

Abstract

Small and medium enterprises (SMEs) are crucial to the United Kingdom's economy, making up 99% of all businesses. Despite their significance, many SMEs face resource constraints that limit their ability to utilize data-driven insights, essential for thriving in a competitive landscape. This dissertation examines the integration of Enterprise Resource Planning and Business Intelligence systems at GreenBell Packaging, a company specialising in sustainable packaging solutions. By utilizing data from Odoo ERP, a business intelligence dashboard was developed in Power BI to enhance decision-making, operational efficiency, and data visibility across key business functions, including purchasing, inventory, and sales.

The research adopts a qualitative case study approach, employing a mixed-methods data collection approach through interviews, observations and ERP data extraction. The data underwent cleaning and transformation to support the development of dashboards tailored to the company's requirements. Key performance indicators (KPIs) and metrics were defined during the data analysis, guiding the design, and deployment of three user-friendly, fully functional dashboards. These dashboards were instrumental in uncovering operational inefficiencies and improving real-time decision-making.

Three core dashboards were developed: The Purchase Dashboard, which improved visibility into order deliveries and fulfilment performance, revealing efficiencies in delays and shortfalls, while enhancing cost management through multi-currency tracking. The Inventory Dashboard provided insights into stock levels and stock movements, identifying risks of overstocking and shortages, leading to better inventory control. The Sales and CRM Dashboard monitored lead, quotation and sales order performance pinpointing gaps in conversion rates, customer insights and order fulfilment underperformance. Additionally, several ERP data management challenges were identified, highlighting areas for dashboard insight improvement.

The case study research demonstrates that SMEs can overcome operational inefficiencies by adopting ERP-BI systems. It offers a practical framework for enhancing data-driven decision-making and business performance while identifying gaps in the existing ERP system. The successful implementation highlights the benefits of ERP-BI integration for SMEs, providing a model for similar businesses seeking to leverage their data for competitive advantage.