

The Role of Management Support in the Relationship Between Objectivities, Organizational Setting and Auditee Attributes in Higher Education in Sumatra, Indonesia

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Abstract: The purpose of this study was to analyze the effect of objectivity, organizational arrangements, and auditee attributes on internal audit effectiveness with management support as a moderating variable in the Internal Supervisory Unit at State Universities in Sumatra. The sample of this study was 205 respondents as the Internal Supervisory Unit (Satuan Pengawas Internal/SPI) personnel at State Universities in the Sumatra Region. Data was collected through a questionnaire and obtained as many as 137 respondents. Data analysis in this study is to use a PLS-based Structural Equation Modelling (SEM) approach using Smartpls. The tests carried out are convergent validity test, validity and reliability test, discriminant validity test, R-Square test. To test the hypothesis, the data from the research questionnaire were analyzed using bootstrapping calculations. The results showed that objectivity, organization setting, and auditee attributes have a positive effect on internal audit effectiveness. Management support cannot moderate objectivity on internal audit effectiveness, however it can moderate organizational settings and auditee attributes on internal audit effectiveness. The implication of this research is that it can provide practical benefits for the Internal Supervisory Unit at State Universities in highlighting areas that need attention in improving internal audit effectiveness. Another implication is that it supports institutional theory and attribution theory used in the study of internal audit effectiveness.

Keywords: Objectivity, Organization Setting, Auditee Attributes, Management Support, Internal Audit Effectiveness

1. Introduction

The current role of internal audit has grown from a position as an independent and objective consulting and insurance activity in improving internal control, risk management, and organizational governance processes. The Internal Control System in Indonesia has been contained in the Government Regulation of the Republic of Indonesia No. 60 of 2008 [20] concerning the Government Internal Control System, which describes the control system, internal supervision and so on. The Internal Control System in Higher Education remains in the focus of examination. In higher education, in the Supreme Audit Agency (BPK) audit report [2], there were findings regarding the use of cash at the State Islamic University of North Sumatra (UINSU) for loans to third parties as of

December 31, 2019 that had not been returned, and In BPK audit report [3] there were findings regarding the accountability and distribution of PPA scholarships as well as accountability for resettlement and matriculation costs for ADik FY 2019 in the Higher Education environment that were not carried out on time and accountability for expenditures for activities that were only processed at the time of the audit by BPK, this made an important spotlight on the control system in the Higher Education environment.

The Internal Supervisory Unit or abbreviates as (Satuan Pengawas Internal / SPI) is a supervisory unit formed to assist work unit leaders the supervise the implementation of word unit duties and functions at State Universities. SPI in in each Tertiary Education Institution has a vision and mission as well as a work program that is made annually in carrying out audit,

review, monitoring, and supervision functions. The role of SPI in helping implement good organizational governance in Higher Education can be seen from the effectiveness of the internal audit that has been carried out. Moeller [17] states the effectiveness of internal auditors is that they can act as the foremost eyes and ears for the audit committee and senior management, and are required to do more than just monitor compliance with published documented procedures.

SPI in conducting internal audits must uphold objectivity. Internal auditors must be objective means having to show the greatest professional attitude while doing their job. Internal control carried out by SPI must be carried out without any element of interest from certain parties, impartial, and without intervention from any party. In the research conducted by Endaya, AK and Hanefah, Gamayuni., Prihartono et al., Wijayanti et al., Sunnari and Nirvana., Dyhati, AS et al., Lonto, Miryam P., Grima, Steven et al., the results show that objectivity has a positive effect on internal audit effectiveness [6-8, 10, 13, 22, 26, 30].

Another factor is organization setting, which means that the internal audit organization establishes internal audit procedures, regulations, and policies, this is following the explanation according to The Institute of Internal Auditors [28]. In research Mahyoro and Kasoga [15] explain Organizational management is measured by internal audit reporting structure, organizational policies and procedures, responses to audit findings, and commitment to strengthening internal audit, and the research results show that organizational management has a positive effect on internal audit effectiveness. Furthermore, thirdly, the attributes of the auditee whose involvement in the effectiveness of internal audit includes the ability and cooperation of the auditee to fulfill internal audit activities efficiently and effectively, the attitude of the auditee towards internal audit, this is in line with expert opinion regarding the attributes of the auditee found in research Mahyoro and Kasoga [15] that the auditee attribute is an implication on audit effectiveness including the ability of the auditee to meet organizational sub-goals efficiently and effectively, their attitude towards internal audit, and the level of cooperation given to the auditor. After an explanation of the three factors mentioned above, further explanation regarding management support can be a moderating variable for the factors described above on the effectiveness of the internal audit. Alzeban and Guillian [1] explained that support from management is an activity that results in focusing on and maintaining the human attitude shown by directors and similar leaders in the organization.

The novelty or what makes a difference with previous research is that this study combines institutional theory and attribution theory, where internal audit relates to institutions regarding regulations, policies, procedures, and so on. In terms of attribution, that is, it will combine elements of attribution from internal and external factors that influence the effectiveness of internal audits. Attribution of internal factors, namely the objectivity or attitude of internal auditors in conducting internal audits, and organizational arrangements which are internal factors of internal audit institutions or

organizations can be in the form of regulations, policies, procedures in carrying out internal audits or internal audit organizations ensuring activities carried out in agencies complies with applicable regulations, policies or procedures. The external attribution factor is the attribute of the auditee which involves the cooperative attitude of the auditee when the internal audit is carried out and is accompanied by management support regarding the attitude of management in the form of motivation or support from organizational management regarding the implementation of internal audit. Another difference is that the object of this research will be carried out with SPI personnel at State Universities in Sumatra Region in the environment Ministry of Education, Culture, Research, and Technology and SPI personnel at the State Islamic University in the Sumatra region within the Ministry of Religion.

2. Literature Review

Institutional theory is based on the formation of the organization because of the pressure of the institutional environment. According to Meyer and Rowan [17], Institutional theory describes the relationship between the organization and its environment about how and why the organization runs a structure and process and what the consequences of institutional processes are that are carried out. SPI is one of the organizational units in Higher Education that performs supervisory functions, including conducting internal audits. Implementation of internal audits carried out following applicable policies, regulations, and norms. SPI in reporting to management whether it has been periodic which can be one of the factors in achieving internal audit effectiveness, SPI as an internal audit unit can assist organizations in ensuring that activities in the Agency are following applicable regulations, policies, and directives with internal audit audits so that adding organizational value in future improvements and control systems so that effective audit results can be achieved.

The next theory used in this study is the attribution theory. Based on Heider [11], attribution theory is a theory that explains the triggers for one's own or other people's attitudes that determine whether the attitude is influenced by internal or external aspects. Based on Marwa et al [16], attribution theory can explain how personal, or individual describes the causes of other people's attitudes which can come from internal factors or external factors. Attribution theory in this study analyzes what factors influence the effectiveness of internal audits conducted by SPI in tertiary institutions.

Chang et al. [14] states that Effectiveness Internal audit can add value to an organization by helping management and directors improve internal control or control and good governance. One of the factors in achieving internal audit effectiveness is objectivity. Governmental Accounting Standards Committee [12] states that objectivity in carrying out audits, namely behavior or attitudes related to the mentality of the auditor who should be impartial in carrying out tasks so that the auditor has firmness and confidence in work results without a quality agreement. Internal auditors in preparing audit reports must adhere to the principle of objectivity, namely reporting

will reveal the actual conditions based on the results of the inspection without any element of interest.

Furthermore, one of the factors to achieve internal audit effectiveness is organizational arrangements. Dawuda, A, et al., [5] state that organizational arrangements include the profile of the organization, the internal organization's role and standing within the overall arrangement, the budgetary status of the internal audit office, and the context in which internal audit operates, further states that organizational arrangements refer to the organizational structure and its ability to provide a framework within which the segregation of duties determined and enable internal auditors to perform their duties without a hitch. In research Temesgen, A. and Estifanos [27] suggest organizational arrangements refer to the organizational profile, internal organization, and budgetary status of the internal audit office as well as the organizational policies and procedures that guide the operations of the company being audited. This provides the context in which internal audit operates.

The Institute of Internal Auditors [28] describe auditee attributes as another factor in achieving internal audit effectiveness, which refers to auditee attitudinal skills and the level of collaboration with auditors. The auditee's attributes are also another factor in achieving internal audit effectiveness, namely referring to the skills of the auditee's attitude and level of collaboration with auditors. Temesgen, A. and Estifanos [27] states that the auditee's attributes that have implications for audit effectiveness include the ability of the auditee to meet organizational goals efficiently and effectively; their attitude towards internal audit; and the level of cooperation provided to the auditor. Regarding management support according to the Institute of Internal Auditors [28] namely the internal audit department or unit needs to receive support from management seniors and the Board of Directors to carry out their duties and responsibilities in overseeing risk control and management, as well as corporate governance in the company.

3. Research Hypothesis

3.1. *The Effect of Objectivity on Internal Audit Effectiveness*

Internal auditors who have objective principles when carrying out audits, the level of effectiveness of internal audit can be achieved, because the resulting audit report can reveal the actual situation at the time of the inspection without any element of interest or intervention from any party. The audit report can provide recommendations that are following existing conditions and problems, and these recommendations can provide improvements for the future. Technical advice and recommendations from the internal auditors for the auditees also make the control and supervision system work. An internal auditor who is objective, impartial, and without a conflict of interest, can become a consulting service by the auditee or management so that past mistakes are not repeated and internal audit effectiveness is achieved. Heider [11] states that objectivity is one of the internal attribution factors of the internal auditors to achieve internal audit effectiveness.

Objectivity by auditors is internally related to attribution theory, because attribution theory is a theory that describes the triggers for one's own or other people's attitudes that determine whether the attitude is influenced by internal or external aspects.

Research on objectivity that has been carried out on the effectiveness of internal audit is research by Endaya, AK and Hanefah, Gamayuni., Prihartono, et al., Wijayanti et al, Sunnari and Nirvana, Dyhati, AS et al., Lonto, Miryam P., Grima, Steven et al., the result is that objectivity has a positive effect on internal audit effectiveness, whereas, in Mahmoud and Tahajuddin's study, objectivity does not affect internal audit effectiveness [6-8, 10, 13, 14, 22, 26, 30] Based on the explanation above, the hypotheses that can be carried out in this study are:

H1: There is a positive influence between objectivity and internal audit effectiveness.

3.2. *The Effect of Organization Setting on Internal Audit Effectiveness*

Organizational settings can support the achievement of internal audit effectiveness, because if the internal audit organization has adequate procedures, policies, and budgets, then internal audit has its implementation directed. Tolbert and Barley [28] state that the institutional theory states how organizational structures and activities are shaped by changes brought about by normative forces, both from external and internal influences such as rules, laws, and jobs. Organizational settings are also one of the internal attribution factors for achieving internal audit effectiveness.

The internal attribution factor that conforms to the attribution theory is that in an organizational setting, the behavior of the internal auditor team within the organization makes policies, procedures, and objectives of the audit carried out. The status of the budget in the internal audit organization is also one of the internal attribution factors in carrying out audits, in this case, the internal audit organization has made an appropriate and adequate budget, so the budget is used in carrying out internal audits as planned. Based on the explanation of the relationship between theory and organization setting, internal audit effectiveness can be achieved. Previous research regarding organization setting on internal audit effectiveness, namely in Mahyoro and Kasoga's research whose results were organizational arrangements had a positive effect on internal audit effectiveness, while research from Temesgen, A and Estifano, showed organizational arrangements did not affect audit effectiveness internal. Based on the explanation above, the hypotheses that can be carried out in this study are [15, 27]:

H2: There is a positive influence between organizational settings and internal audit effectiveness.

3.3. *The Effect of Auditee Attributes on Internal Audit Effectiveness*

The auditee attribute is one of the external attribution

factors following the attribution theory which according to Heider [11] explains internal and external behavior, in this case, the auditee attribute which is an external attribution factor includes the attitude or behavior of the auditee. The attitude of acceptance of the auditee is the beginning of the performance of the internal audit, the attitude of cooperation is given, then the internal audit will run smoothly, and the internal auditor has full access to documents or all matters relating to the inspection and following the audit objectives, so that the resulting audit report competent and following the actual conditions. Based on the understanding that has been explained above, the auditee attribute is one of the factors in achieving internal audit effectiveness.

In previous research regarding auditee attributes, namely in the study of Mahyoro and Kasoga [15], the results of auditee attributes have a positive effect on the effectiveness of internal audits. Subsequent research that supports auditee attributes is research by Singh *et al.* [25] namely discussing the support and acceptance of the auditee in internal audit, and the results show that the support and acceptance of the auditee affect the characteristics of the effectiveness of internal audit. Based on the explanation above, the hypotheses that can be carried out in this study are:

H3: There is a positive influence between auditee attributes and internal audit effectiveness.

3.4. The Influence of Management Support Moderates' Objectivity, Organization setting, and Auditee Attributes on Internal Audit Effectiveness

Management support is needed to achieve internal audit effectiveness. Management gives internal auditors the flexibility to conduct audits following applicable regulations, and internal auditors can move independently to carry out audits. The attitude of management support for the implementation of the internal audit is an external attribution factor that is following the attribution theory. Attribution theory according to Heider [11] explains internal and external behavior, in this case, management support which is an external attribution factor, namely how the attitude and support of management towards the implementation of internal audit. Management's commitment to the smooth implementation of audits, and commitment to increasing the spirit of internal audit to work as a whole and achieve the best audit results.

Some studies that make management support a moderating variable are research from Sunnari and Nirvana and Endaya, AK and Hanefah., Lonto, Miryam P., the result of which is that management support can moderate the positive influence of the independent variables used on internal audit effectiveness [7, 13, 26]. In research by Novranggi and Sunardi, senior management support can be positively moderating for one independent variable on internal audit effectiveness, while for the other two independent variables, it is not positively moderating on internal audit effectiveness as well as in research by Poltak *et al.* the result is that management support does not moderate the independent variables on internal audit effectiveness [19, 21]. The research of, Dyhati, AS. *et al.*, Grima, Steven *et al* the result is

management support which is an independent variable and has a positive effect on internal audit effectiveness, meanwhile in research by Shah management support as an independent variable has no positive effect on internal audit effectiveness [6, 10, 24]. Based on the explanation above, the hypotheses that can be carried out in this study are:

H4a: Management support can positively moderate objectivity to internal audit effectiveness.

H4b: Management support can positively moderate organization setting on internal audit effectiveness.

H4c: Management support can positively moderate the auditee's attributes on internal audit effectiveness.

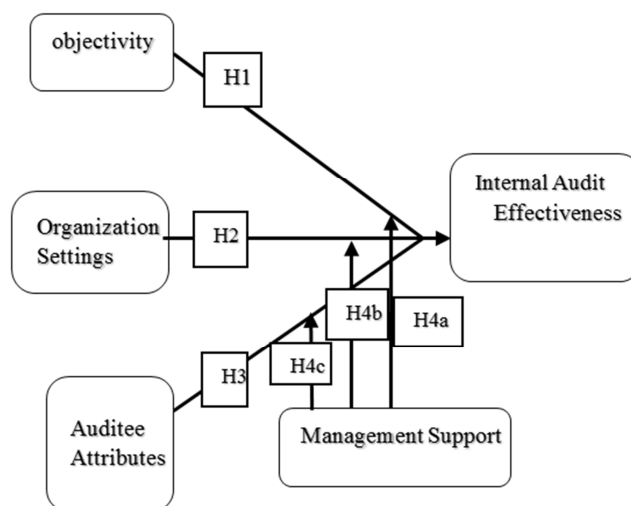


Figure 1. Thinking Framework.

4. Research Methods

The number population who became respondents in this study was 205 people consisting of Chairmen, Secretaries, Members, and Staff at SPI State Universities within the Ministry of Education, Culture, Research and Technology of the Republic of Indonesia and Chairs, Secretaries, Members, Staff at SPI Islamic University Country within the Ministry of Religion of the Republic of Indonesia in the Sumatra Region. The sampling technique uses the census method which is a study that takes one population group as the overall sample. The type of data to be analyzed is quantitative data and primary data. Data collection using a questionnaire instrument. Data analysis used smart pls type 3 software. Data analysis techniques used descriptive statistical analysis and Moderated Regression Analysis (MRA). The tests carried out in this study were the convergent validity test, validity and reliability test, discriminant validity test, and R-Square test. To test the hypothesis, data from the research questionnaire were analyzed using bootstrapping calculations.

5. Research Results

5.1. Characteristics of Research Respondents

The results of the respondents' responses were distributed,

namely 137 respondents from 205 research respondents or around 66.82%. The characteristics of the respondents in this study consisted of gender, age, last education, position at SPI, and how long they worked at SPI. The majority of respondents' responses were dominated by 72 women (53%), 66 people (48%) aged 36-50 years, 84 people (61%) dominated S2 last education, 76 members dominated SPI positions (55%) and length of work at SPI respondents' responses were dominated by 4-6 years as many as 58 people (42%).

5.2. Descriptive Statistical Analysis of Respondents' Responses

Respondents' responses to the distributed questionnaires were measured using a semantic differential scale, with a range of rating points of 1 to 7. Response statistics from a total of 205 respondents, gave responses to 137 respondents. The following are the results of the descriptive statistical analysis in the table below:

Table 1. Results of Descriptive Statistical Analysis.

| | Number of Respondents (N) | Mean | Median | Minimum | Maximum | Standard Deviation |
|-----|---------------------------|-------|--------|---------|---------|--------------------|
| OB | 137 | 5,891 | 6,000 | 4,000 | 7,000 | 1,165 |
| PO | 137 | 5,832 | 6,000 | 3,000 | 7,000 | 1,243 |
| A A | 137 | 5,920 | 6,000 | 4,000 | 7,000 | 1,143 |
| DM | 137 | 6,417 | 7,000 | 4,000 | 7,000 | 0 |
| EAI | 137 | 6,178 | 6,000 | 4,000 | 7,000 | 1,447 |

Source: Primary data processed, 2023

Remarks: DM: Management Support, OB: Objectivity, PO: Organization Settings, AA: Auditee Attributes, EAI: Internal Audit Effectiveness

5.3. Convergent Validity Testing

Convergent validity is part of the measurement model which in SEM-PLS is usually referred to as the outer model. The following is the result of convergent validity testing that has been carried out by calculating the algorithm on 137 data

from research respondents. From the results of the validity test from figure 2, it is known that all outer loading values are > 0.7, which means that they have met the validity requirements. The following is an image of the outer loading test results.

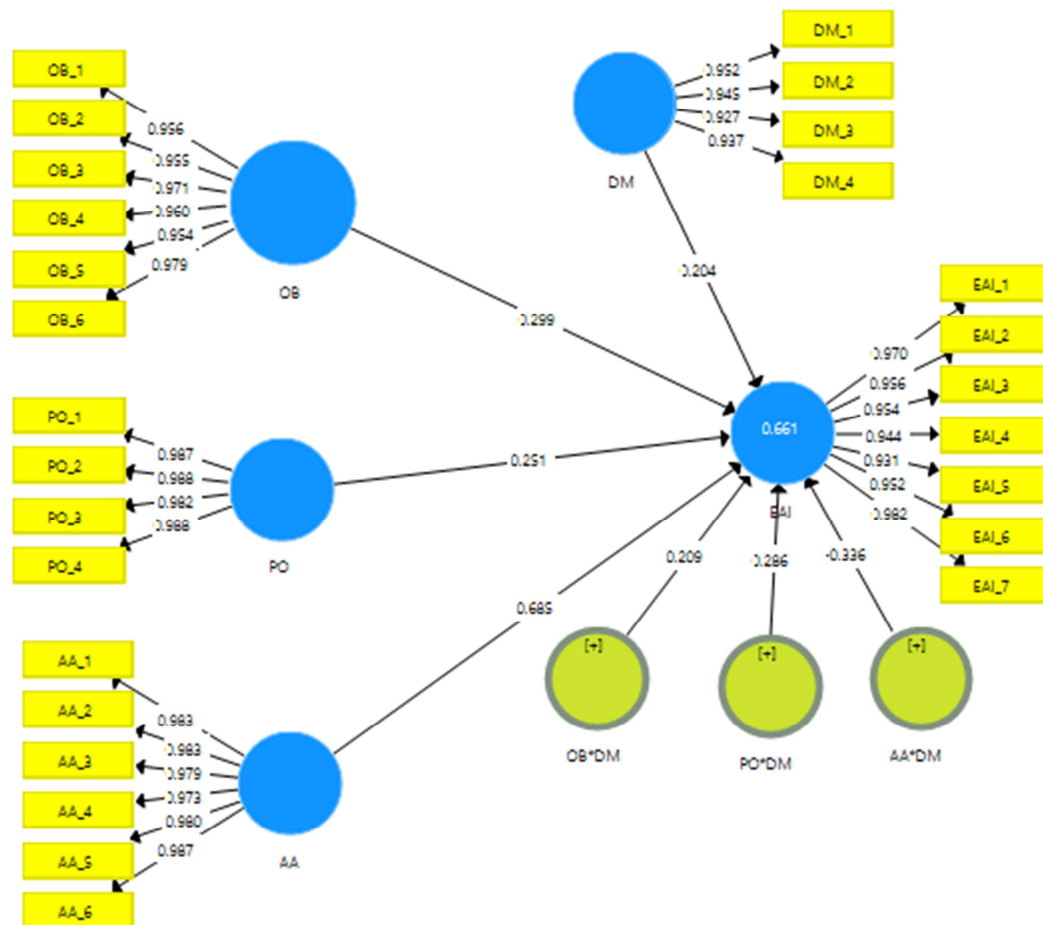


Figure 2. Structural Model Testing Results (Outer Loading).

5.4. Validity and Reliability Testing

Validity and reliability tests were carried out to prove the accuracy, consistency and accuracy of the instrument in measuring constructs. Validity testnamely assessing the validity of the construct by looking at the AVE value. The model is said to be good if the AVE of each construct is greater than 0.50, this is according to Ghazali [9]. To measure

the reliability of a construct with reflexive indicators can be done in two ways, namely Cronbach's Alpha and Composite Reliability. The construct is declared reliable if the value of composite reliability or Cronbach alpha is above 0.70 this is according to Ghazali [9]. Table 2 show the results of the tests that have been carried out Algorithmic calculation of 137 research respondent data.

Table 2. *Validity and Reality Test Results.*

| | Cronbach's Alpha | rho_A | Composite Reliability | Average Variance Extracted (AVE) |
|-------|------------------|-------|-----------------------|----------------------------------|
| DM | 0.956 | 0.959 | 0.968 | 0.884 |
| OB | 0.984 | 0.986 | 0.987 | 0.926 |
| OB*DM | 1 | 1 | 1 | 1 |
| PO | 0.991 | 0.991 | 0.993 | 0.972 |
| PO*DM | 1 | 1 | 1 | 1 |
| A A | 0.992 | 0.992 | 0.994 | 0.962 |
| AA*DM | 1 | 1 | 1 | 1 |
| EAI | 0.984 | 0.984 | 0.987 | 0.913 |

Source: Primary data processed, 2023

Remarks: DM: Management Support, OB: Objectivity, PO: Organization Setting, AA: Auditee Attributes, EAI: Internal Audit Effectiveness

Based on table 2, the validity test is seen from the AVE value which is above 0.50 so it shows that it meets the validity requirements based on AVE. Furthermore, reliability testing is seen from the value Cronbach's Alpha and composite reliability, and the test results for all exogenous and endogenous constructs are all reliable because the value is above 0.70.

5.5. Discriminant Validity Testing

Discriminant validity testing with the Fornell-Larcker approach Fornell-Lacker, namely the AVE square root value must be greater than the correlation value between latent variables which can be seen in the following table 3.

Table 3. *Discriminant Validity Test Results: Fornell & Larcker.*

| | DM | OB | OB*DM | PO | PO*DM | A A | AA*M | EAI |
|-------|--------|--------|--------|--------|--------|-------|--------|-------|
| DM | 0.940 | | | | | | | |
| OB | 0.329 | 0.963 | | | | | | |
| OB*DM | -0.412 | 0.399 | 1 | | | | | |
| PO | 0.315 | -0.027 | -0.236 | 0.986 | | | | |
| PO*DM | -0.385 | -0.252 | 0.361 | 0.358 | 1 | | | |
| A A | 0.309 | -0.041 | -0.316 | -0.046 | -0.303 | 0.981 | | |
| AA*DM | -0.432 | -0.306 | 0.374 | -0.274 | 0.343 | 0.437 | 1 | |
| EAI | 0.557 | 0.444 | -0.078 | 0.407 | -0.064 | 0.448 | -0.113 | 0.956 |

Source: Primary data processed, 2023

Remarks: DM: Management Support, OB: Objectivity, PO: Organization Setting, AA: Auditee Attributes, EAI: Internal Audit Effectiveness

In the discriminant validity test from table 3, the AVE square root value of a latent variable is compared with the correlation value between that latent variable and other latent variables. It is known that the AVE square root value for each latent variable is greater than the correlation value between the

latent variable and other latent variables. In testing the validity of discriminatory cross loading which is another measure of discriminant validity each indicator block has a higher loading for each latent variable measured compared to indicators for other latent variables which is shown in the table 4.

Table 4. *Discriminant Validity Test Results: Cross Loading.*

| | DM | OB | OB*DM | PO | PO*DM | A A | AA*DM | EAI |
|---------|--------|-------|--------|--------|--------|--------|--------|--------|
| DM_1 | 0.952 | 0.307 | -0.408 | 0.304 | -0.387 | 0.337 | -0.406 | 0.558 |
| DM_2 | 0.945 | 0.304 | -0.388 | 0.320 | -0.362 | 0.273 | -0.419 | 0.523 |
| DM_3 | 0.927 | 0.282 | -0.381 | 0.319 | -0.335 | 0.283 | -0.398 | 0.526 |
| DM_4 | 0.937 | 0.346 | -0.371 | 0.236 | -0.361 | 0.267 | -0.403 | 0.485 |
| OB * DM | -0.412 | 0.399 | 1,000 | -0.236 | 0.361 | -0.316 | 0.374 | -0.078 |
| OB_1 | 0.373 | 0.956 | 0.369 | -0.002 | -0.260 | -0.028 | -0.314 | 0.456 |
| OB_2 | 0.351 | 0.955 | 0.349 | 0.009 | -0.226 | -0.035 | -0.297 | 0.448 |
| OB_3 | 0.304 | 0.971 | 0.393 | -0.050 | -0.261 | -0.046 | -0.290 | 0.422 |

| | DM | OB | OB*DM | PO | PO*DM | AA | AA*DM | EAI |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| OB_4 | 0.281 | 0.960 | 0.395 | -0.021 | -0.228 | -0.058 | -0.305 | 0.404 |
| OB_5 | 0.261 | 0.954 | 0.406 | -0.050 | -0.215 | -0.037 | -0.257 | 0.389 |
| OB_6 | 0.315 | 0.979 | 0.397 | -0.049 | -0.261 | -0.038 | -0.299 | 0.436 |
| PO * DM | -0.385 | -0.252 | 0.361 | 0.358 | 1.000 | -0.303 | 0.343 | -0.064 |
| PO_1 | 0.309 | -0.023 | -0.233 | 0.987 | 0.354 | -0.051 | -0.273 | 0.400 |
| PO_2 | 0.320 | -0.033 | -0.233 | 0.988 | 0.357 | -0.042 | -0.267 | 0.403 |
| PO_3 | 0.307 | -0.024 | -0.236 | 0.982 | 0.337 | -0.032 | -0.271 | 0.397 |
| PO_4 | 0.306 | -0.028 | -0.229 | 0.988 | 0.363 | -0.056 | -0.270 | 0.404 |
| AA * DM | -0.432 | -0.306 | 0.374 | -0.274 | 0.343 | 0.437 | 1.000 | -0.113 |
| AA_1 | 0.302 | -0.050 | -0.306 | -0.040 | -0.296 | 0.983 | 0.436 | 0.443 |
| AA_2 | 0.312 | -0.050 | -0.317 | -0.027 | -0.293 | 0.983 | 0.429 | 0.443 |
| AA_3 | 0.297 | -0.039 | -0.302 | -0.062 | -0.292 | 0.979 | 0.429 | 0.436 |
| AA_4 | 0.288 | -0.027 | -0.317 | -0.038 | -0.318 | 0.973 | 0.408 | 0.429 |
| AA_5 | 0.294 | -0.039 | -0.301 | -0.068 | -0.280 | 0.980 | 0.444 | 0.433 |
| AA_6 | 0.328 | -0.039 | -0.319 | -0.037 | -0.303 | 0.987 | 0.424 | 0.453 |
| EAI_1 | 0.540 | 0.415 | -0.072 | 0.412 | -0.048 | 0.434 | -0.098 | 0.970 |
| EAI_2 | 0.543 | 0.397 | -0.087 | 0.389 | -0.074 | 0.444 | -0.102 | 0.956 |
| EAI_3 | 0.515 | 0.391 | -0.105 | 0.419 | -0.043 | 0.448 | -0.086 | 0.954 |
| EAI_4 | 0.548 | 0.450 | -0.078 | 0.352 | -0.087 | 0.425 | -0.115 | 0.944 |
| EAI_5 | 0.505 | 0.413 | -0.054 | 0.403 | -0.031 | 0.386 | -0.125 | 0.931 |
| EAI_6 | 0.518 | 0.472 | -0.055 | 0.333 | -0.086 | 0.424 | -0.121 | 0.952 |
| EAI_7 | 0.558 | 0.431 | -0.072 | 0.413 | -0.057 | 0.435 | -0.112 | 0.982 |

Source: Primary data processed, 2023

Remarks: DM: Management Support, OB: Objectivity, PO: Organization Setting, AA: Auditee Attributes, EAI: Internal Audit Effectiveness

Based on the results of the cross-loading table above, the results have shown each indicator block has a higher loading for each measured latent variable compared to indicators for other latent variables, so the test is valid.

5.6. R-Square Testing

In assessing the structural model, we first assess the R-square for each endogenous latent variable as the predictive power of the structural model. Testing of the structural model is carried out by looking at the R-square value which is a goodness-fit model test. The R square value is 0.661 which means that 66.1% of the effectiveness variable is influenced by objectivity variables, organizational settings, and auditee

attributes as well as management support moderation variables. R Square Adjusted is 0.643, explaining the criteria which are quite strong from the variable Objectivity, Organizational Settings, Auditee Attributes with the moderating variable Management Support on Internal Audit Effectiveness.

5.7. Testing with Path Coefficient Estimation

This test is done by calculating bootstrapping. This test for the estimated value of path relationships in the structural model must be significant. This test was conducted to determine the results of the hypothesis. Bootstrapping results in the table 5.

Table 5. Test Results with Estimation of Path Coefficients.

| | Sample Original (O) | Sample Average (M) | Standard Deviation (STDEV) | T Statistics | P Values | Hypothesis Results |
|--------------|---------------------|--------------------|----------------------------|--------------|----------|--------------------|
| DM -> EAI | 0.204 | 0.213 | 0.093 | 2.199 | 0.028 | |
| OB -> EAI | 0.299 | 0.311 | 0.099 | 3.033 | 0.003 | Accepted |
| OB*DM -> EAI | 0.209 | 0.193 | 0.130 | 1.608 | 0.108 | Rejected |
| PO -> EAI | 0.251 | 0.251 | 0.066 | 3.798 | 0.000 | Accepted |
| PO*DM -> EAI | 0.286 | 0.272 | 0.096 | 2.991 | 0.003 | Accepted |
| AA -> EAI | 0.685 | 0.653 | 0.127 | 5.388 | 0.000 | Accepted |
| AA*DM-> EAI | -0.336 | -0.302 | 0.140 | 2.407 | 0.016 | Accepted |

Source: Primary data processed, 2023

Remarks: DM: Management Support, OB: Objectivity, PO: Organization Setting, AA: Auditee Attributes, EAI: Internal Audit Effectiveness

6. Discussion

6.1. The Effect of Objectivity on Internal Audit Effectiveness

The first hypothesis (H1) in this study states that there is a positive effect of objectivity on internal audit effectiveness.

Based on the results of the hypothesis testing that has been carried out, this hypothesis is accepted, namely, objectivity has a positive and significant effect on the effectiveness of internal audit as indicated by a positive coefficient value of 0.299 and a statistical T value > of 1.96, namely 3.033 and P values < of 0.05 which is 0.003. In the results of the descriptive analysis, objectivity shows an average value of 5.891 where the results of the respondents' responses are

broadly between points 5 to 6 with a scale of 1 to 7 given. In general, the respondents answered that the attitude of the internal auditors in carrying out audits could be to maintain confidentiality, not receive compensation, be Responsible for maintaining information obtained regarding audits, preventing conflicts of interest. Internal auditors can maintain a professional attitude in conducting audits and understand the applicable rules and regulations.

This result is in line with the attribution theory put forward by Heider which describes the triggers for the attitude of himself or others who determine whether the attitude is influenced by internal or external aspects and an explanation of the theory of attribution from Robbins, SP, and Judge which says when people observe someone's behavior, they try to determine whether it was generated internally or externally, where In this research, attribution theory serves as a basis for testing the relationship between internal attribution aspects, namely objectivity and internal audit effectiveness [11, 23]. Objectivity is an attitude or behavior which is an internal factor of the internal auditors themselves in carrying out audits, by carrying out audits with an objective attitude, the internal auditors conduct audits impartially, and professionally, and are not intervened by anyone, then their audit report is following the conditions stated actually and produce recommendations for improvement, then can create a control system from the results of these recommendations so that internal audit effectiveness is achieved. The results of this study are in line with the research Endaya, AK and Hanefah, Gamayuni, Prihartono *et al.*, Wijayanti *et al.*, Sunnari and Nirvana, Dyhati, AS *et al.*, Lonto, Miryam P., Grima, Steven *et al.*, which explains that objectivity has a positive effect on internal audit effectiveness [6-8, 10, 13, 22, 26, 30].

6.2. The Effect of Organization Setting on Internal Audit Effectiveness

The second hypothesis (H2) in this study states that there is a positive influence of organizational arrangements on internal audit effectiveness. Based on the results of hypothesis testing that has been done this hypothesis is accepted, namely organizational settings have a positive and significant effect on the effectiveness of internal audit as indicated by a positive coefficient value 0.251 and the statistical T value is >1.96 , that is 3.798 and P Values $<$ than 0.05, namely 0.000.

On the results of descriptive analysis, the organization setting shows an average value of 5.832 where the results of the respondents' responses are in outline, namely between points 5 to 6 with a scale of 1 to 7 given. In general, the respondents answered that things in the organizational setting indicators had a positive influence on achieving internal audit effectiveness. The results of this study are in line with institutional theory put forward by Meyer and Rowan namely institutional theory describes the relationship between the organization and its environment about how and why the organization runs a structure and process and what the consequences of institutional processes that are carried out, as well as according to Tolbert and Barley which explains how

organizational structures and activities are shaped by changes brought about by normative forces, both from external and internal influences such as rules, laws, and work, where in this study it shows that organizational arrangements affect the effectiveness of internal audit, namely SPI, in this case, which is an internal audit organization in reporting on audit results to management, whether it has been periodic or routine, which can be a factor in achieving the effectiveness of internal audit and SPI as an internal audit unit can assist the organization in ensuring that the activities in the agency are in accordance with applicable regulations, policies and directives [17, 29].

Internal audit checks add organizational value in future improvements and internal control systems are realized so that effective audit results can be achieved. The Organizational setting is also an internal attribution factor which is in line with the theory of Heider [11] which describes the triggers for the attitude itself or other people who are determined whether the attitude is influenced by internal aspects or external aspects, in this case, SPI which is an internal audit organization implementing internal attribution factors, SPI can make a follow-up action plan on recommendations issued to auditees, make budgeting and human resource planning in terms of fulfilling internal audit activities carried out in strengthening the commitment to implementing internal audit. This explanation is an internal attribution to achieve internal audit effectiveness. Implementation of making an action plan for the results of audit recommendations that have been carried out by SPI can add significant value to the organization so that the audit results are effective. The results in this study are in line with research Mahyoro and Kasoga [15] Which the result is that organization settings have a positive effect on internal audit effectiveness.

6.3. The Effect of Auditee Attributes on Internal Audit Effectiveness

The third hypothesis (H3) in this study states that there is a positive effect of auditee attributes on internal audit effectiveness. Based on the results of hypothesis testing that has been carried out, this hypothesis is accepted, namely the auditee attribute has a positive and significant effect on the effectiveness of internal audit as indicated by a positive coefficient value 0.685 and statistical T value $>$ of 1.96 that is 5.388 and P Values $<$ than 0.05, namely 0.000.

In the results of the descriptive analysis, the auditee attribute shows an average value of 5.920 where the results of the respondents' responses are in outline, namely between points 5 to 6 with a scale of 1 to 7 given. In general, the respondents answered that the things in the auditee attribute indicators had a positive effect on achieving internal audit effectiveness. This result is in line with the theory of attribution according to Heider [11] which describes the triggers for the attitude of himself or others who determine whether the attitude is influenced by internal aspects or external aspects, where the auditee attribute in this study is an external attribution factor in achieving internal audit effectiveness. auditee attribute in achieving internal audit effectiveness, namely from the active and communicative

attitude of the auditee to the audit team in the implementation of internal audit, good cooperation and understanding of the auditee towards the implementation of internal audit and the auditee's responsiveness to the identification of audit findings. This research is in line with the research of Mahyoro and Kasoga [15], whose results show that auditee attributes have a positive effect on the effectiveness of internal audits.

6.4. The Influence of Management Support Moderating Objectivity, Organization Setting and Auditee Attributes to Internal Audit Effectiveness

Management support in this study is a moderating variable tested using Moderated Regression Analysis (MRA) in analyzing the moderating variable strengthening or weakening the relationship between the independent variable and the dependent variable, with the criteria that if the T statistic is >1.96 and the P-Value is <0.05 , it is significant that it means that the moderating variable plays a role in an independent variable on the dependent variable and vice versa if the T statistic < 1.96 P value > 0.05 then it is not significant, which means that the moderating variable does not play a role in an independent variable on the dependent variable. In this study, there are three moderation hypotheses which can be explained by the test results as follows:

1. The first moderation hypothesis (H4a) states that management support can positively moderate the objectivity of internal audit effectiveness.

The results of the tests that have been carried out are the statistical T value = $1.608 < 1.96$ and the P values are $0.108 > 0.05$. These results state that management support does not significantly moderate objectivity to internal audit effectiveness, so this hypothesis is rejected. This is not in line with research from Sunnari and Nirvana, Endaya, AK and Hanefah, Lonto, Miryam P the result of which is management support can moderate the positive independent variables used on internal audit effectiveness [7, 13, 26].

This can happen as one of the factors because objectivity is an internal attribution factor in the implementation of internal audits, where objectivity consists of being honest, and professional, avoiding or preventing conflicts of interest, and refusing rewards made by the internal auditors themselves in conducting audits. These attitudes have been attached to the character of each internal auditor to achieve internal audit effectiveness, while management support is an external attribution factor in achieving internal audit effectiveness. The results of management support cannot moderate the same objectivity as research by Novranggi and Sunardi, senior management support cannot positively moderate the relationship between objectivity and internal audit effectiveness, apart from that in research Poltak et al., the results also show consistent results, namely management support is unable to moderate the independent variables on internal audit effectiveness [19, 21].

2. The second moderation hypothesis (H4b) states that management support can positively moderate organization setting on internal audit effectiveness. The

results of the tests that have been carried out are the statistical T value = $2.991 > 1.96$ and the P values are $0.003 < 0.05$. The test results state that management support has a positive and significant effect in moderating organization setting on internal audit effectiveness, so this hypothesis is accepted, and management support plays a role in strengthening organizational arrangements on internal audit effectiveness.

This result is in line with the theory of attribution according to Heider [11] which describes the triggers for the attitude of himself or others who determine whether the attitude is influenced by internal aspects or external aspects, where management support in this study is an external attribution factor as a moderating variable that strengthens organizational arrangements in achieving internal audit effectiveness. This research is in line with Sunnari and Nirvana, Endaya, AK and Hanefah, Lonto, Miryam P the result of which is management support can moderate the positive independent variables used on internal audit effectiveness [7, 13, 26].

3. The third moderation hypothesis (H4c) states that management support can positively moderate the auditee's attributes on internal audit effectiveness. The test results are T statistic = $2.407 > 1.96$ and P Values are $0.016 < 0.05$. The test results state that management support has a positive and significant effect in moderating auditee attributes on internal audit effectiveness, so this hypothesis is accepted, and management support plays a role in strengthening auditee attributes on internal audit effectiveness.

This result is in line with the theory of attribution according to Heider [11] which describes the triggers for the attitude of himself or others who determine whether the attitude is influenced by internal aspects or external aspects, where management support in this study is an external attribution factor as a moderating variable that strengthens the auditee's attributes in achieving internal audit effectiveness. This research is in line with Sunnari and Nirvana, Endaya, AK and Hanefah, Lonto, Miryam P the result of which is management support can moderate the positive independent variables used on internal audit effectiveness [7, 13, 26].

7. Conclusion

Objectivity has a positive and significant effect on the effectiveness of internal audits. Objectivity is the attitude of the internal auditor in conducting an audit, showing an honest, impartial, professional attitude, doing his job effectively, and being able to build trust in the auditee or client. Objectivity is also the attitude of the internal auditor to avoid or prevent conflicts of interest during the audit, to be objective in disclosing any evidence during the inspection, without anyone's intervention, so that the control system is implemented, and can add value to the organization, as well

as the function of internal audit effectiveness. achieved.

Organization setting have a positive and significant effect on the effectiveness of internal audits. Organization setting which includes reporting of audit results which are periodically reported to management, the need for internal audits to ensure existing activities in agencies comply with established policies, laws, and directives. In terms of the implementation of making an action plan for the results of the audit recommendations that have been carried out by the internal auditors, in this case, SPI can add value to the organization, thus organizational arrangements can provide a role in achieving internal audit effectiveness.

The auditee attribute has a positive and significant effect on the effectiveness of internal audits. The auditee's attributes include the attitude and cooperation of the auditee to fulfill internal audit activities efficiently and effectively, the attitude of the auditee towards internal audit, the active and communicative attitude of the auditee to the audit team in carrying out internal audit, good cooperation and the auditee's understanding of the implementation of internal audit and the attitude of the auditee's responsiveness to the identification of audit findings and action plans for improvement of the audit results carried out by the internal audit team. Based on this explanation, the attributes of the auditee play a role in achieving internal audit effectiveness.

Management support as a moderating variable in this study cannot positively moderate objectivity on internal audit effectiveness, but management support can positively moderate organizational settings and auditee attributes on internal audit effectiveness. It can be concluded that management support does not play a role in strengthening the relationship between objectivity and internal audit effectiveness, whereas in organization setting and auditee attributes, management support can play a role in strengthening the relationship between organizational setting variables and auditee attributes on internal audit effectiveness.

8. Suggestion

In this study the authors provide suggestions for future research, namely, to increase the number of samples so that the level of generalization is higher, to conduct research on the effectiveness of internal audits in organizations or other agencies, to consider interview techniques in research, to develop research by adding indicators to organizational setting variables. and can also add other independent variables used that affect the achievement of internal audit effectiveness.

9. Research Limitations

The author realizes that there are some limitations in this study, namely the questionnaire responses to auditor respondents are not as expected, and in the organization setting variables can include several other indicators related to the effectiveness of internal audit.

10. Implications of Research Results

The results of this research imply that it can provide practical benefits for SPI at State Universities in the Sumatra Region in highlighting areas that need attention in increasing the effectiveness of internal audits. Another implication is in proving the institutional theory that supports and is related to achieving internal audit effectiveness. The institutional theory explained that the internal audit organization ensures that the activities in the agency are following applicable regulations, policies, and directives, so that the implementation of internal audits carried out by the internal audit team, in this case, SPI, can add value in future improvements so that the internal control system is realized so that the results effective audit can be achieved.

Another theoretical implication is the attribution theory that supports the achievement of internal audit effectiveness, influenced by internal and external attribution factors. In this study, objectivity, and organization setting are internal attributions, auditee attributes, and management support are external attribution factors.

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