6.10. Procurement Plan

6.10.1. Introduction

The Procurement Management Plan plays a critical role in the successful completion of the project. This plan outlines the procurement requirements of the project and how the procurement process will be managed from the development of procurement documentation to the closure of contracts. This plan aims to ensure that all necessary items are procured on time, within budget, and according to the quality standards required for the project.

This plan defines the types of items to be procured, the justification statements and timelines for their procurement, the contract types to be used, the risks associated with procurement management, and how these risks will be mitigated. It also outlines the process for determining costs and evaluating suppliers, including the use of standardized procurement templates and documents.

The plan details how multiple suppliers will be managed if applicable and the contract approval process, decision criteria, and establishment of contract deliverables and deadlines. It explains how procurement and contracts are coordinated with the project scope, budget, and schedule, any constraints pertaining to procurement, and the direction to sellers on baseline requirements such as contract schedules and work breakdown structures (WBSs).

Vendor management is a crucial aspect of the procurement process, and this plan outlines how it will be managed, including the identification of any prequalified sellers if applicable. Finally, the plan defines performance metrics for procurement activities to ensure that the procurement process is monitored and controlled throughout the project's life cycle.

Overall, this Procurement Management Plan is designed to ensure that the project's procurement needs are met efficiently and effectively, with an emphasis on quality, cost, and schedule. It provides a clear and concise roadmap for the procurement process, ensuring that all stakeholders are aligned and informed throughout the process.

6.10.2. Procurement Risks

Procurement is a critical aspect of any project, and it involves the acquisition of goods, services, or works from external sources. Procurement risks are potential issues that can arise during the procurement process, which may negatively impact the project's success. Therefore, it is essential to identify and address these risks proactively to minimize their impact on the project.

The IO System project involves procurement activities that carry inherent risks, which include but are not limited to the following:

* + - Vendor non-performance or non-delivery of goods or services within the project timeline, which may lead to project delays and increased costs.
    - Changes in the project scope, schedule, or budget, which may affect procurement activities and vendor commitments.
    - Insufficient documentation, unclear specifications, or incorrect assumptions, leading to misunderstandings between the project team and vendors.
    - Poor communication or lack of transparency between the project team and vendors, leading to misunderstandings or disputes.

To mitigate these risks, the Procurement Management Plan will include detailed strategies for risk identification, assessment, and mitigation. This plan will be continuously monitored and updated throughout the project's lifecycle to ensure that risks are identified and addressed promptly. Furthermore, we will implement stringent procurement processes and procedures to mitigate the risks associated with procurement management.

6.10.3. Procurement Risk Management

Identification of Procurement Risks

The first step in managing procurement risks is to identify and assess them. For the IO System project, potential procurement risks include:

* + - Unforeseen increases in the cost of goods or services
    - Delays in the delivery of goods or services
    - Vendor bankruptcy or insolvency
    - Incomplete or poor-quality goods or services
    - Inadequate contract terms and conditions
    - Inaccurate estimates of costs and timelines
    - Inadequate supplier qualifications

Risk Mitigation Strategies

Once procurement risks are identified and assessed, risk mitigation strategies should be developed. For the IO System project, the following risk mitigation strategies will be implemented:

* + - Establish a comprehensive procurement plan that includes clear specifications, delivery schedules, and performance criteria.
    - Conduct a competitive bidding process to ensure that the best value is obtained for the goods or services being procured.
    - Conduct regular risk assessments throughout the procurement process to identify and address emerging risks.

Assignment of Responsibilities

When managing procurement risks the responsibilities of the members of the team should be clear. For the IO System, the procurement manager will be responsible for identifying and assessing the possible procurement risks.

Communication and Reporting

Communication between the members and their client will be essential for successful procurement risk management. Updates on the status of procurement risks and risk mitigation activities will be provided to the project manager, the team, and the client

A communication plan will also be developed so that all stakeholders are well informed of any changes or developments in procurement risk management activities.

Continuous Improvement

Improving the risk management of procurement would be continuous, all lessons learned from the procurement risk and risk management activities will be documented and shared within the group so that future procurement planning and execution would be better.

Reviewing the procurement risk activities will also help the team in their future risk mitigation attempts.

6.10.4. Cost Determination

Cost determination will be crucial in the procurement process, and to ensure that the suppliers to be chosen are the most competent and cost-effective, the group will use a complete cost determination process. Starting with the existing suppliers as well as reaching out to other possible suppliers that may benefit the client.

Acquisition, delivery, installation, and maintenance costs will also be analyzed by the group, as well as any potential cost overruns and ways to mitigate them. The group will prioritize cost as one of the key decision criteria to ensure transparency and fairness in the selection process.

The cost determination process will include several stakeholders, including procurement managers, and project managers. They will collaborate to ensure all costs are assessed properly, and that the procurement budget is constantly monitored.

To streamline the cost determination process, the project team will utilize standardized procurement templates and documents. This will help ensure that all cost calculations are consistent and accurate across all procurement activities. Additionally, the project team will establish performance metrics for procurement activities to assess the effectiveness of the cost determination process.

Overall, the cost determination section of the procurement management plan will play a crucial role in ensuring the successful completion of the IO System project within budget constraints.

6.10.5. Procurement Constraints

The following constraints must be considered as part of the IO System project’s procurement management process:

**Schedule constraints:** The project has a strict deadline, and procurement activities must be completed in a timely manner to ensure that the project stays on track. Any delays in procurement activities could impact on the project's overall timeline and delay its completion.

**Budget constraints:** The project has a set budget that must be adhered to during the procurement process. Procurement activities must be planned and conducted in a cost-effective manner to ensure that the project stays within the budget.

**Buyer/seller relationship constraints:** The IO System project has specific requirements for the buyer/seller relationship, including communication protocols, documentation, and reporting. These constraints must be considered throughout the procurement process to ensure that the project's requirements are met.

**Resource constraints:** The procurement process must consider the availability of internal resources, such as personnel, to ensure that procurement activities can be completed efficiently and effectively.

These constraints must be considered throughout the procurement process to ensure that the IO System project's requirements are met within the project's timeline and budget constraints.

6.10.6. Contract Approval Process

The contract approval process for the IO System project will involve a formal and structured approach to ensure that all contracts are approved in a timely and efficient manner. The process will be in accordance with the policies and procedures of the organization and will include the following steps:

* + - Contract Initiation: The Project Manager will initiate the contract process by submitting a request for procurement to the Procurement Officer through the Workday.
    - Contract Planning: The Procurement Officer will develop a procurement plan that will identify the type of contract to be used, the evaluation criteria, and the timelines for procurement activities.
    - Contract Development: Once the procurement plan has been approved, the Procurement Officer will develop the contract documents, including the Statement of Work (SOW), terms and conditions, and pricing schedule.
    - Contract Review: The contract documents will be reviewed by the legal department to ensure that they are following all applicable laws and regulations.
    - Contract Approval: The contract documents will be submitted to the Contract Review Committee for approval. The Committee will evaluate the contract documents and make a recommendation to the Project Manager.
    - Contract Execution: Once the contract has been approved, the Procurement Officer will execute the contract and issue a purchase order during the Workday.
    - Contract Monitoring: The Project Manager will monitor the performance of the vendor to ensure that they are meeting the terms of the contract. The Procurement Officer will also monitor the contract to ensure that all deliverables are met and that payments are made in accordance with the terms of the contract.

The Contract Review Committee will consist of representatives from the Project Management team, the Procurement Officer, and the Legal Department. The Committee will evaluate the contracts based on the evaluation criteria identified in the procurement plan. The Committee will consider factors such as price, quality, delivery, and vendor experience.

The contract approval process will ensure that all contracts are evaluated objectively and that the best value is obtained for the organization. The process will also ensure that contracts are executed in accordance with all applicable laws and regulations.

6.10.7. Decision Criteria

For the IO System project, the following decision criteria will be used by the contract review board:

* + **Price:** The price of the vendor's proposed solution will be a factor in the decision making process. The vendor's pricing should be competitive and reasonable based on market research and other proposals received.
  + **Schedule:** The vendor must demonstrate that they can meet the project timeline and deliverables, including key milestones and completion dates.
  + **Quality:** The vendor must have a proven track record of delivering high-quality solutions and services. This includes references and testimonials from previous clients.
  + **Risk Management:** The vendor must demonstrate a solid understanding of potential risks and have plans in place to mitigate them. This includes identifying potential risks related to procurement, as well as project risks.
  + **Sustainability:** The vendor's proposed solution should consider environmental, social, and economic sustainability factors, such as the use of eco-friendly materials or supporting local communities.
  + **Compliance:** The vendor must comply with all legal, regulatory, and contractual requirements, including intellectual property rights, data privacy, and security.

The contract review board will evaluate all proposals based on these criteria and select the vendor that best meets the project's needs and objectives.

6.10.8. Performance Metrics for Procurement Activities

For the IO System project, the following performance metrics will be used for procurement activities:

Vendor Performance Rating:

* + - 1. This metric can be computed by collecting data on a vendor's performance over a specific period. This data can be gathered from various sources such as internal audits, feedback from project team members, or other performance evaluation methods.
      2. b. The rating can be determined by assigning scores to different criteria such as on time delivery, quality of goods or services, responsiveness, and communication. The total score can be averaged and converted to a rating scale such as 1 to 5, with 5 being the highest rating.

Procurement Cycle Time:

* + 1. This metric measures the time it takes to complete the procurement process from the initial request to the final delivery of goods or services.
    2. The computation can be done by calculating the total number of days between each procurement stage (e.g., requisition approval, vendor selection, contract negotiation, delivery) and adding them up. The total number of days can then be divided by the total number of procurement activities to get the average procurement cycle time.

Cost Variance:

* + 1. This metric compares the actual procurement costs to the planned costs. The computation can be done by subtracting the planned costs from the actual costs and dividing the result by the planned costs.
    2. This will give the percentage variance between the actual and planned costs. A positive variance indicates that the procurement costs were lower than planned while a negative variance indicates that the procurement costs were higher than planned.

Purchase Order Accuracy:

* + 1. This metric measures the accuracy of purchase orders by comparing the actual goods or services received to the specifications outlined in the purchase order.
    2. The computation can be done by dividing the number of accurate purchase orders by the total number of purchase orders issued. The result can be expressed as a percentage.