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Developing Parent Company Centralized Project Management Office (PMO) Services to Enforce Project Management Practice in Multiple Subsidiaries, Study of Pertamina Central Project Management

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Abstract

The evolving nature of organizations often necessitates a re-evaluation of Project Management Office (PMO) models to align with their strategic goals. Pertamina, a prominent state-owned Oil & Gas Company, recently underwent a significant transformation into a holding-subholding structure. This restructuring has led to the dispersion of over 2000 investment projects, collectively allocating an annual budget of 9-10 billion USD across six distinct subholdings. The Pertamina PMO holds a pivotal role, serving as a linchpin for project management practices within this complex organizational framework. This paper explores the parent company's establishment of a centralized PMO service to strengthen project management procedures among its subsidiaries. The primary objective of this paper is to portray a customized PMO model that is precisely fitted to Pertamina's needs, taking into account operational boundaries, stakeholder aspirations, the sheer number of projects, and the unique features of the company's parent and subsidiary structure. This paper examines the procedural and technological requirements of implementing these tailored PMO models, highlighting challenges, presenting opportunities for improvement, and offering valuable insights into the efficient management of the diverse range of projects in Pertamina's portfolio. In essence, this study offers a nuanced understanding of the dynamic interplay between a parent company's strategic vision, the subsidiary framework, and the services provided by Pertamina PMO which defined the customized PMO model in optimizing project management practices. The findings contribute to the academic discourse on organizational restructuring and offer practical insights for companies navigating similar complex structures in the ever-evolving global business landscape.

Keywords

Project Management Office, PMO service, Project Management, Parent Company, Subsidiary/Subholding

1. Introduction

The energy transition is a complex process that demands significant changes across various stakeholders involved. Indonesia, being a key player in the energy sector, has proactively embarked on this transformative journey to achieve energy security by 2050. This endeavor involves comprehensive alterations at multiple levels, encompassing governmental bodies, private enterprises, communities, and other entities within the energy ecosystem.

The transformation extends beyond mere adjustments in infrastructure or technology; it requires a shift in mindset, policies, and practices to align with sustainable and secure energy practices. Indonesia recognizes the urgency and importance of adapting to new energy paradigms to ensure a stable and resilient energy future.

The commitment to this transition signifies a forward-thinking approach by Indonesia, acknowledging the dynamic nature of the global energy landscape. By initiating these changes, Indonesia aims not only to secure its own energy future but also to contribute positively to the global efforts in mitigating climate change and fostering sustainable energy practices. This transformative process reflects a proactive stance, demonstrating Indonesia's dedication to shaping a more sustainable and secure energy environment for the nation and the world.

Spencer Dale in BP Energy Outlook mentioned, that in order to bring successful and enduring energy transition, there are 3 dimensions need to address: security, affordability and sustainability. Oil demand declines over the outlook, driven by falling use in road transport as the efficiency of the vehicle fleet improves and the electrification of road vehicles accelerates. Even so, oil continues to play a major role in the global energy system for the next 15-20 years (BP Energy Outlook, 2023)

Furthermore, based on Indonesia Energy Outlook 2023, the energy supply and demand condition in the last 10 years shows that the final energy consumption is still dominated by transportation sector. The total primary energy supply in 2022 reaches 246 million TOE. Coal utilization still dominates with around 42%, followed by oil with 31%, gas with 14% and NRE with 12.3% of the total primary energy supply (Indonesia Energy Transition Outlook 2024 Institute for Essential Services Reform, 2023).

Pertamina, known as Indonesia's state owned enterprise (SOE), is the only SOE in the Fortune Global 500 2021 list*. It is actively working towards achieving the energy trilemma of security, affordability, and sustainability to meet domestic energy demands. This transformative journey not only positions Pertamina on a national scale but also propels it onto the global energy stage as a significant influencer. As part of this transformation, Pertamina is initiating dedicated projects for each of its sub-holdings, currently categorized into six (6) Sub-Holdings. These Sub-Holdings operate with specific objectives, ensuring the realization of individual profitability goals. This structured approach creates an interconnected matrix of projects both internally and externally, fostering collaboration among sub-holdings. The interdependencies and shared interests necessitate the synchronization of projects across sub-holdings, ensuring that policies and actions align seamlessly to meet the predetermined objectives set by Pertamina's key stakeholders (Figure 1).

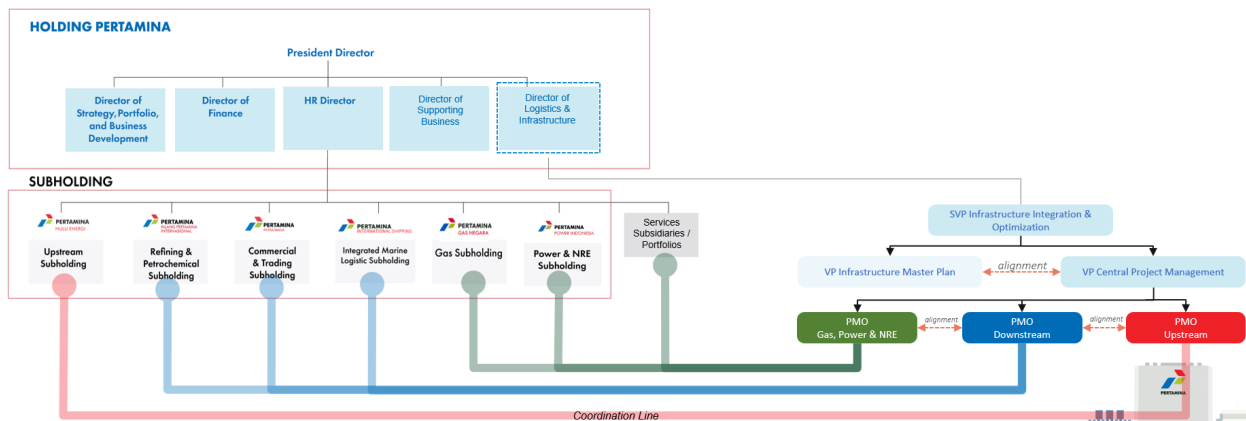


Figure 1. Organization Structure of Pertamina Holding and Sub-Holdings

Structured under the Integrated Logistics & Infrastructure Directorate, Pertamina Central Project Management comprises 15 personnel divided into three distinct PMO streams: PMO Upstream, PMO Downstream, and PMO Gas, Power, & New Renewable Energy. These streams collectively cover and support all six sub-holdings and service portfolio companies of Pertamina.

Despite the distinct categorization into streams based on project focus, the team operates as a matrix organization in the delivery of PMO services. This approach emphasizes collaboration and cross-functional coordination, ensuring a holistic and integrated management of projects that goes beyond the boundaries of individual streams. This matrix structure enables the team to efficiently address project-related matters and deliver effective PMO services across various aspects of Pertamina's extensive portfolio.

Pertamina's substantial budget and diversified investments are portrayed as catalysts for both national and local economic growth, emphasizing the potential positive effects on employment, businesses, and the overall economic landscape. Pertamina plans to spend 9.03 billion USD in 2023. This amount is compared to the government spending of specific countries, highlighting that it is close to Tanzania's spending of 9.27 billion but higher than Nepal's 8.83 billion. These investments are spread across different sectors, including the Upstream and Downstream sectors, as well as Power & New-Renewable Energy. Additionally, the company has service portfolios such as hospitals, airlines, and hospitalities.

These projects play a crucial role in fueling the nation. The well-planned and executed massive investment budget is expected to have a significant multiplier effect on the economy. The economic impact is not limited to large-scale transactions and agreements with international partners. It extends to the local level, benefiting micro-businesses and entrepreneurs. Examples include food vendors near project sites, subcontractors, and local manufacturers receiving orders for material procurements. In other extend, the Refinery Development Master Plan in Balikpapan, as a megaproject, in September 2023, employs nearly 20 thousand people. This showcases the tangible outcomes of Pertamina's investments, not just in terms of infrastructure but also in providing employment opportunities.

In 2020, Pertamina underwent organizational transformation, establishing the Central Project Management to tackle high-cost, high-risk investment challenges. Fast forward to 2023, Pertamina's managed investments soared, boasting 2618 projects across its Sub-Holdings companies.

The Central Project Management, acting as the Project Management Office (PMO), played a pivotal role in overseeing this expansive portfolio. Its mandate included meticulous management of projects, ranging from energy infrastructure development to diverse portfolios crucial for both Pertamina and the nation.

This narrative unfolds as a tale of strategic foresight and adaptability. From the inception of organizational transformation to the bustling portfolio in 2023, Pertamina's story reflects growth and resilience, with the Central Project Management as the linchpin in steering the company through complex investments, contributing to both corporate success and national development.

1.1 Objectives

This paper aims to determine the most effective Project Management Office (PMO) model and services for Pertamina. Drawing insights from established PMO benchmarks, our approach involves learning from successful practices in other organizations. The objective extends beyond the success of individual projects within Pertamina's Sub-Holdings to fostering collaboration among them. The envisioned PMO framework aims to integrate efforts, align with shared objectives, and ultimately enhance the overall organizational effectiveness of Pertamina.

2. Literature Review

A project management office (PMO) is an organizational structure that standardizes the project-related governance processes and facilitates the sharing of resources, methodologies, tools, and techniques. The responsibilities of a PMO can range from providing project management support functions to the direct management of one or more projects. There are several types of PMOs in organizations. Each type varies in the degree of control and influence it has on projects within the organization, such as Supportive, Controlling, Supportive.

Supportive PMOs provide a consultative role to projects by supplying templates, best practices, training, access to information, and lessons learned from other projects. This type of PMO serves as a project repository. The degree of

control provided by the PMO is low. Controlling PMOs provides support and requires compliance through various means. The degree of control provided by the PMO is moderate. Compliance may involve adoption of project management frameworks or methodologies, use of specific templates, forms, and tools; and Conformance to governance frameworks. Directive PMOs take control of the projects by directly managing the projects. Project managers are assigned by and report to the PMO. The degree of control provided by the PMO is high.

The project management office may have organization-wide responsibility. It may play a role in supporting strategic alignment and delivering organizational value. The PMO integrates data and information from organizational strategic projects and evaluates how higher-level strategic objectives are being fulfilled. The PMO is the natural liaison between the organization's portfolios, programs, projects, and the organizational measurement systems (e.g., balanced scorecard). The projects supported or administered by the PMO may not be related other than by being managed together. The specific form, function, and structure of a PMO are dependent upon the needs of the organization that it supports.

Stakeholder engagement plays a vital role in determining project success. Recent research show that the relational view offers new possibilities concerning the phenomenon of stakeholder engagement research and highlights the importance of the heterogeneity of the involved stakeholders the 2000s (Kujala et al., 2022).

Sandhu et al., 2019, analyzed 19 project-based organization in Abu Dhabi and Dubai Emirates (as business centres) within 268 responded, this study indicated that 95% of the targeted organizations established own PMO. The top-five PMO roles involved in strategic plan execution were found to be i) Strategic Management, ii) development of project management competencies and methodology, iii) monitoring and controlling project performance, iv) organizational learning, and v) organization structure and communication improvement.

Digital transformation is one of key elements for successful PMO implementation. It represents the most fundamental research streams discussing influence strategy, enterprise architecture, customer value proposition, customer relationships, business models, operations models and management, resources and capabilities, as well as organizational leadership (Kraus et al., 2021).

Further study evaluates the digital transformation contribution on construction projects that promotes the integration of stakeholder, lifecycle, and project management knowledge. Digitalization changes project organizations' ways of working, while existing project governance models are not applicable in the context of digitalization (Liu et al., 2023). Another important factor for the key success of PMO achievement is sustainability. It can be observed that sustainability is almost always identified with normative perspective, namely that the organizations and project managers should adopt normative and moral perspective in their work, if the stakeholder needs are to be addressed in a way that contributes to the sustainable development objectives (Gaziyev, 2019).

In order to pursue sustainability of project result, each of entities requires to have a good collaboration. Recent study on collaboration show that the extensive collaborative business arrangement has promoted sustainable deliveries based upon organizational learning and continuous improvements (Larsson & Larsson, 2020).

PMO has accountability to ensure the innovation and sustainability process to have impact on ecological system. Energy project management should continue to focus on becoming more sustainable, especially when more and more organizations are aware that their strategy should include ecological sustainability, such as eco-innovation and environmental innovation (JAROSZ et al., 2022).

One of management research reveals how the form and use of the structure we now call the PMO has evolved and adapted over time. In recent history the PMO has evolved to be the central repository for tools and methodologies for this non-operational work. The PMO has become an asset, a commodity to be traded upon and a badge to be worn to attain certain privileges (Darling & Whitty, 2016).

In terms of project execution and monitoring, a recent study on electricity production efficiency project show that 100% participant reported lack of a defined methodology as a negative factor impacting performance. Lack of a standardised and defined project management methodology across the various departments, contributes to project failure and inconsistency in controlling their projects (Metuge & Ramón Otegi Olaso, 2022). This study has trigger the needs of the importance of methodology benchmark on Pertamina PMO strategy.

A 2013 Economist Intelligence Unit (EIU) report sponsored by PMI echoes the findings, with almost 90 percent of senior executives reporting that executing strategic initiatives is essential for their organization’s competitive advantage. Yet 61 percent admitted they struggle with executing on those strategies. Moreover, in the last three years an average of just 56 percent of strategic initiatives have been successful.(PMI White Paper, 2014).

Learning capability in organizational member fostering the acceleration of transformation. Other study revealed that PMO plays a vital role in boosting information usefulness by sharing the correct knowledge with the right people at the right time. Furthermore, PMO is important for maintaining knowledge repositories, which comprise knowledge generated from projects in the form of lessons learned, updated project management standards, and individual learning that becomes organizational learning (Taamneh et al., 2022).

Analysis from another research summarizes the data from 125 respondents, using descriptive analysis (SPSS) to see the distribution of the data. The result shows that apart of majority of respondents values of PMO, the alignment of its function and organization’s purpose are still to be enhanced and furthermore the development of PMO competence is a major concern of the organizations (Ichsan, 2020). This show that the process of learning and development of internal PMO organization will also endeavor the result of PMO achievement.

3. Methodology

This study use methodology as shown in the flowchart below in Figure 2:



Figure 2. Methodology

The study encapsulates a systematic and thorough process, from defined objectives then continue with literature studies, benchmarking and stakeholder engagement, transitioning into a nuanced analysis, and culminating in insightful conclusions. It reflects Pertamina's commitment to strategic decision-making, ensuring that the PMO concept not only integrates seamlessly into the organizational structure but also meets the diverse expectations of stakeholders while aligning with the overarching study objectives.

A. Benchmarking Process

Project Management Offices (PMOs) play a pivotal role in steering organizations towards success by ensuring streamlined project execution and strategic alignment. To achieve this, PMO services must be guided by a comprehensive framework that embraces industry best practices (Figure 3).

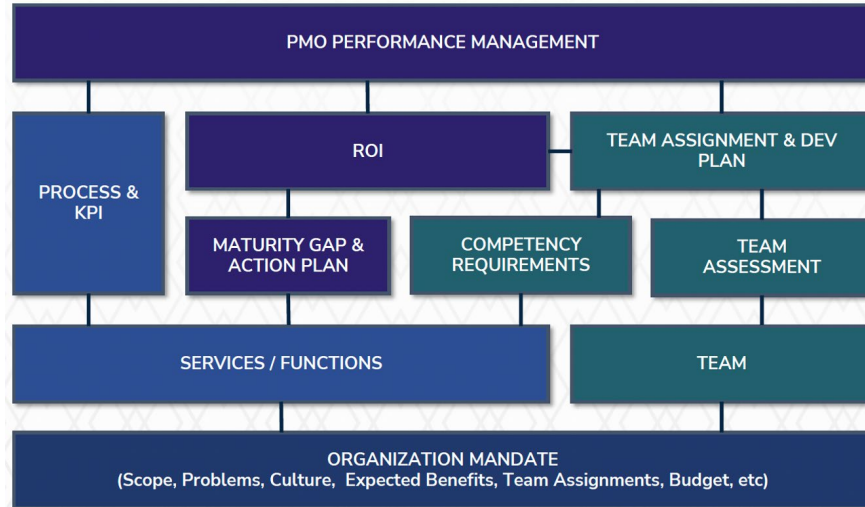


Figure 3. PMO Benchmarking Process

1. Defining the PMO's Role:

A crucial aspect of effective PMO services is a clear definition of the PMO's role within the organization. This involves understanding whether the PMO will primarily focus on project governance, resource management, or strategic alignment. Clarity in this aspect sets the foundation for the PMO's functions and services.

2. Tailoring Services to Organizational Needs:

PMO services should not be one-size-fits-all. Guidance involves tailoring services to meet the specific needs and goals of the organization. This may involve conducting thorough assessments to identify areas of improvement and customizing services accordingly.

3. Embracing Best Practices:

Guidance for PMO services heavily relies on industry best practices. This includes adopting standardized project management methodologies, utilizing efficient communication channels, and implementing robust risk management strategies. Learning from the successes and challenges of other organizations contributes to a more effective PMO.

4. Continuous Improvement and Adaptability:

The world of project management is dynamic, and PMO services guidance should reflect this reality. Encouraging a culture of continuous improvement ensures that the PMO evolves with the organization's changing needs and the evolving landscape of project management methodologies.

B. Stakeholders Interview

During Q3 2020, a proactive step was taken to engage with all relevant stakeholders in the organization. The purpose was to collect their views, expectations, and insights regarding the upcoming PMO journey. This early involvement of stakeholders reflects a commitment to inclusivity and a desire to align the PMO's initiatives with the diverse perspectives and needs of those who will be impacted by its establishment. The information gathered during these interviews likely played a crucial role in shaping the initial strategy and direction of the PMO.

The objectives for the Central Project Management as outlined by stakeholders involve positioning it as an extended arm of the Board of Directors, functioning as a Project Management Office (PMO). The primary tasks include overseeing the advancement of investment projects within the Pertamina Group and ensuring a substantial contribution to the cooperative growth and improvement of the nation. Additionally, stakeholders expect the PMO to diligently identify a clear alignment between the corporate strategy and the execution of investment projects. Its role extends beyond monitoring, encompassing the delivery of value to all stakeholders. Moreover, the PMO is tasked with orchestrating seamless project integration across Pertamina's Sub-Holding entities.

C. Business Issue Exploration

In the continuation from rolling out stakeholder expectation, PMO explore more about the current business issue in Pertamina Holding and its Sub-Holding companies and perform a comprehensive analysis of the current state of project management within the organization. This involves assessing existing processes, tools, and methodologies. Identify pain points, bottlenecks, and areas where projects may face difficulties or delays.

It also explore how project management aligns with the organization's overall business goals and strategies. Identify any misalignments or gaps that may hinder the achievement of strategic objectives. Understanding this alignment is crucial for tailoring the PMO's focus to support broader organizational success.

As each Sub-Holding may have a different business process, each of them have specific challenges. These challenges could include issues with resource allocation, communication breakdowns, lack of standardized processes, or inadequate project governance. Understanding the specific challenges is key to developing targeted solutions.

Exploring business issues at the beginning of PMO development involves a holistic assessment of the organization's current state, stakeholder perspectives, alignment with strategic goals, and a detailed analysis of challenges and opportunities. This information is crucial for tailoring the PMO to address specific needs and contribute effectively to overall organizational success.

D. Analysis

The analysis approach involves elaborating on a literature review, benchmarking process, stakeholder interviews, and the exploration of business issues. It employs a comprehensive approach, integrating both quantitative and qualitative analyses to evaluate the efficacy of the Project Management Office (PMO) implementation. Quantitative analyses centered on two primary metrics: investment budget realization (or budget absorption) and physical progress completion. The investment budget indicator involved a comparison between the predetermined budget amount and the actual budget absorption by the end of the budget period. For Pertamina, achieving full absorption of the investment budget is crucial, given that funds are typically secured at the beginning of the year, primarily through loans, for project financing. Any unspent funds result in incurred interest costs without corresponding project returns. Thus, a higher level of absorption serves as a positive indicator, particularly when correlated with the completion of physical progress, signifying superior project performance (Figure 4).

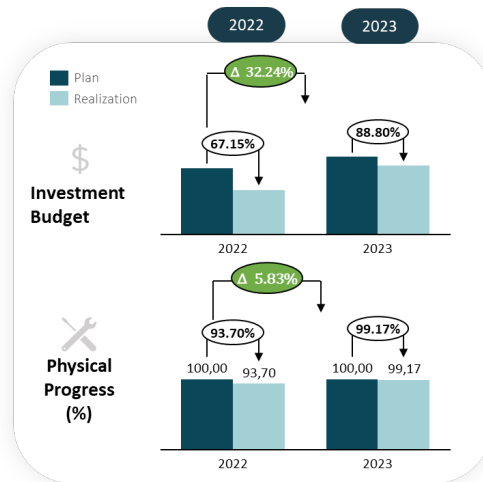


Figure 4. Quantitative Analysis Result

In addition to quantitative measures, qualitative analysis was conducted to gauge customer satisfaction with the PMO implementation. This involved survey activities with a sample of respondents, capturing opinions on various aspects including the project activity benchmarking process, portfolio review, the investment information system (SIIP - *Sistem Informasi Investasi Pertamina*) as a center of database system which later on can be the initial foundation of

Artificial Intelligence (AI) generative report, standardization of Project Management (PM) good practices, PMO Clinic, and PMO Academy (Figure 5).



Figure 5. Satisfaction Survey Main Points

This dual approach, combining quantitative metrics and qualitative insights, provides a holistic evaluation of the PMO's impact. The quantitative measures offer a numerical basis for assessing budget absorption and physical progress, while the qualitative survey delves into the perceptions and satisfaction levels of stakeholders regarding various facets of the PMO implementation. This comprehensive study ensures a nuanced understanding of the PMO's effectiveness, considering both tangible performance indicators and the qualitative experiences and opinions of those directly involved.

5. Results and Discussion

5.1. Pertamina's PMO Journey

The transformation journey for Pertamina commenced in the third quarter of 2020, a period marked by the challenging backdrop of the Covid-19 pandemic, which cast a shadow on Indonesia's overall business growth. Undeterred by these external challenges, Pertamina pressed forward with its transformation initiatives throughout that year.

Moving into 2021, the focus shifted towards digitalization, aiming to streamline the management of data across all ongoing projects. This strategic emphasis on digital solutions aimed to enhance efficiency and adaptability amid evolving circumstances.

In 2022, a pivotal step in the transformation unfolded as Project Management Offices (PMOs) were established for each Sub-Holding. This decentralized approach was designed to tailor the transformation process to the unique needs of each entity within the Pertamina ecosystem.

Throughout this transformative period spanning from 2020 to 2023, a consistent thread was woven to identify the most fitting practical PMO services for Pertamina's future. This was achieved through a comprehensive 4 Pillar approach encompassing Strategic Planning & Portfolio, Project Management Methodology, Project & Program Execution Office, and Learning & Development. These pillars collectively encompass 17 services, strategically designed to accommodate PMO activities. This structure is intended to be implemented not only within the internal PMOs of each Sub-Holding but also at Pertamina as the Holding Company, ensuring a cohesive and effective transformation across the entire organization.

5.2. PMO Pillars and Mix Of Services

The aim of this paper as previously mentioned is to increase understanding in establishing a Project Management Office (PMO) benchmark in Pertamina as an entity of State Own Enterprise (SOE) in Indonesia. Hence, this study explores more about the 4 Pillars implementation as follow:

1. Strategic Planning & Portfolio, which encompasses three key activities.
 - Manage Policies, in this capacity, PMO role extends to being project-related policy makers, which is actively engaged in formulating, refining, and managing policies that govern various aspects of project execution. This involves ensuring alignment with organizational goals, compliance with industry standards, and adapting to the evolving needs of Pertamina.
 - Managing KPIs, this involves our service in developing and overseeing Key Performance Indicators (KPIs) related to project investment execution across the entire Pertamina group. By meticulously defining and

monitoring these KPIs, we contribute to the establishment of measurable benchmarks that gauge the success and efficiency of projects within the organization

- Publish PMO Insights, through concise presentation decks or publications, to present suggestions, policy proposals, and essential information derived from our comprehensive big-data analysis. These insights are exclusively shared with Pertamina Group's Executive Board. For instance, to identify recurring project issues and to draw it from extensive knowledge repository, proposed strategic improvements to address these issues. This service not only highlights challenges but also offers strategic solutions based on data-driven analyses.

In essence, the first pillar of Strategic Planning & Portfolios establishes PMO as a dynamic and strategic entity within Pertamina. By managing policies, overseeing KPIs, and providing exclusive insights to the Executive Board, PMO contributes to the overall effectiveness, alignment, and success of project investments across the organization (Figure 6).

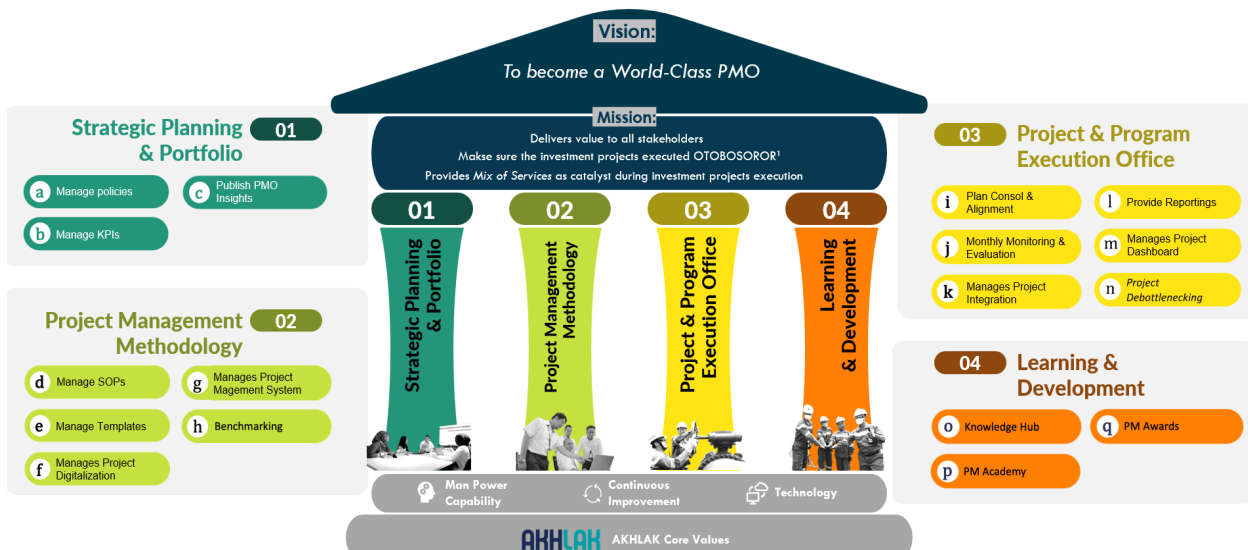


Figure 6. Pertamina’s PMO Model

2. The second pillar of our Project Management Office (PMO) framework is Project Management Methodology, comprising five essential services:
 - Manage SOP (Standard Operating Procedures), to oversee the management of Standard Operating Procedures, which are a combination of international references, including PMBOK and Risk Management, and our unique business processes. This ensures that our project management practices align with global standards while catering to the specific needs of Pertamina.
 - Manage Templates, to provide a comprehensive suite of templates to support the project management process. These templates range from project execution plans to key performance indicator (KPI) worksheets and reporting tools. This standardized approach enhances efficiency and consistency in project documentation.
 - Manage Project Digitalization, to utilize digital systems as repositories to facilitate big data accumulation and progress tracking. It includes the process to analyze big data based on specific needs. Looking ahead, there is a plan to integrate generative AI to further enhance our analytical capabilities.
 - Manage Project Management System, to actively encourage and guide the implementation of ISO 21502 of Project Management. Initially implemented in our subsidiary in the Upstream sector, which operates as an Engineering, Procurement, and Construction (EPC) contractor, this system will soon be extended to other entities within Pertamina.
 - Benchmarking, as a continuous learning process to regularly engage in benchmarking activities, not only within the energy sector but also across diverse industries. Conversely, entities seeking insights into PMO

roles for learning opportunities. By sharing knowledge and gaining insights from others, this activity aims to make a larger and more impactful contribution to the field of project management.

In summary, the second pillar of Project Management Methodology underscores our commitment to standardized practices, digital innovation, and continuous learning. These services collectively contribute to the efficiency, effectiveness, and adaptability of project management processes across Pertamina Holding – Subholding Companies.

3. Next is the Project & Program Execution Office which serves as a focal point for PMO team, given the current circumstances. Within this pillar, PMO executes several critical functions:
 - Plan Consolidation & Alignment, to systematically evaluate the annual planning of all Sub-Holdings, to ensure alignment with the corporate portfolio and overall targets. This process guarantees a cohesive and synchronized approach to project planning across the organization.
 - Monthly Monitoring & Evaluation, as a routine practice conducted every month, PMO engages in the systematic monitoring and evaluation of ongoing projects. This standard process, commonplace in many companies, allows us to track progress, identify challenges, and make informed decisions promptly.
 - Manage Project Integration, identify projects with interdependencies and also recognize the potential for delivering greater value through coordinated timing. To be able to facilitate this, PMO plays a crucial role as integrators within our PMO holding. This has led to the identification of significant integration clusters, with notable examples being East Kalimantan and East Java.
 - Provide Reporting, utilize project digitalization system and generate semi-automated reports. These reports serve the informational needs of both internal and external stakeholders, contributing to transparent communication and decision-making processes.
 - Manage Project Dashboards as operational dashboard which has been implemented for about two years, and now showcased in Pertamina's Integrated Command Center. This dashboard, powered by Microsoft Power BI and fueled by data from the project digitalization system, offers a comprehensive visual representation of project metrics and performance.
 - Project Debottlenecking, to undertake the task of debottlenecking for every project challenge. Despite rigorous risk mitigation measures, obstacles can arise. In such cases, the PMO team in the Holding intervenes to assist PMO Sub-Holdings in resolving issues. The need for Holding intervention arises when the issue impacts multiple Sub-Holdings, involves permits or authorities held by the Holding, or pertains to national concerns requiring government attention.

In essence, the Project & Program Execution Office plays a central role in ensuring alignment, monitoring progress, facilitating integration, providing comprehensive reporting, managing dashboards, and addressing challenges to ensure the successful execution of projects across Pertamina.

4. Learning Development is the final pillar which implements three services:
 - Knowledge Hub, to accumulate a wealth of knowledge repositories and serve as invaluable resources, fostering the sharing of lessons learned among PMO Sub-Holdings. The experiences and insights gained in one Sub-Holding become valuable learning opportunities for others facing similar challenges. This collaborative knowledge-sharing approach is fundamental to operations and complements the big data strategy. Additionally, PMO also plans to advance our capabilities by developing generative AI for predictive monitoring, leverage the insights gleaned from the vast knowledge hub.
 - Project Management Academy, to recognize the importance of enhancing internal competencies in project management by establishing a PM Academy. This initiative reflects the belief that every individual involved in a project should possess certain minimum competencies. To achieve this, PMO designed a comprehensive project management curriculum in collaboration with professional experts. The PM Academy serves as a platform for continuous learning and skill development, ensuring that each team member is well-equipped to navigate the complexities of project management effectively.
 - Project Management Awards, as a gesture of appreciation and recognition for the dedication and excellence of project teams. The annual PM Awards event has started in 2022. This event serves as a platform to acknowledge and celebrate the achievements of project teams, fostering a culture of recognition and

motivation within the organization. By highlighting exemplary performance, the company aim to inspire and encourage continuous improvement in project execution.

In summary, the Learning & Development pillar underscores the commitment in knowledge-sharing, internal competency enhancement, and recognizing outstanding contributions. These initiatives collectively contribute to a culture of continuous learning, skill development, and appreciation within our PMO and the broader organization.

5.3. PMO Integration Project Sample Case

According to PMI_(Project Management Institute, n.d.), a portfolio is a collection of projects and programs that are managed as a group to achieve strategic objectives. One of the key point of this study is to evaluate the hierarchy of substantial amount of projects quantity in each Sub-Holdings to be able to manage properly within matrix organization with the application of PMO hierarchy shown by the example of project application as below (Figure 7).

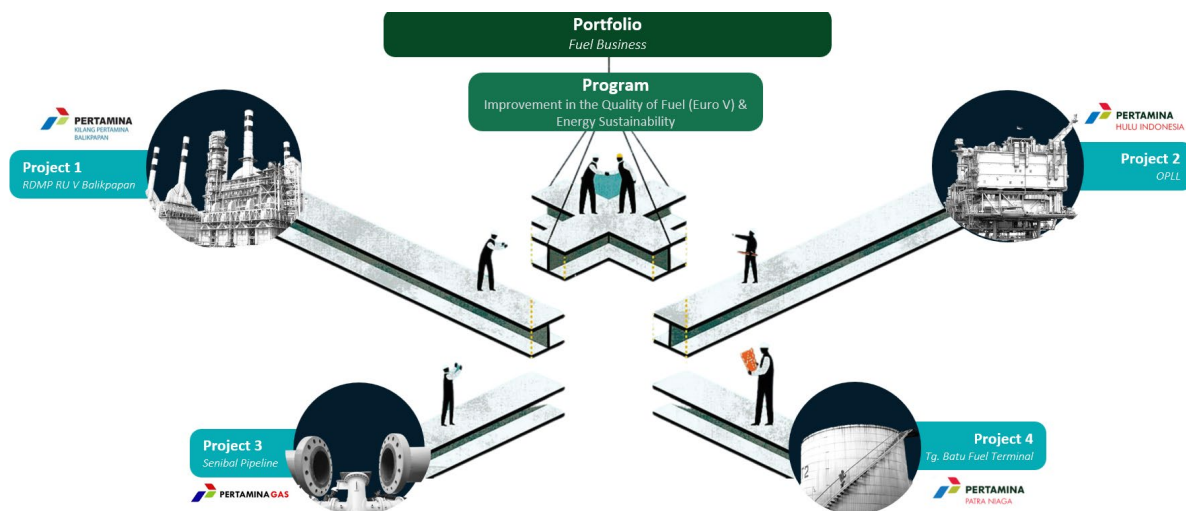


Figure 7. Sub-Holding Collaboration

The picture above shows one of project case to deliver revenue increase that involve four different Sub-Holdings. First SH is Pertamina Patra Niaga Tanjung Batu Fuel Terminal which need to increase revenue by having additional storage and jetty, that required the supply from operational of second SH which is Kilan Pertamina Balikpapan. This second SH required to increase its operational capacity that need the support from the third SH which is Pertamina Hulu Indonesia. The third SH required to install the additional pipeline to deliver refinery outcome into storage facility at Tanjung Batu Fuel Terminal. This piping installation hence required the support of the fourth SH entity which is Pertamina Gas (Senibal Pipeline project). All of these four SH entities have to work hand in hand to make the deliverable of additional refinery result can be achieved and triggered the revenue increase.

The above scenario outlines a project case aimed at increasing revenue, involving the collaboration of four different Sub-Holdings within the Pertamina organization.

- Pertamina Patra Niaga Tanjung Batu Fuel Terminal (First SH). This SH seeks to boost revenue by expanding its storage and jetty facilities. However, to accomplish this expansion, it relies on the operational support of the second Sub-Holding.
- Pertamina Balikpapan Refinery (Second SH). This SH is tasked with increasing its operational capacity to meet the requirements of the first Sub-Holding. This operational enhancement is crucial for the overall success of the project.
- Pertamina Hulu Indonesia (Third SH). This SH plays a pivotal role by installing additional pipelines to transport refinery outcomes to the storage facility at Tanjung Batu Fuel Terminal. This pipeline installation is a vital link in the project chain.

- Pertamina Gas (Fourth SH - Senibal Pipeline Project). The SH is involved in the Senibal Pipeline project, providing necessary support for the installation of pipelines. This support is integral to ensuring the seamless delivery of additional refinery results to the storage facility.

The collaborative efforts of all four Sub-Holdings are essential for the successful execution of the project, leading to an increase in revenue. Each Sub-Holding's role is interdependent, and their collective contribution is necessary to achieve the project's deliverables and trigger the desired revenue increase. This interconnected approach highlights the importance of coordination and collaboration among various entities within the Pertamina organization to accomplish complex and interrelated projects.

6. Conclusion

The purpose of this study is to examine the best practice of PMO benchmark for Pertamina SOE entities for big investment value and high number of projects. The benchmarking activities extracted from the literature studies, practical PMO guideline, and stakeholder interview. The most applicable benchmark extracted from 17 services that accommodated in 4 pillars implementation: Strategic Planning and Portfolio, Project Management & Methodology, Project & Program Execution Office, and Learning & Development. Within this 4 pillars implementation, ABI % increase from 67,2% (2022) to 88,8% (2023) in correlation of physical project enhancement from -6,9% (2022) into -0.8% (2023). Survey result also show 4,26/5 scores for PMO Mix of Services that covered activities such as Conduct Benchmarking, Portfolio Review, SIIP as Center of Competence, Standardization Good Practice PM, PMO Clinic, and PMO Academy.

Additional research and in-depth studies can be pursued to enhance understanding of PMO implementations across various State-Owned Enterprises (SOE) entities. This exploration aims to analyze how the adjusted PMO services behave in different organizational contexts. Future evaluations may consider alternative perspectives to assess how digitalization influences the effectiveness of PMO implementation in achieving stakeholder objectives.

Furthermore, it is imperative to acknowledge that the private sector, characterized by distinct organizational structures and cultures, may present unique challenges in implementing the PMO Services benchmarking process. These challenges pose considerations for the development of PMO pillars and their strategic services within this sector.

In essence, broadening our research scope to encompass diverse SOE entities and private sector dynamics provides a comprehensive perspective, facilitating a nuanced understanding of PMO implementations and their success factors. This approach enables us to adapt and refine PMO strategies based on the specific contextual nuances of different organizations and sectors.

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