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The impact of risk management implementation on the effectiveness of SAI's internal audit function

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ABSTRACT

Internal audits play an important role in monitoring the achievement of organizational objectives. However, research on the factors influencing the success of internal audits remains limited. This study aims to investigate the effectiveness of BPK's Itama (The Inspectorate General of the Audit Board of the Republic of Indonesia) functions, hypothesized to be influenced by risk management policy implementation. This study employed quantitative methods; data were collected via surveys and analyzed using structural equation modeling (SEM) to test theory-based hypotheses. Results reveal a significant positive correlation between risk management policy implementation and the effective functioning of Itama. Additionally, the study identifies key factors determining the success of risk management policy implementation: economic, social, and political conditions. Therefore, internal auditors of supreme audit institutions (SAI) must consider these external factors when implementing risk management policies. This study contributes to understanding internal audit effectiveness by highlighting the impact of external economic, social, and political conditions.

KEYWORDS:
Policy implementation; risk management; effectiveness

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INTRODUCTION

An effective Supreme Audit Institution (SAI) is an important element of any country's accountability system. The duties of the SAI typically encompass financial audits of government financial reports, compliance audits that assess the legality of transactions conducted by government agencies, and performance audits to examine the economics, efficiency, or effectiveness of public expenditures. By closely examining public spending, the SAI guarantees that public money is allocated effectively and efficiently by rules and regulations. In carrying out its function, SAI may face various strategic risks that can disrupt the achievement of organizational objectives, such as audit results that do not meet stakeholder expectations and failure to achieve organizational performance targets. In addition to strategic risks, SAIs face operational risks related to business processes or day-to-day operational activities. In order to manage these risks, SAI needs to implement risk management (IDI, 2023).

Several studies have shown that an internal auditor plays a vital role in managing organizational risks (Aikins, 2011; IIA, 2018, 2020; Rahmasari & Setiawan, 2022). Their role includes assisting in the identification and mitigation of risks faced by the organization (Coetzee & Lubbe, 2014), providing assurance on the implementation of risk management (de Zwaan et al., 2011), evaluating risk management processes, and assisting management in dealing with crises (IIA, 2009). Internal auditors should also be able to act as a trusted advisor to management in implementing risk management policies (Coetzee, 2016; Erasmus & Coetzee, 2018).

Internal auditors are recommended to conduct risk-based audits (Abdelrahim & Al-Malkawi, 2022; Görener, 2017; Politis, 2018). Previous studies show that implementing risk management can improve organizational performance (Abuzarqa, 2019; Coetzee & Lubbe, 2014; Gordon et al., 2009; Kpodo & Agyekum, 2015). Although previous studies have explored the relationship between risk management and organizational performance, limited research specifically examines the relationship between the implementation of risk management and the effectiveness of internal auditors of supreme audit organizations. Based on the background of this problem, this research will investigate the relationship between risk management policy implementation and the effectiveness of SAI's internal auditor by investigating the implementation of risk management policy at the Indonesian SAI or BPK. The role of the internal auditor in BPK is carried out by the Inspectorate General (Itama).

This study investigates the factors that determine the success of risk management implementation at BPK's internal auditor because BPK has been implementing risk management since 2017. BPK formally applied risk management in 2018 based on the BPK Decree Number 6/K/I-XIII.2/8/2018 concerning the Policy for Implementing Risk Management within the BPK. This policy regulates the Scope, Objectives, and Principles of Risk Management in BPK, Risk Management Structure, and Risk Management Process. The implementation of risk management at BPK refers to SNI ISO 31000:2011 Risk Management - Principles and Guidelines also SNI ISO/TR 31000:2016 Risk Management for the Implementation of SNI ISO 31000. Itama is the leading sector in the implementation of risk management in BPK. To support the implementation of risk management, Itama is developing organizational capacity and resources in risk management. Thus, this study contributes to the literature by identifying factors that influence the effectiveness of internal audits, particularly in implementing risk management policies, by identifying the influential factors and opportunities for future research.

Organizational Effectiveness

An activity is deemed effective if it achieves its objectives or desired results within the planned time and quality standards (INTOSAI, 2019). From an organizational perspective, effectiveness refers to the extent to which multiple objectives, whether official or operational, are met (Daft, 2021). Thus, effectiveness can be interpreted as the degree of success an organization attains in achieving the various goals or targets established in its policies. Organizational effectiveness can also be evaluated by how well an organization performs its core duties and functions.

The definition of organizational effectiveness that measures only the achievement of organizational goals is considered too narrow. Steers (1975, 1976) argues that the definition of organizational effectiveness, which measures only the organization's condition at a certain point in time, is static and does not consider the efforts made by the organization's members to achieve the expected conditions. Steers posits that organizational effectiveness is a dynamic concept and proposes a model encompassing three main components: (1) goal optimization, (2) a systems perspective, and (3) an emphasis on human behavior within organizational settings. This model suggests that organizational effectiveness should not be assessed merely by goal attainment but must also consider the organization's constraints (e.g., limited funding, personnel, technology). Thus, the success or failure of an organization should be evaluated by comparing its achievements to attainable goals given the available resources rather than ideal goals.

Steers (1975, 1976) posits that organizational effectiveness is influenced by several external environmental factors, including organizational characteristics (such as structure and technology), environmental characteristics (such as economic and market conditions), employee characteristics (such as performance and commitment), also managerial practices and policies. Additionally, Steers emphasizes the concept of goal optimization, arguing that the behavior of organizational members significantly impacts organizational performance. If members support the leadership's policies, they are more likely to work diligently to achieve organizational goals. Conversely, members who do not support these policies will not fully commit to their implementation. Therefore, when discussing organizational effectiveness, it is crucial to examine the attitudes of organizational members toward these policies.

This study adopts Steers' (1975, 1976) concept of effectiveness, which views effectiveness as a process toward achieving goals rather than merely attaining ideal organizational outcomes. Steers emphasizes the importance of analyzing the factors contributing to achieving organizational goals rather than formulating static criteria for measuring effectiveness. This perspective remains relevant and frequently referenced in research on organizational performance effectiveness (Martz, 2013; Sharma & Singh, 2019; Shet et al., 2019).

Risk Management

Risk can generally be defined as uncertainty in achieving organizational goals (The International Organization for Standardization, 2018). All for-profit and non-profit organizations have goals or objectives, so risk applies to all organizations. Risk is commonly defined as the uncertainty of financial returns in profit-seeking organizations. In not-for-profit organizations, risk usually results in uncertainty in achieving non-financial organizational targets, such as not achieving public satisfaction. Every action taken by an organization creates uncertainty, which can either hinder the achievement of objectives or create opportunities. Any uncertainty must be managed from the outset, as this enables organizations to identify potential threats and turn them into opportunities. Risk management identifies all threats to the organization and uses various methods

of risk sharing, risk transfer, risk avoidance, or risk reduction to ensure the achievement of organizational objectives.

Previous research has found a link between the implementation of risk management and the effectiveness of internal audit functions (Abdelrahim & Al-Malkawi, 2022; Arena & Azzone, 2009; Coetzee & Erasmus, 2017; Coetzee & Lubbe, 2014; Gordon et al., 2009; Thomya & Saenchaiyathon, 2015; Turetken et al., 2020). Based on an extensive literature review, Abdelrahim and Al-Malkawi (2022) identify five factors that determine the effectiveness of internal audits. These factors and their dimensions are (1) the characteristics of internal audit (independence and size); (2) the relationship between internal audit and the governing bodies (audit committee and senior management); (3) the processes of the internal audit function (risk-based audit and quality assurance program); (4) the resources of internal audit (competences and outsourcing); and (5) the coordination with external assurance providers (the implementation of combined assurance and external auditor). Using the same methodology, Turetken et al. (2020) also discovered the relationship between the use of control risk self-assessment and the effectiveness of the internal audit function. The duties of an internal auditor encompass risk consulting, risk assurance activities, and risk-based audit engagements (Coetzee & Erasmus, 2017). These duties enable the internal auditor to fulfill its role as a trusted advisor to management.

The Drivers of Successful Policy Implementation

In carrying out its functions, an organization will create and implement various policies. These policies can be expressed through regulations, guidelines, manuals, standard operating procedures (SOP), and others. Parties related to public policy are obliged to implement applicable policies. Thus, policy implementation is something that is routinely carried out by a public organization. Even though it is carried out routinely, this does not guarantee that every implementation of public policy will always be successful. This has prompted several researchers to study the factors that determine the success of the implementation of public policies.

Public policy includes statements about goals or objectives to be achieved (policy ends) and the policy means or tools that will be used to achieve policy objectives (Howlett & Cashore, 2014). Policy implementation is a continuation of the enactment of a policy. It includes actions taken (or not taken) by bureaucrats in carrying out a program to achieve policy objectives. Public policy implementation can be interpreted as various actions taken by individuals or groups from public organizations that are directed to achieve the goals of a policy (Van Meter & Van Horn, 1975).

Judging a public policy as successful or failed is complex and subjective (McConnell, 2010b, 2015). Hogwood and Gunn (2014) divide policy failure into non-implementation and unsuccessful implementation, describing it as a discrepancy between the policymaker's expectations and the actual outcomes. Conversely, a public policy is considered effective if implemented successfully, generates positive impacts for society in line with its objectives, and does not attract excessive public criticism (McConnell, 2010a). Van Meter and Van Horn (1975) identify six variables dynamically linked to the effectiveness of policy implementation: (1) policy standards and objectives, (2) policy resources, (3) the quality of inter-organizational communication and enforcement activities, (4) the characteristics of the implementing agencies, (5) economic, social, and political conditions, and (6) the disposition of implementers.

Policy standards and objectives outline the goal of policy implementation and performance indicators used to determine policy success. Policy objectives are considered to be the most important factor in assessing policy implementation, as they will be the basis for determining the

success of the policy (Grindles, 1980; McConnell, 2010a, 2015; Tummers et al., 2012; Van Meter & Van Horn, 1975). Generally, policy objectives aim to achieve an organization's vision and mission. Brown et al. (2013) note that having a shared vision of the policy goal among those who implement it will help an organization achieve its policy goal. In risk management implementation, the objective is to create and protect value (ISO 31 000, 2018). Doing so improves performance, encourages innovation, and supports the achievement of objectives.

In order for the policy implementation to be successful, it is necessary to ensure that it has access to the necessary resources in the appropriate quantity, quality, and time (Chase, 1979; Howlett, 2018; Van Meter & Van Horn, 1975; Wu et al., 2015). Previous research has demonstrated a correlation between the availability of resources and the success of policy implementation (Makinde, 2005; Wu et al., 2015). Policy resources include time, human resources, funding, equipment, technical and regulatory support, etc. Thus, with adequate resources, policy implementation will succeed. The better the quantity and quality of resources to implement a policy, the greater the chance of successful implementation. Resources are needed to provide incentives for policy implementers. The incentives for successful policy implementation, promotions, and additional work facilities can be awarded.

Policy implementation frequently necessitates the involvement of multiple parties, thereby requiring the establishment of cooperative and coordinated efforts (Van Meter & Van Horn, 1975). Failure to establish good working relationships with relevant parties, particularly target groups, is one of the causes of failed policy implementation (Hogwood & Gunn, 2014; Leong & Howlett, 2022; May, 2014). This requires good communication and coordination with related parties (Makinde, 2005). Support for implementing a policy can be voluntary or the result of coercion. Voluntary support will occur when the parties involved understand the policy well. In order to be well understood, policy implementers need to be able to communicate policy content. Under certain conditions, coercion is needed so that the parties involved support policy implementation. Therefore, the ability to force other related parties also determines the success of policy implementation. Whether support for policy implementation is obtained voluntarily or by coercion, effective coordination between related parties is always required.

Van Meter and Van Horn (1975) posit that the quality of policy implementers determines the success of policy implementation. The quality of implementer encompasses both the formal structural elements of organizations and the informal attributes of their personnel. In general, implementing institution characteristics refer to the capacity of an organization to implement policies. The better the capacity of an organization which is marked by the vitality of an organization, the adequacy of resources (Grindles, 1980), the competence of policy implementers (Smith, 1973), the ability to control subunits (Hogwood & Gunn, 2014), and the ability to establish good communication with internal and external parties, the greater the chance of successful policy implementation (Howlett et al., 2015; Leong & Howlett, 2022; Van Meter & Van Horn, 1975; Wu et al., 2015; Zeelen et al., 2011). In this study, the characteristics of Itama, which act as the leading sector for implementing internal supervision, will determine the successfulness of risk management implementation.

The survival of an organization is closely tied to its external environment. Public policy scholars have emphasized the critical role of external environmental conditions in determining the success of policy implementation (Grindle, 1980; Hogwood & Gunn, 2014; Smith, 1973; Van Meter & Van Horn, 1975). Numerous organizations have failed to adapt to changing external conditions. For instance, Nokia once dominated the mobile phone market but later declined due to shifts in

public interest toward smartphones. Similarly, Kodak, a former leader in photography, went bankrupt due to changes in the external environment (Vecchiato, 2017). In policy implementation, external factors such as economic, social, and political conditions significantly impact success (Van Meter & Van Horn, 1975). Favorable conditions facilitate smooth policy implementation, whereas significant opposition from external parties can hinder success.

The disposition of implementers refers to their positive or negative attitudes toward the policy they are implementing (Makinde, 2005; Tummers et al., 2012; Van Meter & Van Horn, 1975). If an implementer perceives a policy as unfavorable, they are unlikely to make a serious effort to implement it. Conversely, if they view the policy positively, they will support and diligently implement it. Additionally, dissatisfaction among program managers and a lack of participation and consultation can hinder successful program implementation (Zeelen et al., 2011).

Hypothesis Development

According to the Organization and Implementing Work Procedures, one of Itama's functions is to formulate policies for upholding integrity and ethical values within the BPK (BPK, 2019, 2024). An analysis of Itama's Performance Report over the last five years indicates several areas needing improvement, including staff understanding of BPK's vision and mission, implementation of BPK's core values, internal supervision processes, follow-up on Itama's recommendations from internal audits, and achieving Level 4 of the Internal Audit Capability Model (IACM).

Itama's suboptimal performance in these areas represents a bureaucratic phenomenon likely caused by specific conditions, including the suboptimal implementation of risk management policies. As discussed in the literature, the implementation of risk management policies (IKMR) is a precursor to the effectiveness of Itama's functions (EPITEMA). Therefore, it is hypothesized that the implementation of risk management policies at Itama has a positive correlation with the effectiveness of Itama's functions.

RESEARCH METHOD

This study employed a questionnaire to gather data from internal auditors at Itama, comprising the entire population of 94 officials due to its manageable size. Prior to distribution, the questionnaire underwent a pilot test involving ten auditors from BPK who had previous experience at Itama but were no longer serving there. The pilot test aimed to identify errors, ensure the survey's ease of completion, verify the questionnaire's clarity and interpretation, and assess whether question order influenced responses. Feedback from pilot respondents informed refinements to the survey instrument before its final administration.

The final questionnaire was structured into two sections. The first section gathered demographic data from respondents, covering gender, education, age, and job tenure. The second section assessed variables of interest using a 5-point Likert scale: "strongly disagree" (coded as 1), "disagree" (coded as 2), "slightly disagree" (coded as 3), "agree" (coded as 4), and "strongly agree" (coded as 5). This section comprised 36 questions, evenly split between aspects related to implementing risk management policies (IKMR, the exogenous latent variable) and the effectiveness of Itama's functions (EPITAMA, the endogenous latent variable), with 18 questions allocated to each.

Variables influencing risk management implementation (IKMR) effectiveness were identified

using the Van Meter and Van Horn (1975) model, selected for its straightforward yet comprehensive approach. This model encompasses policy content, organizational resources, communication capabilities, characteristics of the implementing organization, external environmental conditions, and the attitudes of implementers (Pülzl & Treib, 2017; Yang et al., 2022), making it an ideal framework for studying policy implementation (Hill & Hupe, 2002). Following the conceptual definition of exogenous latent variables for policy implementation by Van Meter and Van Horn (1975), IKMR was operationalized into six analytical dimensions or variables. These dimensions were then translated into 18 manifest variables or indicators, detailed in Table 1.

Table 1. Exogenous Latent Variable Construct of IKMR

Dimensions (Variables)	Manifest Variables (Indicators)
Policy Standards and Objectives (PSO)	1. Vision 2. Mission 3. Strategic Goal
Policy Resources and Incentives (PRI)	1. Human resources 2. Finances 3. Infrastructure
Interorganizational Communication and Enforcement Activities (ICEA)	1. Consultation 2. Coordination 3. Confirmation
The Characteristics of the Implementing Agencies (CIA)	1. Authority 2. Duty 3. Function
Social, Economic and Political Conditions (SEPC)	1. Social Conditions 2. Economic Conditions 3. Political Conditions
The Disposition of Implementers (DI)	1. Work views 2. Work attitudes 3. Performance accountability

The organizational effectiveness variable (EPITAMA) is assessed based on Steers' (1975, 1976) framework, which identifies three dimensions: (1) goal optimization, (2) systems perspective, and (3) human behavior in organizations. These dimensions serve as the foundation for defining EPITAMA in this study. Subsequently, these three dimensions were operationalized into 18 manifest variables or indicators, as detailed in Table 2.

Table 2. Endogenous Latent Variable Construct of EPITAMA

Dimensions (Variables)	Manifest Variables (Indicators)
The concept of goal optimization (KOT)	1. Goal reference 2. Formulation of objectives 3. Strategy for achieving goals 4. Techniques for achieving goals 5. Optimization of goal achievement 6. Evaluation of goal achievement
System perspective (PRS)	1. Leadership subsystem 2. Planning subsystem 3. Organizing subsystem 4. Coordination subsystem 5. Implementation subsystem 6. Reporting subsystem

Dimensions (Variables)	Manifest Variables (Indicators)
Human behavior in organizations (TPMO)	1. Work behavior patterns 2. Individual work behavior 3. Group work behavior 4. Organizational work behavior 5. Work behavior incentives 6. Sanctions for work behavior

RESULT AND DISCUSSION

Data analysis utilized Structural Equation Modeling (SEM) conducted with Lisrel 8.8 software. The survey achieved a 100% response rate among all Itama employees. Table 3 presents the demographic profile of the respondents. Regarding work experience, a significant majority (56.38%) reported working for over 20 years at BPK. Educationally, the majority held a diploma/bachelor's degree (55.32%), followed by a master's/doctorate (42.55%), with a small percentage (2.13%) having completed secondary education only. Based on these profiles, respondents demonstrated sufficient competence to complete the questionnaire effectively.

Table 3. Demographic Profiles of Respondents

Category	Response	Frequency	Percentage
Gender	Male	51	54.26
	Female	43	45.74
Education	Senior High School	2	2.13
	Diploma/Bachelor	52	55.32
	Master and Doctorate	40	42.55
Age	40 or below	35	37.23
	Between 40-50	49	52.13
	51 or above	10	10.64
Tenure	Less than 10 years	15	15.96
	10-20 years	26	27.66
	More than 20 years	53	56.38

Validity, Reliability Test, and Goodness of Fit

Validity and reliability tests were conducted to assess the validity and reliability of the multi-item constructs. A construct reliability score above 0.70 (recommended by Fornell & Larcker, 1981) and a variance extracted (VE) score exceeding 0.50 (as per Hair et al., 2010) indicate construct validity. Results showed that the construct reliability score was 0.98 (> 0.7), and the variance extracted (VE) score was 0.80 (> 0.5) for IKMR, 0.98 (> 0.7), and 0.77 (> 0.5) for EPITEMA. These findings confirm that the latent constructs of IKMR and EPITEMA are reliably measured and valid.

Several statistical tests are employed to assess whether the proposed model accurately describes the relationships among the studied variables, ensuring it qualifies as robust. Table 4 presents the results of these tests evaluating the goodness of fit between the model and the data. Each indicator in Table 4 demonstrates a good fit between the specified model and the observed data.

Table 4. Demographic Profiles of Respondents

Indicator	Value	Cut-off Value*	Status
Degree of Freedom	51.00		
Chi-Square (p)	51.80 (p = 0.44)	p > 0.05	Model fit
Root Mean Square Error of Approximation (RMSEA)	0.013	≤ 0.08	Model fit
Normed Fit Index (NFI)	0.98	≥ 0.90	Model fit
Relative Fit Index (RFI)	0.97	≥ 0.90	Model fit
Goodness of Fit Index (GFI)	0.92	≥ 0.90	Model fit

The Results of Hypothesis Testing

The results of the hypothesis testing yielded an estimated standardized regression weight coefficient value of 0.79 with a T-value of 6.27 (cut-off point: 1.96) and a coefficient of determination of 0.63. Therefore, it can be concluded that the implementation of risk management policies has a positive effect on the effectiveness of Itama's function. This means that the better the implementation of risk management, the greater the effectiveness of Itama's function. However, as the six dimensions of Van Meter and Van Horn's (1975) model influence Itama's effectiveness by 63%, other exogenous latent variables have not been included.

After conducting path analysis, a second-order Confirmatory Factor Analysis (CFA) was performed on each exogenous latent variable or dimension to determine the greatest impact on the endogenous latent variable. The results of the second-order CFA are detailed in the Appendix. Based on these findings, the estimated scores for each dimension were as follows: social, economic, and political conditions (0.89); disposition of implementers (0.88); policy standards and objectives (0.84); characteristics of implementing agencies (0.78); policy resources and incentives (0.78); and inter-organizational communication and enforcement activities (0.74). This indicates that social, economic, and political conditions exert the strongest influence and should be prioritized in Itama's functions. Furthermore, the study confirms a positive effect (63%) of risk management policy implementation on Itama's operational effectiveness. Therefore, enhancing risk management practices is crucial for improving Itama's functions, especially given its limited resources. Based on these results, Itama should prioritize these influential factors in the following order.

Social, Economic, and Political Conditions

The dimension of social, economic, and political conditions is proven to have the greatest influence on the successful functioning of Itama. This means that Itama must pay close attention to the social, economic, and political environmental conditions that affect the implementation of risk management policies and immediately create a mitigation plan to deal with conditions that are less conducive to policy implementation.

The results of this study are consistent with previous studies that found that successful policy implementation requires the support of good social conditions (Firdausi et al., 2023). Apart from social factors, political interests that influence policy implementation also affect the success of policy implementation. In general, favorable political conditions will support the successful implementation of a policy (Duadji, 2019). On the other hand, unfavorable political conditions will hinder achieving policy implementation goals (Sari & Sujianto, 2021). This result has not been identified in previous studies within the study area because previous studies have only focused on identifying internal factors that influence the effectiveness of internal auditors' functions, such as

resources and leadership support (Abdelrahim & Al-Malkawi, 2022; Kpodo & Agyekum, 2015).

Disposition of Implementors

The analysis of survey responses showed that the respondents tended to agree that every Itama employee should have a professional working attitude and take responsibility for the implementation of risk management. However, most of Itama's employees believe that the professional work attitude in implementing risk management still needs improvement. This condition is influenced by the fact that most Itama employees do not yet have professional certification in internal supervision and risk management. The results of the structural model tests show that the Disposition of Implementers dimension is proven to have a significant influence on the successful implementation of risk management policies. This condition implies that Itama needs to improve the quality of its work outlook, work attitudes, and performance accountability.

The results of this study are consistent with previous studies, which explain that the disposition of implementers is one of the factors that influence the successful implementation of public policies (Liando, 2013; Xue et al., 2022). The hesitant attitude of policy implementers may hinder the successful implementation of policies (Zeelen et al., 2011).

Policy Standards and Objectives

The results of testing the indicators of organizational vision, mission and strategic objectives show that these three indicators are closely related to the dimension of policy standards and objectives. The verification test results show that the Policy Standards and Objectives dimension strongly influences the successful implementation of risk management policies. Itama needs to socialize intensively on the importance of implementing risk management policies to achieve the organization's vision, mission, and strategic objectives.

This study's results are consistent with previous studies' findings that policy objectives and standards significantly impact public policy implementation (Yang et al., 2022). Policy implementers do not clearly understand policy standards and objectives lead to unfavorable attitudes, which negatively impact policy implementation (Dewi & Oktamianti, 2019). With clear policy standards and objectives, implementing agencies will be more focused in performing their functions in implementing the policy.

Characteristics of the Implementing Agencies

The results of the measurement model testing show that the indicators of authority, duties and functions are closely related to the dimension of the characteristics of the implementing agencies. The results of testing the structural model show that the extent of Itama's authority, duties, and functions significantly impacts the successful implementation of risk management policies. This implies that Itama must be given sufficient authority for the implementation of risk management policies to be successful.

These findings are consistent with previous research findings that the characteristics of policy implementers have a significant impact on the success of policy implementation (Zeelen et al., 2011). If the dimension of the characteristics of the implementing agency, especially the implementation of supervision, are not good, then the implementation policy will not be optimal (Djohanis et al., 2024). Specifically for internal audit, the findings of this study align with previous studies that found that the greater the authority given to internal auditors, the more effective the implementation of their functions (Endaya & Hanefah, 2016; Erasmus & Coetzee, 2018).

Policy Resources and Incentives

The survey responses analysis shows that most Itama's employees believe that Itama's human resources are not yet professional. This is consistent with the fact that most of Itama's employees do not yet have professional certification in supervision and risk management. In addition, survey respondents state that the performance of Itama's budget resources in implementing risk management policies still needs to be improved. The results of testing the measurement model show that the human resources, budget resources and infrastructure resources indicators are closely related to the policy resources and incentives dimensions. This implies that Itama needs to improve the quality of its resources and professionalism.

This finding supports the results of a previous study which found that the outcome of risk management implementation on the effectiveness of the internal audit function is influenced by political resources and incentives (Alzeban, 2015; Roussy et al., 2020; Turetken et al., 2020) and internal auditor competence (Alzeban & Gwilliam, 2014; Erasmus & Coetzee, 2018).

Interorganizational Communication and Enforcement Activities

The survey responses show that Itama has carried out intensive confirmation with other organizational working units in the process of implementing risk management guidelines. However, Itama still needs to strengthen consultation activities with other organizational working units. The survey responses also show that Itama needs to coordinate more intensively with other organizational working units to ensure that the implementation of risk management runs well.

The results of structural model test indicate that this dimension has a significant impact on the successful implementation of risk management policies. This is consistent with previous research which has found that the quality of coordination between internal and external auditors determines the effectiveness of the internal audit function (Alzeban & Gwilliam, 2014). Furthermore, the results of this research also support previous research which found that the quality of the internal auditor's relationship with external stakeholders determines the success of the internal auditor's role (Carvalho & Junior, 2015; Lenz & Hahn, 2015).

This study has several limitations. First, the number of respondents in this study is limited to one SAI. Such limited data raises questions about the generalisability of the findings, especially to other institutions. Secondly, this research does not consider factors other than those suggested by Van Meter and Van Horn (1975) that have the potential to influence the implementation of risk management, such as developments in information and communication technology. Given these limitations and the findings of this research, it is recommended that future studies expand the research sample to encompass internal audits within other public institutions like ministries and regional governments or explore other SAIs. Additionally, further investigation into the impact of information and communications technology on the effectiveness of risk management policy implementation could provide valuable insights for enhancing organizational practices and strategies. These steps contribute to a more comprehensive understanding of effective risk management across diverse organizational contexts.

CONCLUSION

Based on the research results, it can be concluded that the implementation of the risk management policy significantly impacts the effectiveness of Itama's function. This means that the

better the implementation of the risk management policy, the more effective the main inspectorate's functions will be. This research also finds that external factors, namely social, economic, and political conditions, influence the effectiveness of internal audit functions, particularly in implementing risk management. Thus, this study contributes to the literature by identifying external factors that influence the effectiveness of internal audits in the implementation of risk management policies.

The results of this research also show that the influence of the six dimensions of Van Meter and Van Horn's (1975) model on the effective implementation of Itama's functions is 63%, so there are still other exogenous latent variables that influence the effective implementation of Itama's functions that are not considered in Van Meter and Van Horn's (1975) model. This is predicted because the communication between individuals in an organization has not been considered in inter-organizational communication and enforcement activities. Additionally, technological progress and the development of the VUCA era (volatility, uncertainty, complexity, and ambiguity) have yet to be considered in the dimension of policy resources and incentives. In the VUCA era, human resources, budget, infrastructure, information resources, and information technology are needed. Information technology resources can optimize big data analytics and artificial intelligence to support decision-making and achieve organizational, functional tasks.

These research findings are crucial for Itama's strategic approach to enhancing its operational effectiveness. To optimize its functions, Itama should prioritize several key areas. Firstly, attention should be directed toward refining Policy Standards and Objectives, encompassing clear organizational vision, mission, and strategic goals. Secondly, Itama must bolster Policy Resources and Incentives, ensuring adequate human, financial, and infrastructural resources are available. Thirdly, enhancing inter-organizational communication and enforcement activities is essential to fostering effective consultation, coordination, and confirmation processes. Fourthly, optimizing the Characteristics of Implementing Agencies and defining their authority, responsibilities, and operational functions is critical. Additionally, navigating the impact of Social, Economic, and Political Conditions on operations and understanding the Disposition of Implementers, including their work attitudes and performance accountability, are equally pivotal.

Given Itama's resource constraints, a strategic prioritization framework should guide efforts to integrate risk management seamlessly into all existing BPK management systems. Developing a roadmap for strengthening risk management integration with governance and compliance practices, specifically through Integrated Governance, Risk, and Compliance frameworks, will ensure a targeted and effective approach. Moreover, continuous investment in education, training, and professional certification programs—especially in internal oversight, risk management, and information technology—will equip Itama with the evolving expertise needed to navigate future challenges adeptly and enhance organizational resilience.

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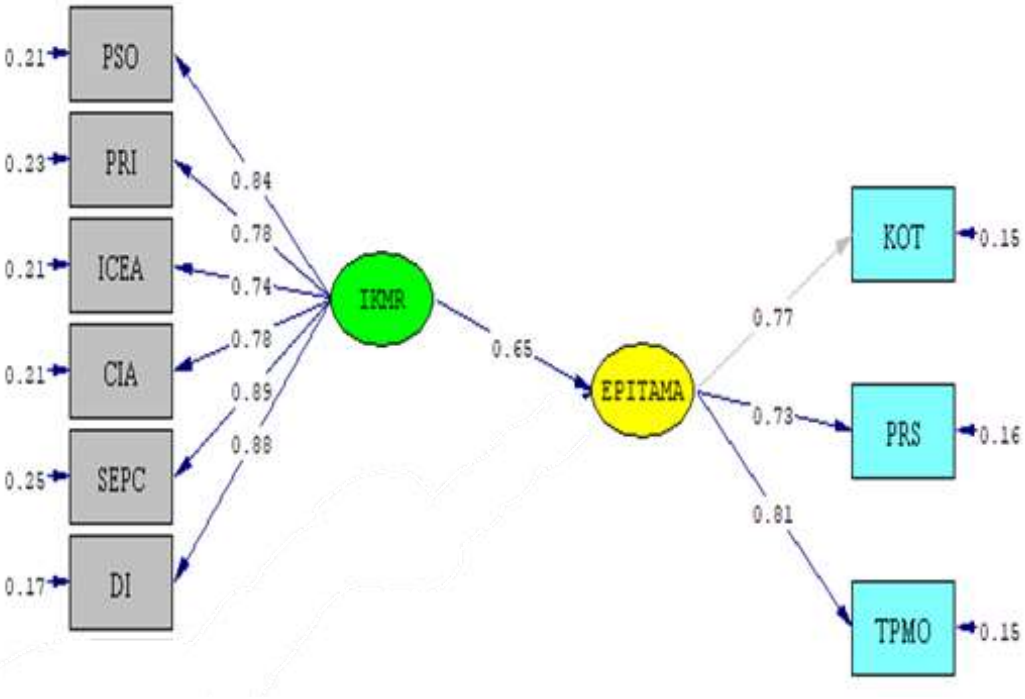
APPENDICES

Appendix 1. Estimate Confirmatory Factor Analysis



Appendix 2. T-Value Confirmatory Factor Analysis