Problem Statement

Modern Colours Pvt. Ltd. is a fast-growing manufacturer of decorative and industrial paints, operating across multiple regions in India. The company follows a dealer–distributor–retailer supply chain model similar to major paint manufacturers, where products move from manufacturing units and warehouses to dealers, and finally to contractors, retailers, and end customers. Due to fluctuating demand influenced by seasonality, construction cycles, festivals, and region-specific projects, the company faces frequent challenges such as inventory imbalance, stockouts, delayed deliveries, and excess unsold stock. Currently, supply chain decisions are largely manual, fragmented, and reactive, resulting in inefficiencies, poor demand visibility, and revenue losses. The organization aims to transform its traditional supply chain into a centralized, digital, data-driven ecosystem that connects the company, its dealers, and buyers into a single intelligent platform. The core challenge is to design and develop a web-based supply chain management solution that provides real-time visibility into inventory levels, forecasts demand accurately, optimizes stock distribution across regions, and streamlines order management while ensuring a seamless buying experience for customers. The proposed solution should enable Modern Colours Pvt. Ltd. to proactively manage inventory, reduce operational inefficiencies, improve service levels, and support data-driven decision-making across the entire supply chain.