

Internal Audit and Accounting Information System Integration for Construction Project Financial Risk Control: A Qualitative Case Study

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Abstract: This study examines how the integration of Internal Audit and Accounting Information System (AIS) is perceived by organizational actors to support financial risk control in construction projects, using PT MM as an illustrative case. The study was motivated by observations that internal audit at PT MM has traditionally concentrated on the final project stage, while AIS has not been fully utilized as a real-time monitoring and risk-control tool, which informants associated with delayed identification of financial irregularities and heightened exposure to cost overruns, project delays, and cash flow disruptions. This qualitative case study, informed by an interpretive perspective, collected data from seven informants (two internal auditors, two project leaders, two finance staff, and one risk manager) selected through purposive sampling, via an open-ended written questionnaire, non-participant observation, and document review, analyzed using Braun and Clarke's thematic analysis. The findings suggest that, from informants' perspective, Internal Audit and AIS integration is associated with more active project monitoring, earlier attention to financial risks, faster corrective recommendations, and greater perceived transparency and accountability in project financial management, although several implementation challenges emerged, including delayed data updates, inconsistent data entry, inconsistent interdepartmental coordination, and incomplete continuous auditing. The study concludes that, within this single case, Internal Audit and AIS integration appears to strengthen the conditions for financial risk control when supported by integrated information systems, effective cross-functional collaboration, and sustained use of financial information; further research should test whether these perceived mechanisms yield measurable reductions in project financial risk.

Keywords: Accounting information system, Construction projects, Financial risk, Internal audit, Qualitative case study

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INTRODUCTION

The construction sector is one of the industries with the highest risk levels compared to other business sectors, as it involves large investments, long project durations, and high uncertainty throughout implementation. Financial risk is one of the most decisive factors in the success or failure of construction projects, as it can manifest in various forms, such as cost overruns, schedule delays, scope changes, and cash flow disruptions caused by payment delays.

The complex characteristics of construction projects mean that financial risk can develop dynamically from the planning stage through project completion (Winch, 2010). Failure to identify and control risk from the outset can reduce profitability, disrupt liquidity, and even threaten the overall sustainability of the project (Committee of Sponsoring Organizations of the Treadway Commission [COSO], 2017).

The complexity of construction projects means that financial risk management cannot be equated with that of other business sectors. Each project involves various interdependent stakeholders, ranging from project owners, main contractors, subcontractors, and material suppliers to financing institutions (Pratiwi, 2025). Construction projects are also influenced by external factors such as fluctuations in material prices, regulatory changes, economic conditions, weather, and changes in work specifications, all of which require a control mechanism capable of continuously monitoring project progress (Simbolon, 2025). The use of information technology in project oversight is believed to improve transparency, accountability, and the effectiveness of financial control, in line with the importance of organizational digital readiness in facing the increasingly complex dynamics of project risk (Darsana et al., 2022; Farwitawati & Arini, 2025).

In facing this high financial risk, companies need an internal control system capable of detecting potential risks early so that preventive measures can be taken before risks develop into greater losses. Internal audit is one of the key components of such a control system, consisting of independent and objective assurance and consulting activities intended to add value and improve the effectiveness of governance, risk management, and organizational control (Institute of Internal Auditors [IIA], 2020). Internal audit no longer functions merely as a compliance examiner but is expected to become a strategic management partner performing an early warning system function through the early identification of potential irregularities that could affect the success of construction projects.

Effective internal audit implementation requires the support of fast, accurate, and reliable information. Modern Accounting Information System (AIS) no longer functions solely as a means of recording financial transactions but is also capable of generating real-time financial information that can be used for monitoring, evaluation, and management decision-making (Romney et al., 2021). AIS is no longer viewed merely as an administrative tool, but as a decision-support system that provides strategic information for project risk management (Kountur et al., 2025; Kuntari et al., 2022). Internal audit requires accurate, real-time information from AIS to identify risk and evaluate controls, while AIS provides greater benefit when its information is actively utilized in risk-based audit processes. The integration of both enables companies to continuously monitor project realization, detect deviations earlier, and take corrective action more quickly (Okinaldi & Aziza, 2024).

This ideal condition has not been fully reflected in practice at PT MM, a state-owned enterprise (BUMN) subsidiary in the construction services sector. Preliminary field observation and informal discussion with organizational actors prior to formal data collection indicated that internal audit at PT MM still tends to follow a traditional approach, being conducted mainly when a project approaches its final stage or during work handover, so that internal audit functions more as an evaluation tool for completed work than as a preventive control mechanism during project implementation. This pattern is broadly consistent with concerns raised in other organizational settings regarding the persistence of retrospective, compliance-oriented internal audit practice (Suharyuno et al., 2025). Similarly, initial observation suggested that AIS use at PT MM remains dominated by transaction recording and financial reporting needs rather than being maximally utilized as a basis for budget monitoring, progress evaluation, or real-time risk identification, a pattern that parallels findings reported in other sectors (Oktarisa & Supratiwi, 2022). If these

preliminary conditions are confirmed to hold, internal auditors at PT MM may face limitations in obtaining fast, accurate, and integrated information, which could delay the identification of irregularities and make potential cost overruns, cash flow disruptions, and project delays more difficult to control from the outset, consistent with risks documented elsewhere (Anugrah & Novatiani, 2022) and with longstanding evidence that cost and schedule overruns remain a persistent challenge on Indonesian construction projects (Kaming et al., 1997).

A more fundamental problem lies in the still-suboptimal integration between internal audit and AIS. In many organizations, both functions operate in parallel but remain largely partial: internal auditors tend to rely on data that has already been processed as evaluation material, while the information generated by AIS has not been optimally used as a basis for risk-based auditing during project implementation. This condition prevents internal audit from optimally performing as an early warning system for project financial risk, even though more proactive internal audit involvement has been associated with stronger control effectiveness and governance support in other organizational settings (Rahayu et al., 2020).

Prior research on this topic has largely been dominated by partial relationships between variables: some studies examine the effect of AIS on financial reporting quality or organizational performance (Anugrah & Novatiani, 2022; Farwitawati & Arini, 2025), while others focus on the role of internal audit in fraud prevention or internal control effectiveness (Kountur et al., 2025; Oktarisa & Supratiwi, 2022; Suharyuno et al., 2025), a pattern also observed in broader reviews of internal audit's contribution to governance (Wadesango et al., 2023). Studies on risk-based internal audit implementation in Indonesian public-sector settings have similarly relied on structured, largely quantitative or normative approaches rather than in-depth qualitative inquiry into a single organizational case (Anugraheni et al., 2022; Putri et al., 2018), and related work on integrated, risk-based audit planning has framed integration mainly around resource allocation rather than technology use in the field (Wang et al., 2025). Qualitative case studies in the Indonesian construction sector have so far concentrated on fraud risk management broadly rather than the specific integration of internal audit and AIS (Apriyanti & Rais, 2020). Research that explicitly examines the integration of internal audit and AIS has largely been conducted in the banking sector using quantitative approaches.

A different sector alone, however, is not a sufficient basis for a distinct scientific contribution. Construction projects differ from the banking context in ways that may substantively change how internal audit and AIS need to be integrated: financing and organizational arrangements are project-temporary rather than permanent, financial authority is often decentralized across project sites and subcontractor relationships, cash flow follows milestone-based payment schedules rather than continuous account activity, and cost exposure can shift rapidly with project progress and site conditions. These characteristics suggest that integration mechanisms effective in relatively stable, centralized settings such as banking may not directly transfer to project-based construction governance, which provides the theoretical rationale for examining this relationship in a construction-project setting rather than treating the change of sector, by itself, as the contribution. Based on this gap, this study aims to provide empirical evidence on how internal audit and Accounting Information System integration operates in supporting construction project financial risk control at a state-owned enterprise, through a qualitative case study approach. Specifically, this study asks: how are internal audit and AIS integrated in construction project financial risk control, what organizational mechanisms are involved, and what conditions constrain or support that integration? Addressing these questions is intended to provide a more comprehensive understanding of the process, challenges, and

implications of integrating both functions in project control, while distinguishing what the case demonstrates from what can be inferred theoretically.

Conceptually, this study is oriented by three complementary frameworks: the Enterprise Risk Management (ERM) framework of the Committee of Sponsoring Organizations of the Treadway Commission (COSO, 2017), which frames risk identification, assessment, response, and monitoring as continuous organizational processes; the assurance and consulting functions of internal audit as defined by the IIA (2020); and the Three Lines Model (IIA, 2020), which differentiates the roles of management, risk-related functions, and internal audit in organizational governance. These frameworks are applied in this study as interpretive lenses used to discuss the findings, rather than as a priori coding categories; the coding and thematic development themselves were guided primarily by the questionnaire-guide domains described in the Method section. This distinction is intended to clarify the relationship between the inductive, thematic elements of the analysis and the theoretically informed interpretation presented later in the Discussion.

METHOD

This study used a qualitative approach with a case study design (Yin, 2018), focusing on an in-depth understanding of the process of integrating internal audit and AIS to support construction project financial risk control within a bounded organizational context. The unit of analysis was the practice of internal audit and AIS integration at PT MM, examined at the organizational level, covering internal audit and AIS practice across PT MM's construction project operations generally rather than a single bounded project. Data were collected between 28 and 30 March 2026. PT MM was selected as the case because it has a structured internal audit function and has implemented AIS, but integration between the two has not been fully optimized, which makes it analytically useful for observing the integration process in a setting where both functions already exist but are not yet fully connected. This approach was chosen because the study aims not only to identify formal procedures but also to understand the meanings, experiences, and dynamics of interaction among organizational actors, internal auditors, project leaders, finance staff, and risk managers, in carrying out project control functions. The study was positioned within an interpretive qualitative paradigm, which treated organizational reality as shaped through the social construction and subjective experience of organizational actors, and directed the analysis toward exploring the various perspectives and practices that emerge in the process of internal auditing and AIS use in construction projects.

The study was conducted at PT MM, a state-owned enterprise (BUMN) subsidiary in the construction services sector that already has a structured internal audit function and has implemented AIS, although integration between the two has not been fully optimized, consistent with broader observations that internal control of AIS in Indonesian state-owned enterprises remains uneven across units (Dalimunthe et al., 2018). The informants comprised four groups directly involved in project financial risk control: internal auditors, project leaders, finance staff, and risk managers. Informants were selected using purposive sampling (Etikan et al., 2016), based on their direct involvement in project budgeting, monitoring, or audit activities. A total of seven informants took part in this study, comprising two internal auditors (IA), two project leaders (PL), two finance staff (FS), and one risk manager (RM).

Primary data were obtained through a semi-structured, open-ended written questionnaire administered online to internal auditors, project leaders, finance staff, and risk managers between 28 and 30 March 2026, structured around the four analytic domains described

below (AIS use, integration, challenges, and implications); responses were submitted in written form and analyzed directly as textual data. The questionnaire responses were supplemented by non-participant observation to observe the audit process, AIS use, and decision-making dynamics in the field. Secondary data included Audit Work Programs (PKA), internal audit reports, project financial reports, AIS usage reports, and company risk management policies, which were reviewed on-site at PT MM's secretariat rather than obtained as copies, in line with the organization's document-release restrictions. These three sources, questionnaire responses, observation, and documentary data, were compared against one another as a form of data-source triangulation (Lincoln & Guba, 1985): on-site document review was used to check the consistency of dates, figures, and procedures reported by informants, and observation was used to check whether described practices were reflected in day-to-day activity. Instances where sources diverged were noted and are discussed where relevant in the Results. This study obtained organizational permission from PT MM and informant consent prior to data collection, and informant identities were anonymized using role-based codes as described below.

Given the researcher's relationship with PT MM, potential access bias was considered during the research process. Reflexive awareness of the researcher's position was maintained to acknowledge how researcher–organization relationships may influence data interpretation, consistent with reflexivity principles in qualitative accounting research (Ahrens & Chapman, 2006; Nabiha, 2009).

Data were analyzed using thematic analysis as developed by Braun and Clarke (2021), through the stages of data familiarization, coding of data segments relevant to the research focus, grouping codes into categories to identify major themes, reviewing themes against questionnaire, observation, and documentary data, and finally defining and naming the themes. Coding followed a hybrid deductive-inductive logic: the four analytic domains, the use of AIS in internal audit practice and project financial risk management, the integration of internal audit and AIS in risk control, the challenges encountered in the integration process, and its implications for project financial risk control, were established in advance as questionnaire-guide domains and served as the initial deductive framework for organizing the data; specific codes and sub-themes within each domain were then developed inductively from the questionnaire, observation, and documentary data. Data adequacy was judged on the basis of information power (Malterud et al., 2016), reflecting the purposive, role-specific composition of the informant group rather than the total sample size. To maintain informant confidentiality, the study used anonymous codes based on role: Internal Auditor (IA), Project Leader (PL), Risk Manager (RM), and Finance Staff (FS), followed by an informant sequence number.

RESULTS AND DISCUSSION

Research Results

Thematic analysis of the questionnaire, observation, and documentary data produced four main themes: the use of AIS in internal audit practice and project financial risk management, the integration of internal audit and AIS in supporting financial risk control, the challenges encountered in the integration process, and the implications of that integration for project financial risk control. The findings for each theme are presented below, drawing on questionnaire, observation, and documentary evidence.

The Use of AIS in Internal Audit Practice and Project Financial Risk Management

All informants stated that the Accounting Information System (AIS) has been used as a means of recording and monitoring project financial activities. The information generated is used as a basis for comparing plans against budget realization so that deviations can be identified

promptly. The project leader explained that cost and schedule control is carried out through continuous monitoring of realization, by setting clear work schedules and budget details while mitigating delay and quality risks (PL-1). Informants described monitoring, review, and comparison of realization against plans as functioning not merely as evaluation activities but also as an early warning mechanism that, in their view, strengthens the effectiveness of project financial risk control.

Internal auditors also emphasized that, through AIS, internal audit can conduct deeper data analysis, such as comparing budgets with actual realization, identifying unusual transaction patterns, and detecting potential irregularities or fraud more quickly (IA-2). The availability of historical data in AIS allows auditors to evaluate financial trends and performance over time, making the assessment of internal control effectiveness more comprehensive. Nevertheless, AIS utilization remains more focused on reporting functions than on real-time risk analysis, so the early warning system function has not been fully realized (Oktarisa & Supratiwi, 2022).

Integration of Internal Audit and AIS in Supporting Project Financial Risk Control

According to informants, the integration of internal audit and AIS is associated with the availability of more accurate and real-time information to support project financial risk control. Internal auditors reported gaining access to information on budget usage, work progress, and project financial conditions more quickly, so that oversight relies less exclusively on reports prepared after project activities are completed. The risk manager explained that financial risk oversight is carried out throughout the project life cycle, from mapping the budget and key risks at the outset, monitoring cost realization and cash position through early warning indicators during implementation, to evaluating financial results and lessons learned at project closure (RM-1). This account of risk oversight spanning the project life cycle is notable in relation to the traditionally end-stage audit approach described in the Introduction; the apparent shift between the two is reconciled in the Discussion section below.

In addition to what informants described as accelerated early detection and corrective action, the integration of internal audit and AIS was described as strengthening the transparency and accountability of project management. Finance staff explained that AIS supports overall project financial reporting transparency by providing real-time and accurate data, maintaining a clear transaction trail, and integrating all financial information to support oversight and audit (FS-1). Internal auditors added that the use of AIS data supports internal audit as a source of audit evidence, supports risk-based audit, facilitates transaction testing, supports continuous auditing, assists budget and performance analysis, helps detect anomalies, and supports evaluation of internal control, which, in their view, makes internal audit more effective and better able to provide assurance to management (IA-1). The project leader emphasized that the impact of integration is significant only when it is genuinely utilized, rather than merely being connected at the system or bureaucratic level (PL-2).

Challenges in Integrating Internal Audit and AIS in Project Financial Risk Control

The implementation of internal audit and AIS integration still faces several challenges, including delays and inconsistencies in data updates that require field verification, inconsistent data entry among system users that reduces the accuracy of risk analysis, and inconsistent interdepartmental coordination that limits continuous auditing and risk evaluation. Internal auditors explained that internal audit plays an active role in anticipating project financial risk through a proactive, risk-based approach from the early planning stage, identifying potential risks such as cost overruns and inaccurate budget estimates, and then mapping their likelihood and impact on the project (IA-1).

Beyond technical factors, there are also organizational culture challenges, as some parties still view internal audit merely as an administrative examination function, so that auditor involvement in project monitoring is not yet fully accepted as part of strategic decision-making. Despite these challenges, the company continues to work toward improving the effectiveness of integration through strengthened coordination, improved data quality, and further development of system utilization to better support project risk analysis.

Implications of Internal Audit and AIS Integration for Project Financial Risk Control

Informants described the integration of internal audit and AIS as having implications for strengthening construction project financial risk control. The project leader stated that internal audit provides assurance regarding the validation of system-generated data, making information more accurate and accountable, which in their view facilitates project decision-making (PL-1). Informants further suggested that the availability of real-time information helps management obtain a faster picture of project conditions, potentially enabling corrective action to be taken promptly whenever cost deviations, payment delays, or changes in project scope are identified.

These accounts suggest a perceived shift, in the eyes of informants, in the role of internal audit from an administrative examination function toward that of a strategic partner that provides not only assurance but also consulting in project risk management. Internal auditors explained that internal audit provides strategic recommendations and consultation to management regarding project financial risk management, describing their role not merely as evaluators but as partners offering analysis-based insight drawn from audit findings on potential risks and control weaknesses (IA-2). Taken together with the pattern of oversight spanning the project life cycle reported under the previous theme, this finding may indicate a broader organizational transition from a traditional, end-stage audit posture toward a more proactive, risk-based one; this possibility, and its apparent tension with the traditionally retrospective approach described in the Introduction, is examined further in the Discussion. [Table 1](#) summarizes the four themes identified from the data analysis, including the main findings, their perceived contributions to project financial risk control, and the challenges associated with internal audit and AIS integration.

Table 1. Summary of Thematic Research Findings

Theme	Key Findings	Perceived Contribution to Risk Control	Main Challenges
AIS Utilization in Internal Audit Practice	AIS used for recording, monitoring, and comparing budget realization; supports deeper transaction and trend analysis (PL-1, IA-2)	Informants described more timely identification of deviations	AIS use remains reporting-focused; real-time risk analysis not fully realized
Integration of Internal Audit and AIS in Risk Control	Access to real-time information across the project life cycle; reported gains in transparency, accountability, and audit evidence (RM-1, FS-1, IA-1)	Informants associated integration with more proactive, transparent oversight	Perceived impact depends on genuine use, not just system-level connection (PL-2)

Challenges in Integrating Internal Audit and AIS	Delays and inconsistencies in data updates and entry; inconsistent interdepartmental coordination; internal audit still viewed by some as administrative (IA-1)	Clarifies the conditions integration depends on	Data quality, coordination, and organizational culture
Implications for Project Financial Risk Control	Perceived shift of internal audit toward a strategic partner offering assurance and consulting (PL-1, IA-2)	Informants linked this shift to stronger governance support	Strategic role not yet uniformly recognized across the organization

Discussion

The findings suggest that, from the perspective of informants, the integration of internal audit and AIS may support construction project financial risk control. Internal auditors reported increasingly utilizing data available in the system to monitor budget usage, project progress, and cash flow conditions, which they associated with a shift in internal audit practice from an approach previously concentrated on end-of-project examination toward a more proactive, risk-based approach spanning the project life cycle. This reported shift is notable because the Introduction characterized audit at PT MM as traditionally concentrated near project completion, whereas informants in the Results describe risk oversight occurring from early planning onward. Rather than treating these as contradictory, this study interprets the pattern as potentially reflecting an organization in transition: elements of the traditional, end-stage audit approach may persist for certain projects or audit activities, while other functions, particularly those most closely tied to AIS use, appear to have moved toward more continuous, risk-based involvement. This interpretation is offered cautiously, as the data collected cannot fully establish the pace, consistency, or drivers of this transition; it is presented as a plausible reading of the evidence rather than a confirmed organizational finding, and represents one of the more interesting patterns for future research to examine directly.

Informants further suggested that system-enabled data integration supports the identification of cost deviations, payment delays, and potential budget overruns, which they believed could allow corrective action before risks develop into larger problems; because this study did not directly measure risk outcomes, this remains a perceived mechanism rather than a demonstrated effect. Informants' accounts and the researcher's observation also converged on the view that the effectiveness of integration is influenced by the quality of human resources, the culture of interdepartmental coordination, and consistency in system use, rather than being determined by technology alone.

These findings can be interpreted through the Enterprise Risk Management (ERM) framework from COSO (2017), which views risk management as an integrated part of an organization's business processes rather than a stand-alone activity. One of the core principles of ERM is that organizations must be able to identify, assess, respond to, and monitor risk continuously in order to achieve organizational objectives, a principle that firms report translating unevenly into everyday internal control practice even after formal framework adoption (Lawson et al., 2017). The case illustrates how the integration of internal audit and AIS can support that principle in practice, by providing continuously updated financial information that, according to informants, enables internal auditors to compare actual project conditions against established targets without waiting for periodic examination results. Rather than

presenting this as an extension of COSO ERM theory, this study treats the case as contextual evidence of how ERM-oriented, continuous-monitoring principles are operationalized through internal audit and AIS within construction project governance, illustrating one pathway by which technology-enabled information flow can support the ERM principle of continuous risk monitoring, without proposing a new theoretical mechanism, boundary condition, or refinement to ERM itself.

A more productive theoretical distinction that emerges from the case is between technical integration (system-level data connectivity), informational integration (the extent to which that data is actually used for risk-relevant analysis), and organizational or governance integration (the extent to which coordination, culture, and role clarity support acting on that information). The persistent implementation challenges reported by informants, delayed updates, inconsistent entry, uneven coordination, appear, in this reading, less as simple barriers to an otherwise complete integration and more as evidence that technical integration at PT MM has outpaced organizational integration: systems can be connected while governance practices remain fragmented, a pattern consistent with broader evidence that continuous auditing initiatives often outpace the organizational capacity needed to sustain them (Chan & Vasarhelyi, 2011; Polizzi & Scannella, 2023). This distinction, rather than a claimed extension of COSO ERM, is offered as this study's principal theoretical contribution.

The perceived shift in the role of internal audit from a compliance examination function toward a more strategic function is broadly consistent with the International Professional Practices Framework (IPPF) issued by the Institute of Internal Auditors (IIA, 2020), which describes internal audit as an independent activity that provides assurance and consulting to enhance organizational value. Informants' accounts of the assurance function are evident when auditors evaluate the reliability of financial information and the effectiveness of controls, while the consulting function is reflected in auditors' reported involvement in providing improvement recommendations before problems escalate. The Three Lines Model (IIA, 2020) is a useful lens for locating AIS within this structure, in that it differentiates the roles of management, risk-related functions, and internal audit; the findings suggest that AIS may function as a shared information channel across these lines. However, this study did not directly examine how AIS use altered the responsibilities, independence, or interactions among the three lines, and, in line with critical commentary noting that the model's practical boundaries remain contested (Eulerich, 2021), the Three Lines Model is therefore used here as an interpretive frame for describing the roles observed rather than as a framework validated or tested by this case.

These findings are consistent with those of Anugraheni et al. (2022), who found that risk-based internal audit implementation is associated with improved audit quality and stronger organizational decision support, and reinforce the findings of Ta and Doan (2022) regarding the importance of early detection of potential irregularities throughout the project life cycle. These findings also support Romney et al. (2021), who assert that modern AIS can provide real-time information that improves the effectiveness of oversight and internal control. However, this study also finds that the success of internal audit and AIS integration depends not only on technology but also on the quality of human resources and organizational culture, consistent with the coordination challenges reported by Suharyuno et al. (2025) and Zobi and Jarah (2023) in other organizational contexts. These parallels should nonetheless be read cautiously: because this is a single, non-comparative case, the study cannot rule out alternative explanations for the reported improvements in information access and audit posture. For example, faster access to project information could plausibly also reflect broader organizational digitalization, strengthened management controls, or project-management-system upgrades occurring independently of

internal audit-AIS integration specifically; likewise, the reported movement toward more strategic internal auditing may partly reflect management policy or professional development within the internal audit function rather than AIS integration alone. This study cannot isolate these competing mechanisms from the integration effect itself, but treats their plausibility as a caveat on the strength of the causal interpretation offered here.

Theoretically, these findings are broadly consistent with the Enterprise Risk Management concept from COSO and internal audit theory from the IIA, suggesting that the effectiveness of internal audit in project financial risk control may depend not only on the execution of audit procedures but also on auditors' ability to utilize real-time information from AIS as a basis for risk identification and corrective action. Practically, these findings may serve as a basis for reflection within PT MM specifically, for example, in reviewing how internal audit and AIS integration, interdepartmental coordination, and human resource competence could be strengthened to support more adaptive, proactive, and sustainable project financial risk control. Extending these implications to construction companies more broadly would require corroboration from additional cases, given the contextual and organizational specificity of a single-case design.

CONCLUSIONS

Based on this case, the integration of internal audit and the Accounting Information System (AIS) at PT MM appears to strengthen the conditions for construction project financial risk control by supporting more systematic monitoring of budget usage, cash flow, and project progress, as well as earlier identification of potential irregularities and deviations. However, these findings represent perceived mechanisms rather than demonstrated reductions in financial risk, as project-level risk outcomes were not directly measured. The integration also indicates a perceived shift in the role of internal audit from a primarily administrative function toward a more strategic role involving assurance and consulting in project risk management, although elements of traditional end-stage auditing remain present.

The effectiveness of internal audit and AIS integration remains dependent not only on technological capability but also on data quality, interdepartmental coordination, organizational culture, and user competence. Challenges including delayed data updates, inconsistent data entry, and limited strategic recognition of internal audit continue to constrain implementation.

This study is limited by its single-case design, reliance on informants' perceptions, and absence of direct measurement of project financial risk outcomes. Therefore, the findings should be interpreted as contextual insights rather than generalizable evidence of risk reduction. Future research should examine multiple construction organizations and combine qualitative and quantitative approaches to evaluate whether internal audit and AIS integration contributes to measurable improvements in project financial risk control.

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