

Case Studies for Week 1: Business Intelligence in Action

Case Study 1: Retail – Customer Insights & Inventory Management

FreshMart is a mid-sized grocery retailer operating across several towns. Recently, FreshMart has faced challenges: - Customers complain about frequent stock-outs of popular products. - Some products are often overstocked, leading to waste (especially perishables). - Competitors are offering personalised promotions through mobile apps, while FreshMart still relies on paper coupons. FreshMart has started using BI tools (Power BI dashboards) to track: - Daily sales across stores. - Inventory levels in real time. - Customer purchasing behaviour from loyalty cards.

Discussion Questions: 1. Which types of data (raw data, information, knowledge) can FreshMart use to reduce waste and improve stock availability? Give examples. 2. How could BI dashboards help managers act more quickly compared to traditional weekly sales reports? 3. If you were advising FreshMart, what one improvement would you suggest in using BI to keep up with competitors (e.g., personalisation, mobile analytics, predictive demand)? 4. Have you seen a similar issue in your own workplace where better use of data could have solved a problem? Share your reflection.

Case Study 2: Healthcare – Patient Care & Resource Allocation

CarePlus Hospital is a regional healthcare provider that deals with high patient numbers. Recently, issues have emerged: - Long waiting times in the emergency department. - Difficulty scheduling enough staff during busy periods. - Uncertainty about which treatments are most effective for chronic conditions such as diabetes. CarePlus has invested in a BI system that integrates: - Patient records and admissions data. - Staff rosters and availability. - Treatment outcomes and follow-up visits. **Discussion Questions:** 1. What types of BI applications could CarePlus use to reduce waiting times and improve patient satisfaction? 2. How can data warehousing (collecting data from different hospital systems) help in understanding treatment effectiveness? 3. The hospital wants to use predictive analytics. What could they predict, and how might that help with resource planning? 4. Think of your own experience (healthcare or another sector). Where did lack of timely information affect service quality? How might BI have changed the outcome?