



ANALYSIS OF THE INFLUENCE OF RISK MANAGEMENT AND MONITORING ON THE EFFECTIVENESS OF BUDGET ABSORPTION IN THE PUBLIC WORKS AND SPATIAL PLANNING DEPARTMENT OF NORTH MINAHASA REGENCY

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Received: 02/04/2026 | Revised: 04/05/2026 | Accepted: 20/05/2026 | Published: 09/06/2026

Abstract

This study aims to analyze the effect of risk management and monitoring on the effectiveness of budget absorption at the Public Works and Spatial Planning Office of North Minahasa Regency. Specifically, this study aims to: (1) analyze the effect of risk management on the effectiveness of budget absorption, (2) analyze the effect of monitoring on the effectiveness of budget absorption, and (3) analyze the simultaneous effect of risk management and monitoring on the effectiveness of budget absorption. This study employs a quantitative approach using multiple linear regression analysis. The results show that partially, risk management has a positive and significant effect on the effectiveness of budget absorption, with a t-value of 4.743 and a significance level of 0.002. Monitoring also has a positive and significant effect, with a t-value of 3.842 and a significance level of 0.000. Simultaneously, risk management and monitoring have a significant effect on the effectiveness of budget absorption, with an F-value of 7.855 and a significance level of 0.001. The coefficient of determination (R^2) is 0.282, indicating that both variables contribute 28.2% to the effectiveness of budget absorption. These findings indicate that the effective implementation of risk management and monitoring jointly enhances the effectiveness of budget absorption.

Keyword: Risk Management, Monitoring, Budget Absorption Effectiveness, Local Government of North Minahasa Regency

INTRODUCTION

Public financial administration is a discipline that studies how governments plan, allocate, manage, and account for state or regional budgets in order to achieve public development goals [2]. Ikhsan stated that public financial administration is not only about the technical mechanisms of financial management, but also reflects the quality of governance through transparency, accountability, effectiveness, and efficiency in the use of public funds. According to Mikesell, the public budget is the main government policy instrument that shows development priorities and is a tool for distributing resources to achieve public welfare [3]. In Indonesia, the principles of public financial administration are regulated, among others, in Law Number 17 of 2003 concerning State Finance, Law Number 1 of 2004 concerning State Treasury, and Law Number 23 of 2014 concerning Regional Government, which emphasizes that regional financial management must be carried out in an orderly, regulatory, efficient, economical, effective, transparent, and responsible manner [4].

Public financial administration in practice is also related to budget planning mechanisms, internal control, fiscal risk management, performance effectiveness, and internal and external supervision, so that the success of regional development is largely determined by the quality of integrated public financial management.[2], [5] One of the primary concerns within the framework of public financial administration is the effectiveness of budget absorption. Etymologically, the word effectiveness comes from the word effective, which means successful or bringing results [6]. In the Great Dictionary of the Indonesian Language, effective is defined as something that has an impact, is useful, and is capable of producing results according to objectives, while effectiveness refers to the level of success or efficacy of an activity in achieving predetermined objectives. From a managerial perspective, effectiveness is closely related to the achievement of organizational goals [7]. The effectiveness of budget absorption is an important indicator in assessing the government's ability to manage development programs. At the regional level, the quality

of budget implementation is measured not only by the amount of budget absorbed, but also by the extent to which this realization is able to produce outputs in accordance with planning objectives. Therefore, understanding the effectiveness of budget absorption cannot be separated from the concept of public budget management as a whole (Pratama, 2020).

Budget absorption effectiveness is a measure that describes the extent to which budget realization can be achieved according to plans and targets (Kusuma & Budiwitjaksono, 2022). Mahmudi (2021) explains that effective budget absorption reflects planning readiness, accuracy of the goods and services procurement process, implementation capability, and the quality of internal control. Low budget absorption can result in development delays, budget waste, decreased quality of public services, and reduced credibility of local governments. Furthermore, ineffective budget absorption can also result in failure to achieve development outputs and outcomes planned in planning documents such as the Regional Work Plan (RKPD) and Regional Apparatus Strategic Plan (Renstra). Meanwhile, in the Regulation of the Director General of Treasury PER-5/PB/2022 concerning Technical Guidelines for Assessing IKPA Expenditures of State Ministries/Institutions, Budget Absorption is a performance indicator used to measure the quality of budget implementation of Ministries/Institutions/Echelon I/Work Units based on the conformity of expenditure execution with quarterly budget absorption targets.

A common phenomenon in regional governments is the accumulation of budget absorption at the end of the fiscal year. Bappenas (2020) noted that most regional governments still experienced a backlog of spending realization in the fourth quarter, particularly in the public works sector, due to planning delays, administrative errors, failed tenders, and technical issues in the field. This absorption pattern indicates weak budget implementation effectiveness. Lestari (2021) emphasized that delays in establishing the regional budget (APBD), budget revisions, coordination issues between regional agencies, and poor technical planning quality contributed to low budget absorption in the infrastructure sector. The Public Works and Spatial Planning (PUPR) Department is a regional agency that plays a vital role because it is responsible for regional infrastructure development. Infrastructure is a key pillar of economic development, so the effectiveness of budget absorption in this sector is crucial to overall development success. However, due to the complex and risky nature of its work, the PUPR Department is vulnerable to budget deviations. Research by Suryani and Wibowo shows that infrastructure projects still frequently experience delays, re-tendering, technical planning revisions, and discrepancies between planning and realization, which ultimately reduce the effectiveness of budget absorption.[8]

The North Minahasa Regency Public Works and Spatial Planning Agency is a regional agency with a significant budget allocation, making its performance crucial for the effectiveness of development implementation. However, budget realization data indicates that spending efficiency has fluctuated over the past three years and has not yet reached a stable level, as shown in the table below. Data shows that the budget realization of the Public Works and Spatial Planning Agency of North Minahasa Regency has fallen short of its targets in the past three years. In 2022, budget realization reached only 88.79% of the total allocation, leaving approximately 11.21% of the budget unutilized. This situation indicates obstacles in activity implementation, including in the planning, procurement, and monitoring stages of program implementation. In 2023, budget performance also fell short of the expected target, reaching only 98.06%. Similarly, in 2024, realization declined again, reaching only 87.86% of the allocated budget. This percentage is lower than in 2022, indicating that challenges in spending efficiency persist. The low realization rate may reflect several issues, such as delays in the procurement of goods and services, changes in activity planning, unprepared technical documents, or weak monitoring follow-up. The realization of these three years' achievements demonstrates inconsistent spending efficiency and internal factors affecting the stability of budget performance. This pattern also underscores the importance of strengthening oversight functions to ensure optimal budget utilization and targeted development outputs.

In addition, based on initial observations, there are other issues affecting the effectiveness of budget absorption, including weak coordination across sectors and with construction service providers, administrative obstacles in settling bills that lead to late payments, and activity output achievements that have not fully met targets due to technical constraints in the field. The accumulation of realization at the end of the fiscal year is also an indicator that activity implementation is not distributed proportionally each quarter. These various problems indicate weaknesses in the aspects of planning, implementation, internal control, risk management application, and monitoring, which, according to Hartati, should be the main pillars in realizing effective budget absorption .[9] To measure the effectiveness of budget absorption in a more objective and standardized manner, this study uses the Budget Execution Performance Indicator (IKPA) established by the Ministry of Finance of the Republic of Indonesia as an official instrument to assess the quality of budget execution in government agencies. IKPA is an indicator formulated by the Directorate General of Treasury and serves as the basis for evaluating budget execution performance as stated in the Minister of Finance Regulation Number 195/PMK.05/2018 concerning Monitoring and Evaluation of the

Implementation of the K/L Expenditure Budget, and is strengthened by the Regulation of the Director General of Treasury Number PER-5/PB/2022 concerning Technical Instructions for Assessing the Performance Indicators of the Expenditure Budget Execution of Ministries/Institutions.

The first indicator is the percentage of budget realization against the ceiling, which indicates the agency's ability to execute the budget according to plan. The second indicator is the timeliness of bill settlement or payment, which reflects procedural compliance, administrative effectiveness, and smooth cash flow of ministries/agencies and local governments. The third indicator is the achievement of output against output targets, which ensures that the absorbed budget actually produces physical and non-physical outputs according to the target, as one of the components of the assessment of the quality of state spending in the IKPA. The fourth indicator is the distribution of budget absorption per quarter, which assesses the regularity of budget implementation throughout the year and avoids the realization of accumulated at the end of the year, a classic problem often highlighted in budget implementation evaluations. Thus, the effectiveness of budget absorption in this study is understood as the effectiveness of budget implementation measured based on realization, timeliness, output achievement, and regularity of budget absorption based on IKPA standards.

In this study, one of the factors suspected of influencing the effectiveness of budget absorption is risk management. Risk management is a systematic process for identifying, analyzing, evaluating, addressing, and monitoring risks that can hinder the achievement of organizational goals (PermenPAN-RB Number 5 of 2020). In the context of the public sector, the implementation of risk management is part of strengthening governance and internal control systems, as stipulated in Government Regulation Number 60 of 2008 concerning the Government Internal Control System (SPIP). The relationship between risk management and the effectiveness of budget absorption lies in the organization's ability to anticipate various obstacles to program implementation from the planning stage to implementation, such as the risk of procurement delays, technical document revisions, changes in field conditions, administrative risks, and cross-sectoral coordination risks. When risks can be identified and mitigated early on, activity implementation tends to be more controlled, resulting in more timely budget realization, more targeted output achievements, and more proportional budget absorption distribution. Pratama's research shows that the implementation of risk management has a positive and significant impact on the quality of regional government budget planning and realization [10]. Similar findings were also confirmed by Sari which concludes that good risk management can minimize activity deviations and increase the effectiveness of budget absorption in infrastructure projects. [11] Therefore, risk management is an important variable that needs to be analyzed in relation to the effectiveness of budget absorption at the Public Works and Public Housing Agency of North Minahasa Regency.[12]

Besides risk management, another factor suspected of influencing the effectiveness of budget absorption is monitoring. Monitoring is the systematic and continuous process of collecting, processing, and analyzing information to ensure that program implementation is running according to plan and to detect deviations early (Bappenas, 2020). In the budget implementation cycle, monitoring serves as a control mechanism that ensures alignment between activity plans, financial realization, and physical progress in the field. Timely and routine monitoring can help agencies identify implementation obstacles early, expedite the completion of billing administration, and prevent work delays that often cause budget absorption to pile up at the end of the year. Effective monitoring also encourages rapid corrective follow-up so that output targets can be achieved on schedule. Research by Priatna and Nugroho (2022) shows that monitoring has a positive and significant effect on the realization of infrastructure development budgets in local governments [13]. Langi also found that good monitoring and internal oversight increase the effectiveness of budget implementation in local governments in North Sulawesi [14]. Thus, monitoring is an important variable relevant to analyzing its influence on the effectiveness of budget absorption in the Public Works and Housing Agency of North Minahasa Regency.

Based on the various problems above, this research formulates research questions, namely:

- 1) Does risk management affect the effectiveness of budget absorption at the Public Works and Spatial Planning Agency of North Minahasa Regency?
- 2) Does monitoring affect the effectiveness of budget absorption at the Public Works and Spatial Planning Agency of North Minahasa Regency?
- 3) Does simultaneous risk management and monitoring affect the effectiveness of budget absorption at the Public Works and Spatial Planning Agency of North Minahasa Regency?

METHOD

This study uses a quantitative research approach. This approach was chosen because it allows researchers to observe phenomena in a measurable manner and produce findings that can be analyzed using statistical techniques. According to Sugiyono [14], quantitative research is a method based on the philosophy of positivism and is used to study specific populations or samples, using data collection techniques that utilize research instruments and numerical data analysis. In other words, this approach seeks to describe, explain, and test relationships between variables based on quantifiable data. In the context of this research, a quantitative approach is used to explore and analyze the influence of risk management (X1), monitoring (X2), and budget absorption effectiveness (Y) at the Public Works and Spatial Planning Agency of North Minahasa Regency.

The level of variable data measurement in this study includes an interval scale, namely by using the Likert Scale as a measurement scale on the questionnaire instrument to obtain data in the form of respondents' level of agreement with each research statement, with a score range of 1 to 5 (STS–SS). The data obtained are respondents' perception data that show the order or ranking of the level of agreement (from strongly disagree to strongly agree). Thus, the data describes the level of respondents' assessment of the variables Risk Management (X1), Monitoring (X2), and Budget Absorption Effectiveness (Y), but it cannot be interpreted that the distance between answer categories is absolutely the same. The population in this study was all employees at the Public Works and Spatial Planning Agency of North Minahasa Regency. Based on the latest personnel data, the number of employees at the Public Works and Spatial Planning Agency of North Minahasa Regency was 76, and the sample size for this study was set at 43 respondents.

RESULTS AND DISCUSSION

The Influence of Risk Management (X1) on the Effectiveness of Budget Absorption (Y) at the Public Works and Spatial Planning Agency of North Minahasa Regency

The results of the study indicate that the risk management variable (X1) has a positive and significant effect on the effectiveness of budget absorption (Y). This is indicated by the calculated t value of 4.743, which is greater than the t table (2.01), and the significance value of 0.002, which is smaller than 0.05. This finding indicates that the better the implementation of risk management in an organization, the higher the level of budget absorption effectiveness that can be achieved. Conceptually, these results align with the view that risk management is a crucial component of modern governance, which faces complex and uncertain environmental dynamics [15]. Government agencies today are required not only to implement programs but also to anticipate various risks that could potentially hinder the achievement of development goals. Therefore, risk management is no longer viewed as an additional administrative activity, but rather as a strategic necessity in governance.

Referring to the international standard ISO 31000:2018, risk management is a structured and systematic process for identifying, analyzing, evaluating, and addressing risks that can impact the achievement of organizational goals. This concept has been adopted in national regulations through Minister of Administrative and Bureaucratic Reform Regulation Number 5 of 2020, which emphasizes that risk management is a coordinated effort to manage uncertainty in government administration. Furthermore, Government Regulation Number 60 of 2008 concerning the Government Internal Control System also requires every agency to identify and control risks as part of strengthening organizational governance. In its implementation, risk management is carried out through several main stages: risk identification, risk analysis, risk evaluation, risk management, and ongoing risk monitoring (BPKP, 2020; KemenPAN RB, 2020). These stages are crucial because they provide a systematic framework for managing potential obstacles that arise in program implementation, including budget management.

In the context of the public works sector, the risks faced tend to be more complex than in other sectors. Ramadhan and Hakim identified various risks that frequently arise in infrastructure projects, such as delays in the preparation of technical documents, changes in work specifications, volume miscalculations, and fluctuations in material prices. Furthermore, external factors such as weather and geographic conditions also impact project implementation. If these risks are not properly managed from the planning stage, they will result in delays in project implementation and low budget absorption. The findings of this study also reinforce the results of previous research showing that risk management has a significant influence on budget performance. Pratama found that the implementation of risk management contributes to improving the quality of local government budget planning and realization. Sari expressed a similar sentiment, stating that good risk management can minimize deviations in activity implementation and increase the effectiveness of budget absorption in infrastructure projects . [11]Furthermore, Hartati also emphasized that agencies that consistently implement risk management tend to have a higher level of budget effectiveness [9] When linked to the principles of ISO 31000, the positive influence of risk management on budget absorption effectiveness can be explained through several key principles. The integration principle

emphasizes that risk management must be part of all organizational processes, including budget planning and execution. The dynamic principle indicates that risks can change over time, necessitating continuous monitoring. Meanwhile, the inclusiveness principle emphasizes the importance of involving various parties in the risk management process, resulting in more comprehensive and accurate decision-making. In the empirical context of the Public Works and Spatial Planning Agency of North Minahasa Regency, this study demonstrates that the implementation of risk management plays a strategic role in improving the effectiveness of budget absorption. Issues such as delays in activity implementation, the backlog of budget realization at the end of the year, and weak coordination between work units are essentially forms of risk that can be minimized through the implementation of sound risk management. Through a systematic risk identification process, agencies can identify potential obstacles early on. Furthermore, through risk analysis and evaluation, agencies can prioritize risks that need to be addressed. The risk management stage enables organizations to design appropriate mitigation strategies, while risk monitoring ensures that the steps taken are effective. Thus, risk management is not merely reactive but also proactive in ensuring smooth budget execution.

According to the results of data processing using SPSS, a regression coefficient of 0.589 indicates that any improvement in risk management quality will positively contribute to increased budget absorption effectiveness. This confirms that risk management plays a significant role in improving organizational performance, particularly in regional financial management. From a governance perspective, the implementation of risk management also contributes to improving the quality of good governance, particularly in the aspects of accountability, transparency, and effectiveness [12]. Hartati states that risk management helps improve accountability in financial performance because any potential obstacles are identified early and can be mitigated appropriately [9]. Thus, risk management serves not only as a technical tool but also as a strategic instrument in increasing public trust in the government. However, the coefficient of determination (R^2) of 0.282 indicates that other factors influence budget absorption effectiveness beyond risk management and monitoring. This demonstrates that budget absorption effectiveness is a complex phenomenon influenced by various factors, such as planning quality, human resource capacity, and the monitoring system. Based on this description, it can be concluded that risk management has a significant and strategic influence in increasing the effectiveness of budget absorption, particularly in agencies with a high level of complexity such as the Public Works and Public Housing Agency. The implementation of structured, integrated, and sustainable risk management will help organizations anticipate uncertainty, mitigate potential obstacles, and ensure that available budgets can be optimally utilized to support the achievement of regional development goals.

The Effect of Monitoring (X2) on the Effectiveness of Budget Absorption (Y) at the Public Works and Spatial Planning Agency of North Minahasa Regency

The results of the study indicate that the monitoring variable (X2) has a positive and significant effect on the effectiveness of budget absorption (Y). This is indicated by the calculated t value of 3.842, which is greater than the t table (2.01), and the significance value of 0.000, which is smaller than 0.05. This finding indicates that the better the implementation of monitoring in an organization, the higher the effectiveness of budget absorption that can be achieved. Conceptually, monitoring is a key element in modern and accountable governance. The government is not only required to plan and budget programs effectively but also to ensure that activities are implemented according to established plans (Tarore, 2025). In this context, monitoring serves as an ongoing oversight mechanism throughout the project, not just at the final evaluation stage (Sendouw, 2023; Suliantoro, 2020). Therefore, monitoring is a crucial instrument in ensuring budget effectiveness and achieving development targets.

Monitoring is also understood as a systematic process involving the continuous collection, processing, and analysis of information to ensure alignment between program implementation and established plans (Bappenas, 2020). This definition emphasizes that monitoring is iterative, analysis-based, and performance-control-oriented. The OECD (2022) also emphasizes that monitoring is a form of ongoing assessment aimed at providing early indications of progress and obstacles to program implementation. Thus, monitoring functions as an early warning system, enabling organizations to take timely corrective action. In the institutional context of Indonesia, the monitoring function is strengthened through various regulations, such as Law Number 23 of 2014 and Minister of Home Affairs Regulation Number 86 of 2017, which establish monitoring as an integral part of the regional development control cycle. Furthermore, the State Administration Institute (2019) emphasized that monitoring is necessary to ensure that activities are implemented according to established performance indicators and targets. This demonstrates the strategic importance of monitoring in managing government performance. The results of this study indicate that monitoring conducted at the Public Works and Spatial Planning Agency of North Minahasa Regency significantly contributes to increasing the effectiveness of budget absorption. This is explained by the fact that monitoring allows the agency to identify various obstacles in activity implementation, such as work delays, discrepancies in physical

and financial progress, and administrative constraints. Effective monitoring allows these problems to be detected early and addressed promptly. In the public works sector, monitoring plays a crucial role due to the complex and high-risk nature of the project. Infrastructure projects often face various obstacles, such as changing field conditions, procurement delays, and fluctuating material prices. Without effective monitoring, these obstacles can lead to delays in project implementation and result in low budget absorption. Therefore, monitoring serves as a control tool to ensure that each stage of the project is running according to plan. Monitoring indicators, including timeliness, frequency of implementation, report quality, inter-sectoral coordination, follow-up on monitoring results, and the availability of data and information systems, are critical factors in determining monitoring effectiveness (Bappenas, 2020). Timely and routine monitoring allows organizations to be more responsive to changing conditions. Meanwhile, good reporting quality and coordination result in more accurate information for decision-making.

This study's findings align with various previous studies showing that monitoring significantly impacts budget implementation effectiveness. Priatna and Nugroho (2022) found that monitoring positively impacts infrastructure project budget realization, as routine monitoring can improve project completion timeliness. Langi also demonstrated that internal monitoring and oversight contribute to increased budget absorption effectiveness in local governments, particularly in North Sulawesi. Furthermore, research by Arief (2023) and Ardana et al. (2016) shows that internal oversight, which is closely linked to the monitoring function, significantly influences the acceleration of budget realization. This finding reinforces the idea that monitoring is not merely administrative but has a direct impact on budget management performance. In other words, strong monitoring will foster organizational discipline in implementing programs according to established plans. Based on the results of research data processing using SPSS, the regression coefficient of 0.511 in this study indicates that any improvement in monitoring quality will positively contribute to the effectiveness of budget absorption. This confirms that monitoring plays a significant role in improving budget performance, although its contribution is not as significant as the risk management variable. Nevertheless, monitoring remains a crucial factor as it serves as a control mechanism to ensure program implementation remains on track. From a governance perspective, monitoring is also closely linked to the principles of accountability, transparency, and effectiveness. Systematic, data-driven monitoring enables organizations to provide accurate and accountable information regarding program implementation and budget utilization. This ultimately increases public trust in government performance (Sendouw, 2023).

However, in practice, monitoring often faces various obstacles, such as limited human resources, lack of coordination between work units, and a suboptimal monitoring information system (Bappenas, 2020). This situation also has the potential to occur at the North Minahasa Regency Public Works and Public Housing Agency, necessitating efforts to improve the quality of monitoring comprehensively, both in terms of human resource capacity and support systems. Based on this description, it can be concluded that monitoring has a significant impact on the effectiveness of budget absorption. Timely, routine, and data-driven monitoring will help organizations ensure that program implementation is proceeding according to plan and anticipate any challenges that arise in the field. Thus, the results of this study not only support the proposed hypothesis but also reinforce various theories and previous empirical findings regarding the importance of monitoring in public sector budget management. The practical implication of these findings is the need to strengthen the monitoring system at the Public Works and Spatial Planning Agency of North Minahasa Regency, so that the effectiveness of budget absorption can be continuously improved.

The Effect of Risk Management (X1) and Monitoring (X2) Simultaneously on the Effectiveness of Budget Absorption (Y) at the Public Works and Spatial Planning Agency of North Minahasa Regency

The results of the study indicate that the risk management (X1) and monitoring (X2) variables simultaneously have a positive and significant effect on the effectiveness of budget absorption (Y). This is proven by the results of the F test, where the calculated F value of 7.855 is greater than the F table (3.23), and the significance value of 0.001 is smaller than 0.05. This finding indicates that the combination of the two independent variables together has a real contribution in increasing the effectiveness of budget absorption. Conceptually, these results confirm that budget absorption effectiveness cannot be explained by a single factor, but rather is the result of the interaction of various managerial functions within public organizations. Risk management and monitoring are two essential, complementary instruments in the budget management cycle. Risk management plays a role in the planning and uncertainty anticipation stages, while monitoring functions in the implementation stage to ensure that activities proceed according to plan (Irianto et al., 2022). Risk management, as defined in the ISO 31000 framework, is a systematic process of identifying, analyzing, evaluating, and addressing risks that could impact the achievement of an organization's objectives. Monitoring, on the other hand, is a continuous oversight process aimed at ensuring that activity implementation aligns with established plans (Bappenas, 2020; OECD, 2022). These two concepts are closely related, with monitoring serving as a mechanism to ensure that planned risk mitigation strategies are implemented

effectively. In the context of local government budget management, the integration of risk management and monitoring is crucial. Risk management enables agencies to identify potential obstacles early in the planning stage, while monitoring ensures that these obstacles can be managed during activity implementation (Hartati, 2020). Thus, the combination of the two will result in a more comprehensive and effective control system.

The results of this study also show that although both variables have a significant influence, risk management has a more dominant influence than monitoring, as evidenced by its higher standardized coefficient (Beta). This indicates that successful budget management is largely determined by the quality of planning and the agency's ability to anticipate risks from the outset. However, without effective monitoring, even good planning cannot be implemented optimally. These findings align with various previous studies showing that a combination of sound planning, risk management, and effective oversight is a key factor in improving budget performance. Pratama (2020) demonstrated that risk management influences the quality of budget planning and implementation. Meanwhile, Priatna and Nugroho (2022) and Langi (2023) found that monitoring plays a crucial role in improving the effectiveness of budget implementation. Thus, these research findings reinforce the inseparability of these two variables in budget management practices. Furthermore, the results of this study align with findings from Bappenas (2020), which stated that many deviations in budget execution are caused by weak risk identification during the planning stage and suboptimal monitoring during activity implementation. This indicates that failure in any of these aspects will directly impact the low effectiveness of budget absorption.

The coefficient of determination (R^2) of 0.282 indicates that risk management and monitoring together explain 28.2% of the variation in budget absorption effectiveness. Although this value is considered moderate, it is sufficient to demonstrate that both variables contribute significantly. The remaining 71.8% is influenced by factors outside the research model, such as planning quality, human resource capacity, procurement systems, and other external factors. From a governance perspective, the integration of risk management and monitoring is part of the effort to realize the principles of good governance, particularly in terms of accountability, transparency, and effectiveness (Sendouw, 2023). Government Regulation Number 60 of 2008 concerning the Government Internal Control System emphasizes the importance of risk control as part of the internal control system. Meanwhile, monitoring is a crucial instrument in ensuring that these controls are effective.

In the empirical context of the Public Works and Spatial Planning Agency of North Minahasa Regency, the results of this study indicate that increasing the effectiveness of budget absorption requires an integrated approach between risk management and monitoring. Problems such as delays in activity implementation, the accumulation of budget realization at the end of the year, and discrepancies between planning and implementation can be minimized if these two functions operate optimally and support each other. Practically, the integration of risk management and monitoring can be achieved through several steps, such as developing a risk profile to serve as the basis for monitoring, using measurable performance indicators, and strengthening the reporting and evaluation system on a regular basis. Furthermore, human resource capacity building is also needed to understand and implement both concepts effectively (Amelia & Haris, 2021). Thus, the results of this study imply that improving the effectiveness of budget absorption cannot be achieved by improving just one aspect, but rather requires a comprehensive and integrated approach. Risk management and monitoring must be viewed as a single, complementary and mutually reinforcing component of the budget management system. Based on this description, it can be concluded that simultaneous risk management and monitoring significantly influence the effectiveness of budget absorption. The combination of the ability to anticipate risks and the ability to control activity implementation is a key factor in improving budget management performance within local governments.

CONCLUSION

Based on the results of the discussion regarding the influence of risk management and monitoring on the effectiveness of budget absorption in the Public Works and Spatial Planning Agency of North Minahasa Regency, it can be concluded that risk management has a positive and significant effect on the effectiveness of budget absorption. The results of the partial test show that the risk management variable has a calculated t value of 4.743 which is greater than the t table (2.01) with a significance level of 0.002 (<0.05). This indicates that the implementation of good risk management, through the process of identification, analysis, evaluation, handling, and monitoring of risks, can increase the effectiveness of budget absorption. The more optimal the risk management carried out, the smaller the potential for obstacles in the implementation of activities, so that budget realization can run more timely and in accordance with planning. Furthermore, based on the research results, monitoring has a positive and significant effect on the effectiveness of budget absorption. The partial test results show that the monitoring variable has a calculated t -value of 3.842, which is greater than the t -table (2.01) with a significance level of 0.000 (<0.05). This indicates that monitoring carried out systematically, timely, and continuously can increase the effectiveness of budget absorption.

Monitoring allows agencies to detect various obstacles in the implementation of activities early and immediately take corrective action.

Meanwhile, the test results also prove that risk management and monitoring simultaneously have a positive and significant effect on the effectiveness of budget absorption. The results of the simultaneous test show that the calculated F value of 7.855 is greater than the F table (3.23) with a significance level of 0.001 (<0.05). This indicates that both independent variables together have a significant contribution to the effectiveness of budget absorption. The integration between risk management and monitoring has been proven to be able to create a more comprehensive control system in budget management. Meanwhile, the coefficient of determination (R^2) value of 0.282 indicates that both independent variables have an influence of 28.2% on the effectiveness of budget absorption, while the remaining 71.8% is influenced by other factors outside this research model.

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