The Management Reform from the Perspective of Supply Chain Management

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Abstract. Gas companies face complex and ever-changing environments. There are many problems in the procurement of traditional materials. The search for new material procurement management methods is to improve procurement efficiency, reduce procurement costs, and enhance the competitiveness of enterprises. From the perspective of supply chain, procurement management reform focuses on procurement management. Specific issues and approaches in the process of requirements management, supplier management, procurement execution management, and inventory management. By combining the actual situation of enterprise material procurement management, the problems existing in the material management process at the current stage are improved, the relevant management theory is combined with the actual situation of the enterprise, and a new mode of enterprise material procurement management is constructed to realize the change of procurement management.

1. Introduction

Huagang Group implements the strategic development requirements of domestic first-class gas enterprises based on oilfields, greening Hebei, and going all over the country, prompting enterprises to explore more scientific and effective procurement management models, and continuously enhance the core competitiveness of enterprises to cope with complex and varied internal and external surroundings. At present, the existing problems in enterprise procurement management are highlighted. The specific performance is as follows: the classification of gas materials is unreasonable, and the ability to collect material demand information is low; there is no clear supplier classification, and there is no system and method for differentiated management in the process of supplier selection and evaluation, supplier evaluation is not scientific and other issues. Purchasing management from the perspective of supply chain to the existing procurement management model innovation, from the initial supplier selection and evaluation to the detailed management of the procurement process, to the inventory control all through the idea of supply chain management, is the enterprise to solve existing problems, to achieve their own The inherent requirements of development.

2. The Main Measures and Practices

2.1. Strengthen Top-Level Design and Innovative Purchasing Ideas

Establish a Special Promotion Team to Ensure the Implementation of Supply Chain Procurement Model. Establish two special promotion groups for supply chain procurement management mode. One promotion group specializes in supplier affairs. The task is to train and guide suppliers' procurement operations, connect suppliers and their operations, identify and evaluate suppliers' reputation, Ability, sign a just-in-time order contract with the supplier, and issue a certificate of exemption to the supplier. Another facilitation group is responsible for coordinating the
procurement operations of various departments of the enterprise, developing operational procedures, guiding and training operators, and conducting operational inspections, supervision and evaluation.

**Establish Procurement Management Mechanism to Achieve Intensive Procurement of Materials.** Establish a series of procurement management mechanisms to achieve modularization and intensification of material procurement. The first is to establish a business contact coordination mechanism. According to the demand, the management principles of “centralized procurement, batch delivery, real settlement, dynamic management” were formulated and a business liaison coordination mechanism was established. The second is to establish a supply and demand communication mechanism. Establish a communication mechanism between the supply and demand sides, and fill in the time-of-use node after the change in demand in the material information system to ensure that the logistics supply company can effectively grasp the real information of the material demand and provide support for the rational arrangement of the procurement plan.

2.2. **Construct a Material Classification Model Using the Karajake Matrix**

The Karajak matrix classification method is used to comprehensively combine procurement and supply management to build a procurement model. The first is to determine the dimensions of the Karajak matrix procurement material classification model, namely the importance of materials and the degree of supply market risk. According to the cost value of different materials and supply risks. The second is the evaluation of material cost value and supply risk. The simpler expenditure analysis method is used to evaluate the importance of materials and the degree of risk in the supply market. The expert comprehensive evaluation method is used to determine the risk evaluation indicators and the weights of each indicator. Score points to classify the materials. The third is to use the Karajake matrix classification method for classification. The proportion of cost value is measured by the percentage of material procurement cost as a percentage of the total procurement cost, and the Pareto 20/80 rule is used to distinguish the purchased materials with 20% as the demarcation point. The procurement risk degree evaluation is completed by the application expert comprehensive evaluation method.

2.3. **Establish Differentiated Evaluation Indicators and Adopt Supplier Hierarchical Management Strategies**

**Differentiation of Supplier Classification and Evaluation Indicators.** According to the procurement materials of Karajak Matrix Huagang Group, it is divided into four categories: strategic materials, bottleneck materials, leveraged materials and common materials. As a basis for determining the corresponding procurement strategy and supplier relationship model, the supplier classification is carried out.

**Vendor Evaluation Index Differential Selection.** The evaluation of strategic material suppliers mainly includes material quality, price, delivery date, after-sales service, supplier's continuous supply capacity, supplier's operating status, capital status, technology and product upgrade, sustainable development capability and management structure change. A comprehensive assessment of the situation. The bottleneck material supplier mainly evaluates the supply capacity, the quality compliance level, the timely response capability of the order, the long-term performance of the supplier, and the operation status of the enterprise, so as to avoid the possibility of supply interruption. For leveraged materials and general material suppliers, a comprehensive evaluation of short-term supply stability and long-term sustainability, market competitiveness, collaboration and cooperation enthusiasm is required.

**Create Supplier Profile.** In the management system, the suppliers who have made business transactions in the procurement process must conduct comprehensive evaluation, record the
evaluation time and evaluation results, and form the supplier files. In addition, they should also establish potential supplier files to understand similar products. Other supplier conditions.

2.4. Establish Diversified Procurement Methods to Improve Procurement Efficiency

**Promote the Procurement of Framework Agreements.** Framework agreement procurement is a procurement model that aggregates the total amount of demand within a certain period of time within an enterprise or between enterprises, and locks in supply resources and purchase prices in advance. The material management department needs to strictly follow the regulations and procedures to standardize the purchase of the framework agreement, select enterprises with leading technology quality in the same industry in the country and the world, and the two sides sign a strategic cooperation framework agreement.

**Promote Centralized Procurement.** Vigorously promote the materials of Huagang Group into the "online supermarket", and through the characteristics of large quantities of materials, mixed specifications and lots of batches, the materials of small-diameter seamless steel pipes, galvanized steel pipes for gas, metal hoses for gas, etc. "Purchasing into the "online supermarket" has achieved a substantial leap in "three mentions and one compliance".

**Implementing Tender Procurement Methods.** The first is to properly select bidders. There should be differences in the choice of bidders, and setting reasonable bidding thresholds, such as production capacity, technical capability, past performance, credit status, etc., can help select high-quality suppliers and avoid some weak production capacity and poor service capacity. Small business. The second is to establish a technical specification file. Most of the required materials are national standard products. These materials have corresponding national technical standards and regulations, and the collection, collation and filing of corresponding technical standards are carried out. In addition, other products that do not have the corresponding technical standards or specifications of the country or have special technical and performance requirements should be prepared according to the corresponding technical specifications. After the completion of the review of the technical specifications of such materials, the organization and archiving work shall be completed. The third is to rationally choose the evaluation method. The demand for products is not the same, and the key materials with gas are more focused on product quality and service. Relatively speaking, the related materials that are not air-conditioned are more concerned with price factors. The market competition environment of different materials is also different, and the number of potential quality bidders will also influence the choice of bidding methods. Therefore, in the bidding process, it is necessary to fully consider the target demand characteristics and market competition environment, fully analyze the factors that may affect the choice of bidding methods, and rationally select the bidding method.

2.5. Set Up a Repository to Implement Supplier Management Inventory

**Generation of Reservoirs.** The generation of the repository has been well responded to this day. The approval process of the storage warehouse is short, and the basic guarantee budget is received at any time. The supplier's enthusiasm is improved. Because the inventory status is transparent, the supplier can coordinate the inventory replenishment, save unnecessary expenses, and the cooperation business is relatively stable. For material procurement, it not only simplifies business processes, but also reduces inventory costs, so it is said that mutual benefit is win-win and adapts to supply chain requirements.

**Pursuit of Zero Inventory Management.** The utilization of the storage model of the reservoir has eliminated the possibility of inventory backlog from the source. After the implementation of the storage model, there is no new inventory. For the remaining backlogs and scattered inventory that
have been formed, the inventory list is sorted out in advance, with the design department and the engineering department. In combination, the allocation of stock materials is prioritized from the source, and the backlog of stocks is also solved to some extent. Zero inventory management is adopted, circulation links are reduced, logistics efficiency is improved, and core competitiveness of enterprises is enhanced.

**Improve Warehouse Management.** In order to make rational use of the limited storage space, the warehouse has been planned and laid out, and the materials have been partially adjusted. The “No. 4 Positioning” is scientific and reasonable, the materials are placed neatly and without confusion, and the storage capacity is effectively improved. The custodian is skilled in the preparation of materials, points, and verification data according to the bill of materials. During the service process, the user is carefully reminded to pay attention to the safety of loading and unloading of materials. Immediately contact the counterpart business personnel for the out of stock or lack of goods, and notify the user in time after delivery. Business and quality services are available to users.

2.6. Set Performance Appraisal Indicators and Improve Procurement Performance Evaluation System

**Building a Supplier Performance Appraisal System.** The performance appraisal of suppliers is evaluated in addition to the one-time acceptance rate of supply materials, the timely rate of material supply, the supply price of goods, delivery time, after-sales service, product manufacturing cost, and supplier's continuous supply capacity. In addition to the assessment, the supplier's business status, capital status, technology and product upgrades, and sustainable development capabilities should be evaluated to select qualified suppliers.

**Improve the Group's Material Performance Evaluation System.** A number of indicator systems including procurement, material quality, procurement cost, procurement cycle, and service satisfaction were established for evaluation. Scientific and reasonable procurement organization performance evaluation can make better communication between supply chain members, timely and effectively find problems in procurement operations, formulate improvement measures and solutions, and evaluation incentives for procurement performance can fully mobilize employees' enthusiasm and initiative to promote the transformation of the company's procurement management to a scientific, standardized and efficient direction, to ensure the realization of procurement objectives and performance.

3. Implementation Effect

3.1. The Social Benefit

The management of the Group is more standardized and scientific, the risk of business operations is reduced, and the corporate reputation and brand image are improved. The contribution to society has been increasing and a good brand image has been established. In terms of LNG business, the promotion and implementation of the strategy of “returning oil to replace oil”, guided by vehicle promotion, and the construction of gas filling stations have created a precedent for domestic application of containerized skid-mounted stations, and enhanced the visibility of Huagang Group in East China and even the whole country. And the right to speak has laid a solid foundation for the comprehensive expansion of the domestic LNG market.

3.2. The Economic Benefit

Reducing the cost of material procurement, through the implementation of internal centralized procurement, electronic tendering, invitation negotiations, etc., all material prices have dropped by 5-10%, directly saving 9 million yuan in procurement funds.
4. Conclusion
Enterprises use the Karajak matrix classification method to establish differentiated evaluation indicators, implement supplier hierarchical management strategies; establish diversified procurement methods to improve procurement execution efficiency; set up generation storage, implement supplier management inventory; set performance evaluation indicators, and improve procurement performance. The evaluation system is used to construct a new mode of material procurement management and realize the change of procurement management. At present, it has been widely promoted and applied in Huagang Group. The procurement cost of materials has been significantly reduced, and the prices of all materials have dropped by 5-10%.

5. References