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BUILDING A SUSTAINABLE BUSINESS ECOSYSTEM: ANALYZING THE IMPLEMENTATION OF PADI UMKM AT PT XYZ PROCUREMENT DIVISION

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ABSTRACT

Background: Procurement of goods and services is a crucial activity in supporting a company's operational efficiency. At PT XYZ, the previously centralized process led to long lead times, bottlenecks in meeting business needs, and delayed vendor payments.
Purpose: This study aims to evaluate and measure the effectiveness of decentralization policies and implementation of the PaDi UMKM platform in the procurement process. It also analyzes the impact of these changes on the roles, responsibilities, and risks within the procurement structure.
Design/methodology/approach: This study used a mixed-methods approach. Value Stream Mapping compares lead times before and after decentralization, the RACI Matrix analyzes role changes, and FMEA identifies potential risks. Data were collected through observations, unstructured interviews, time motion studies, and internal document reviews.
Findings/Result: Decentralization reduced procurement time by 61% and improved low-value purchase efficiency. The RACI Matrix revealed a shift in responsibility for the Business User. FMEA showed a risk reduction, lowering the RPN from 648 to 4. The use of PaDi UMKM also enhances vendor involvement and process flow.
Conclusion: This study concludes that procurement decentralization, supported by digital platforms such as PaDi UMKM, effectively improves operational efficiency, clarifies organizational roles, and mitigates procurement risk. These findings offer practical insights for financial service companies seeking to optimize procurement strategies through structural and digital transformation.
Originality/value (State of the art): This study offers both practical and theoretical contributions by evaluating the implementation of procurement decentralization in a financial services company. It uniquely integrates the VSM, RACI Matrix, and FMEA to provide a comprehensive view of the process efficiency, role structure, and risk mitigation within a decentralized procurement framework.

Keywords: procurement decentralization, failure mode and effects analysis, raci matrix, value stream mapping

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INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) contribute approximately 61% of Indonesia's GDP and employ over 97% of the workforce (Kemenko Perekonomian, 2023). They are vital for economic resilience, job creation, and poverty reduction; however, they still face challenges, such as limited market access, low digital literacy, and weak supply chain support. To support MSMEs, the government introduced Pasar Digital UMKM (PaDi UMKM), a platform that connects them with SOEs and private companies for procurement. The platform improves efficiency, transparency, and market access by integrating MSMEs into a modern and accountable procurement ecosystem (Fathan, 2025).

However, the financial services sector, particularly insurance, plays a crucial role in supporting MSME growth through risk protection and collaboration. The insurance industry is one of the key pillars of this sector. According to the Financial Services Authority (OJK, 2023), Indonesia's insurance industry has generally shown steady growth, with an industry premium compound annual growth rate (CAGR) of 1.89%. Conventional insurance premiums increased by 0.9%, whereas sharia-based insurance contributions had a more significant growth of 15.7%. Despite its critical role, the industry continues to face major challenges, particularly low penetration. OJK (2023) reported that the insurance penetration rate is only 2.82%, highlighting gaps in financial inclusion and public awareness of protection services. As illustrated in Figure 1, the ASEAN Insurance Council Statistical Report (2023) shows that Indonesia's insurance penetration in 2022 lagged behind that of Vietnam, the Philippines, Thailand, and Singapore.

Digital transformation has become a strategic solution to broaden access, enhance efficiency, and increase industry competitiveness to improve insurance penetration. Digitalization enables faster, more personalized, and adaptive services. Eling and Lehmann (2018) identify four major challenges in the insurance industry: customer experience, process efficiency, product innovation, and cross-sector competition. Technology adoption helps to address these issues and drives industrial growth (EY, 2023). In the context of procurement, digitalization also plays a vital role in enhancing overall organizational efficiency (Srai & Lorentz, 2019).

As an insurance company, one of PT XYZ's strategic efforts is the implementation of the PaDi UMKM platform as a procurement channel that supports the government's MSME empowerment program. However, in its implementation, PT XYZ faces several challenges, particularly owing to its highly centralized procurement system. All procurement activities, even for low-value purchases, must go through procurement, resulting in administrative burdens, potential data duplication, and lengthy procurement lead-times.

The centralized procurement process poses a significant challenge, as it often leads to delays in the distribution of goods and services, as well as issues in vendor payments. Payment delays frequently occurred because of the absence of Delivery Notes in the system, which served as a reference for the Finance Division to proceed with payments. For instance, in October 2024, 15 transactions totaling over IDR 1.6 billion that remained unpaid because the Delivery Notes had not been entered. This issue has the potential to erode vendors' trust in a company's professionalism and operational efficiency. According to Sinthiya (2023), effective supplier relationship management significantly contributes to procurement efficiency and cost reduction while also strengthening trust and long-term collaboration between companies and suppliers. To address this, PT XYZ introduced limited decentralization, allowing business units to directly purchase transactions below IDR 10 million, while retaining oversight. This policy aims to speed up processes, ease procurement workload, improve lead-times, and strengthen engagement with the PaDi UMKM platform.

Procurement management efficiency has become a central focus in various academic studies. Kanepejs and Kirikova (2018) state that procurement aims to ensure that goods and services are delivered on time, aligned with needs, and meet quality standards. Monczka et al. (2021) further emphasized that effective procurement management involves integrated planning, execution, and control to support organizational operations. Similarly, Lysons and Farrington (2020) highlight the importance of all procurement stages, from need identification to supplier evaluation, in creating supply chain efficiency. Process effectiveness can be assessed through quality, cost efficiency, and lead-time (Oenga et al. 2022), these outcomes are highly influenced by the governance model applied. Schmitt et al. (2015) and Contreras (2016) discuss the advantages and challenges

of centralized and decentralized systems, underscoring the need for a comprehensive evaluative approach, particularly in the era of digital transformation.

Numerous studies have demonstrated the effectiveness of VSM and FMEA in optimizing processes and reducing waste, particularly in manufacturing and logistics sectors. Jing et al. (2021) developed Procurement Value Stream Mapping (P-VSM) to comprehensively analyze procurement processes and identify non-value-added activities. Priharyanto (2017) showed that VSM is effective in designing logistics process improvements, based on time studies. Prihadi and Supangkat (2023) highlighted that FMEA can be used to prioritize operational risks based on severity, occurrence, and detection, and further recommended design improvements and quality control measures.

Although lean tools, such as VSM and FMEA, have been proven effective in enhancing process efficiency, most existing studies remain concentrated in the manufacturing and logistics sectors. There is still a lack of research that integrates VSM, the RACI Matrix, and FMEA in a unified framework, particularly within the context of digital procurement platforms such as PaDi UMKM in the financial services sector. Moreover, few studies have evaluated the impact of procurement decentralization on time efficiency, role distribution, and risk mitigation are still limited.

This study employs a methodological framework grounded in lean management principles to evaluate systematically the effectiveness of procurement decentralization within PT XYZ. This framework is selected not only because it allows for a detailed analysis of operational inefficiencies but also because it provides structured tools suitable for examining complex, multi-stakeholder processes such as procurement in financial services.

One of the most widely used approaches for evaluating process efficiency is the lean system, which focuses on eliminating waste and increasing value-added activities (Womack & Jones, 1996). Within this framework, Value Stream Mapping (VSM) is utilized to visualize process flows, measure processing time, and identify bottlenecks. To ensure role clarity, the Responsible, Accountable, Consulted, and Informed Matrix (RACI Matrix) was applied to map responsibilities and authority (Arshad et al. 2023). Meanwhile, Failure Mode and Effect Analysis (FMEA) is used to identify potential risks, analyze their impacts, and develop proactive mitigation strategies (IEC 60812, 2018).

Beyond their individual functions, these tools enable a comprehensive examination of efficiency, governance, and risk under decentralized procurement. VSM provides quantitative insights into lead time changes, the RACI Matrix clarifies organizational realignment, and FMEA highlights vulnerabilities introduced or reduced through decentralization. This combination offers a holistic lens for analyzing the structural and process-based transformations in PT XYZ.

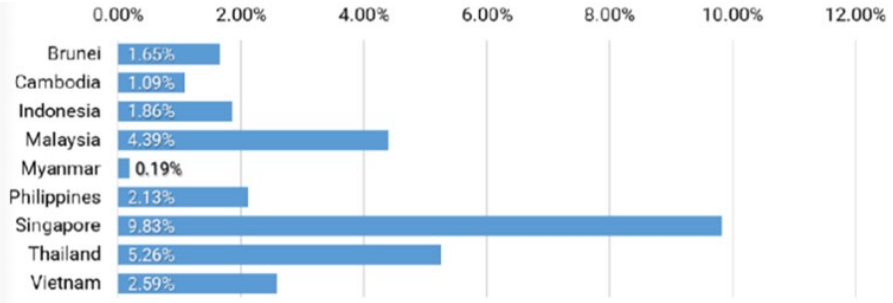

Figure 1. ASEAN Insurance Market Penetration Rate (ASEAN Insurance Council Statistical Report, 2023)

To address the limited scholarly focus on decentralized procurement within the financial services sector as well as the lack of studies integrating VSM, RACI, and FMEA into a unified evaluative framework, this study formulates a set of objectives centered on operational improvement, role clarification, and risk mitigation. These objectives are aligned with the organizational shifts encountered by PT XYZ as it transitions from a centralized to a partially decentralized procurement model supported by PaDi UMKM. This study aims to fill this gap by evaluating the decentralization policy of PT XYZ through an integrated approach using VSM, RACI, and FMEA. This approach is expected to offer practical contributions to the development of digital procurement strategies as well as theoretical insights into procurement process evaluation in the financial services sector.

More specifically, this study seeks to (1) measure changes in procurement lead-time before and after decentralization; (2) evaluate shifts in roles and responsibilities across Procurement, Business Units, and related stakeholders; (3) identify and prioritize risks using structured analysis; and (4) understand how digital procurement platforms contribute to the efficiency and reliability of purchasing processes. Through these objectives, this study intends to provide actionable insights that can guide strategic decision-making and operational refinement for PT XYZ and similar organizations.

METHODS

This research was conducted at PT XYZ, an insurance company operating in Indonesia that implemented the PaDi UMKM platform as part of its procurement process. Data collection and field observations were carried out from January to December 2024, covering both the pre- and post-decentralization periods. This study employs a descriptive approach using a case study method to illustrate the procurement process of goods and services before and after the implementation of the decentralization policy at PT XYZ.

This study uses a combination of qualitative and quantitative data to evaluate PT XYZ's procurement process before and after decentralization. Qualitative data were sourced from observations, unstructured interviews, and internal documentation to provide insights into workflows, stakeholder roles, and risk conditions. Quantitative data were obtained from time and motion studies, procurement records, and transaction reports generated by the PaDi UMKM platform. The data were drawn from both primary sources, including field observations, interviews with Procurement Support, Procurement Buyer, Finance, parent company Procurement team, and the PaDi UMKM Account Manager, and secondary sources, such as SOPs, Purchase Orders, Spending Reports, Preferred Vendor SOPs, Listing of Incoming Purchase Requests from January–August 2024, and digital procurement records from PaDi UMKM.

Data collection was conducted through document study, unstructured interviews, and field observations to provide a comprehensive view of the company's procurement system. The document study covered internal records such as SOPs, Purchase Order reports, and the listing of incoming purchase requests (PR) from January to August 2024, representing pre-decentralization conditions, to map process flows and measure stage durations. Post-decentralization documents were also analyzed, including Spending Reports, Preferred Vendor SOPs, and PaDi UMKM procurement reports for 2024, to assess policy effectiveness and identify risks or improvement opportunities.

Data collection was conducted through unstructured interviews with key stakeholders, including Procurement Support, Procurement Buyer, Finance Officer, the parent company's procurement team, and the PaDi UMKM Account Manager. These interviews provided in-depth insights into business processes, challenges, current practices, and procurement and payment mechanisms through digital platforms. Field observations were also conducted to directly monitor the procurement process before and during the decentralization trial, with detailed documentation of activities and waiting times between steps. To ensure accuracy, a time-and-motion study was conducted 30 times to measure the duration of each activity. The results of these observations form the basis for process mapping using the VSM approach, enabling the identification of time-related waste and opportunities to enhance procurement efficiency.

This study applied a mixed-method approach using VSM, the RACI Matrix, and FMEA to evaluate the effectiveness and efficiency of the procurement process before and after decentralization at PT XYZ. The

VSM mapped the procurement workflow to identify waste and measure time efficiency based on field observations (log and time studies) and supporting documents such as purchase requests, purchase orders, and spending reports. Two process maps the current state (pre-decentralization) and the future state (post-decentralization with PaDi UMKM) were developed to compare process duration and identify improvement opportunities.

The RACI Matrix was used to evaluate the roles and responsibilities of PT XYZ's procurement process after decentralization. Developed through interviews with procurement support, procurement buyers, and finance officers, it aims to prevent overlap, clarify accountability, and improve communication. By mapping out the roles of Responsible (R), Accountable (A), Consulted (C), and Informed (I), the RACI Matrix facilitates faster decision making, strengthens accountability, and clarifies communication flows across units. After decentralization, remapping was conducted to identify potential bottlenecks and ensure more efficient role distribution.

FMEA was applied to identify risks in the decentralized procurement process by assessing their severity, occurrence, and detection. These aspects were rated on a scale of 1 to 10, with 1 indicating very low risk and 10 indicating very high risk. Specifically, severity was rated from 1 (insignificant) to 10 (very severe or hazardous), occurrence from 1 (very rare) to 10 (very frequent), and detection from 1 (very easy to detect) to 10 (very difficult to detect). These scores were multiplied to produce a Risk Priority Number (RPN), which was then used to determine risk-mitigation priorities. This ensures systematic risk control, keeping the process efficient and low risk.

The framework of this study begins by identifying the initial conditions of the procurement process prior to decentralization, which are then analyzed using VSM and the RACI Matrix. Subsequently, the conditions after the implementation of the decentralization policy were examined to map process changes and shifts in responsibilities. A comparison between pre- and post-decentralization conditions was conducted to evaluate the effectiveness of these changes. The next stage involves identifying and analyzing the risks that may arise in the decentralized procurement process, which are further assessed using FMEA through the calculation of the RPN to determine mitigation priorities. The results of these analyses form the foundation for developing improvement recommendations aimed at enhancing efficiency and reducing risks within a company's procurement system. The overall framework of this study is illustrated in Figure 2.

RESULTS

Overview of the Procurement Process at PT XYZ

The procurement process at PT XYZ is essential for ensuring timely, efficient, and quality-compliant fulfillment of both goods and services, including outsourced labor, maintenance, and IT solutions. The process begins when Business Users submit a purchase requirement that is approved by the user's head. Procurement Support assigns a reference number and forwards it to the Procurement Strategic team to appoint a Procurement Buyer. The Buyer coordinates with the Business User to confirm specifications, then conducts sourcing, requests vendor quotations, and negotiates. The results are documented in a Procurement Summary and approved by relevant stakeholders to finalize the vendor. Once a vendor is selected, the Business User creates a Purchase Order in the internal system, which goes through approval according to the authorization matrix. Procurement Support then sends the PO to the vendor, while the Business User is responsible for receiving and recording the goods/services in the internal system.

Although the procurement process is structurally well defined, efficiency is often hampered by the centralized procedures applied to all transaction values. This centralized structure creates bottlenecks within the Procurement Division, particularly for low-value transactions. To address this issue, the company introduced a limited decentralization policy for transactions below IDR 10,000,000, allowing Business Users to make direct purchases. This policy aims to accelerate the process and reduce the administrative burden. Additionally, PT XYZ is mandated to support MSMEs through PaDi UMKM, which is part of the company's strategic performance indicators.

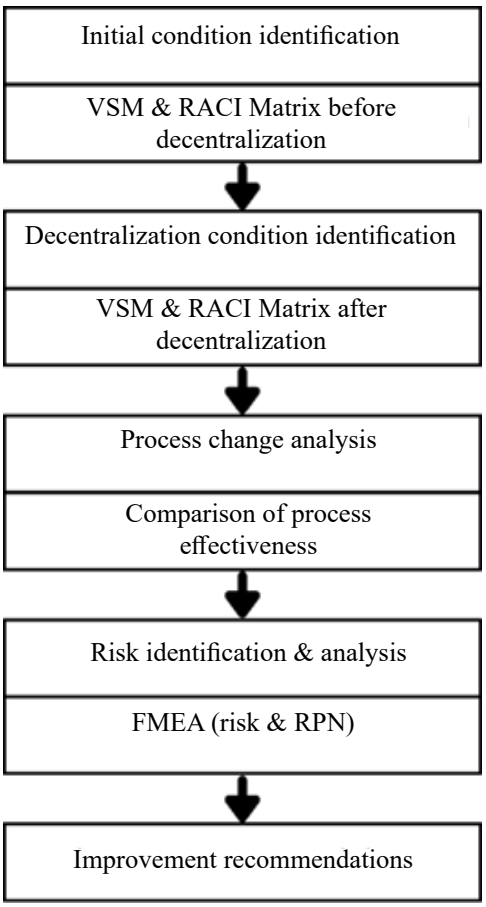

Figure 2. Research Framework

VSM Analysis

VSM is an analytical tool used to map end-to-end process flows with the aim of identifying bottleneck activities. In this study, VSM was employed to evaluate the procurement process at PT XYZ, particularly for transactions valued below IDR 10,000,000, as these transactions experienced significant changes due to the decentralization policy. Through the VSM approach, the procurement process flow before and after decentralization was systematically mapped and compared to identify waste and potential improvements. This analysis is expected to provide a comprehensive overview of the impact of decentralization policies on the effectiveness and efficiency of low-value procurement processes.

To understand the changes in the procurement process effectiveness at PT XYZ, particularly for transactions valued under IDR 10 million, process flow mapping was conducted using the VSM approach. This analysis aims to identify bottlenecks, as well as to measure the actual process time through a time and motion study. Figure 3 illustrates the VSM before the implementation of the decentralization policy, where the procurement process consisted of seven key stages: (1) Procurement Buyer assignment, (2) specification finalization, (3) price negotiation, (4) vendor selection, (5) PO creation in the Authorize Procurement System (APS system), (6) PO issuance to the vendor, and (7) goods receipt confirmation. Each stage was analyzed based on its active working time (cycle time) and its contribution to the total process time.

Observations revealed that the total active working time prior to decentralization was 4 hours and 40 minutes. The price negotiation stage consumed the largest portion of time, averaging 171 min per PR document or approximately 61% of the total active process time. This stage emerged as the main bottleneck owing to the complexity of communication and the need for consensus on various variables such as pricing, quality, and delivery schedules between the Procurement Buyer, vendor, and Business User. Although other stages, such as buyer assignment (12 min), specification finalization (49 min), and PO creation (12 min), were relatively efficient, the overall process duration caused delays in meeting operational needs, especially for low-value transactions that do not require such complexity. This mapping highlights that a highly centralized procurement model is disproportionate when applied across all transaction values, as small and large transactions are subject to the same lengthy procedure. In response to these issues, PT XYZ implemented a limited decentralization policy that grants Business Users the authority to conduct direct procurement through the PaDi UMKM platform for transactions under IDR 10.000.000. The post-decentralization process mapping is presented in Figure 3, which shows a simplified flow consisting of four main activities: (1) PR verification, (2) negotiation of procurement terms, (3) checkouts on the PaDi UMKM platform, and (4) confirmation of goods receipt. The verification process remains the responsibility of procurement support and procurement as an initial control mechanism, but the subsequent steps are fully carried out by the Business User.

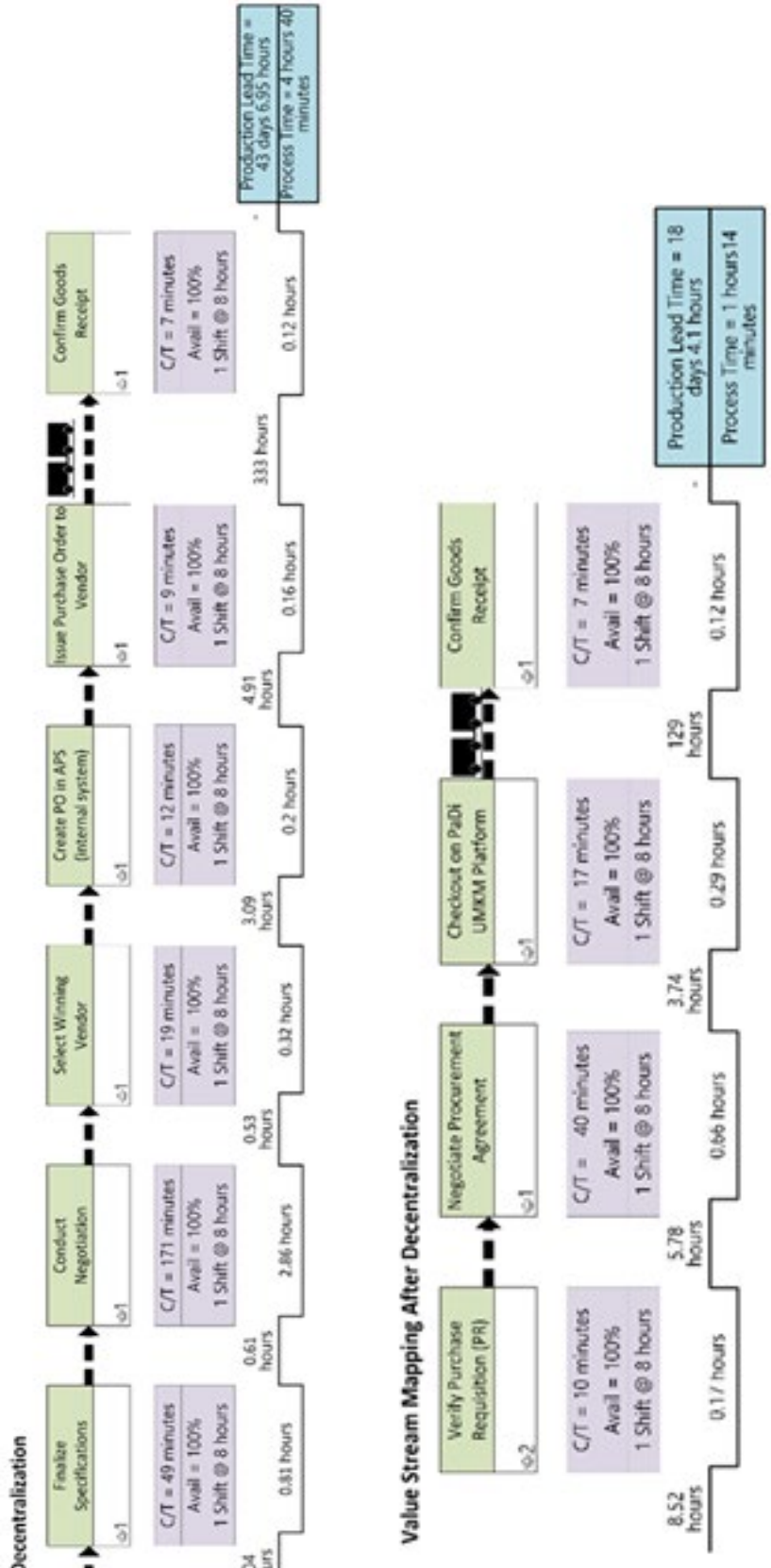

Figure 3. Value stream mapping before & after decentralization (Document Review, Interviews, Time and Motion Study, 2024)

Based on the time measurement results, the total process time after decentralization significantly decreased to just 1 h and 14 min, respectively. This reduction reflects a substantial efficiency gain achieved by reducing the number of process stages and actors involved. However, negotiation remains the activity with the highest cycle time, averaging 40 min, although it is now conducted directly by the Business User. The implementation of decentralization has effectively reduced bottlenecks previously concentrated in the Procurement Division, accelerated the procurement process, and provided greater flexibility to Business Users. Nevertheless, the direct involvement of Business Users in negotiations and checkouts still requires careful attention, particularly in ensuring compliance with quality standards and fair pricing. Therefore, procurement is essential during the initial verification stage to maintain accuracy and risk control.

Comparison and Evaluation of Process Effectiveness

The implementation of a decentralization policy for procurement transactions under IDR10,000,000 led to a significant shift in the structure and efficiency of the procurement process at PT XYZ. Compared with the before-decentralization process, which comprises seven main activities and requires active involvement from the procurement team at almost every stage, the after-decentralization process has been streamlined into four core activities, with primary responsibilities transferred to the Business User. This comparison is presented in Table 1.

Following procurement process mapping, a significant shift was observed between the pre- and post-decentralization procedures. The procurement for transactions under IDR10,000,000 involved seven main activities. This process requires multiple parties and complex approval stages, resulting in an average active process time of 4 h and 40 min per purchase requirement (PR), and a production lead time of up to 43 days. After the implementation of the decentralization policy, the number of activities was reduced to four. This streamlining eliminated the need for specification finalization and procurement summary preparation, and replaced the PO issuance process with a digital checkout mechanism. As a result, the total process time decreased significantly to just 1 h and 14 min per PR, and the production lead time decreased to 18 days.

Despite substantial improvements in efficiency, negotiation remained a bottleneck in both systems. Prior to decentralization, negotiations conducted by the Procurement Buyer averaged 171 minutes, while after decentralization, negotiations by Business Users were shortened to 40 minutes. The direct involvement of Business Users, who possess a clearer understanding of their specific needs, proved effective in accelerating the process and minimizing miscommunications. The effectiveness of the new system is also reflected in the increased processing capacity, with the weekly capacity-handling rate rising from approximately 14 PRs before decentralization to 60 PRs per week after its implementation.

Role & Responsibility Analysis (RACI Matrix)

To understand the impact of the decentralization policy on the structure of roles and authority in the procurement process, an analysis was conducted using the RACI Matrix (Responsible, Accountable, Consulted, Informed) approach. This method was used to identify the distribution of responsibilities and decision-making authority before and after the implementation of the decentralization policy. Before decentralization, the Procurement Division controlled all procurement processes, including those with small transaction values. The Buyer held the primary responsibility for carrying out technical activities such as specification clarification, negotiation, and vendor selection. Meanwhile, the Business User was minimally involved and became fully responsible only at the stage of confirming goods receipt. This structure ensured a high level of control but also created a significant administrative burden and delays in fulfilling operational needs.

By contrast, after the implementation of decentralization, there was a significant shift in role distribution. Business Users were granted direct authority to conduct procurement processes for transactions under IDR10,000,000 including negotiation, checkout via the PaDi UMKM platform, and confirmation of goods receipt. The Procurement Division now plays a role in the initial verification stage and administrative monitoring. This structure gives Business Users greater flexibility, while reducing bottlenecks in the Procurement Division. However, this shift also requires Business Users to possess adequate procurement capabilities to maintain quality and to ensure compliance with company policies.

Table 2 summarizes the key advantages and disadvantages of each system to illustrate how the shift from centralized to decentralized procurement has influenced the distribution of responsibilities and its subsequent operational impact, Table 2 summarizes the key advantages and disadvantages of each system. Before decentralization, all purchasing activities, regardless of value, were handled by procurement, resulting in stronger control and slower response times. After decentralization, procurement responsibilities were partially distributed to Business Users for low-value purchases (under IDR10,000,000), which increased flexibility, but also introduced new risks.

FMEA Analysis

FMEA was conducted to identify, evaluate, and mitigate potential failures in PT XYZ's decentralized procurement process through the PaDi UMKM platform. The analysis focused on key disadvantages, such as inconsistent vendor performance, limited quality control, and duplicate purchases. Each failure mode was assessed based on the steps mapped in the post-decentralization VSM, ensuring that the risk evaluation was directly aligned with the operational flow.

The FMEA identified four critical steps in the post-decentralization VSM: PR verification, negotiation, checkout, and goods receipt confirmation. Risks in PR verification, such as misidentification or duplication, are low because of the multiple verification layers. The highest risks occur in negotiations, where Business Users often choose vendors solely by price, risking unauthorized procurement or unsuitable goods. Mitigation includes the use of a verified vendor list, involving procurement in vendor communications and providing technical support.

During checkouts, audit risks may occur from mismatches between PR and purchased items, mitigated through PR–PO cross-verification, and Buyer Groups managed by Procurement on PaDi UMKM. In goods receipt, delays often stem from missing Delivery Notes addressed with system reminders and parent company monitoring. Overall, the key recommendations include stronger vendor controls, procurement involvement in vendor communications, Buyer Group formation, and regular Business User training to ensure efficiency and compliance. Table 3 presents a summary of the FMEA evaluation results for the procurement process after decentralization, whereas Table 4 outlines the improvement follow-up actions recommended to mitigate the identified risks**.**

Table 1. Comparison of process effectiveness

Aspect	Before Decentralization	After Decentralization
Number of Activities	7 Main Activities	4 Main Activities
Process Time	4 hours 40 minutes	1 hour 14 minutes
Production Lead Time	43 days 6.95 hours	18 days 4.1 hours
Bottleneck	Negotiation (171 minutes)	Negotiation (40 minutes)
Capacity	14 PR per week	60 PR per week

Table 2. Advantages and disadvantages of centralized vs. decentralized

Aspect	Before Decentralization	After Decentralization
Advantages	Stronger bargaining power & pricing.	Simpler and faster bureaucracy.
	No duplicate purchases.	Shorter lead time.
	Better quality control.	More flexibility in selecting goods / services.
	Lower fraud risk.	Reduced Procurement workload.
Disadvantages	Slow and inflexible process.	Potential for inconsistent quality.
	Less responsive to urgent needs.	Risk of duplicate purchases.
	Potential bottlenecks due to centralization.	Lower level of control, increasing fraud risk.
	Procurement may lack technical specification understanding.	Potential for working with non-credible vendors.

Table 3. FMEA Results of the Decentralized Procurement Process at PT XYZ

Process Step	Potential Failure Modes	Potential Failure Effects	SEV	Potential Causes	OCC	Current Process Controls	DET	RPN
Verifying PR	Error in PR identification → user makes direct purchase	Risk of conflict of interest & fraud	9	Splitting PR to stay under decentralization limit	3	Multi-layer check (Support, Strategic, Buyer PaDi)	1	27
Verifying PR	PR meant for decentralization routed to procurement	Delays in the procurement cycle	6	Misidentification of procurement type	4	Dual check (Strategic & Buyer)	1	24
Verifying PR	No unit integration → duplicate purchases	Budget waste & missed bulk pricing	3	Poor coordination & weak consolidation	6	Recheck by Procurement Support	1	18
Negotiating procurement agreement	User skips vendor credibility check	Risk of unqualified vendor & contract issues	8	Urgency, no vendor assessment	8	None	9	576
Negotiating procurement agreement	Selected vendor has never been assessed	Extra time for assessment, project delays	7	Selection only by lowest price	8	None	9	504
Negotiating procurement agreement	User lacks procurement/ technical knowledge	Goods/services don't fit needs, lower satisfaction	7	Inexperience & no technical support	7	None	9	441
Checkout in PaDi UMKM	Item mismatch with approved PR	Audit risk, noncompliance	9	Procurement lacks visibility	8	None	9	648
Goods receipt confirmation	User delays DN confirmation	Payment delays	9	Forgetfulness/ unfamiliar with DN process	5	Reminders & monitoring by parent company	1	45

Table 4. Improvement Recommendations Based on FMEA Analysis

Process Step	Potential Failure Modes	RPN	Recommendation	Action Taken	SEV	OCC	DET	RPN
Procurement Negotiation	User skips vendor credibility check	576	Use vendors recommended by Procurement	Create vendor reference list for user selection	4	2	1	8
Procurement Negotiation	Vendor not previously assessed	504	Use vendors recommended by Procurement	Create vendor reference list for user selection	4	2	1	8
Procurement Negotiation	User lacks procurement / technical knowledge	441	Include Procurement Buyer in vendor communications	Users must CC Procurement Buyer in every vendor communication	1	2	2	4
Checkout on PaDi UMKM Platform	Item mismatch with approved PR	648	- Always CC Procurement in vendor communications - Assign Procurement as Buyer Group manager in PaDi UMKM for control & validation	- Users CC Procurement in vendor communications - Verify PR & PO alignment before approval	2	2	1	4

The findings of this study have several implications for procurement management practices in PT XYZ and other service companies. The reduction in lead-time through decentralization indicates that companies should consider streamlining approval processes for low-value purchases to avoid bottlenecks in operations. The application of the RACI Matrix provides a clearer role division, which can minimize duplication of work and enhance accountability across business units. Furthermore, the adoption of the PaDi UMKM platform highlights the importance of integrating digital procurement tools to increase efficiency and strengthen collaboration with MSME vendors, thus creating both operational and socioeconomic value. Finally, the risk points identified through the analysis suggest that companies need to establish monitoring mechanisms, particularly for payment processing and vendor performance, to ensure that efficiency gains are not offset by compliance or service risks.

Managerial Implications

The results of this study provide significant managerial benefits by reducing process lead-time by 61%, improving role clarity through the redistribution of responsibilities identified in the RACI analysis, and minimizing operational risks. These findings imply that management should institutionalize decentralization as a strategic operational model, ensure the continuous strengthening of procurement literacy among Business Users to support their expanded responsibilities, and reinforce digital integration to maintain accurate documentation, timely payments, and process transparency. Furthermore, embedding FMEA-based risk mitigation practices and routine monitoring mechanisms into the company's governance framework will allow PT XYZ to sustain efficiency improvements, strengthen vendor trust, and enhance the overall reliability of its procurement functions.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The findings of this study demonstrate that the decentralization policy in PT XYZ's procurement process brought measurable improvements in operational efficiency, particularly for low-value purchases below IDR 10,000,000. Through the application of VSM, the process was successfully simplified from seven to four key activities, reducing the total process time from 4 h and 40 min to just 1 h and 14 min, respectively. This simplification streamlined workflows, reduced bottlenecks, and enhanced overall responsiveness. Moreover, the implementation of the RACI Matrix revealed a clearer distribution of roles and responsibilities, positioning Business Users as active decision makers while maintaining the Procurement's strategic oversight function.

However, the FMEA results indicate that decentralization introduces new forms of risk, particularly in vendor selection and quality control. The highest risk points were found during negotiations and checkouts on the PaDi UMKM platform, with an RPN value of 648. These risks can be mitigated through measures such as verified vendor lists, PR–PO verification controls, and the establishment of Buyer Groups managed by procurement. From a theoretical perspective, these findings empirically support the arguments of Schmitt et al. (2015) and Contreras (2016), who emphasized that decentralized systems gain speed and flexibility, but reduce centralized control and increase operational risk. This study quantitatively validates such trade-offs in a digital procurement context and aligns with Srai and Lorentz (2019), highlighting that digitalization improves efficiency and transparency when supported by sound governance.

Recommendations

PT XYZ should regularly monitor the decentralization process through a structured and periodic evaluation mechanism. The company is also advised to expand the vendor base by ensuring that all vendors have undergone assessments in accordance with internal policies. Enhancing procurement literacy among Business Users is crucial to support the effectiveness of decentralization. This can be achieved through short training programs, technical guidelines, and active mentoring from Procurement Buyers using a learning-by-doing approach to ensure an understanding of quality standards, negotiation practices, and procurement governance. Future research could replicate this study using a quantitative approach to measure the impact of decentralization in a more measurable way, particularly in terms of cost, productivity, and internal stakeholder satisfaction. Comparative studies of companies with different characteristics can also be conducted to generate more generalizable and applicable insights. Moreover, the topic of developing an automated

demand consolidation system across units may serve as a relevant area for further studies to reduce duplicate purchases and improve economies of scale in procurement.

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