

EVALUATION REVEALING ERRORS: A STUDY OF CROSS-DIVISIONAL COST RECORDING SYSTEMS IN MULTI-BATCH PROJECTS AT PT X



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Abstract

This study aims to evaluate cross-divisional cost recording systems in a multi-batch project at PT X by examining recording failures as a structural and systemic organizational phenomenon. A descriptive qualitative approach with a single case study design was employed. The units of analysis included the Finance Division as the guardian of data integrity, the Product Division as the producer of cost data, and the CEO as the strategic decision-maker. Data were collected through semi-structured interviews, internal documents, and project records, and analyzed using triangulation. The findings indicate that cost recording problems cannot be interpreted merely as technical errors but rather as consequences of a recording and control system design that is misaligned with the characteristics of batch-based projects. Misalignment between the Cost of Goods Sold (COGS) and the Budget Plan weakened the linkage between planning and realization, resulting in reactive cost control. Evaluation conducted after Batch 2 led to improvements in Batch 3, where increased detail and separation of fixed and variable costs enhanced cost accuracy, although systematic evaluation mechanisms remained limited.

Keywords: Cost Recording, Multi-Batch Projects, Cross-Divisional Coordination, Management Control, Data Governance

INTRODUCTION

Cross-divisional collaboration constitutes a fundamental prerequisite in the management of complex and repetitive projects, particularly when operational activities require intensive cost information exchange among organizational units. In modern organizations, the quality of managerial decision-making is highly dependent on the ability of accounting systems to provide cost information that is consistent, integrated, and comparable across periods. Ideally, such recording systems function as an inter-divisional linkage, enabling cost information to be jointly utilized as a basis for evaluation and control. However, the implementation of Project B at PT X has not yet fully reflected this ideal condition. The processes of cost recording and evaluation between the Finance Division and the Product Division continue to operate in a fragmented manner, characterized by differences in formats, definitions, and recording logic. As a result, cost information does not flow as a single, coherent, and consistent dataset.

This lack of integration has gradually generated implications for the project budget evaluation process. In the second batch of Project B, discrepancies in cost-recording formats and logic contributed to significant calculation mismatches, to the extent that profit estimates initially projected as positive turned negative following re-verification by top management. This condition indicates that the emerging issues do not merely stem from individual technical errors but entail material financial consequences and adversely affect the quality of managerial decision-making. Consistent with these findings, the Accounting Information Systems (AIS) literature explains that cross-functional fragmentation in recording practices frequently becomes a source of cost information distortion, particularly when each division operates based on distinct and non-integrated data logic (Ammar, 2025; Circelli et al., 2023).

Within the context of Project B, such fragmentation appears not only as a procedural deviation but also as an indication of the absence of an informational backbone capable of supporting the operational complexity of a multi-batch project. Conditions of this nature commonly arise when accounting information systems are not designed to be integrated and standardized from the outset (Levianny & Mulyana, 2025). In projects managed across multiple batches, organizations essentially require cross-temporal data integration standards to ensure that cost information can be consistently compared across periods. Nevertheless, the cost-recording process in Project B remains heavily reliant on manual systems and separate spreadsheets, which are conceptually inadequate to handle a high level of activity interdependence. Within AIS studies, such practices are known to increase the risk of recording errors and amplify information bias, particularly when they are not supported by a consistent data integration framework across periods (Nugraha et al., 2025; Papadopoulos et al., 2024).

Over time, the lack of system integration has given rise to a range of systemic problems. Mismatches in cost of goods sold (COGS), inconsistencies in cost definitions, and differences in table structures between the Finance Division and the Product Division indicate that PT X has yet to establish a standardized data architecture, which constitutes a minimum prerequisite in cost accounting. AIS literature emphasizes that without a uniform data architecture, information systems are unable to generate information that is consistent and verifiable across organizational units (Levianny & Mulyana, 2025). Similar conditions have also been identified as a primary cause of failures in consolidating cost information within repetitive projects (Papadopoulos et al., 2024; Ridho et al., 2025). The absence of

formal evaluations in Batch 1 and Batch 2 further allowed these structural weaknesses to persist without an effective early detection mechanism, a pattern frequently observed in organizations that continue to rely on manual and fragmented recording systems (Nugraha et al., 2025; Circelli et al., 2023).

Moreover, reliance on disconnected spreadsheets introduces additional consequences, including information overload, data duplication, and an increased potential for human error. Empirical findings demonstrate that the absence of an integrated financial recording system leads to reduced reliability of cost information and weakens the processes of accurate cost identification and control (Hamzah et al., 2025). Studies in *Applied Sciences* further confirm that structurally non-integrated information systems heighten the risk of data quality degradation, reduce information reliability, and hinder managerial decision-making quality in complex and interdependent operational environments (Jakubczyk-Gałczyńska et al., 2025). Weak data governance has also been shown to undermine the accuracy and reliability of accounting information, particularly when cost information is utilized across functions without adequate standardization (Ammar, 2025; Papadopoulos et al., 2024).

The most tangible impact of these structural weaknesses was evident in Batch 2, when a significant miscalculation occurred and ultimately resulted in the project recording a negative profit. This incident cannot be understood solely as a case of human error but rather as a manifestation of a recording system that was fundamentally incapable of producing reliable information from the outset. AIS literature consistently demonstrates that calculation errors with material profit implications are generally rooted in weak data integration and poor information quality, rather than in individual mistakes alone (Balios et al., 2025; Levianny & Mulyana, 2025). In the absence of adequate feedback loops in Batch 1 and Batch 2, such errors not only recur but also shape decisions that are insufficiently grounded in actual data, thereby impeding organizational learning and increasing decision-making lag (Ammar, 2025; Circelli et al., 2023).

From the perspective of Information Processing Theory (Galbraith, 1973), this condition reflects a misalignment between the level of complexity inherent in a multi-batch project and the organization's information-processing capacity. Meanwhile, within the framework of Management Control Systems, the effectiveness of managerial control is highly contingent upon the stability and consistency of reporting systems (Anthony & Govindarajan, 2007). Non-uniformity in cost formats and definitions prevents diagnostic control mechanisms from functioning effectively, as the data employed are neither reliable nor verifiable across functions (Levianny & Mulyana, 2025; Papadopoulos et al., 2024). Indeed, all dimensions of data quality as proposed by Wang and Strong intrinsic, contextual, representational, and accessibility simultaneously exhibit signs of failure when organizations lack standardized documentation structures across divisions (Circelli et al., 2023; Levianny & Mulyana, 2025).

Based on these overall conditions, the primary problem in Project B at PT X does not lie in technical errors of cost recording, but rather in the failure to evaluate and standardize cross-batch cost recording systems due to the absence of consistent information standards as a foundation for management control. The lack of such standards renders cost data unreliable for inter-period comparison, hampers early detection mechanisms, and prevents errors in earlier batches from generating organizational learning, thereby increasing the likelihood that similar issues will recur in subsequent batches.

REVIEW OF LITERATURE

Cross-Divisional Collaboration

Cross-divisional collaboration constitutes a strategic and structural foundation that ensures the integration of business processes, information coherence, and the quality of managerial decision-making in modern organizations. Management accounting and information systems literature emphasizes that the effectiveness of inter-unit coordination is determined not merely by the frequency of communication, but by the uniformity of standards, the alignment of operational definitions, and the consistency of data structures used across divisions. Yadiati et al. (2024) argue that the effectiveness of Accounting Information Systems (AIS) is highly dependent on the level of cross-functional coordination, as fragmented information flows create opportunities for data distortion, authorization delays, and inconsistent cost interpretations. This perspective is highly relevant to the conditions at PT X, where information misalignment in the second batch indicates that collaboration issues extend beyond simple miscommunication and instead reflect structural failures in information architecture and process governance.

Internal Control

Internal control is an integrated system designed to provide reasonable assurance that organizational operations are conducted effectively, financial information is generated reliably, organizational assets are safeguarded, and compliance with policies and regulations is achieved. In modern accounting literature, internal control is no longer viewed merely as a set of administrative procedures, but rather as a control architecture that integrates people, technology, procedures, and organizational structures within a unified information governance framework. Yadiati et al. (2024) emphasize that the effectiveness of Accounting Information Systems (AIS) is strongly influenced by the robustness of internal control systems, as inadequate control structures will degrade information quality even when advanced technology is in place. This view is consistent with numerous studies demonstrating that internal control forms the foundation of information reliability and cross-functional process consistency within organizations. In line with this, Fauzan (2024) states that internal control is an integral component of management control systems, serving to ensure alignment between operational activities, reporting mechanisms, and organizational strategic objectives.

Accounting Information Systems (AIS)

Accounting Information Systems (AIS) represent the foundational information infrastructure designed to produce accounting data that are accurate, complete, timely, and verifiable as a basis for managerial decision-making. In contemporary accounting literature, AIS is not merely understood as a transaction-recording mechanism, but as an integrated system that connects people, procedures, technology, and data structures to generate reliable information across organizational functions. Yadiati et al. (2024) assert that the effectiveness of AIS is largely determined by process consistency and data alignment across divisions, as information quality depends on uniform work standards and coordinated internal control mechanisms. This perspective is particularly relevant in the context of PT X where the budget recording flow in the second batch demonstrates that the AIS has not yet been able to provide uniform, integrated data structures supported by strong traceability mechanisms.

Information Systems Success Model

The Information Systems Success Model is one of the most influential evaluation frameworks in the information systems literature, originally introduced by DeLone and McLean (1992) and subsequently revised in 2003 in response to technological advancements and the expanding context of system implementation across organizations. This model conceptualizes information system success as the outcome of complex interactions among system quality, information quality, service quality, system use, user satisfaction, and the net benefits experienced by the organization. These six dimensions are interconnected through a dynamic causal flow, illustrating that technical quality and information quality influence user attitudes, usage patterns, and the organizational impacts generated by the system.

RESEARCH METHOD

This study employs a descriptive qualitative approach with a single case study design to gain an in-depth understanding of the failure of the budgeting recording system in a multi-batch project at PT X, viewed as a structural and systemic organizational phenomenon. This approach is chosen because the issues under investigation extend beyond numerical discrepancies to encompass social interactions, cross-divisional coordination patterns, authority structures, and management control mechanisms. The units of analysis include the Finance Division as the data integrity gatekeeper, the Product Division as the primary generator of cost data, and the CEO as the strategic decision-maker, thereby providing a comprehensive depiction of information flows and points of systemic failure. Data are collected through semi-structured interviews, internal documents, and project records, which are subsequently analyzed using triangulation to ensure the validity of the findings. This approach enables the study to identify the structural causes underlying cost recording failures while simultaneously assessing the effectiveness of system improvements implemented in subsequent batches within the theoretical frameworks of Data Governance, Accounting Information Systems, and Management Control Systems.

RESULTS AND DISCUSSION

Overview of Project B and the Characteristics of Cost Recording Issues

Project B was designed as a project-based training program that positions performance problem analysis as the primary outcome of the activity. Based on interview data from the Product Division, the program goes beyond mere knowledge transfer and requires participants to produce analytical documents that reflect real operational conditions in the field. This characteristic renders Project B financially complex, as each stage of the activity, from training and mentoring to implementation, demands diverse resource support.

Project B was implemented in several batches with relatively similar activity patterns but conducted within different operational contexts. These differences include the number of participants, implementation locations, types of supporting vendors, and accompanying logistical requirements in each batch. Such variation causes the cost structure across batches to be not entirely homogeneous, even though they conceptually fall within the same project framework.

This condition necessitates a cost recording system capable of capturing detailed differences in cost requirements without sacrificing structural consistency. However, empirical data indicate that in Batch 1, cost recording still employed a relatively general

approach and was not fully adapted to the specific characteristics of Project B. The Cost of Goods Sold (COGS) format used tended to be standardized and did not adequately accommodate variable costs that were specific to the implementation context.

The impact of this condition became apparent when several costs that had not been included in the initial planning emerged during the realization stage. These costs could not be traced back to the original COGS structure, resulting in discrepancies between planned and realized costs that could not be systematically explained. At this stage, cost recording functioned more as a record of cash outflows rather than as an instrument of cost control.

From a management control perspective, this condition indicates that the recording system had not yet been positioned as an integral part of project planning and performance evaluation. The cost information generated was insufficiently relevant to support managerial decision-making, as it was available only retrospectively at the end of the project and was not used as a basis for control during project execution, particularly in the context of a multi-batch project that requires cross-period comparison. This context explains why the recording issues were not merely technical in nature but evolved into structural problems in subsequent batches.

Misalignment Between COGS and Budget Plans in Project Cost Management

Interview data reveal that the primary issue in cost management for Project B stemmed from a misalignment between the structures of the Cost of Goods Sold (COGS) and the Budget Plan (Rencana Anggaran Biaya/RAB). This issue was explicitly conveyed by the Product Division.

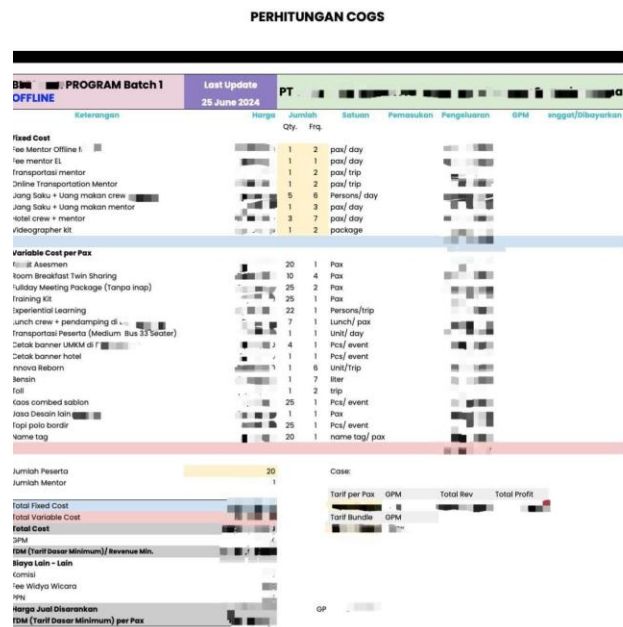


Figure 1.
 COGS Calculation Format for Project B Batch 1

PERHITUNGAN COGS

PROGRAM Batch		Last Update		27 December 2024		2024	
Keterangan	Harga	Jumlah Qty.	Frq.	Satuan	Pengeluaran	GPM	Trigger/Dibayar/di
Fixed Cost							
Fee mentor Offline		1	2	pax/ day			
Fee mentor EL		1	1	pax/ day			
Transportasi mentor		1	2	pax/ trip			
Online Transportation Mentor		1	2	pax/ trip			
Uang saku + uang makan crew edgapan		4	8	pax/ day			
Uang makan base		1	8	pax/ day			
Uang makan videographer		1	4	pax/ day			
Fee facilitator		4	4	pax/ day			
Uang saku + uang makan driver		1	8	pax/ day			
Hotel all crew + mentor		1	8	pax/ day			
Fee videographer + isi		1	4	pax/ day			
Post production (album)		1	1	album/ project			
CEO - transportasi		1	2	pax/ trip			
CEO - online transport		1	2	pax/ trip			
CEO - hotel		1	2	pax/ night			
CEO - Uang saku + uang makan		1	1	pax/ day			
Variable Cost per Pax							
Asesmen		20	1	Pax/ usage			
Room Breakfast Twin Sharing		10	5	Room/ night			
Full Day Meeting Package		25	2	pax/ day			
Training Kit		25	1	Pax/ usage			
Experiential Learning		20	1	Person/ day			
Lunch crew + parabamping		7	1	Lunch/ pax			
Transportasi Peserta (Album)		1	1	Unit/ day			
Cetak banner UMKM di		4	1	Pax/ event			
Innova Reborn		1	8	Unit/ trip			
Bensin		1	8	Unit/ day			
Toll		1	8	Unit/ day			
Kasas comband sambilan		25	2	trip			
Jasa Desain Iklan		1	1	Pax/ project			
Tsar polo kender		25	1	Pax/ event			
Name tag		25	1	name tag/ pax			
Jumlah Peserta		30					
Jumlah Mentor		1					
Summary							
Total Fixed Cost							
Total Variable Cost							
Total Cost							
RM (Tarif Dasar Minimum) / Revenue Min.							
Bayar Lain - Lain							
Kasas							
Fee Vign							
PM							
Harga Jual Disarankan							
RM (Tarif Dasar Minimum) per Pax							

Figure 2.
 COGS Calculation Format for Project B Batch 2

Keterangan	Harga	Jumlah Qty.	Frq.	Satuan	Pengeluaran	GPM
PROGRAM OFFLINE						
Last Update		14 April 2025		3d Training Id EL		
Fixed Cost						
Mentor Fee Pelatihan		1	2	pax/ day		
Mentor Fee Experiential Learning		1	1	pax/ day		
Mentor Transportasi		1	2	pax/ trip		
Mentor Online Transportation		1	2	pax/ trip		
Team Crew - Uang Saku + Uang makan		2	8	Pax/ day		
Team Driver - Uang Makan + Uang Saku		1	8	Pax/ day		
Team Hotel		3	8	pax/ day		
Team CEO - Transport		1	2	Pax/ day		
Team CEO - Uang saku + uang makan		1	2	Pax/ day		
reliance VO Fee + isi		1	4	pax/ day		
reliance VO Post production		1	1	album/ project		
reliance Design allowance		1	1	album/ project		
reliance Facilitator/ on deck support		4	4	album/ project		
reliance Uang makan facilitator no		2	8			
Variable Cost per Pax						
raining Kit Blocknote		25	1	pcs/ program		
raining Kit Spunbond		25	1	pcs/ program		
raining Kit Kasas Comband		25	1	pcs/ program		
raining Kit Pajak				payment/ invoice		
raining Kit Ongkir		1	1	trip/ project		
raining Kit Tumbler Japan		25	1	pcs/ program		
raining Kit ID Card + Holder + lanyard		25	1	pcs/ program		
raining Kit Ongkir Tumbler Japan + id card		1	1			
raining Kit Balpoin		2	1	pack/ program		
raining Kit Topi Polo Bordir		25	1	pcs/ program		
venue Hotel Peserta		12	5	room/ night		
venue Full Day Meeting Package Peserta		25	3	pax/ day		
venue Lunch Kit - Team + HC Klien		7	3	pax/ day		
iano Entertainment Peserta Bakpia		1	1	payment/ projec		
iano Entertainment Peserta Hadiah		1	1	payment/ projec		
Experiential Learning		25	1	pax/ day		
Lunch team - HC Klien di		7	1	pax/ day		
Venue puskesmas		1	1	unit/ day		
Transportasi Experiential Learning		1	1	unit/ day		
Cetak Banner UMKM		2	1	pcs/ program		
Cetak Spanduk Experiential Learning		1	1	pcs/ program		
ransport Team Innova Reborn		1	8	unit/ day		
ransport Team Bensin		1	8	Payment/ day		
ransport Team Toll		10	2	payment/ trip		
Jumlah Peserta		24				
Jumlah Mentor		1				
Summary						
Total Fixed Cost						
Total Variable Cost						
Total Cost						
RM (Tarif Dasar Minimum) / Revenue Min.						
Bayar Lain - Lain						
Kasas						
Fee Vign						
PM						
Harga Jual Disarankan						
RM (Tarif Dasar Minimum) per Pax						

Figure 3.
 COGS Calculation Format for Project B Batch 3 (Post-Evaluation)

Based on the data obtained, inconsistencies in format and budgeting workflows between the Finance Division and the Product Division significantly contributed to cost

mismatches in Project B. Differences in structure between COGS and RAB, along with the use of non-uniform recording approaches, caused cost information to inadequately represent the project's initial planning conditions. As a result, the linkage between budgeted and realized costs became weak and difficult to evaluate accurately across batches.

Thus, the cost mismatches that occurred in Project B cannot be understood as mere technical errors, but rather as consequences of a cost recording system design that was not yet integrated and incapable of consistently linking budget planning with cost realization. This finding directly addresses Research Question 1 concerning the lack of integration in formats and budgeting workflows between the Finance Division and the Product Division.

Information Flow and Cross-Divisional Coordination in the Recording System

Interview results indicate that cost recording issues in Project B were not solely related to budget structure, but also to information flows and cross-divisional coordination that had not been systematically integrated. The Product Division and the Finance Division performed interdependent roles; however, their relationship was still dominated by procedural mechanisms and informal communication.

The Product Division was positioned closest to the project's operational activities. All cost requirements originated from on-site execution dynamics, whether planned in advance or emerging during project implementation. However, cost submissions followed formats provided by the Finance Division, leading the Product Division to focus primarily on meeting operational needs without full control over data structure uniformity. This condition is reflected in the Product Division's statement:

“Basically, we follow the existing format from Batch 1 to Batch 3. We follow whatever is provided by the finance team for payment submissions.”

(Product Division Interview, 2026)

Conversely, the Finance Division exercised control through transaction verification and data reconciliation. All expenditures administratively passed through a single gateway, but control effectiveness depended heavily on the quality of the data received. When submission formats, deadline nomenclature, and cost classifications were inconsistent, the control process became suboptimal. This was acknowledged by the Finance Division:

“The most frequent inconsistencies arise because this project is project-based with short timelines. So there are many incidental daily expenses, especially through cash advances.”

(Finance Division Interview, 2026)

The use of Google Forms as the medium for cost submissions illustrates the ambivalence of the recording system. On one hand, it facilitated data input and accessibility; on the other hand, the absence of standardized deadline naming and payment type categorization made incoming data difficult to filter and monitor. This condition led to delayed vendor payments, as explained by the Product Division:

“The deadlines for down payments and settlements entered into the Google Form ended up overlapping. Some vendors were paid late or even forgotten.”

(Product Division Interview, 2026)

Cross-divisional coordination under these conditions relied heavily on repeated confirmations and manual follow-ups. When delays or mismatches occurred, resolution depended on personal communication rather than system mechanisms that could

automatically provide early warnings. This pattern indicates that the recording system had not yet functioned as an effective cross-divisional coordination tool.

From an organizational control perspective, this reactive information flow did not support preventive cost control. Cost information was fully understood only after problems emerged, rather than serving as a basis for monitoring during project execution. These findings explain why improvements in budget structure alone were insufficient without concurrent improvements in information flow and cross-divisional coordination.

Operationally, cost submissions in Project B were conducted through Google Forms used by the Product Division to request payments from the Finance Division. This form served as the primary gateway for recording payment requests, including cost types, amounts, destination accounts, and payment deadlines. However, interview and document observation data indicate that the form format did not fully support effective cost control, particularly in terms of standardized deadline naming and payment classification. An example of the payment request form used in Project B is presented in Figure 4.

Figure 4.
Payment Request Form for Project B

Data analysis shows that weaknesses in information flow and cross-divisional coordination also hindered the accuracy of cost evaluation in this multi-batch project. Submission, recording, and verification processes did not operate within an integrated information flow, causing cost evaluation to remain reactive and focused on administrative reconciliation rather than managerial control.

From the Finance Division's perspective, the potential for cost miscalculation persisted even though all expenditures passed through a single recording gateway. This was due to certain cost characteristics that were estimative and not always accurately reflected in the initial recording system, as stated by one informant:

“If we say it's undetected, it's actually difficult to define, because all expenses go through one gateway. But the potential for miscalculation usually lies in estimative costs, such as business travel or cash advances.”

(Finance Division Interview, 2026)

Dependence on manual mechanisms and suboptimal control procedures resulted in cost information that was not fully preventively controlled. This condition reflects limitations

of manual systems and incomplete implementation of control procedures, as emphasized by the same informant.

These findings indicate that cross-divisional coordination was not supported by an information system capable of integrating cost data consistently and in a timely manner. Consequently, cost evaluation in the multi-batch project did not function optimally as a managerial control mechanism, directly addressing Research Question 2 regarding weaknesses in information flow and cross-divisional coordination within the cost recording system.

Evaluation of the Second Batch and Improvements in the Third Batch

Interview results show that formal evaluation of the cost recording system in Project B was conducted only after the completion of Batch 2. In Batch 1, cost recording was carried out without a specific evaluation mechanism to assess alignment between planning, realization, and recording structure. As a result, weaknesses in the recording system were not identified early and were carried over into subsequent batches. This was explicitly stated by the CEO:

“In the first batch, there was no evaluation. In the second batch, there was an evaluation, and it turned out the recording was wrong.”

(CEO Interview, 2026)

The absence of early-stage evaluation led the organization to assume that the existing recording system was adequate as long as the project continued to run. Management focused primarily on operational continuity and program completion, while the quality of cost information had not yet become a priority. The CEO described this condition as a lack of organizational awareness of system weaknesses:

“The obstacle was that we didn’t know what we didn’t know. So we felt everything was fine.”

(CEO Interview, 2026)

The evaluation conducted after Batch 2 marked a turning point in improving cost recording management in Project B. The evaluation revealed that the existing COGS and RAB structures were insufficiently detailed to capture variations in project cost requirements. Based on these findings, improvements were implemented in Batch 3 by increasing the level of detail and separating fixed and variable cost components. The Product Division explained that these changes were made to enhance cost traceability and avoid aggregation into overly broad cost categories:

“After the evaluation, the COGS and budget realization formats were revised and refined to be more detailed and trackable.”

(Product Division Interview, 2026)

The revised recording structure in Batch 3 led to improved cost data accuracy. According to the Product Division, no significant recording inaccuracies were found in this batch, unlike in previous batches. Nevertheless, technical payment delays persisted, particularly those related to approval workflows and deadline management. This indicates that while system evaluation contributed positively to cost information quality, it did not fully resolve all project cost management issues.

Overall, the findings in this subsection demonstrate that system evaluation plays a crucial role in improving the quality of cost management in Project B. Delayed evaluation allowed structural problems to persist longer and be identified only after affecting project

margins. Improvements implemented in Batch 3 indicate positive progress, while also highlighting the need for more routine and structured evaluation mechanisms so that the recording system can function optimally from the outset of project implementation.

Comparisons across the first, second, and third batches reveal changes in the cost recording system following the post-Batch 2 evaluation. This evaluation prompted revisions to the COGS structure and recording format to better align with operational needs. These improvements were directly explained by the Product Division informant involved in redesigning the cost recording format:

“After the second batch ran with a new CEO, there was an evaluation, and the COGS and RAB formats were revised by me to minimize costs that were input later. The format changed by adding and detailing all items.”

(Product Division Interview, 2026)

These changes aimed to enhance cost traceability from planning through realization. The informant further noted that the Batch 3 recording format was significantly more detailed than before:

“Previously, I only wrote the main outlines; after the evaluation, everything was separated and detailed so it could be tracked.”

(Product Division Interview, 2026)

With these improvements, the recording system in Batch 3 demonstrated enhanced data integrity and improved cost evaluation quality compared to previous batches. However, the improvements remained partial and had not yet been fully institutionalized as a long-term standard. Consequently, cost evaluation and control processes still require further strengthening, directly addressing Research Question 3 regarding improvements in the recording system in the third batch compared to earlier batches.

Misalignment of the Cost Recording System from a Management Control System Perspective

The research findings indicate that the cost-recording problems in Project B cannot be understood merely as technical recording errors, but rather as consequences of the design of the management control system, which has not been fully aligned with the characteristics of the project. The misalignment between the Cost of Goods Sold (COGS) structure and the Project Budget Plan (*Rencana Anggaran Biaya/RAB*) identified in Batch 1 and Batch 2 reflects the weak role of cost planning as a control instrument.

Within a management control system, budgets are expected to function as performance standards that enable continuous comparison between planned and actual outcomes. However, in Project B, the budget structure was overly general and insufficiently detailed, rendering it unable to perform this function effectively. As a result, cost deviations were only identified at the final stage of the project, when profit margins had already eroded and managerial control options had become limited.

This condition indicates that the cost control applied was predominantly reactive. Improvements in cost recording were only undertaken after financial impacts had materialized, rather than as preventive measures during project execution. Based on interview results, the linkages among planning, implementation, and evaluation have not yet operated as an integrated and complete control cycle.

Information Flow and Cross-Divisional Coordination from an Information Processing Theory Perspective

The findings further reveal that the limitations of the cost-recording system are closely related to information flows and cross-divisional coordination. The Product Division and the Finance Division exhibit a high degree of information interdependence; however, this interdependence has not been supported by an integrated information system. The exchange of cost information relies largely on administrative formats and informal communication.

From the perspective of Information Processing Theory, organizations must align their information-processing capacity with the level of complexity of the activities they undertake. Project B, as a multi-batch project with varying cost requirements, demands a high level of information-processing capacity. Nevertheless, the use of simple recording tools without standardized data structures has rendered this capacity inadequate.

Consequently, available cost information cannot be optimally utilized for control and decision-making purposes. Delays in vendor payments and difficulties in monitoring payment deadlines indicate that the existing information system has not been capable of effectively supporting cross-divisional coordination.

Evaluation as a Mechanism for Organizational Learning

The fact that the evaluation was only conducted after Batch 2 suggests that the organization is still at a learning stage in managing batch-based projects. The absence of evaluation in Batch 1 resulted in weaknesses in the recording system remaining unidentified at an early stage and recurring in subsequent batches. In the context of organizational learning, evaluation serves as a feedback mechanism to improve the systems and procedures in use.

The improvements implemented in Batch 3 namely, the increased detailing of cost structures and the separation of fixed and variable costs, demonstrate the presence of adaptive learning processes. However, these improvements remain partial, as they have not been followed by system standardization and routine, structured evaluation mechanisms.

Implications of the Findings for Managerial Decision-Making

Overall, the research findings indicate that the limitations of the cost-recording system in Project B have a direct impact on the quality of managerial decision-making. Retrospective and non-integrated cost information constrains management's ability to project funding requirements, manage cash flows, and anticipate financial risks during project execution.

The improvements implemented in Batch 3 demonstrate that enhancing the quality of the cost-recording system can improve the quality of cost information and support more effective control. However, without system standardization and structured cross-divisional coordination, similar problems are likely to recur in future projects.

CONCLUSION

This study demonstrates that the cost-recording issues observed in Project B cannot be understood merely as technical recording errors, but rather as consequences of the design of the recording and control systems, which have not yet been fully aligned with the characteristics of batch-based projects. At the initial stage of the project, the cost-recording

system functioned more as an administrative tool for documenting expenditures than as an instrument of managerial control.

The main findings indicate that structural misalignment between the Cost of Goods Sold (COGS) and the Project Budget Plan (Rencana Anggaran Biaya/RAB) caused cost information to lose its linkage with the initial planning framework. As a result, discrepancies between budgeted and actual costs could only be identified after project completion, thereby preventing the predictive and preventive functions of the recording system from operating effectively. Under such conditions, cost control became reactive in nature and relied primarily on end-of-period evaluations.

Furthermore, the study reveals that information flows and cross-divisional coordination have not been systematically established. Dependence on administratively oriented submission formats and informal communication channels rendered the processes of cost recording and payment vulnerable to delays and inconsistencies. This finding indicates that the recording system in use has not been capable of accommodating the informational complexity inherent in multi-batch projects.

The evaluation of the recording system, which was only conducted after Batch 2, represents a critical turning point in improving cost management for Project B. Structural improvements implemented in Batch 3 demonstrate that increased levels of detail and the separation of fixed and variable costs can enhance the accuracy of cost information. Nevertheless, these improvements were corrective in nature and were not fully supported by evaluation mechanisms that had been systematically planned from the outset of the project.

Accordingly, this study addresses its research objectives and questions by demonstrating that the cost-recording problems in Project B are structural and systemic in nature. These problems are influenced not only by implementation-related factors in the field, but also by limitations in the design of the recording and control systems employed during the project planning stage.

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