

## **Abstract**

This research explores sustainability practices in supply chain management (SCM), employing an integrated approach that combines both quantitative and qualitative data to assess the effectiveness and impact of sustainable practices across various industries. As businesses face increasing pressure to adopt environmentally and socially responsible practices, understanding how sustainability is incorporated into supply chain operations becomes crucial for long-term competitiveness and compliance. The study examines key sustainability initiatives; including resource optimization, waste reduction, ethical sourcing, and carbon footprint reduction, while evaluating their influence on operational efficiency, cost-effectiveness, and corporate reputation. The qualitative component involves interviews with supply chain managers and sustainability experts to capture insights on the challenges, strategies, and perceived benefits of integrating sustainability into supply chain practices. The quantitative analysis focuses on performance metrics, such as cost savings, environmental impact, and supplier performance, to evaluate the outcomes of sustainable practices. The research finds that companies adopting sustainable supply chain practices experience improved operational efficiency, better risk management, and enhanced brand image. However, challenges such as higher initial costs and supply chain complexity are also noted. This study contributes valuable insights for businesses looking to enhance sustainability within their supply chains and provides recommendations for integrating effective sustainability practices that lead to both environmental and economic benefits.