

HD Hyundai Oilbank

CUSTOMER CASE STUDY

Next-gen integrated procurement system rebuilding project

Industry	Production and supply of petroleum refining and petrochemical products
No. of Employees	About 2,100
Revenue	KRW 30 trillion (as of 2024)

Customer Comments

By leveraging AI-driven material data management, the obsolete material disposal rate has improved by 25%.

Kang min Lee
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Project Overview

Challenges

Duplicate material codes across affiliates made it difficult to manage procurement data accurately

Frequent delays and errors occurred due to the outdated procurement system

Difficulty in responding to dispersed purchasing requests from affiliates

Compromised procurement data consistency due to duplicate material codes

Solutions

Establishing a company-wide **integrated procurement process & AI-based item master mgmt. system**

Redesign of an integrated procurement process based on a single system

Implementation of item-based integrated procurement & auto-PO by affiliates

Automation of duplicate material classification & data quality management

Results

Increased material management efficiency through AI, and **the obsolete material disposal rate rose by over 25%**

Improved convenience through digitalized & integrated procurement processes

Strengthened collaboration among affiliates, achieving company-wide cost reduction

Enhanced efficiency of item master mgmt., increasing the obsolete material disposal rate

Implemented Software Coverage

Supplier Reg./Eval.

PR

Bidding

e-Contract

PO Mgmt.

Inspection/Goods Receipt

Import Mgmt.

Analysis & Reporting

Search Engine

Workplace

System Admin

Item Similarity Analysis & Item Master Quality Mgmt.

Challenges

Duplicate material codes across affiliates made it difficult to manage procurement data accurately

HD Hyundai Oilbank experienced frequent delays and errors due to the aging of its existing procurement system, OPS (Oilbank Procurement System). As a result, some procurement tasks had to be handled offline via phone and email, making it difficult to manage procurement records systematically.

In addition, as the number of affiliates grew with business expansion, there was a growing need to respond quickly to dispersed purchasing requests and manage them in an integrated manner. In particular, duplicate material codes generated across different affiliates caused data consistency issues, highlighting the urgent need for more accurate and efficient approach to item master management.

Our Solution

Establishing a company-wide integrated procurement process & AI-based item master management system

Emro redesigned HD Hyundai Oilbank's procurement process through PI(Process Innovation) consulting and implemented a new integrated procurement system, HOPS (Hyundai Oilbank Procurement System), based on a its solution that incorporates various functions and industry best practices tailored to the company's procurement needs.

The system transitioned procurement tasks previously handled offline to an online platform and consolidated functions that had been scattered across multiple systems into a single platform. This enabled an end-to-end procurement process covering everything from purchase requests to quotations, contracts/orders, and goods receipt/payment.

In particular, Emro applied its proprietary AI-based similarity analysis technology to automatically analyze similarities among the vast item data within the procurement system. Using these results, duplicate or similar item data were filtered out, improving the data quality of the item master, which serves as the core foundation of procurement operations.

Results

Increased material management efficiency through AI, and the obsolete material disposal rate rose by over 25%

Through the new integrated procurement system HOPS, HD Hyundai Oilbank and its four affiliates(HD Hyundai Cosmo, HD Hyundai Shell Base Oil, HD Hyundai Chemical, and HD Hyundai OCI) are able to submit purchase requests, which are then consolidated by item type to streamline the processes of quotations, supplier selection, and approvals. After this, automatic purchase ordering is executed for each affiliate. This integrated procurement process has enabled company-wide simplification of procurement operations, strengthened collaboration, and reduced procurement costs.

In addition, manual material management tasks have been automated through AI-based item classification and quality management, reducing time and resources while improving accuracy. As a result, the disposal rate of obsolete materials has increased by more than 25%, significantly enhancing overall inventory management efficiency.

Furthermore, by leveraging crawling technology to automatically collect, analyze and store market information in a database, the system has enhanced visibility of procurement operations, enabling more data-driven, creative procurement activities.