amount of influence obtained from the results of all paths passed. The indirect influence of internal factors on the performance of internal auditors through the work environment of 0.099 (p = 0.222) obtained from the results of 0.257 x 0.384 was tested as insignificant. This high indirect influence contribution is interpreted that high internal auditor performance is an effect of the work environment but not caused by internal factors. According to Hariyanti & Masidonda (2020), auditors must have competence, independence, and commitment to carry out their roles well, but this factor is meaningless if they do not get support from work environment factors and support from the leadership.

The indirect influence of external factors on the effectiveness of internal auditor performance through the work environment was 0.218 (p = 0.044) as obtained from the results of 0.569 x 0.384 tested significantly. This high indirect influence contribution is interpreted as evidence that high internal auditor performance is an effect of the work environment caused by good external factors. This is in line with attribution theory McGee & Sammut (2015), which explains that a person's behavior or performance is strongly influenced by internal and external factors and will then form a good environment.

The results of the indirect influence test show how important the work environment is in explaining the relationship between external factors and how well internal auditors do their jobs. The effectiveness of internal auditor performance is high due to a strong work environment built by the presence of good external factors.

Table 7. Results of Direct, Indirect and Total Influence

Variable relationship	Direct Influence	Indirect Influence	Total Impact	P
Internal factors → Work environment	0.257	-	0.257	0.019
External factors → Work environment	0.569	-	0.569	0.000
Internal factors → internal auditors' performance	0.070	0.099	0.168	0.257
External factors → internal auditors' performance	0.454	0.218	0.673	0.003
Work environment → internal auditors' performance	0.384	-	0.384	0.024

**ns = p > 0.05; * = p < 0.05*

Table 7 explains that the relationship to the performance of internal auditors is calculated from the total amount of influence, which is the result of the sum of direct and indirect influences. There are three paths to the effectiveness of internal auditor performance, and the total amount for each is: (1) internal factors to internal auditor performance of 0.168 obtained from the sum of direct influence of 0.07 and indirect influence of 0.099. This means that the internal auditor factor of the university's internal quality has an influence of 16.8% on the auditor's performance; (2) the external factors on the performance of internal auditors is 0.673, obtained from the sum of direct influences of 2.18 and indirect influences of 0.454. This means that external auditor factors are able to influence the performance of internal quality auditors by 67.3%. (3) Work environment on internal auditor performance of 0.384 comes from the direct influence of work environment relationship on internal auditor performance.

Journal of Ecohumanism
2025
Volume: 4, No: 2, pp. 1248 – 1261
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i2.6315

Of the three pathways, it turns out that the one with the largest total influence is external factors on the performance of internal auditors, which is 0.673, which is broken down in the form of direct influence of 0.454 and indirect influence of 0.218. Next, followed by work environment factors and finally internal factors. This finding is the development of attribution theory, in attribution theory, it is not implied that which factor exerts the greatest influence on a person in acting to shape his or her performance.

In this study, there are five hypotheses. Based on the exposure of the results of the inner coefficient test model, all hypotheses are supported. The H1 and H2 hypotheses state that internal and external factors directly positively affect the work environment. This hypothesis will relate to the test results of two measuring distance coefficients in the work environment. The calculation results, path coefficients from internal factors (b = 0.257; p = 0.038) and external factors (b = 0.569; p = 0.006), give a decision that there is a significant influence, so the results of this test explain that H1 and H2 are supported.

The H3 and H4 hypotheses state that internal factors, external factors, and the work environment directly positively affect the performance of internal auditors. This hypothesis will relate to the results of the test of three path coefficients on the performance of internal auditors. The calculation of the path coefficient from internal factors (b = 0.070; p = 0.506), external factors (b = 0.454; p = 0.005), and work environment (b = 0.384; p = 0.039) gives a decision that there is a significant influence, so the results of this test explain that H3 and H4 are supported. The H5 hypothesis states that internal and external factors have an indirect effect on the performance of internal auditors through the work environment. This hypothesis will relate to the test results of the indirect influence of internal and external factors on the effectiveness of internal auditor performance through the work environment. The calculation results show that the coefficients of indirect influence of internal factors (b = 0.099; p = 0.220), and external factors (b = 0.218; p = 0.044) determine that there is a significant indirect influence on the effectiveness of internal auditor performance, so the results of this test explain that H5 is supported.

Discussion

Based on the results of the analysis, internal and external factors directly and positively affect the work environment, as shown in Table 1. This shows that internal auditors optimise internal factors through commitment, experience, and independence, which can build a good work environment. This is under attribution theory, which explains that a person's actions are strongly influenced by internal and external forces that will shape the work environment and can encourage one's performance (McGee & Sammut, 2015; Schmitt, 2015). In addition, according to the results of the research (Qaid et al., 2022; Yulianti et al., 2022), internal factors such as experience, independence, and competence are able to build a good work environment. Meanwhile, external factors such as leadership commitment, work culture, infrastructure, and financial support can encourage a good work environment. This supports the theory of Atibusi as described above. Correspondingly, according to Dzomira (2020) and Hoai & Nguyen (2022), explained that leadership commitment is able to form a good and conducive work environment. Xue & O'Sullivan (2023), explain that external factors through finance, namely audit costs, also affect the work environment. The more considered audit costs based on audit risk will be able to build a good work environment.

Futhermore, that internal and external factors directly have a positive influence on internal audit performance (table 1). This shows that internal and external factors that are well optimized by internal auditors through commitment, experience, independence, work culture, leadership commitment, infrastructure, and financial support can encourage better performance. In line with Attribution Theory, which explains that a person will perform accordingly influenced by internal and external factors in realizing his performance (McGee & Sammut, 2015; Schmitt, 2015). According to Mokono & Nasieku (2018) and Pitaloka & Sofia (2014), explained that work environment factors, independence, and competence have a positive effect on the performance of internal auditors. Also in line with Abdo *et al.,* (2022) and Meah *et al.*, (2021) who explained that performance ethics, intelligence, independence, and competence affect internal audit performance.

Journal of Ecohumanism
2025
Volume: 4, No: 2, pp. 1248 – 1261
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i2.6315

Lastly, based on the results of the analysis, that internal and external factors positively affect the performance of internal audit mediated in the work environment (table 3). This shows that internal auditors take advantage of internal factors and get support from external factors so as to build a good work environment and improve their performance. In line with Mokono & Nasieku (2018), Qaid *et al.,* (2022), and Salehi (2016), internal audit will have good performance in a good work environment. According to Pitaloka & Sofia (2014), that a good work environment can make employees feel comfortable and safe with their work and make it easier for them to complete it. A conducive work environment supports employees to believe in the values of the organization, believe that they can achieve the goals of the organization, and believe that they have made the right decision to join the organization. Internal auditors have roles with high demands, such as time to complete work targets, accuracy of audit results, etc. A conducive work environment makes internal auditors committed to their performance. Internal auditors adhere to principles and values by not neglecting the code of ethics and professionalism, responsibility, and loyalty to the organization. The results of this study prove that the work environment mediates internal and external factors on auditor performance. In line with Mokono & Nasieku (2018), that factors affecting internal audit performance in Kenyan universities are work environment, independence, and authority, as well as technical competence.

Conclusion

The study's results show that both internal and external factors have a direct and positive effect on the work environment. This shows that internal auditors will use internal and external capabilities optimally if supported by a good environment. Internal and external factors also positively affect the performance of internal auditors as a whole. This explains that internal auditors will use the capabilities of internal and external factors optimally to improve the effectiveness of their performance. Internal factors and external factors indirectly affect the effectiveness of internal auditor performance as mediated by the work environment. This explains that auditors will use internal and external capabilities optimally in a good environment to realize the effectiveness of their performance. From the path testing, it turns out that the one that has the greatest total influence is external factors on the performance of internal auditors, which is 0.673. Furthermore, these are followed by work environment factors and finally internal factors. This finding is the development of attribution theory, in attribution theory, it is not implied that which factor exerts the greatest influence on a person in acting to shape his or her performance.

Acknowledgements

The authors are very thankful to all the participants of their survey, for giving their valuable time and effort to fill up the questionnaire form. The authors would also like to thank them for providing noteworthy feedback.

References

Abdo, M., Feghali, K., & Zgheib, M. A. (2022). The role of emotional intelligence and personality on the overall internal control effectiveness: applied on internal audit team member's behavior in Lebanese companies. Asian Journal of Accounting Research, 7(2), 195–207. https://doi.org/10.1108/AJAR-04-2021-0048

Akiharu Kitagawa. (2022). Diffuse Reflection Infrared Fourier Transform Spectroscopy and Partial Least Squares Regression Analysis for Temperature Prediction of Irreversible Thermochromic Paints. Applied Spectroscopy, 76(5). https://doi.org/https://doi.org/10.1177/00037028211065

Alqudah, H. M., Amran, N. A., & Hassan, H. (2019). Factors affecting the internal auditors' effectiveness in the Jordanian public sector. EuroMed Journal of Business, 14(3), 251–273. https://doi.org/10.1108/EMJB-03-2019-0049

Andi Hardianti, Alimuddin, & Syamsuddin. (2022). The Effect Of Work Experience, Integrity, And Competence Of Auditors On Audit Quality With Emotional Intelligence As A Moderating Variable (Case Study on BPKP South Sulawesi Province). International Journal of Social Science, 1(5), 799–808. https://doi.org/10.53625/ijss.v1i5.1325

Aristana, I. N., Arsawan, I. W. E., & Rustiarini, N. W. (2022). Employee loyalty during slowdown of Covid-19: Do satisfaction and trust matter? International Journal of Tourism Cities, 8(1), 223–243. https://doi.org/10.1108/IJTC-03-2021-0036

Aziz, M. A. A., Rahman, H. A., Alam, M. M., & Said, J. (2015). Enhancement of the Accountability of Public Sectors through Integrity System, Internal Control System and Leadership Practices: A Review Study. Procedia Economics and Finance, 28, 163–169. https://doi.org/10.1016/S2212-5671(15)01096-5

Baheri, J., Rosidi, & Nurkholis. (2017). Competencies and independence of auditors on the effectiveness of internal audit in public universities of Indonesia. In Journal of Engineering and Applied Sciences (Vol. 12, Issue 6, pp. 1662–1666).

Bello, S. M., Ahmad, A. C., & Yusof, N. Z. M. (2018). Internal audit quality dimensions and organizational performance in Nigerian federal universities: the role of top management support. Journal of Business & Retail Management Research, 13(01), 156–170. https://doi.org/10.24052/JBRMR/V13IS01/ART-16

Dellai, H. (2015). Factors Affecting the Internal Audit Effectiveness. Factors Affecting the Internal Audit Effectiveness, 12(2), 89–109.

Dzomira, S. (2020). Corporate Governance and Performance of Audit Committee and Internal Audit Functions in an Emerging Economy's Public Sector. Indian Journal of Corporate Governance, 13(1), 85–98. https://doi.org/10.1177/0974686220923789

Fauziah, F., Rahmasita, A. N., Sabtohadi, J., Muhammadiyah, U., Timur, K., Balitbangda, P., & Kutai, K. (2022). Influence Of Communication , Discipline , Compensation And Work Environment On Employee Work Productivity At Pt . Steel Facilities. Journal of Scientia: Science Analytical Institute, 11(2), 516–521.

Hariyanti, D., & Masidonda, J. La. (2020). The Determine of the Internal Audit Performance in Private and State Universities in Maluku. 298(iCAST 2018), 190–194. https://doi.org/10.2991/assehr.k.200813.042

Hoai, T. T., & Nguyen, N. P. (2022). Internal Control Systems and Performance of Emerging Market Firms: The Moderating Roles of Leadership Consistency and Quality. SAGE Open, 12(3). https://doi.org/10.1177/21582440221123509

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Structural Equation Modeling, 6(1), 1–55. https://doi.org/10.1080/10705519909540118

Jie Feng, Z. W. (2018). A Nonlinearized Multivariate Dominant Factor–Based Partial Least Squares (PLS) Model for Coal Analysis by Using Laser-Induced Breakdown Spectroscopy. Applied Spectroscopy, 67(3). https://doi.org/https://doi.org/10.1366/11-06

Jie Feng, Z. W. and W. N. (2018). A Nonlinearized Multivariate Dominant Factor–Based Partial Least Squares (PLS) Model for Coal Analysis by Using Laser-Induced Breakdown Spectroscopy. Applied Spectroscopy, 67(3).

Khairunnisa, T., Nurmandi, A., Muallidin, I., & Kurniawan, D. (2022). Analysis on Open Government in Southeast Asia During Pandemic. In HCI International 2022 Posters. HCII 2022. Communications in Computer and Information Science (pp. 389–400). Springer Cham. https://doi.org/10.1007/978-3-031-06391-6_50

Kooli, C., & Abadli, R. (2022). Could Education Quality Audit Enhance Human Resources Management Processes of the Higher Education Institutions? Vision, 26(4), 482–490. https://doi.org/10.1177/09722629211005599

LLDIKTI Wilayah XII. (2022). LAKIP 2022: Akuntabilitas Kinerja Instansi Pemerintah Tahun 2022. In Kementrian Pendidikan, Kebudayaan, Risset, dan Teknologi. https://kopertis12.or.id/lakip2022

McGee, J., & Sammut, T. (2015). Wiley Encyclopedia of Management: Strategic Management Volume 12. Wiley, 12(January 2015), 1–5.

Meah, M. R., Sen, K. K., & Ali, M. H. (2021). Audit Characteristics, Gender Diversity and Firm Performance: Evidence from a Developing Economy. Indian Journal of Corporate Governance, 14(1), 48–70. https://doi.org/10.1177/09746862211007244

Memon, M. A., T., R., Cheah, J.-H., Ting, H., Chuah, F., & Cham, T. H. (2021). Pls-Sem Statistical Programs: a Review. Journal of Applied Structural Equation Modeling, 5(1), i–xiv. https://doi.org/10.47263/jasem.5(1)06

Mersha, S. Z., Belaye, A. B., & Gobena, L. B. (2022). Determinants of Tax Audit Quality with Audit Process as the Mediator in Ethiopia: The Case of The Ministry of Revenues. Management and Accounting Review, 21(1), 181–202. https://doi.org/10.24191/mar.v21i01-08

Mokono, R. M., & Nasieku, T. (2018). Factors Affecting Internal Auditor's Performance in Public Universities in Kenya. Global Journal of Economics and Business Administration, November. https://doi.org/10.28933/gjeba-2018-09-1201

Nanda, S. T. (2018). Professional Attributes Of Internal Auditors In Riau. Jurnal Benefita, 3(2), 161. https://doi.org/10.22216/jbe.v3i2.2891

Pitaloka, E., & Sofia, I. P. (2014). The Affect of Work Environment, Job Satisfaction, Organization Commitment on OCB. International Journal of Business, Economic and Law, 5(2), 10–18.

Putri, N. P. A. W., Putra, I. N. W. A., Wirakusuma, M. G., & Suputra, I. D. G. D. (2022). effect of independence, professionalism, and experience of internal auditors on fraud prevention with organizational culture as moderating variable. Linguistics and Culture Review, 6, 565–580. https://doi.org/10.21744/lingcure.v6nS1.2108

Qaid, M. M., Wadgule, M., & Khaled, M. S. D. (2022). Determinants of Audit Quality Ingovernmental Institutions. 3(1), 1–16.

Riwukore, J. R., Habaora, F., & Marnisah, L. (2022). Etika Kerja, Profesionalisme, dan Gaya Kepemimpinan: Hubungannya Terhadap Kinerja Auditor Intern di Badan Inspektorat Kota Kupang. EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi Dan Bisnis, 10(2), 783–798. https://doi.org/10.37676/ekombis.v10i2.2479

Robison, J., Stevenson, R. T., Druckman, J. N., Jackman, S., Katz, J. N., & Vavreck, L. (2018). An Audit of Political Behavior Research. SAGE Open, 8(3). https://doi.org/10.1177/2158244018794769

Rudhani, L. H., Hashani, S., & Vokshi, N. B. (2017). Factors Contributing to the Effectiveness of Internal Audit: Case Study of Internal Audit in the Public Sector in Kosovo Leonora Haliti Rudhani. Journal of Accounting, Finance And Auditing Studies, 3(4), 91–108.

Salehi, T. (2016). Investigation Factors Affecting the Effectiveness of Internal Auditors in the Company: Case Study Iran. Review of European Studies, 8(2), 224. https://doi.org/10.5539/res.v8n2p224

Sari, N., Ghozali, I., & Achmad, T. (2017). The effect of internal audit and internal control system on public accountability: The emperical study in Indonesia state universities. International Journal of Civil Engineering and Technology, 8(9), 157–166.

Schmitt, J. (2015). No Title. Wiley Encyclopedia Of Management, 9(2), 1–5.

Volume: 4, No: 2, pp. 1248 – 1261
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i2.6315
Setyaningrum, D., & Kuntadi, C. (2019). Pengaruh Kompetensi, Independensi, Pekerjaan Audit dan Komunikasi terhadap Efektivitas Audit Internal. Journal of Economics, Business & Accountancy Ventura, 22(1). https://doi.org/10.14414/jebav.v22i1.879

Shu, W., Chen, Y., Lin, B., & Chen, Y. (2018). Does corporate integrity improve the quality of internal control? China Journal of Accounting Research, 11(4), 407–427. https://doi.org/10.1016/j.cjar.2018.09.002

Suharto, A., Wildan, M., & Handayani, T. E. (2020). Development of Stunting Prevention Behavior Model Based on Health Promotion Model and Social Capital in The Magetan District. Health Notions, 4(2), 48–56. https://doi.org/10.33846/hn40204

Sunnari, N. A. A., Rasyid, S., & Nirwana. (2021). The Effect of Competence, Objectivity, Independence on the Effectiveness of Internal Audit with Management Support as Moderating Variable. International Journal of Innovative Science and Research Technology, 6(3), 993–1000.

Xue, B., & O'Sullivan, N. (2023). The determinants of audit fees in the alternative investment market (Aim) in the UK: Evidence on the impact of risk, corporate governance and auditor size. Journal of International Accounting, Auditing and Taxation, 50, 100523. https://doi.org/10.1016/j.intaccaudtax.2023.100523

Yulianti, Y., Zarkasyi, M. W., Suharman, H., & Soemantri, R. (2022). Determinants of Internal Auditor Performance in Islamic- Based Organizations : Empirical Evidence from Indonesia. Journal of Asian Finance, Economics and Business Vol, 9(5), 561–573. https://doi.org/10.13106/jafeb.2022.vol9.no5.0561