

The Factors Influencing the Risk Based Internal Audit in Improving the Effectiveness of Internal Audit

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ABSTRAK

Kelemahan Sistem Pengendalian Intern (SPI) menghambat kinerja pemerintah; Oleh karena itu, konsep Audit Internal Berbasis Risiko (RBIA) melalui teknik penentuan risiko berdasarkan skala prioritas diduga mampu meningkatkan efektivitas pengendalian internal Provinsi Sumatera Utara. Tujuan dari penelitian ini adalah untuk mengetahui dampak Pengembangan Profesional, Komitmen Manajemen Puncak, dan Peran Audit Internal terhadap Audit Internal Berbasis Risiko (RBIA), serta dampaknya terhadap Efektivitas Audit Internal baik secara langsung maupun tidak langsung di Perusahaan Utara. Inspektorat Provinsi Sumatera. Penelitian ini mengambil metode kuantitatif. Populasi penelitian ini adalah Jabatan Fungsional Auditor Internal dan Pengawas Urusan Pemerintahan Daerah (PPUPD) yang berjumlah 101 orang, sedangkan informannya adalah pihak yang memahami implementasi RBIA yaitu Inspektur Pembantu. Teknik pengambilan sampel yang digunakan adalah sensus, artinya seluruh populasi dijadikan sampel dalam penelitian. Pengujian menggunakan model Structural Equation Modeling (SEM) berbasis varian dengan teknik Partial Least Squares (PLS). Pengembangan Profesional, Komitmen Manajemen Puncak, dan Peran Audit Internal merupakan variabel-variabel yang diduga mempengaruhi keberhasilan penerapan RBIA dalam meningkatkan Efektivitas Audit Internal. Hasil penelitian menunjukkan bahwa Pengembangan Profesional, Komitmen Manajemen Puncak, dan Peran Audit Internal berpengaruh positif signifikan terhadap keberhasilan penerapan manajemen risiko dengan metode RBIA. Implikasi dari hasil temuan ini adalah pentingnya peran Pengembangan Profesional, Komitmen Manajemen Puncak, dan Peran Audit Internal dalam meningkatkan efektivitas pengendalian internal di lingkungan pemerintahan daerah.

ABSTRACT

Internal Control System (SPI) weaknesses hamper government performance; Therefore, the concept of Risk-Based Internal Audit (RBIA) through risk determination techniques based on priority scales is thought to be able to improve the effectiveness of internal control in North Sumatra Province. The purpose of this study is to determine the impact of Professional Development, Top Management Commitment, and the Role of Internal Audit on Risk-Based Internal Audit (RBIA), as well as its impact on the Effectiveness of Internal Audit both directly and indirectly in North Company. Sumatra Provincial Inspectorate. This study took quantitative methods. The population of this study is the Functional Position of Internal Auditor and Local Government Affairs Supervisor (PPUPD) which amounts to 101 people, while the informant is a party who understands the implementation of RBIA, namely Auxiliary Inspectors. The sampling technique used is census, meaning that the entire population is sampled in the study. The test used a variant-based Structural Equation Modeling (SEM) model with the Partial Least Squares (PLS) technique. Professional Development, Top Management Commitment, and the Role of Internal Audit are variables that allegedly affect the success of RBIA implementation in improving Internal Audit Effectiveness. The results showed that Professional Development, Top Management Commitment, and the Role of Internal Audit had a significant positive effect on the successful implementation of risk management with the RBIA method. The implication of these findings is the importance of the role of Professional Development, Top Management Commitment, and the Role of Internal Audit in improving the effectiveness of internal control within local government.

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1. INTRODUCTION

Internal audit is critical for organisational governance in both firms and governments. It "assists organisations in achieving their objectives by bringing a systematic, disciplined approach to evaluating and improving the effectiveness of risk management, control, and governance processes". Internal audit functions as an assurance activity as well as an independent and objective consulting activity, as stated in PP No. 60 of 2008 concerning the Government Internal Control System (SPIP) and Minister of Home Affairs Regulation No. 64 of 2007 concerning Technical Guidelines for the Organisation and Work Procedures of Province and Regency/City Inspectorates, which are designed to provide added value and improve organisational performance.

In local government, effective internal auditing can help achieve organisational goals (Aikins et al., 2022; Erasmus & Coetzee, 2018). Internal audit effectiveness is defined as the achievement of the internal audit function's aims and objectives (Nurhaedin et al., 2021; Turetken et al., 2020). An effective internal audit function strives to meet its primary goals, which include adding value and increasing organisational performance (Brender et al., 2015; Pham & Nguyen, 2021). Furthermore, the recent epidemic of Covid-19 has a significant impact on internal audit. company scandals and global financial crises in the past have also raised awareness in society and regulatory agencies about the importance of internal audit in company governance for internal assurance services.

According to the 2020 Regional Inspection Results Summary (IHPD), the BPK Representative of North Sumatra Province discovered flaws with the Internal Control System (SPI). Shopping cost Rp. 7.849.240.000 (seven billion eight hundred forty-nine million two hundred and forty thousand rupiah) and might cost Rp. 5.612.690.000 (five billion six hundred twelve million six hundred and ninety thousand rupiah). Price fairness documentation does not support weaknesses in the Accounting and Reporting Control System in the procurement sector for non-medical mask services. The entity lacks a formal SOP for a procedure or for all procedures comprising ten (ten) cases. The effect of refocusing operations and reallocating regional government expenditures is not accompanied by a strong Internal Control System (SPI) by the inspectorate as regional APIP whose function is to supervise regional financial management.

In his book "Risk Based Internal Auditing-Three Views of Implementation," David M. Griffiths recommends the Risk Based Internal Audit (RBIA) approach as a starting point for developing an organisational risk management framework. This will encompass both internal and external financial, operational, and strategic threats to the organisation. Griffiths further stated that the interaction between internal audit and each risk management department is critical to the efficacy of internal audit. Because internal audit cannot begin work without first establishing the risk maturity of the organisation and the accuracy of the risk register. Previous research investigated the link between risk-based internal auditing and audit effectiveness (Coetzee & Lubbe, 2014; Zainal Abidin, 2017). The findings indicate that implementing RBIA at the micro level has a substantial impact on the effectiveness of internal audit. According to previous research, one of the primary predictors of internal audit effectiveness is conformity with professional standards (IPPF) (Lenz & Hahn, 2015; Vadasi & Bekiaris, M., & Andrikopoulos, 2020). Similar research also investigated the relationship between risk-based planning and internal audit effectiveness, discovering a strong positive relationship (Dzikrullah et al., 2020; Joshi, 2020).

Currently, the implementation of RBIA in government is being carried out entirely by the Inspectorate of the Ministry of Finance, the Inspectorate of the Ministry of Transportation, and BPKP, which is already at a capacity level higher than III (integrated). As a result, efforts towards level III of the North Sumatra Province Inspectorate must first map Key Performance Areas (KPA) in RBIA implementation planning. This necessitates strengthening individual capacities in independent work and successful teamwork through professional growth (Achmad, 2018; Khaddafi et al., 2022). Another component believed to be an indicator of the effectiveness of RBIA implementation planning is senior management commitment and the involvement of internal audit.

According to agency theory, an agency relationship occurs when one or more persons (principal) hire another person (agent) to deliver a service and then delegate decision-making authority to the agent (Bruno, 2019; Parker et al., 2018; Rashid, 2016). This raises the likelihood of problems such as information asymmetry, moral hazard, and risk preference disparities (Badertscher et al., 2013; Petrolia et al., 2013). According to previous research, the government is the manager or administrator, and the community is the principal (Green, 2018; Nalbandian et al., 2013). The government, as a manager of public funds, has a tendency to use existing loopholes to commit fraud for personal and collective objectives. Attribution theory "refers to the cause of an event or outcome based on an individual's perception." A theory that describes how we determine the causes and motives of someone's behaviour. Personal traits of an auditor are one of the determinants of the application of RBIA that will be carried out because it is an internal factor that inspires a person to carry out an activity.

Internal audit is a critical instrument for controlling an organization's governance and operations. Internal audit is in charge of financial control, compliance assurance, and asset protection (Handoyo & Bayunitri, 2021; Joshi, 2020). However, because regulatory bodies' needs, particularly in terms of risk management, have increased, the contemporary internal audit functional area has been more focused on the added value of internal audit from all audit stakeholders (Alzeban & Gwilliam, 2014; Lenz et al., 2014). An internal audit is effective if the internal auditor confirms that the auditee met the target and that no problems were discovered both during and after the audit (Endaya & Hanefah, 2016; Turetken et al., 2020). The Institute of Internal Auditors (IIA) defines effectiveness as a descriptor for a task that has been completed. In other words, internal auditing is more effective when it achieves the desired goals and provides timely feedback to stakeholders.

Professional development is defined as the understanding of renewing and growing professional competence across one's professional work life. According to other research, professional competence improves performance management as an element of government involvement to achieve higher efficiency, effectiveness, and accountability (Conway & Andrews, 2016; Harris & Jones, 2017). Internal auditors must continually improve their knowledge, skills, and other competences through continuous professional development. Management support is defined as top management in an organisation providing active approval, encouragement, and aid to staff (Kuipers et al., 2014; Van der Voet et al., 2015). Leadership is the creation of policies and procedures that truly necessitate top-level management involvement in undertaking risk-based audit operations (Achmad, 2018; Khaddafi et al., 2022). Top management commitment is the obligation of top management to set objective and quality targets that must be backed by commitment to their implementation (Kuipers et al., 2014; Van der Voet et al., 2015). Top management commitment is critical in implementing internal audits, including hiring qualified auditors, developing auditor careers, and ensuring the internal audit organization's independence (Lenz & Hahn, 2015; Vadasi & Bekiaris, M., & Andrikopoulos, 2020). Internal audit in the public sector is largely focused with fostering good governance practises and enhancing performance (Mahyoro & Kasoga, 2021; Nerantzidis et al., 2022). Focus on issues of government accountability and transparency in the administration and use of public monies to guarantee that money is used wisely in public services. Internal audit has evolved into a more strategic role in governance and financial management reform. Internal audit, if properly designed and given an appropriate mandate, may be a vital resource for organisations in maintaining public accountability and integrity (Mahyoro & Kasoga, 2021; Nerantzidis et al., 2022).

Previous research discovered a positive and substantial association between the role of internal audit as a proxy for the size of internal auditors and internal audit. Similar research demonstrates that senior management commitment, training, and policy frameworks are elements that influence RBIA implementation within the North Sumatra Province government (Achmad, 2018; Khaddafi et al., 2022). Previous research discovered that implementing RBIA at the micro level has a substantial impact on the effectiveness of internal audit (Coetzee & Lubbe, 2014; Zainal Abidin, 2017). The key indicator of internal audit effectiveness is compliance with professional standards-IPPF. Variances in internal audit effectiveness, risk-based planning, big data and analytics, and internal audit meeting frequency all have a major impact on internal audit effectiveness. In Turkey with 187 private sector internal auditors who are members of the IIA-Turkey, engagement in risk management activities has a substantial effect on internal audit effectiveness (Ahmet, 2021; Coetzee & Lubbe, 2014).

The purpose of this study is to examine the elements that influence RBIA and then assess the implications for improving the efficacy of internal audits in the province government of North Sumatra. The research focuses on how RBIA can be applied in the government's internal control system, where the Inspectorate, as regional APIP, is entrusted with regulating mandatory government matters as part of its supervisory responsibility.

2. METHODS

The purpose of this research is to identify the factors that influence RBIA and its ability to mediate the relationship between professional development, top management commitment, and the role of internal audit with internal audit effectiveness. In June 2022, this research was carried out at the North Sumatra Province Inspectorate. The population and study sample were 101 people, employing a census-based sampling technique. Variable identification in this study has been presented in Table 1.

Table 1. Identification of Variables

No.	Variable	Indicator	Source
1	Internal Audit Effectiveness (Y)	a. Scope of Audit b. PKPT c. Audit Techniques d. Information Systems	(Tugiman, 1997)
2	Risk Based Internal Audit (Z)	a. Recognising RBIA b. The Risk Scale c. Risk Base Audit d. Supervision Capability	(Kirogo et al., 2014)
3	Professional Development (X1)	a. Capability b. Motivation c. Competency	(Salehi, 2016)
4	Top Management Commitment (X2)	a. Policy b. Leadership c. Decision	(Zainal Abidin, 2017)
5	The Role of Internal Audit (X3)	a. Auditing Practise b. Quality Assurance Plan c. Effectiveness of Resources d. Cimpliance	(Kirogo et al., 2014)

The Partial Least Squares (PLS) method is used for data analysis. A component or variant-based Structural Equation Modelling (SEM) equation model. PLS is a variation of SEM that switches from a covariance-based to a variance-based approach (Ghozali, 2018). PLS-SEM analysis typically consists of two submodels: a measurement model, also known as an outer model, and a structural model, often known as an inner model (Ghozali, 2018). Smart PLS V.3.0 software was used to analyse the data.

The level of significance of hypothesis testing can be determined using the t-statistic value. To test the hypothesis using statistical values, the alpha is set to 5% or 0.05, and the t-statistic value is set to 1.96 using the bootstrapping method. (a) If Sig > 0.05 and the statistical t test coefficient value is 1.96, the hypothesis is rejected; (b) If Sig > 0.05 and the statistical t test coefficient value is 1.96, the hypothesis is accepted.

3. RESULTS AND DISCUSSIONS

Results

Prior to doing research, preliminary observations known as pilot studies are conducted. Aims to assess participants' knowledge of the study topics and the need for improvement before to implementation in actual studies. This pilot study test included ten volunteers divided into two groups: the experimental group (A) and the control group (B). The findings suggest that group A obtained an understanding of the effectiveness of internal audits and risk-based internal auditing (RBIA). It is known that 80% of participants in group A truly grasp the RBIA information supplied, while 20% are in the understanding evaluation. Furthermore, the manipulation check assessment at the end of the pilot test revealed that each statement was fully grasped by group A and group B participants.

Table 2 contains descriptive statistical information. The standard deviation is less than 20% of the mean value. The standard deviation value reflects how diverse the sample is. The higher the standard deviation, the further the sample data is from the average. Conversely, the lower the standard deviation, the more uniform the data from all samples will be.

Table 2: Descriptive Statistics

Variabel	N	Min	Max	Mean	Std. Deviation	Category
Professional Development (X1)	96	1.00	5.00	3.9021	0.99557	Good
Top Management Commitment (X2)	96	1.00	5.00	3.9229	0.88419	Good
The Role of Internal Audit (X3)	96	1.00	5.00	3.8688	0.89057	Good
Risk Based Internal Audit (Z)	96	1.00	5.00	3.9354	0.96747	Good
Internal Audit Effectiveness (Y)	96	1.00	5.00	4.0229	0.85637	Good
Valid N (listwise)	96					

Source: Primary data, analysed with SPSS (2022)

other latent variables. As a result, it is concluded that it satisfies the criterion for discriminant validity. Aside from construct validity testing, construct reliability testing was also performed, as evaluated by the composite reliability (CR) of the indicator block that assesses the construct. To demonstrate the instrument's precision, concentration, and consistency in measuring the construct, reliability testing is required. If the CR value of a construct is greater than 0.7, it is said to be reliable. According to the test results, all CR values are more than 0.7, indicating that they meet the dependability standards based on CR. The Cronbach's alpha (CA) value was then used to conduct reliability testing. The CA value is more than 0.7, indicating that it passes the Cronbach's alpha reliability standards.

Structural Model Test Results (Inner Model)

The structural model (inner model) is tested once the estimated model fits the criteria of convergent validity, discriminant validity, and reliability, and an ideal model has been generated in accordance with the study conceptual framework. Assessing the inner model entails examining the link between latent constructs by examining the estimated path parameter coefficients and their significance levels (Ghozali, 2018).

The inner model test begins by estimating or estimating parameters, namely by performing PLS bootstrapping calculations with the results shown in Figure 2.

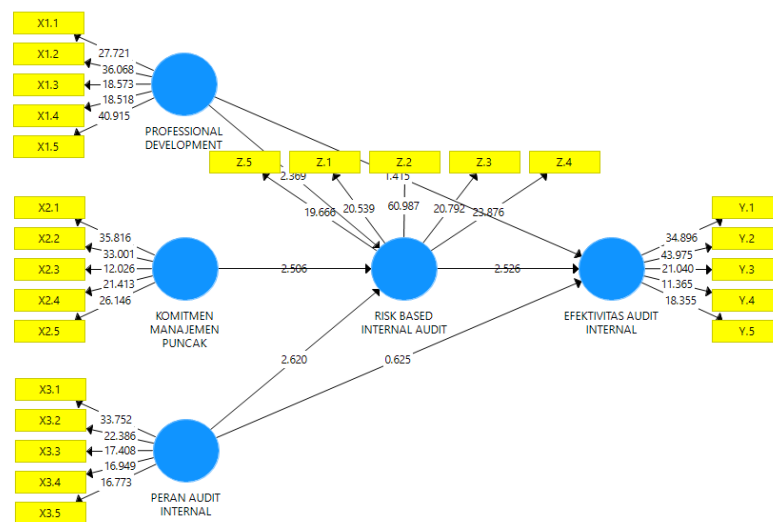


Figure 2. Output Display for PLS Bootstrapping Calculation

PLS evaluates the structural model using adjusted R-square for the dependent variable and path coefficient values for the independent variables, which are then tested for significance using the t statistic for each path. Because there are 5 (five) research variables, the modified R-square value is employed. The R-Square and Adjusted R-Square values are shown in Table 5.

Table 5. R-Square and Adjusted R-Square Values

	R Square	R Square Adjusted
Internal Audit Effectiveness (Y)	0.665	0.651
Risk Based Internal Audit (Z)	0.576	0.562

Source: Output PLS, 2022

According to the table above, the adjusted R-square value of internal audit effectiveness (Y) is 0.651, implying that risk-based internal audit (Z) can explain 65.1% of internal audit effectiveness (Y). The adjusted R-square value of risk-based internal audit (Z) is 0.562, indicating that professional development (X1), top management commitment (X2), and the role of internal audit (X3) can explain 56.2% of the variance in risk-based internal audit (Z).

The t-statistic value obtained from the bootstrapping procedure is used to test hypotheses. If the t-statistic value is more than 1.96 and the significance threshold is less than 5% (two tailed). Table 6 shows the outcomes of the SmartPLS programme bootstrapping process.

Table 6. Direct Test (Path Coefficient)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Professional Development (X1) -> Internal Audit Effectiveness (Y)	0.158	0.140	0.112	1.415	0.158
Professional Development (X1) -> Risk Based Internal Audit (Z)	0.273	0.259	0.115	2.369	0.018
Top Management Commitment (X2) -> Internal Audit Effectiveness (Y)	0.169	0.153	0.154	1.099	0.272
Top Management Commitment (X2) -> Risk Based Internal Audit (Z)	0.332	0.332	0.132	2.506	0.013
The Role of Internal Audit (X3) -> Internal Audit Effectiveness (Y)	0.085	0.067	0.136	0.625	0.532
The Role of Internal Audit (X3) -> Risk Based Internal Audit (Z)	0.359	0.362	0.137	2.620	0.009
Risk Based Internal Audit (Z) -> Internal Audit Effectiveness (Y)	0.542	0.566	0.215	2.526	0.012

Source: Output PLS, 2022

According to the test results, the factors Professional Development, Management Commitment, and the Role of Internal Audit all have a positive and significant impact on Risk Based Internal Audit. As a result, the first, second, and third hypotheses are all accepted. Professional Development, Top Management Commitment, and Internal Audit Role have no effect on Internal Audit Effectiveness. Finally, the Risk Based Internal Audit variable has a large and favourable impact on Internal Audit Effectiveness.

Furthermore, in Table 7, we can see the results of the mediation (indirect) test in the outcomes of the bootstrapping procedure.

Table 7. Mediation Test (Specific Indirect Effect)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Professional Development (X1) -> Risk Based Internal Audit (Z) -> Internal Audit Effectiveness (Y)	0.148	0.157	0.102	1.445	0.149
Top Management Commitment (X2) -> Risk Based Internal Audit (Z) -> Internal Audit Effectiveness (Y)	0.180	0.193	0.115	1.561	0.119
The Role of Internal Audit (X3) -> Risk Based Internal Audit (Z) -> Internal Audit Effectiveness (Y)	0.195	0.210	0.114	1.711	0.088

Source: Output PLS, 2022

According to the test results, the Risk Based Internal Audit variable is incapable of mediating the link between Professional Development and Internal Audit Effectiveness. The Risk Based Internal Audit variable is unable to bridge the gap between Top Management Commitment and Internal Audit Effectiveness. The Risk Based Internal Audit variable is unable to mediate the link between the Role of Internal Audit and the Internal Audit Effectiveness.

Discussion

This study attempts to solve the Internal Control System (SPI) problem from the standpoint of audit effectiveness, which has never been done in the North Sumatra Province government before. The author perceives a link between government performance as measured by Main Performance Indicators (IKU) and Key Performance Indicators (IKK) and SPI strengthening. Professional Development has a favourable and significant effect on Risk Based Internal Audit (RBIA) at the North Sumatra Province Inspectorate, according

to the test results. This suggests that the higher the Professional Development, the better the RBIA technique implementation. Respondents agreed that enrolling in the Professional Development programme will improve their grasp of the RBIA approach and allow it to be used more effectively. Respondents' responses to the RBIA indicators show that attending formal and informal training, as well as being willing to invest time in independent learning by accessing the Xpose website for SPIP internal circles, is critical to increasing understanding of the RBIA and improving the quality of public services in terms of monitoring development in North Sumatra. The majority of respondents have a bachelor's degree, which influences their openness to regulations, knowledge, and training in new techniques to improve their capabilities as internal auditors to manage risks in such a way that they can be easily handled and controlled to achieve goals. The findings of this study confirm the previous research, who discovered that training can increase an auditor's professional ability in boosting the effectiveness of RBIA implementation (Lois et al., 2021; Zainal Abidin, 2017).

Top Management Commitment has a favourable and considerable impact on RBIA. This suggests that the bigger the Top Management Commitment, the greater the RBIA adoption. According to perspectives, respondents agreed that Top Management's dedication was demonstrated by seriousness in implementing laws and regulations and encouraging the establishment of rules. Respondents' responses to the RBIA indicators show that seriously committing to follow up on PP No. 60 of 2008 concerning SPIP with an effort to ask the Governor to issue a Circular Letter (SE) regarding the comprehensive implementation of the RBIA (risk-based audit) method in the North Sumatra Province government will have a significant influence on the implementation of risk-based audit techniques as a risk management framework in all Regional Apparatus Organisations. The majority of respondents have a bachelor's degree with a major in accounting and a basic understanding of RBIA, including compiling and determining the audit universe (RAU), determining the risk scale, and the decision-making process in prioritising OPDs with the highest risk. OPDs with a high risk scale receive extra attention, with a higher percentage of programmes and consultancy activities included in the Annual Supervision Work Programme (PKPT). The findings of this study confirm the similar findings, who discovered that if Top Management Commitment is high, RBIA adoption can be successful (Khaddafi et al., 2022; Majumdar & Manohar, 2016).

The role of Internal Audit has a good and significant impact on RBIA. This means that the better the role of Internal Audit, the better the RBIA implementation. Respondents agreed, based on views, that a large percentage of consultancy activities in carrying out the duty of Internal Audit would boost RBIA adoption. According to the responses to the RBIA indicators, a higher percentage of consultancy activities must be handled due to limited Human Resources (HR) and audit infrastructure. APIP's job as a government internal audit can be regarded to be effective if it can demonstrate the role as intended in Article 11 of PP No 60 of 2008, Specifically, providing adequate guarantees for compliance, economy, efficiency, and effectiveness in carrying out the duties and functions of government agencies; providing early warning and increasing the effectiveness of risk management in carrying out the functions of government agencies; and maintaining and improving the quality of governance of government agencies. As a result, auditors and PPUPD must be able to play the best possible role in managing the risks that exist in local governments in order for RBIA to be implemented successfully. This study's findings back up previous studies it demonstrates that carrying out the duty of internal audit optimally will assist the organisation in ensuring that relevant audit procedures have been followed (Coetzee & Lubbe, 2014; Mihret & Grant, 2017).

Professional Development, Top Management Commitment, and the Role of Internal Audit all have no effect on Internal Audit Effectiveness, according to the results of testing the independent variable on the dependent variable. Continuous Professional Development does not ensure that the audit will be successful. On the Professional Development indication, respondents answered with scores of never and rarely in significant numbers, indicating a willingness to devote personal time and money in independent learning. One of the causes is that self-assessment evaluations were not carried out in accordance with the Internal Audit - Capability Model (IACM) framework. The North Sumatra Province Inspectorate's auditors and PPUPD exclusively employ self-assessment to meet Employee Credit Scores (SKP). Similarly, one of the causes of Top Management Commitment is the high frequency of leadership rotation at the Regional Apparatus Organisation (OPD) leadership level as auditees, leading the audit function to not run efficiently. This is due to the auditee's lack of sense of responsibility when confronted with each audit engagement by the auditor and PPUPD from the inspectorate over the former leadership's programmes and activities because they are not the Budget User Authority (KPA). Then, as Plt., assume the dual duty of Inspector, as designated by the Governor. As a regional APIP, the Head of the Education Service permits the inspectorate's performance to be decreased. Finally, the Role of Internal Audit demonstrates that the findings do not support the theory. This is due to the fact that many respondents gave medium or low scores on the Role of Internal Audit indicator. According to respondents' perspectives, the inspectorate's lack of independence, which is positioned under the Governor as the head of regional government, can lead to conflicts of interest,

restricting consultancy activities in carrying out the Internal Audit Role. The responses to the Internal Audit Role indicator were also influenced by restricted Human Resources (HR) and audit infrastructure, which influenced consulting activities.

The findings of this study do not corroborate the other findings, who show that engaging in a Professional Development programme to improve abilities boosts the effectiveness of Internal Audit (Handoyo & Bayunitri, 2021; Joshi, 2020). Then there's the similar research, which shows a favourable and significant association between top management support and increased internal audit effectiveness (Alzeban & Gwilliam, 2014; Lenz et al., 2014). According to previous research, there is little influence of top management support on boosting internal audit effectiveness in Ghana's decentralised regional administration (Ahenkan et al., 2018; Mahyoro & Kasoga, 2021). Finally, it contradicts by other research demonstrating that the role of internal audit has a major influence on internal audit effectiveness (Ahmet, 2021; Coetzee & Lubbe, 2014). However, it is similar to previous research, which reveals that the role of internal audit with the size of the internal audit function as a proxy has no link with internal audit effectiveness (Mat Zain et al., 2015; Oussii & Boulila, 2021).

Meanwhile, evaluating variable Z against variable Y reveals that RBIA has a positive and significant impact on Internal Audit Effectiveness. This suggests that the greater the level of RBIA implementation, the greater the level of Internal Audit Effectiveness. According to respondents' thoughts, RBIA would boost the implementation of Internal Audit Effectiveness by comprehending the concept and emphasising its implementation in the form of consultation activities inside the North Sumatra Province administration. According to respondents' responses to the Internal Audit Effectiveness indicator, providing full access to the integrated system, providing assessments every semester in accordance with the Key Performance Indicator (KPI), and participation in offering risk-based audit techniques (RBIA) when preparing the Annual Supervision Work Programme (PKPT) is a prerequisite for improving the quality of public services in order to improve North Sumatra's image in the nation. These findings complement other research, which found that the RBIA technique has a favourable and significant influence on the effectiveness of internal audit in the Malaysian government sector (Coetzee & Lubbe, 2014; Zainal Abidin, 2017). Individual audits are included in micro level audits, while annual audits (macro level audits) are not. The public sector in Portugal used a risk-based approach for each audit engagement (micro level audit) (Lois et al., 2021; Zainal Abidin, 2017). Previous research shows similar conclusions, namely that the Malaysian public sector performs risk-based audits at the micro level (Ahmad et al., 2018; Metwally & Diab, 2021). Based on the explanation above, it is clear that the findings of this study support the theory and are consistent with past studies.

Finally, the findings of the mediation test to determine the relationship between the independent variable and the dependent variable demonstrate that Professional Development, Top Management Commitment, and the Role of Internal Audit through RBIA have no effect on Internal Audit Effectiveness. This suggests that RBIA is unable to explain the relationship between the independent variable and the dependent variable, demonstrating the impact that Professional Development, Top Management Commitment, and the Role of Internal Audit have on Internal Audit Effectiveness. Many respondents gave never or rarely answers on the Professional Development indication because they did not completely comprehend the RBIA process and its relevance to Internal Audit Effectiveness. To improve audit effectiveness, professional development can strengthen hard skills through technical assistance or RBIA technique training. Then, because they did not completely comprehend the RBIA process and its relationship to Internal Audit Effectiveness, a high proportion of respondents responded with scores of never and rarely to the Top Management Commitment indicator. Top management's commitment to participate in internal audits through RBIA if strengthened by appropriate regulations/legislation. This is because the major component in the efficacy of Internal Audit is the support of senior management, which demonstrates seriousness by issuing a binding Governor's Circular Letter (SE). Finally, because they did not completely comprehend the RBIA process and its relevance to Internal Audit Effectiveness, many respondents gave low and medium ratings on the Role of Internal Audit indication. Internal audit's function as a provider of assurance (assurance activities) and consultation (consulting activities) is critical in RBIA internal audits if the auditor understands and executes the process correctly. RBIA as an alternative for boosting internal audit effectiveness.

The findings of this study offer some really significant insights and contributions for both academic and practical uses. From an academic standpoint, this research will add to the existing literature, particularly by investigating the factors that influence the success of internal audit using the RBIA approach. Although much research has been done on RBIA, this study presents a specific proxy and is also a new study in the North Sumatra Province inspectorate environment. Despite extensive research on risk-based approaches, no previous research has evaluated the relationship between RBIA deployment and its influence on internal audit effectiveness. A similar study focus is also uncommon in the regional APIP environment.

Meanwhile, enhancing audit procedures for better performance and service efficacy is an important proposal for policymakers and internal audit experts in the regional APIP sector throughout North Sumatra Province. Although previous research indicates that the focus of internal audit has shifted from a systems and control-based to a risk-based approach, this study finds that there is still a stronger tendency among province and district/city inspectorates throughout North Sumatra to use a compliance-based approach. Lack of exposure to and knowledge of RBIA among government internal auditors results in low implementation of the RBIA strategy, which has implications for internal audit effectiveness. It also demonstrates that the lack of adoption of the RBIA approach may be attributable to the general maturity level of risk management practises and risk culture in the North Sumatra government environment, which effects audit goals, audit programme design, and reporting formats.

As a result of these findings, regulators and policymakers, particularly Inspectors and Governors, may be encouraged to take the necessary steps in designing and revising training requirements in order to improve and strengthen internal audit practises throughout regional APIPs. Furthermore, as a standard-setting authority, BPKP representing the province of North Sumatra can use the input and findings from this research to build an understanding of more up-to-date internal audit practises in the regional APIP sector throughout the province of North Sumatra.

4. CONCLUSION

The RBIA strategy in the North Sumatra Province inspectorate may be understood through continuous professional training of auditors supported by the dedication of senior management (inspectors and assistant inspectors) and recognising the role of internal audit. To improve the efficacy of internal audit, the RBIA method is utilised as a guideline in producing the Annual Supervision Work Programme (PKPT). This is consistent with enhancing SPIP and increasing regional APIP capabilities. Professional Development, Top Management Commitment, and the Role of Internal Audit, on the other hand, have had no effect on Internal Audit Effectiveness. One of the most influential reasons is a lack of understanding of the RBIA approach. Risk-Based Internal Audit is unable to mediate the impact of Professional Development, Top Management Commitment, and the Role of Internal Audit on Internal Audit Effectiveness. This is because the North Sumatra Province inspectorate is currently in the review stage of implementing RBIA, therefore auditors are regarded unable to completely grasp the meaning of RBIA.

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