

# AI-Assisted Business Reporting & Decision Support System

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Role Target: AI Business Analyst

## 1. Project Overview

This project demonstrates how data analytics and generative AI can be used to support faster, data-driven business decision-making. The objective was to analyze sales data, identify key performance trends, and generate executive-level insights using SQL, Power BI, and AI tools.

## 2. Business Problem

Business leaders often face delays in receiving actionable insights due to manual reporting processes. This project addresses the challenge by automating data analysis and enhancing reporting through AI-generated summaries, enabling leadership to make informed decisions more efficiently.

## 3. Tools & Technologies

- Microsoft Excel – Data preparation
- SQL – Data analysis logic
- Power BI – Interactive dashboards and KPIs
- Generative AI – Executive summaries and recommendations

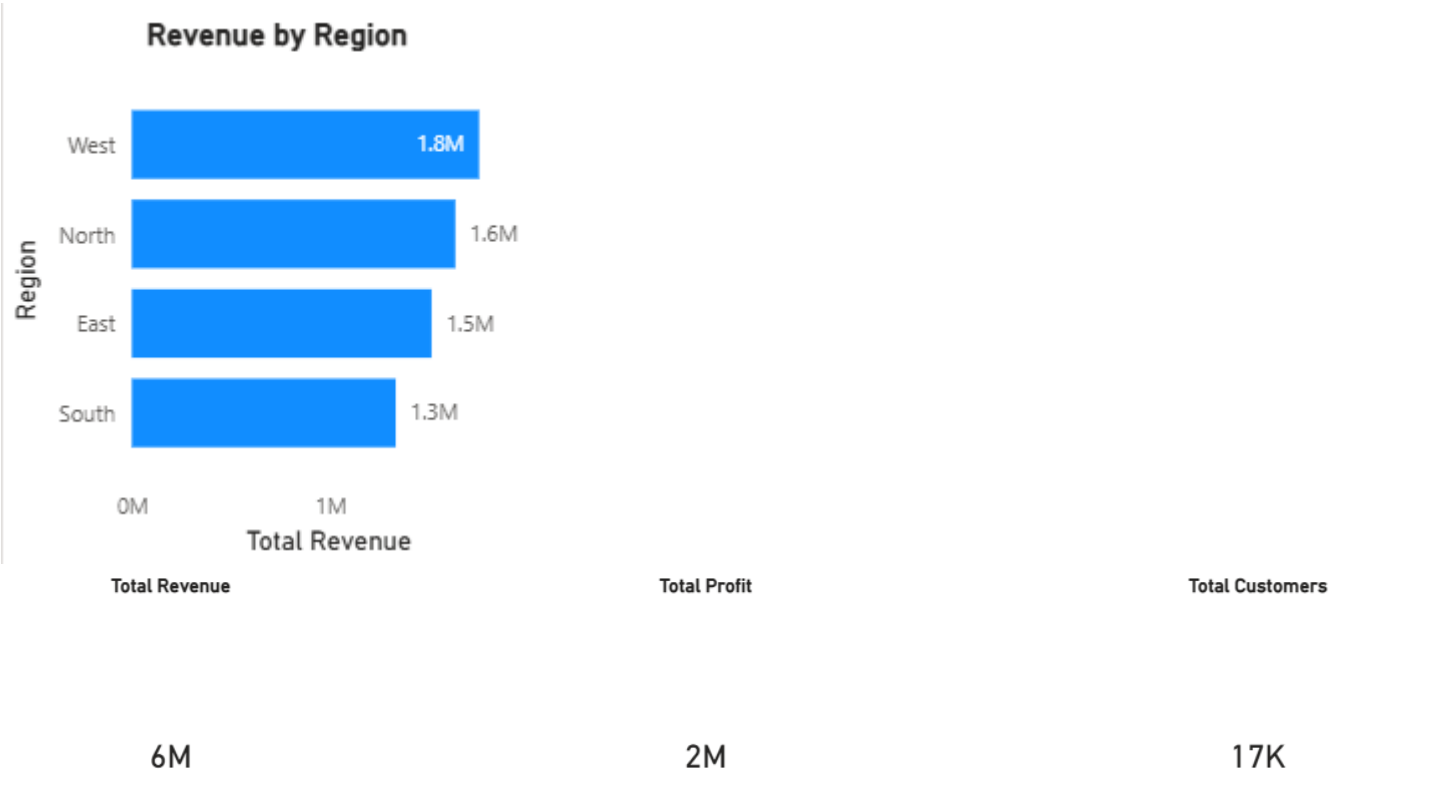


Figure 1: Executive dashboard showing key KPIs and regional revenue performance

## 4. Executive Summary (AI-Assisted Business Reporting)

### Overall Performance

The business generated approximately **6M in total revenue**, with **~2M in total profit**, serving nearly **17K customers** during the period. This indicates a healthy profit margin and stable customer demand across regions.

### Regional Performance

The **West region** emerged as the **highest-performing market**, contributing the largest share of revenue, followed by **North** and **East** regions. The **South region** showed comparatively lower revenue contribution, indicating potential gaps in market penetration or demand.

### Monthly Trends

Monthly revenue performance remained **stable with a gradual upward trend**, suggesting consistent demand throughout the year. No major revenue volatility was observed, which reflects predictable business performance and effective operational planning.

### Potential Risks

- Over-dependence on the **West region** could expose the business to regional demand or operational risks.
- Slower growth in the **South region** may impact overall expansion goals if not addressed.
- Rising costs could reduce profit margins if revenue growth does not keep pace.

## 5. Key Recommendations

1. Increase focus on high-performing regions such as West and North to maximize revenue and profitability.
2. Improve market penetration in the South region through targeted marketing and pricing strategies.
3. Monitor operational costs closely to ensure profit margins remain stable as revenue grows.

## 6. Role of AI in This Project

Generative AI was used to transform analytical outputs into concise, executive-level insights. AI-assisted summaries improved the speed and clarity of decision-making while ensuring insights were communicated in simple business language.

## 7. Conclusion

This project highlights how AI-assisted analytics can enhance traditional business reporting. By combining data analysis with generative AI, organizations can achieve faster insights, improved decision quality, and better alignment between data and business strategy.