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Work Method and SLA Performance in Procurement and Contract Operations: Evidence from Indonesia's Upstream Oil and Gas Industry

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Abstract

Background: Following organizational restructuring, Procurement and Contract Management functions across Subholding entities face operational challenges caused by variations in work method implementation, personnel allocation, and operational processes, resulted differences in SLA achievement among entities. These variations indicate potential operational inefficiencies related to work volume distribution, process coordination, and other process-related factors.

Objective: This research explores how differences in working methods relate to SLA achievement. Furthermore, it examines process-related factors contribute to SLA, and proposes improvement strategy to support sustainable SLA performance.

Methods: Using mixed-method approach, the study combines quantitative and qualitative analysis. Operational data from six Subholding entities for 2024 were used for descriptive quantitative analysis and Statistical Process Control. Qualitative analysis was conducted through interviews with Management, Focus Group Discussions with representatives from functions, qualitative coding, and Current Reality Tree.

Results: The results reveal significant variations in SLA achievement across entities. Split work methods, where procurement and contract management responsibilities are separated, demonstrated approximately 45% faster SLA completion than end-to-end arrangements, indicating the benefits of role specialization and stronger process control. Furthermore, this research identifies four process-related factors that contribute to SLA performance, that is Work Method Implementation, Procurement – CM Handover, System Role Segregation, and Capability Development. The study recommends strengthening alignment of split work method implementation and involving contract management personnel earlier.

Conclusion: The findings indicate that split work methods between Procurement and Contract Management functions improve operational efficiency through role specialization. This research contributes to operations management literature and provides practical guidance for improving operational performance.

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INTRODUCTION

In today's competitive business environment, organizations continuously strive to enhance efficiency and service delivery through structured performance indicators such as SLA (Engel et al., 2022; Lee & Ben-Natan, 2002). A well-defined SLA supports service management by clarifying responsibilities, strengthening communication, and establishing measurable

performance expectations between related parties (Goo et al., 2009). Structured performance measurement enables organizations to monitor operational outcomes, identify improvement priorities, and support more effective decision-making (Nudurupati et al., 2024; Sutjahyani et al., 2025; Yaghoobi & Haddadi, 2016).

Previous studies emphasize the importance of structured performance measurement in procurement and service operations (Giannakis, 2007; Jääskeläinen, 2018). Procurement performance evaluation should consider governance, process effectiveness, human resource capability, and organizational aspects (Sutawijaya, 2026), while process timeliness is an important indicator to identify procurement delays and operational performance gaps (Ottou et al., 2024).

Despite this body of work, existing procurement studies have largely examined governance, timeliness, or value-creation dimensions at an inter-organizational or public-sector level, with limited attention to how intra-organizational work-method configuration, specifically end-to-end versus split-handling arrangements, affects SLA performance within a single, tightly regulated, project-based industry such as upstream oil and gas. This study addresses that gap by providing empirical, entity-level evidence on how work method and personnel allocation jointly shape SLA outcomes, thereby extending operations management theory beyond generic confirmation toward a context-specific contribution.

Following recent organizational restructuring, the Subholding is responsible for overseeing operational activities across its subsidiary companies within Indonesia's upstream oil and gas industry. The organization consists of five (5) regional entities managing eleven (11) operational zones, where each entity operates its own Procurement and Contract Management (PCM) function with dedicated personnel and operational practices.

According to Thai (2005), public procurement must satisfy requirements for goods, works, systems, and services in a timely and cost-effective manner. Effective procurement management contributes to organizational performance by improving procurement practices and supporting broader value creation beyond transactional activities (Lindfors et al., 2025).

The performance of Procurement and Contract Management (PCM) across Subholding entities shows clear variation in SLA compliance achievement, as reflected in Figure 1. At Subholding level, goods procurement performance reaches a 50% compliance rate, services procurement under Gross Split (GS) scheme stands at 97%, while contract performance achieves 92%. To ensure objective assessment, the overall SLA compliance is calculated using a weighted average based on transaction volume as some categories have very few total transactions. Thus, the overall rate of SLA compliance is 94% for Subholding.

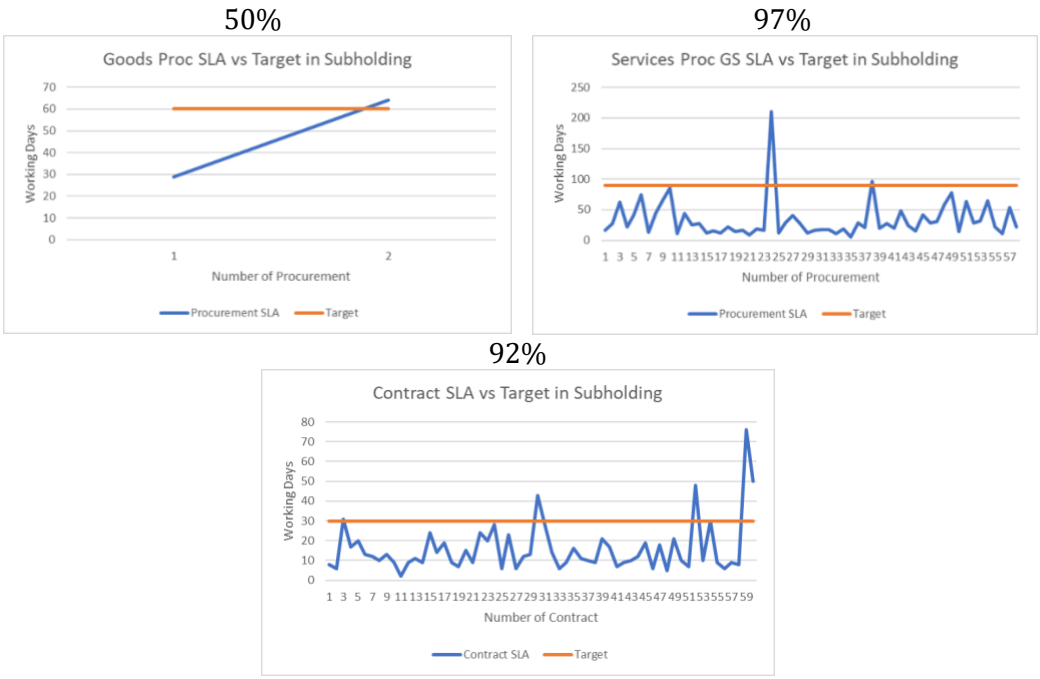


Figure 1. SLA vs Target in Subholding

Distinct patterns emerge at the entity level. Regional A records procurement SLA achievement at 62% for goods, 73% for services under GS scheme, 97% for services under Cost Recovery (CR) scheme, and 92% for contract performance, as detailed in Figure 2. The overall rate of SLA compliance for Regional A is 86%.

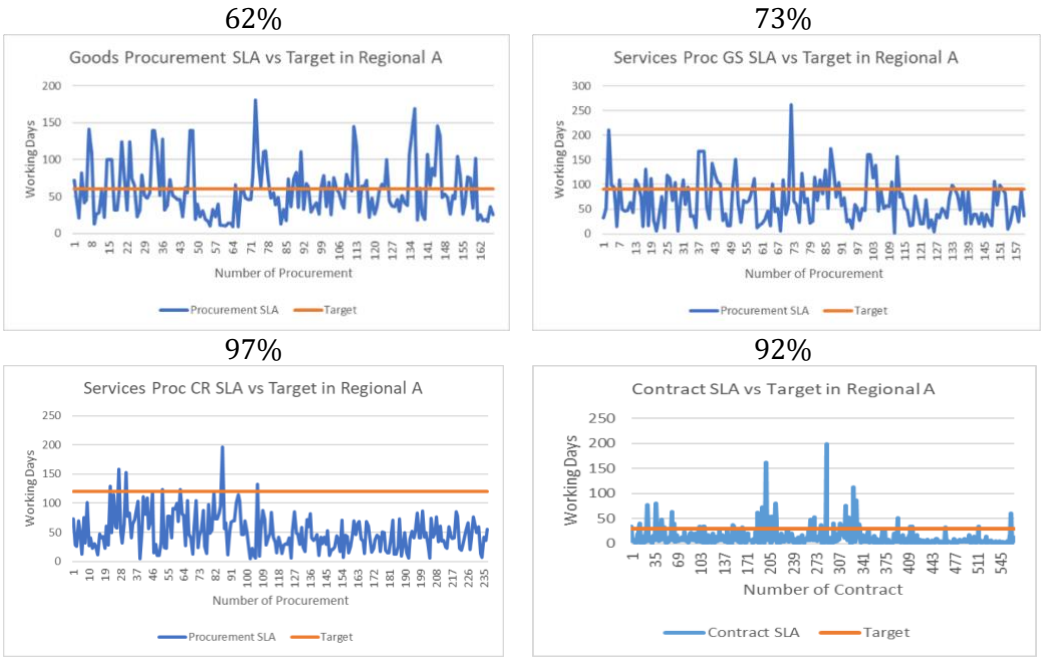


Figure 2. SLA vs Target in Regional A

In contrast, Figure 3 describes Regional B which demonstrates strong performance, with compliance for SLA is 96%.

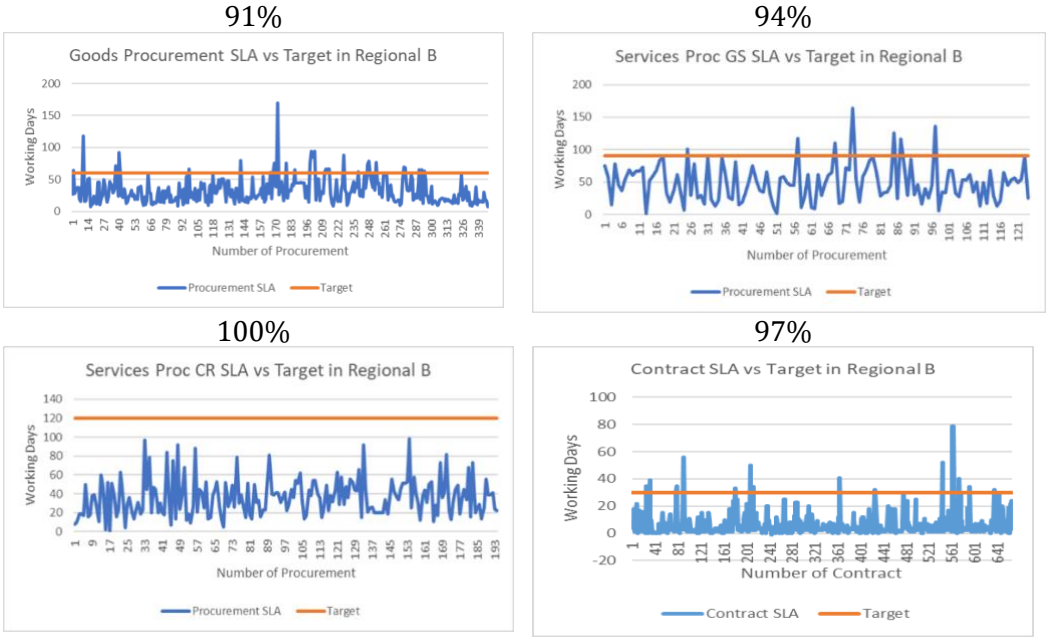


Figure 3. SLA vs Target in Regional B

Regional C shows quite balanced performance in Figure 4, with overall rate of SLA compliance is 95%.

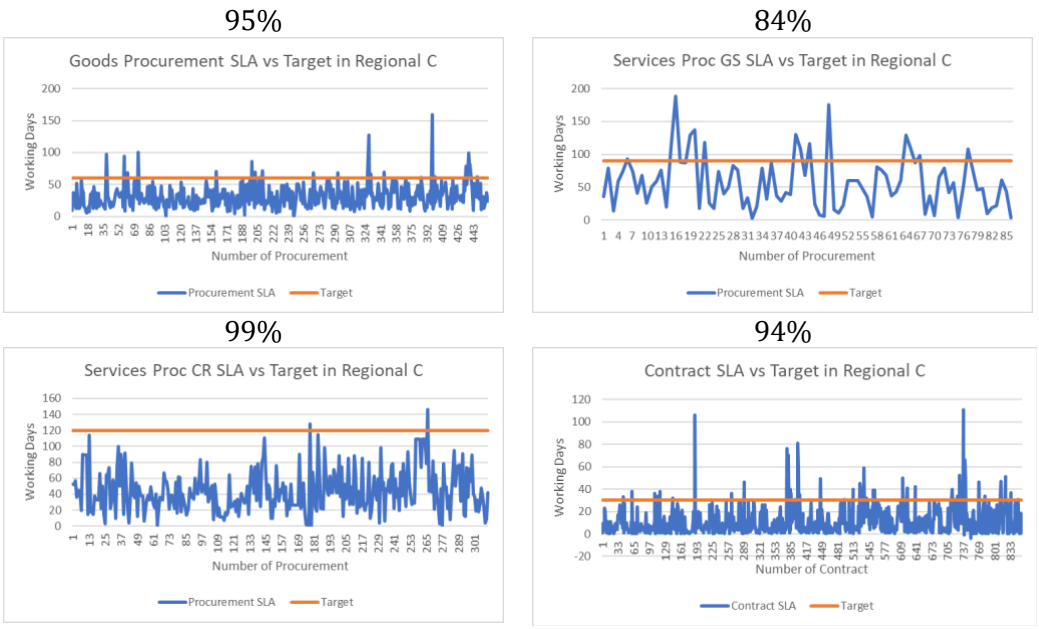


Figure 4. SLA vs Target in Regional C

Regional D in Figure 5 and Regional E in Figure 6 record the highest procurement compliance at 100%.

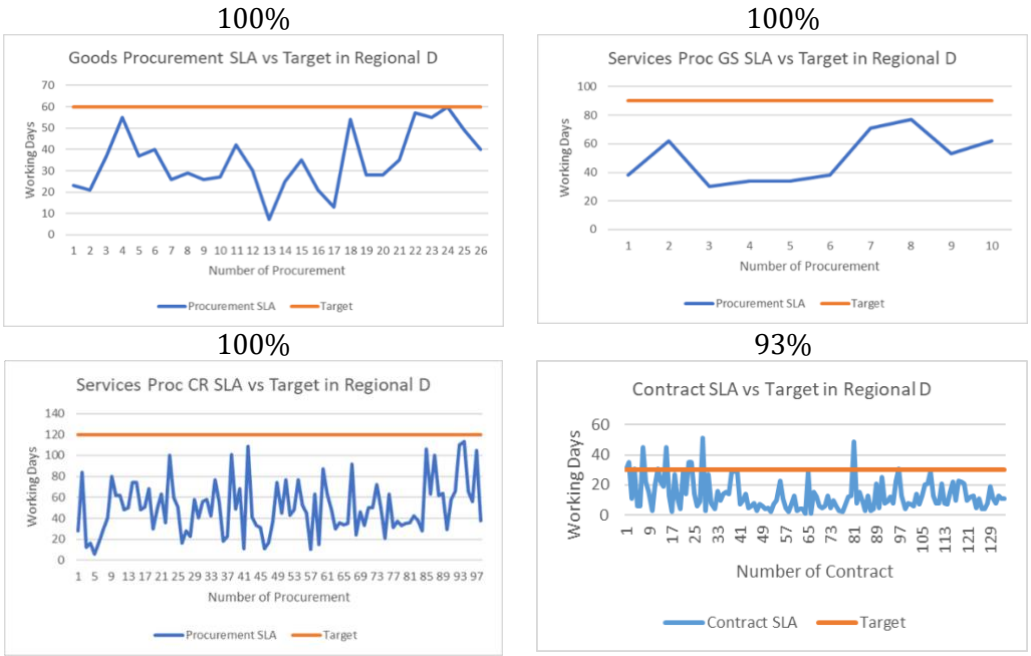


Figure 5. SLA vs Target in Regional D

Total SLA compliance for Regional D is 97% and Regional E is 99%.



97%

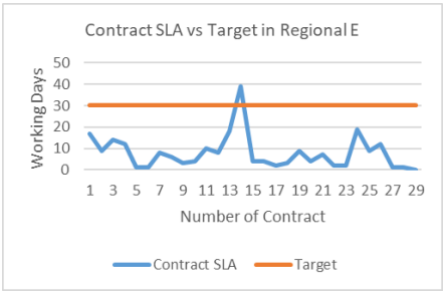


Figure 6. SLA vs Target in Regional E

Prior to the organizational restructuring, procurement and contract activities across the Subholding entities were generally managed through an end-to-end approach, where a single procurement team handled the process from tender initiation until contract issuance. Following the restructuring, business process was redesigned by separating procurement and contract management responsibilities into different teams, resulting in a split-handling approach intended to improve specialization, governance, and process control.

This design choice can be theoretically grounded in coordination and specialization principles: separating procurement and contract administration into distinct roles increases task specialization and accountability, but simultaneously raises coordination requirements between the two functions. Whether split-handling improves or impairs SLA performance is therefore expected to depend on the strength of the coordination mechanisms accompanying the separation of roles, an expectation examined empirically in the Results and Discussion sections.

However, during operational implementation, several entities experienced increasing work volume and reverted to the previous end-to-end approach for selected contracts. Previously, this variation in work methods had not been formally documented or consolidated at the Subholding level, and management recently became aware that both end-to-end and split-handling practices were being implemented simultaneously across different entities.

Therefore, this study aims to analyze how different work methods relate to SLA variability, examine process-related factors contributing to SLA, and propose improvement strategy to enhance SLA performance.

METHOD

Following Saunders (2007), who emphasizes that good research design reduces the possibility of inaccurate conclusions, this research employs a mixed-methods research design, combining quantitative and qualitative approaches. This research adopts a descriptive research approach and Statistical Process Control (SPC), with the aim of evaluating the actual procurement and contract processes carried out in six Subholding entities during 2024.

Qualitative analysis is used to explore process-related factors that impact SLA performance, which are not adequately captured by quantitative indicators. The qualitative analysis was conducted through semi-structured interviews, Focus Group Discussions (FGDs), Fishbone, qualitative coding and Current Reality Tree (CRT).

This research used both primary and secondary data sources to ensure a comprehensive analysis:

Primary Data

The SLA and Personnel Forms were distributed to each entity's PCM function to collect data on the annual number of contracts handled, personnel assigned to procurement and contract activities, work methods applied (end-to-end or split analyst), and actual SLA performance. Interviews with management and focus group discussions (FGDs) involving representatives from Procurement, Contract Management, Method, Performance, System, Demand Planning, and Logistics were conducted to identify operational bottlenecks, process gaps, coordination challenges, governance issues, and opportunities for capability improvement.

FGD participants were selected through purposive sampling, comprising assistant managers, senior analysts, and analysts with at least one year of direct experience in procurement or contract processes. A total of 20 participants took part in two FGD sessions, supplemented by individual interviews with Subholding-level management. To ensure data validity and reliability,

findings were triangulated using three sources: SLA and Personnel Form data, system records from SAP and Smart by GEP, and interview and FGD transcripts.

Secondary Data

Secondary data were collected from Subholding's internal databases, systems, and documents, including: 1) Procurement and contract process reports extracted from SAP system, which provide documented process cycle times. 2) Monthly reports from Smart by GEP system, which provide information related to procurement and contract analyst assignments. 3) Procurement guidelines, that is PTK 007 for cost recovery PSCs and A7-001 for gross split PSCs.

Quantitative data were analyzed descriptively (frequencies, averages, and percentage comparisons of SLA achievement by work method and region) using Microsoft Excel pivot analysis. Additionally, Statistical Process Control (SPC) was used to assess process variation for each procurement and contract process, particularly using $\bar{X}$-R Control Charts. Montgomery (2009) stated that $\bar{X}$-R charts can be used to assess process variation when the observations can be grouped into rational subgroups and the data is continuous. Qualitative data from interviews and FGDs were analyzed using thematic analysis: transcripts were coded manually to identify recurring operational themes.

RESULTS AND DISCUSSION

Results

This section examines root cause analysis, statistical process control, SLA performance by work method, regional profile, personnel analysis, and contract assignment ratio analysis.

Root Cause Analysis

Root cause analysis was conducted to identify the underlying operational factors contributing to SLA performance variations. Interviews were carried out with Assistant Manager Procurement (AM), Senior Manager Procurement & Planning (SM), and Vice President of Supply Chain Management (VP).

To further enrich the interview findings from cross-functional perspective, multiple FGDs were subsequently conducted regarding development of Organizational Work Procedures also alignment between business process and analyst data recorded in GEP system.

After completion of interviews and FGD sessions, a Fishbone Diagram was created to examine various potential problem area and qualitative coding in Table 1 were identified for a deeper analysis.

Table 1
Qualitative Coding

Coding Groups	Codes	Occurences
Process Issue	Incomplete User Documents	3
	Clarification Cycle	3
	Extended Routing & Approval Duration	4
	Procurement – CM Handover	6
	Contract Administration Standardization	3
People Issue	Personnel Capacity Constraints	6
	Analyst Capability	5
Operational Issue	Work Method Variations	4
System Issue	Quota Restrictions	5
Improvement Suggestion	Alignment of Work Method Implementation	4
	Early CM Involvement	3
	System Role Segregation	3
	Training & Knowledge Sharing	2

Based on coding results, the most dominant problems are Personnel Capacity Constraints & Procurement – CM Handover, are mapped into Current Reality Tree (CRT) to logically identify root causes, as illustrated in Figure 7.

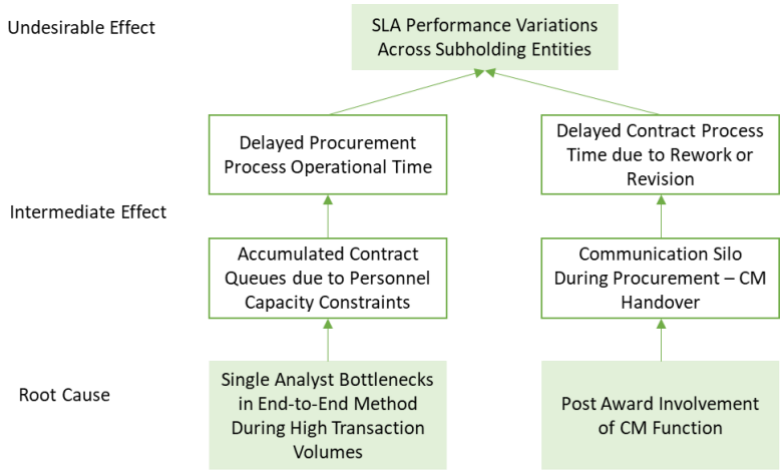


Figure 7. Current Reality Tree

Statistical Process Control

Business issues are presented at regional level to illustrate differences in SLA performance across entities. However, SPC was conducted at Subholding level to evaluate overall process variation within each SLA category.

Consecutive procurement and contract transactions were grouped into rational subgroups of five observations. A subgroup size of five was selected following the recommendations of Montgomery (2009), who states that subgroup sizes between two and ten observations, particularly four to five observations, provide reliable estimates of process average and within-subgroup variation. Similarly, Rachman (2013) recommends subgroup sizes between two and twelve observations, with four to five observations commonly applied for $\bar{X}$-R charts.

Goods Procurement

The operational performance of Goods Procurement was evaluated using $\bar{X}$ and R control charts, as presented in Figure 8. The initial $\bar{X}$ Chart shows several subgroup means exceeding the Upper Control Limit (UCL), with the highest value reaching approximately 133 working days. Similarly, the initial R Chart identified 11 observations outside the control limits, suggesting that both process average and within-subgroup variation were not statistically stable.

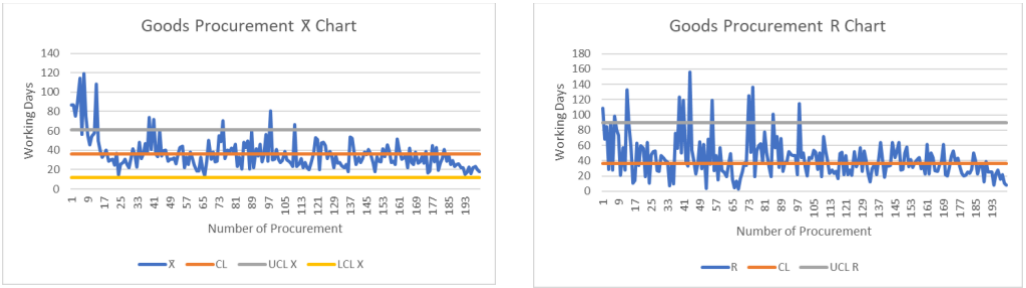
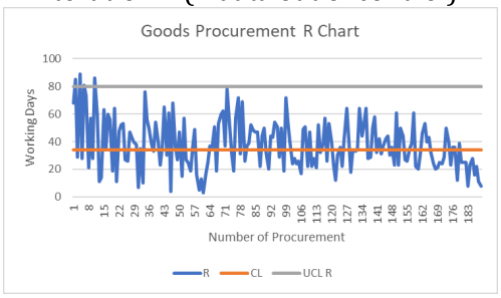


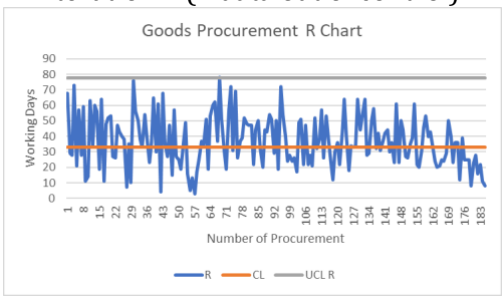
Figure 8. Goods Procurement $\bar{X}$ and R Charts

An iterative revision process was then performed by temporarily excluding out of control observations for recalculating the control limits until all remaining observations fell within the control limits, as illustrated in Figure 9

Iteration 1 (4 data out of control)



Iteration 2 (1 data out of control)



Iteration 3 (all data within control)

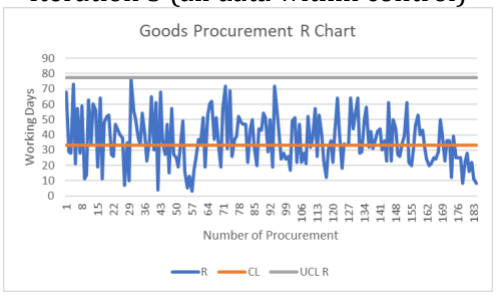


Figure 9. Revised Goods Procurement R Chart

Following the iterative revision, the R Chart indicates that within subgroup variation is statistically stable. Since the $\bar{X}$ control limits were recalculated using the revised average range ($\bar{R}$), the revised $\bar{X}$ Chart was subsequently evaluated. As shown in Figure 10, several subgroups means remain outside the control limits. This indicates that although within-subgroup variation has been stabilized, variation in process average still exists.

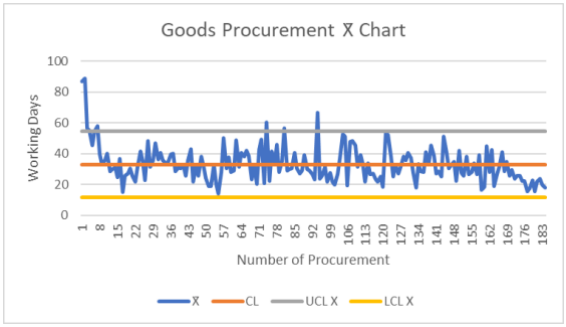


Figure 10. Revised Goods Procurement $\bar{X}$ Chart

Services Procurement Gross Split

Figure 11 illustrates the $\bar{X}$ and R control charts for services procurement GS category. The $\bar{X}$ Chart indicates a relatively high average processing time, with a center line (CL) of approximately 50 working days. Several subgroups means exceed the upper control limit, particularly during the earlier transactions. Similarly, the initial R Chart identified 5 observations outside the control limits.

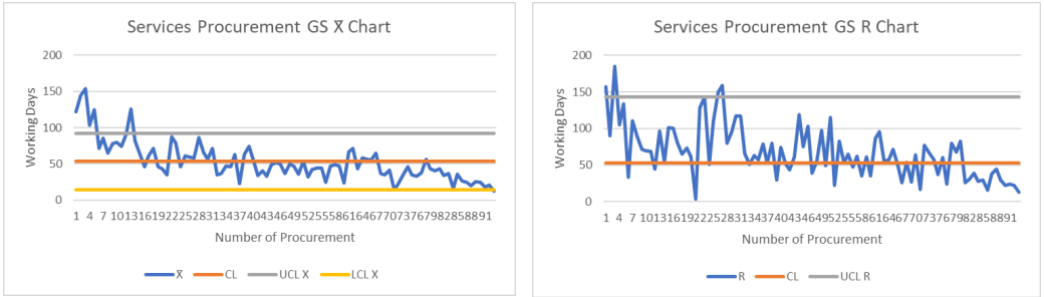


Figure 11. Services Procurement GS $\bar{X}$ and R Charts

An iterative revision process was then performed, as illustrated in Figure 12.

Iteration 1 (1 data out of control) Iteration 2 (all data within control)

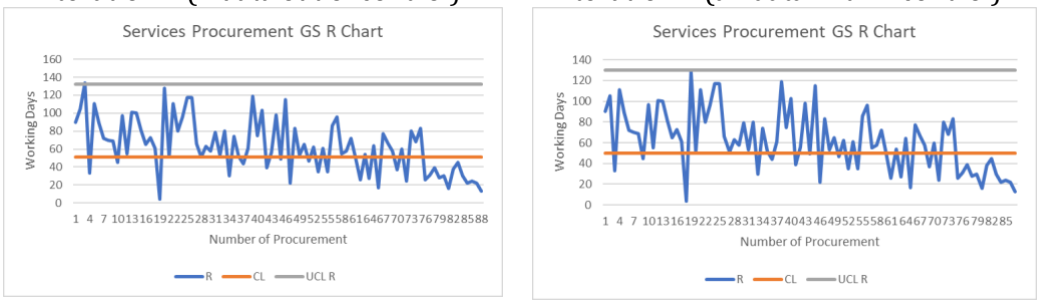


Figure 12. Revised Services Procurement GS R Chart

Following the iterative revision, the R Chart indicates that within subgroup variation is statistically stable. However, as shown in revised $\bar{X}$ Chart in Figure 13, several subgroup means remain outside the upper and lower control limits. The revised $\bar{X}$ Chart also shows that subgroup means generally decline over the observation period. This pattern suggests that process performance gradually improved over the observation period.

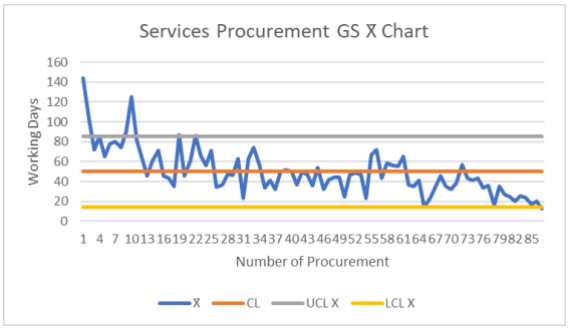


Figure 13. Revised Services Procurement GS $\bar{X}$ Chart

Services Procurement Cost Recovery

Services procurement CR Charts are presented in Figure 14. The initial $\bar{X}$ Chart indicates several subgroups means exceeding the upper control limit, with one subgroup reaching approximately 109 working days. Similarly, the initial R Chart identified 4 observations outside the control limits, indicating that within-subgroup variation was not statistically stable.

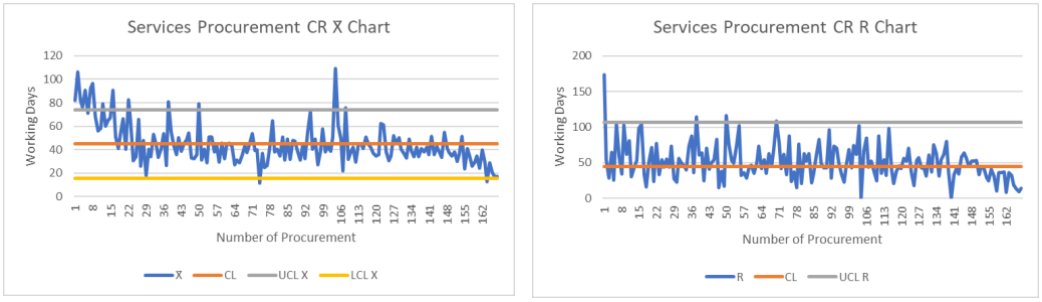


Figure 14. Services Procurement CR $\bar{X}$ and R Charts

An iterative revision process was then performed, as illustrated in Figure 15.

Iteration 1 (3 data out of control) Iteration 2 (2 data out of control)



Iteration 3 (all data within control)

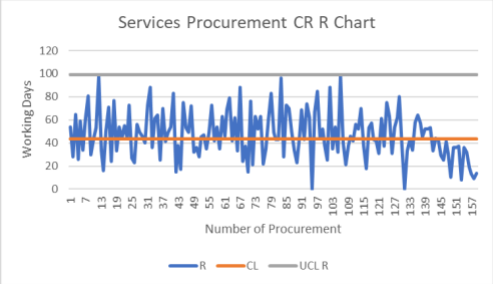


Figure 15. Revised Services Procurement CR R Chart

Following the iterative revision, the R Chart indicates that within subgroup variation is statistically stable. However, as shown in revised $\bar{X}$ Chart in Figure IV.11, several subgroups means remain outside the upper and lower control limits, indicating that variation in process average still exists.

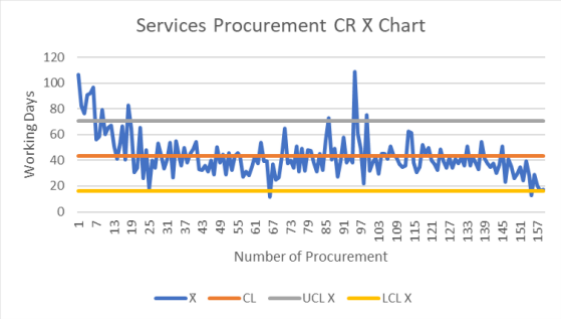


Figure 16. Revised Services Procurement CR $\bar{X}$ Chart

Contract

The Contract process has a relatively efficient contract execution as it has the fastest average with a center line of about 8 working days. But the R Chart in Figure 17 had 34 observations exceeding the control limits.

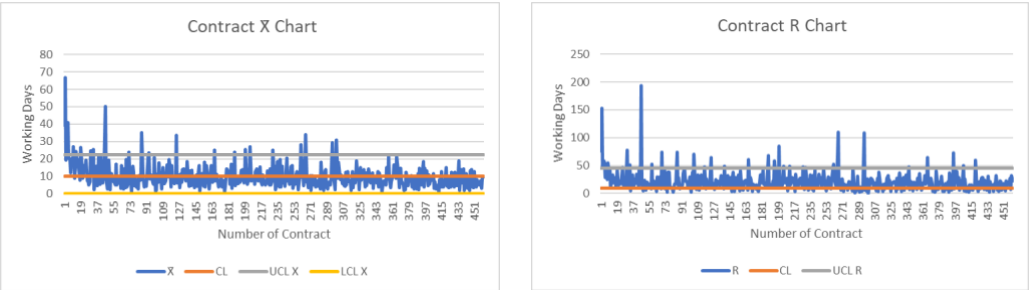
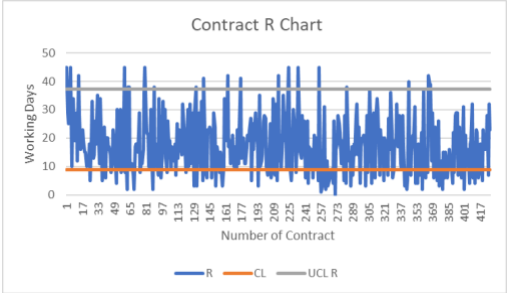


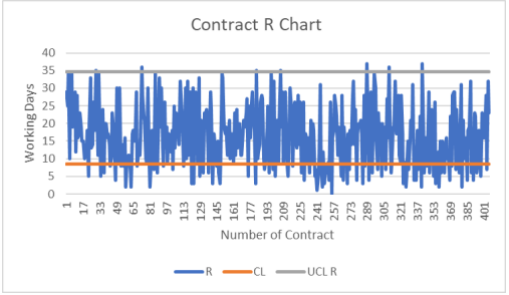
Figure 17. Contract $\bar{X}$ and R Charts

An iterative revision process was then performed, as illustrated in Figure 18.

Iteration 1 (21 data out of control)



Iteration 2 (7 data out of control)



Iteration 3 (7 data out of control)

Iteration 4 (all data within control)

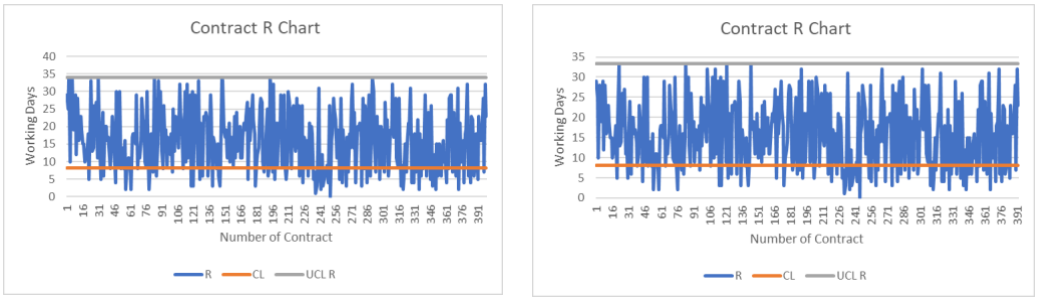


Figure 18. Revised Contract R Chart

Following the iterative revision, the R Chart indicates that within subgroup variation is statistically stable. However, as shown in revised $\bar{X}$ Chart in Figure 19, several subgroups means remain outside the control limits.

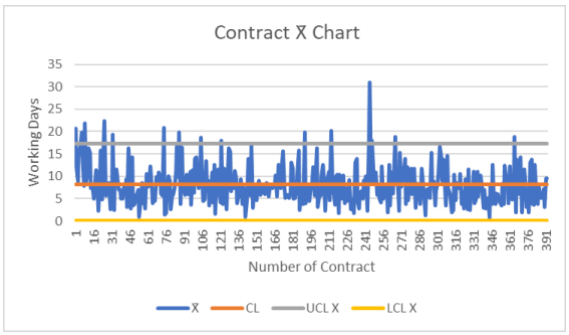


Figure 19. Revised Contract $\bar{X}$ Chart

Across all four SLA categories, the iterative revision successfully established statistically stable R Charts, indicating that within-subgroup variation was under control. However, the revised $\bar{X}$ Charts consistently showed several subgroups means outside the control limits, suggesting that variation in process averages remained across procurement and contract activities. These findings indicate that while short-term process variation can be stabilized, longer-term variation associated with operational execution still exists. Therefore, subsequent qualitative analyses were conducted to identify the operational factors contributing to these process variations.

SLA Performance by Work Method

To analyze how different work methods relate to SLA variability, this study compares procurement and contract SLA performance between entities applying end-to-end and split work methods, as detailed in Table 2.

Table 2
SLA Procurement & Contract

SLA Proc & Contract		
Row Labels	**Count of No**	**Average of Total SLA**
End to End	413	71
Split	1896	49
Grand Total	**2309**	**53**

From a volume perspective, the split method is more widely implemented across Subholding entities by 82%, reflecting current business process design and organizational policies related to segregation of duties, role specialization, and stronger control mechanisms.

However, from a performance perspective, the findings reveal that the split method recorded an average total SLA of 49 days, compared to 71 days for the end-to-end method. This shows that split method performs approximately 45% faster than end-to-end approach.

This finding is consistent with Operations Management theory proposed by Slack and Brandon-Jones (2022) as well as empirical evidence from Hou et al. (2017), which suggests that

specialization and effective process design can improve operational speed and efficiency by allowing personnel to focus on specific activities and develop deeper expertise. This finding also aligned with shared service principles, where standardization, role specialization, and resource optimization can improve operational efficiency (Joha & Janssen, 2014).

Regional Profile

Table 3 present the SLA performance across Subholding and regional entities, including a comparison between end-to-end and split work methods. At Subholding level, the average SLA is recorded at 51 days, with split method (46 days) slightly faster than end-to-end method (53 days) for services contracts. This pattern is in line with the overall finding that the split method generally delivers shorter processing time.

At Regional level, the results show differences across entities. With an average of 68 days of SLA, Regional A has the slowest average SLA. There are two main reasons for this operational obstacle. First, Regional A has many service contracts (397 transactions) than goods contracts (167 transactions) in which longer lead times are required. Second, Regional A was newly integrated into the Subholding structure during the analysis period. The transition required adjustment in business processes, system implementation, and coordination mechanisms, which are considered to be major factors that affect SLA.

Table 3
Regional Profile

Row Labels	Count of No	Average of Total SLA
Subholding	**61**	**51**
Goods	**2**	**83**
End to End	2	83
Services	**59**	**50**
End to End	30	53
Split	29	46
Regional A	**564**	**68**
Goods	**167**	**66**
End to End	140	70
Split	27	46
Services	**397**	**69**
End to End	139	94
Split	258	56
Regional B	**665**	**43**
Goods	**347**	**38**
End to End	26	52
Split	321	37
Services	**318**	**48**
End to End	2	57
Split	316	48
Regional C	**856**	**50**
Goods	**459**	**43**
End to End	23	37
Split	436	43
Services	**397**	**57**
End to End	5	57
Split	392	57
Regional D	**134**	**61**
Goods	**26**	**42**
End to End	5	41

Row Labels	Count of No	Average of Total SLA
Split	21	43
Services	**108**	**65**
End to End	16	60
Split	92	66
Regional E	**29**	**29**
Goods	**2**	**17**
End to End	2	17
Services	**27**	**30**
End to End	22	32
Split	5	23
Grand Total	**2309**	**53**

Regional B shows relatively strong performance, with an average SLA of 43 days. In brief, Regional C and D show the reverse pattern (end-to-end faster than split), but their limited end-to-end transaction relative to split means this result should be read with caution rather than contradicting the overall trend. Regional E records the fastest SLA at 29 days among all regions, however, the number of transactions is relatively small.

Although split method generally shows better performance, the results are not consistent across all entities. This means that work method is not the only factor, and other aspects such as capability of personnel, coordination, and work volume distribution also play important role.

Personnel Analysis

In addition to SLA performance, an assessment is conducted of how personnel are distributed among various entities.

Total Personnel

Table 4 present the distribution of procurement and contract personnel across all Subholding entities.

Table 4
Total Personnel

Total Personnel	
Row Labels	**Count of No**
Subholding	9
Regional A	77
Regional B	59
Regional C	93
Regional D	27
Regional E	9
Grand Total	**274**

The data shows that the total number of personnel across all entities is 274 employees. Regional C has the largest number of personnel with 93 employees (34%), reflecting its relatively larger operational scope and higher procurement activities.

Regions with larger operational activities tend to require more procurement and contract personnel to support their business processes. However, the findings also indicate that larger number of personnel does not result in better SLA performance. These findings suggest that personnel effectiveness cannot be assessed solely based on headcount but should also consider factors such as process efficiency, workload management, and operational practices.

Position Distribution

Figure 20 shows that out of a total of 274 personnel, the majority are assigned to Procurement roles, accounting for 184 employees (67%). This is followed by Contract Management (CM) with 64 employees (23%). At the managerial level, 13 employees (5%) serve

as Assistant Manager Procurement & CM, where both functions are managed under a single leadership role.

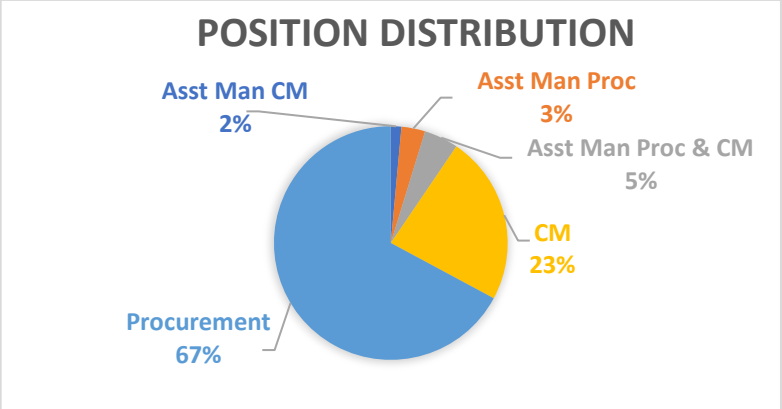


Figure 20. Position Distibution Chart

This distribution shows that most entities place greater manpower allocation at procurement rather than contract management. While this may be aligned with the higher load during procurement activities, it may also create bottlenecks during contract preparation if contract management resources are not sufficient to handle increasing contract volume.

In addition, the presence of both combined and separated Assistant Manager structures reflects differences in organizational design across entities. Some entities manage procurement and contract functions under one leadership role, while others separate these responsibilities. This structural variation may influence coordination efficiency and decision-making speed.

Personnel Demography

The personnel within each entity based on organizational roles is shown in Figure 21. Regional C has the largest workforce with 93 personnel, consisting of 59 Procurement personnel, 28 CM personnel, and 6 Assistant Managers.

Regional B consists of 59 personnel, with 39 Procurement personnel, 14 CM personnel, and 6 Assistant Managers. This region shows a relatively balanced workforce composition and maintains relatively strong SLA performance.

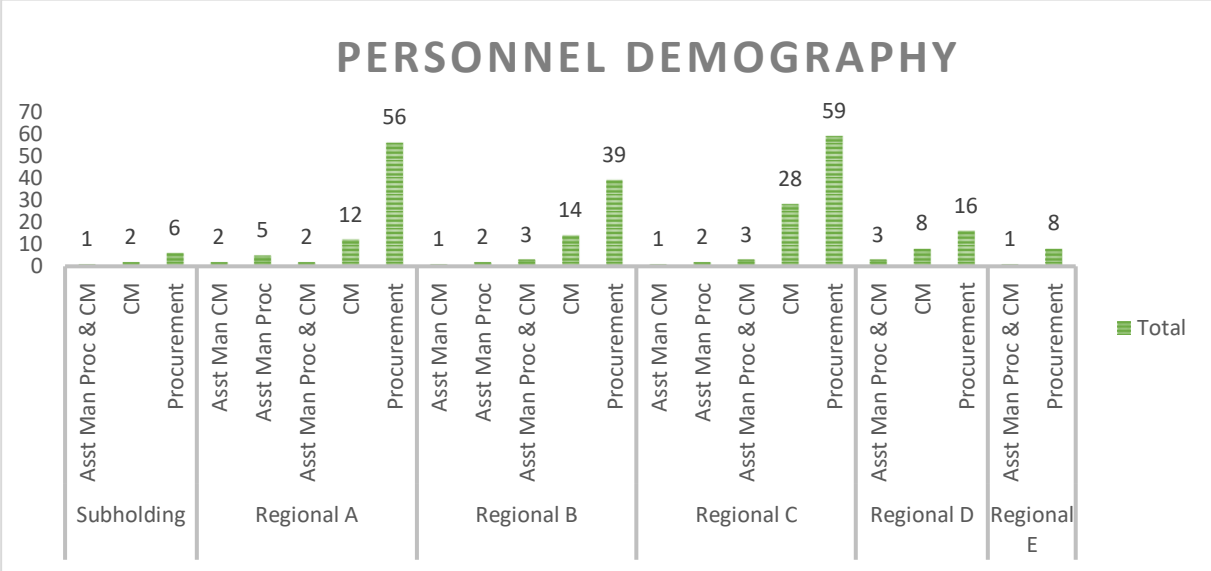


Figure 21. Personnel Demography Chart

A notable structural difference can be seen in Regions A, B, and C, where the roles of Assistant Manager Procurement and Assistant Manager CM are separated. This suggests a more segmented organizational structure, where procurement and contract functions operate under different leadership roles and may require additional coordination between functions.

In contrast, Regional D, Regional E, and Subholding primarily apply a combined leadership structure through Assistant Manager Procurement & CM, where both functions are managed under the same leadership role. Regional D has 27 personnel, while both Subholding and Regional E each have 9 personnel. This structure may support faster coordination and decision-making due to fewer managerial handovers.

Personnel Composition

The personnel composition based on employment status also analyzed to depict the overall structure of human resources within procurement and contract functions. Table 5 present the proportion of organic and non-organic personnel.

Table 5
Personnel Composition

Personnel Composition	
Row Labels	**Count of No**
Non-Organic	130
Organic	144
Grand Total	**274**

The data shows that out of a total of 274 personnel, 144 employees (53%) are classified as organic personnel, while 130 employees (47%) are non-organic personnel. However, high reliance on non-organic personnel may create challenges when experienced employees leave the organization, as their knowledge and experience may not be fully transferred. This can affect continuity and capability development, especially for complex procurement and contract activities that require a strong understanding of internal procedures, compliance requirements, and company policies.

Contract Assignment Ratio Analysis

To support the quantitative validation of root cause Personnel Capacity Constraints, this study examines the relationship between personnel capacity and SLA compliance across all six entities. The indicator used is Contract Assignment Ratio, which measures total contracts divided by total personnel in each region, as shown in Table 6.

Table 4
Contract Assignment Ratio

No	Region	Total Contracts	Total Personnel	Contract Assignment Ratio	SLA Compliance
1	Subholding	61	9	7	94%
2	Regional A	564	77	7	86%
3	Regional B	665	59	11	96%
4	Regional C	856	93	9	95%
5	Regional D	134	27	5	97%
6	Regional E	29	9	3	99%

Regional B has the highest contract assignment ratio at 11 contracts per personnel, yet it maintained high SLA compliance of 96%. To visually illustrate this pattern, Figure 22 displays the scatter plot mapping Contract Assignment Ratio against SLA Compliance. The equation of the linear trendline is $y = -0.3691x + 96.873$ with a coefficient of determination (R^2) of 0.0592.

The coefficient of x is -0.3691, which means that if contract assignment ratio (additional assignment to one personnel) increases by 1 unit, the SLA compliance rate is expected to decrease by 0.37%. This proves that increase in assignment ratio does not drastically reduce SLA compliance.

Furthermore, the very low R^2 value indicates only 5.92% of the variation in SLA compliance is influenced by the Contract Assignment Ratio. This statistically implies that approximately 94.08% of the variance is driven by other operational factors outside the headcount.

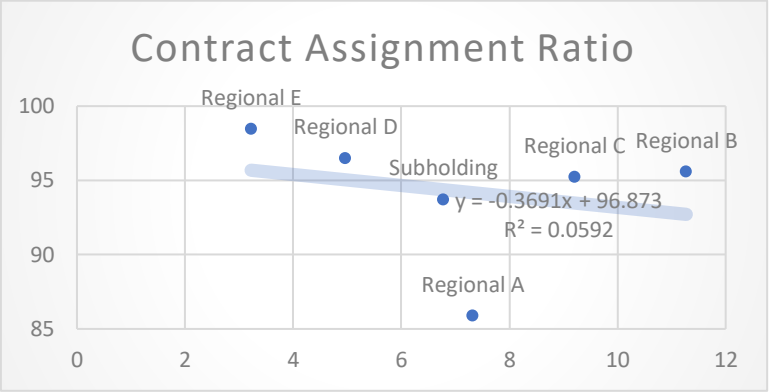


Figure 20. Contract Assignment Ratio Scatter Plot

The data reveals that entities with higher assignment ratio do not exhibit lower SLA compliance. Instead, the root cause analysis synthesizes that Personnel Capacity Constraints are highly driven by the variations in work methods.

Discussion

This section analyzes the operational dimensions by linking the quantitative analysis with root causes and feedback gathered from interviews and FGDs.

Process Analysis

Based on the coding results, the issues selected for further analysis consist of root causes and other dominant issues, which include Personnel Capacity Constraints, Procurement-CM Handover, Quota Restrictions, and Analyst Capability. These main issues were validated through interviews and FGD, specifically focusing on areas where improvement suggestions were actively developed. These identified issues were grouped into process improvement areas, as summarized in Table 7.

Table 7
Issues in PCM

Process Improvement Area	Identified Issue	Responsible Function
Work Method Implementation	Personnel Capacity Constraints that emerge due to the implementation of end-to-end work method, directly impacting work distribution, coordination patterns, and execution speed.	Procurement & Contract Management
Procurement – CM Handover	Additional coordination requirements and information transfer during transition from winner appointment to contract issuance, which may create additional review and alignment activities.	Procurement, Contract Management & Method Function
System Role Segregation	Quota Restrictions that cause operational obstacles in persona access and differences between system records.	Procurement, Contract Management, System & Method Function
Capability Development	Limitations in Analyst Capability arising from differences in competency levels, operational experience, and understanding of process.	Procurement, Contract Management & Training Function

PDCA Analysis

From continuous improvement perspective, the identified issues were analyzed using Plan–Do–Check–Act (PDCA) framework. The PDCA framework provides a structured approach for evaluating and improving processes through four iterative stages: planning, implementation, performance evaluation, and improvement actions, as shown in Table 8.

Table 8
PDCA Table

PDCA Stage	Findings
Plan	Procurement and contract processes have established SLA targets based on applicable guidelines (PTK-007 and A7-001) and organizational procedures.
Do	The operational challenges were observed, including incomplete procurement requests, multiple rounds of clarifications, contract revisions, approval delays, and Procurement–Contract Management coordination challenges.
Check	SLA performance is monitored through periodic report using SAP data. However, prior to this study, information regarding operational work method implementation across entities was not available at Subholding level. Therefore, this study was conducted to develop a comprehensive profile of each entity by combining SLA performance, contract volume, and operational work method implementation.
Act	The results of this study provide management with greater visibility into SLA performance variations, operational bottlenecks, and work method.

To examine process-related factors that contribute to SLA performance, the following section will discuss each of Process Improvement Areas identified.

Work Method Implementation

The findings from the coding analysis show that the problem of Personnel Capacity Constraints is the root cause of operational delays, in end-to-end process arrangements. In end-to-end configuration, one analyst is responsible for multiple transactional steps, forming single analyst bottlenecks.

On the other hand, the split work method mitigates this risk by having specified roles. This distinction is confirmed empirically in this study, where the split work method is shown to attain 45% higher SLA achievement than end-to-end arrangement. The possible implication of this discovery is that the specialization of a role may increase the efficiency of a process, if there are good coordination procedures and well-defined roles.

This result both confirms and extends prior contract-performance research: consistent with Seboka & Gidebo (2026) and Carnochan et al. (2019), communication and standardized procedures emerge as central to contract administration performance; however, unlike studies conducted in single-function or public construction settings, the present findings show that role separation itself (split-handling) can outperform integrated (end-to-end) handling once adequate coordination mechanisms are in place, which nuances the assumption in some prior operations-management literature that specialization inherently introduces coordination costs that offset efficiency gains.

Procurement – CM Handover

This section examines the coordination of transition phase between different teams. Post-Award Involvement of CM Function is the second root cause that is related to delayed handover. If split work method is implemented, then a formal handover is an inevitable part of the process.

Ownership changes often lead to departmental communication silos, while contract analyst only gets involved after the winner appointment is finalized, without background knowledge regarding the tender process. It is a knowledge gap which causes the analyst to review the document from the beginning, often resulting in document reworks or revisions.

System Role Segregation

During the FGD, one problem that was highlighted is the limitation of the system and the segregation of the roles. Both the procurement and contract activities are planned on a split basis, but it was observed that in some instances the same analyst dealing with the procurement and contract activities through the system. The investigation shows that although a particular analyst was associated with the transaction, this result may simply reflect a common practice where personnel share system login access.

System access was previously limited due to Quota Restrictions until 2025. In 2025, management began to solve this problem by rolling out stricter role-segregation rules and expanding quota. User Roles have been segregated into Buyer, Procurement, and Contract Management to enhance the internal control. The Buyer persona can have access to the other groups, while the remaining groups operate exclusively within their respective modules. This change delivers not only an increased system access, but also increased transparency and system accountability.

Capability Development

Operations Management highlights that operational performance is influenced not only by process design and resource availability but also by the capability of personnel executing the process (Menor et al., 2007). The interviews data show that the differences in performance can also be attributed to the capability of personnel to work with high complexity tenders, assess the tenders thoroughly, and ensure smooth interaction between functional groups. Entities have different operational execution quality due to variability in Analyst Capability and communication practices. This resulted to the consideration of capability development programmes as significant areas of improvement to enhance SLA performance.

Sustainable SLA improvements are not only about optimizing operational processes but also continuous capability building and organizational alignment. Therefore, it is important to ensure personnel competence, effective communication, and standardization to achieve more stable procurement and contracting performance of Subholding entities.

Business Solution

To enhance procurement and contract SLA performance, this study proposes improvement strategy, as detailed below.

Work Method Implementation Initiative

From Operations Management perspective, operational performance can be improved through effective process design, appropriate allocation of responsibilities, and coordination between related activities. The analysis shows that split work methods between Procurement and Contract Management functions generally achieved better SLA performance compared to end-to-end arrangements. Consequently, the study supports strengthening alignment of split work method implementation to enhance role clarity, process efficiency, and stronger control mechanisms.

This initiative is based on semi-structured interviews, FGD, and quantitative data analysis, and addresses directly the root cause of Personnel Capacity Constraints. The workload can be optimized to be more balanced using split work method, reducing capacity constraints, and enabling analysts to work in their expertise in order to achieve maximum overall SLA compliance.

In practical terms, procurement governance leaders should treat split-handling as the default operating model for contract-heavy regions, supported by a formal SLA monitoring dashboard reviewed monthly, and use the Contract Assignment Ratio as a screening indicator.

Procurement – CM Handover Initiative

In line with process coordination principles in Operations Management, improving integration between related activities is important to reduce process delays and improve workflow continuity (Slack & Brandon-Jones, 2022). While the implementation of split work method serves as the first solution, the analysis reveals that there are communication silos between departments.

To mitigate this issue, based on interviews and FGD, this study proposes earlier involvement of Contract Management (CM) team at tender result stage. This bridges the communication gap during handover process and addresses the second root cause of Post Award Involvement of CM Function. This improvement is outlined in the proposed revision of Organizational Work Procedure for Implementation of Contract Issuance (TKO, 2024), as illustrated in cross-functional business process flowchart in Figure 23.

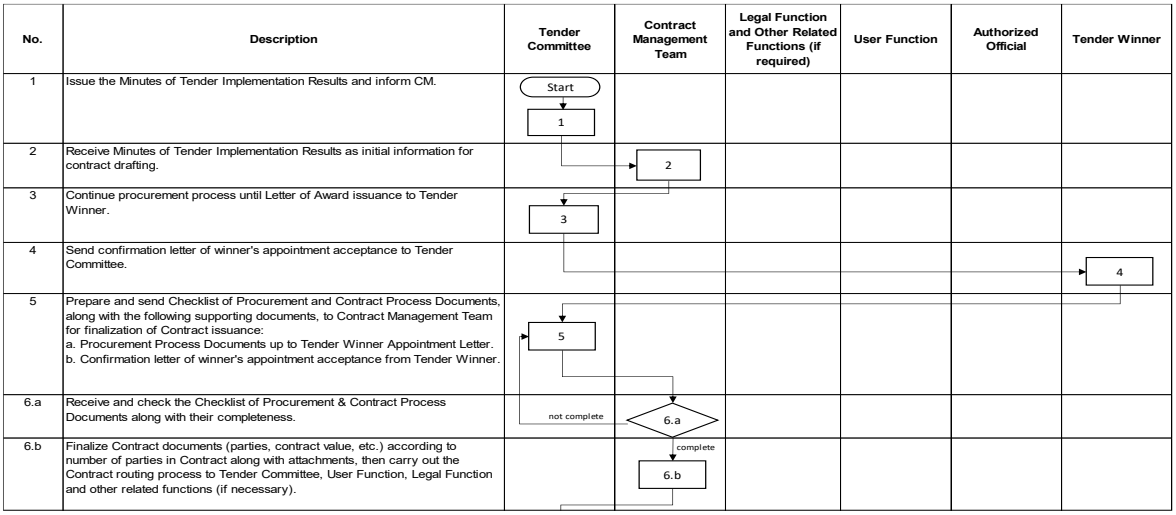


Figure 21. Proposed Revision of Organizational Work Procedure

CONCLUSION

This study examines the factors that influence SLA performance in procurement and contract management across various Subholding entities. Some entities managed to maintain consistent SLA performance, while others experienced delays, which showed that there are differences in work method, coordination, and organizational structure.

The study also revealed that split work method performed better in achieving SLA compares to end-to-end method, with 45% faster SLA completion times. These results contradict the common belief that split workflows increase cycle time. It demonstrates that when roles are decentralised and there is strong teamwork across multiple areas, the process can be accelerated.

The study identifies four process-related factors that contribute to SLA performance variations, that is Work Method Implementation, Procurement – CM Handover, System Role Segregation, and Capability Development.

Furthermore, it proposes improvement strategy to strengthen alignment of split work method between Procurement and Contract Management function in Subholding entities and early involvement of Contract Management during tender result stage.

Overall, the central contribution of this study is to show that, within a regulated, project-based upstream oil and gas setting, work-method design (split-handling supported by coordination mechanisms) is a stronger and more actionable lever for SLA improvement than personnel volume alone, a synthesis that extends operations-management and procurement-governance literature.

This study has several limitations. First, the constrained sample size. Second, the scope focuses primarily on SLA duration, without incorporating other variables (such as contract quality and procurement process complexity). Future research is therefore encouraged to (1) employ a larger cross-organizational sample, (2) incorporate additional variables, such as contract quality to further investigate aspects that influence SLA performance.

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AUTHOR CONTRIBUTION STATEMENT

Rida Elfreda Agustiana contributed to conceptualization, methodology development, data collection, data analysis, investigation, visualization, and manuscript preparation. Akbar Adhi Utama contributed to theoretical framework, research supervision, validation, manuscript review, and editing. All authors have reviewed and approved the final version of the manuscript.

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