

## Using Numbers to Make Better Business Decisions in a Manufacturing Company

### Background:

ABC Manufacturing Company produces a range of industrial products for the automotive, aerospace, and energy industries. The company has been in business for over 30 years and has a reputation for high-quality products and excellent customer service. However, in recent years, the company has faced increasing competition from lower-cost imports and has struggled to maintain its profitability.

### Challenge:

The company's management team wanted to improve its decision-making process by using data and analytics to identify areas for cost reduction and revenue growth. They tasked the business analysts with developing a comprehensive dashboard that could help them monitor key performance indicators (KPIs) and track progress towards their strategic goals.

### Solution:

The business analysts used Excel and other data visualization tools to create a custom dashboard that included the following KPIs:

*Revenue by product line:* The dashboard showed the company's revenue by product line, allowing the management team to identify which products were generating the most revenue and which ones were underperforming.

*Cost of goods sold (COGS):* The dashboard showed the COGS for each product line, allowing the management team to identify which products had the highest cost structures and which ones could be optimized for cost reduction.

*Inventory turnover:* The dashboard showed the company's inventory turnover ratio, which helped the management team to identify inventory levels that were too high or too low and adjust production schedules accordingly.

*Customer satisfaction:* The dashboard included customer satisfaction scores based on surveys and feedback, which helped the management team to identify areas for improvement in customer service and product quality.

*Competitor analysis:* The dashboard included data on the company's main competitors, such as their market share, pricing, and product features, which helped the management team to identify areas where they could differentiate themselves and gain a competitive advantage.

### Results:

The dashboard proved to be a valuable tool for the management team, allowing them to make data-driven decisions and monitor progress towards their strategic goals. By analyzing the KPIs, they were able to identify several areas for improvement, including:

*Cost reduction:* By analyzing the COGS data, the management team was able to identify several products with high cost structures and take steps to optimize their production processes, resulting in significant cost savings.

*Revenue growth:* By analyzing the revenue data, the management team was able to identify several underperforming products and adjust their pricing and marketing strategies, resulting in increased sales and revenue.

*Improved customer satisfaction:* By analyzing the customer satisfaction data, the management team was able to identify several areas for improvement in customer service and product quality, resulting in higher customer retention and loyalty.

### **Conclusion:**

By using data and analytics to drive their decision-making process, the management team at ABC Manufacturing Company was able to identify areas for cost reduction and revenue growth, and make informed decisions that helped them remain competitive in a challenging market. The dashboard proved to be a valuable tool for monitoring performance and tracking progress towards their strategic goals, and helped them achieve improved financial and operational results.

### Questions:

1. What methodology was used to develop a data-driven approach?
2. What were the key insights gained from data analysis?
3. What business decisions were made based on the insights gained from data analysis?
4. What key performance indicators were used to monitor performance?
5. How did the company benefit from using a data-driven approach?