

BIKEGEAR SOLUTIONS: SALES PERFORMANCE ANALYSIS

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Context Recap (Problem Statement)

BikeGear Solutions operates across multiple regions and product lines but lacks clear visibility into which regions, customer demographics, products, and time periods drive sales performance. Leadership requires a structured, data-driven analysis of historical sales data to support improved marketing focus, inventory planning, and demand forecasting.

This project analysed **multi-year historical sales data** using Excel-based dashboards to identify performance patterns and translate them into actionable business insights.

Key Performance Indicators (KPIs)

The analytical dashboard renders the following KPIs:

- **Total Revenue** which amounted to \$95 021 171
- **Total Order Quantity** which accounts for total units sold amounted to 1 346 911
- **Total Profit** sums up all profitability generated from sales this mounted to 42 070 475

These KPIs provide an immediate snapshot of business performance and act as anchors for deeper analysis across regions, customers, products, and time.

Insights From Analysis

1. Regional Performance

Insight: According to data, revenue is concentrated in a small number of countries with United States contributing the largest share of total revenue of 30.81M, followed by Australia at 25.44M, while other regions generate significantly lower revenue with Canada generating 8M consequently being the lowest among all regions.

Interpretation: This suggests differing levels of market maturity, customer demand, or marketing effectiveness across regions likely driven by differences in market maturity, customer demand, or marketing effectiveness.

Business Implication

- High-performing regions (United States and Australia) should remain priority markets for revenue protection and growth.
- Lower-performing regions such as Canada require targeted analysis to determine whether underperformance is driven by demand constraints, pricing strategy, product mix, or limited market penetration.

2. Customer Age Group Performance

Insight: Customer revenue is driven primarily by older age groups with adult customers bringing in \$43.93M in revenue, followed closely by Young Adults at \$40.69M and the Youth customers contribute a smaller share of total revenue at \$10.40M. Adults and Young Adults together account for nearly **90% of total revenue**.

Interpretation: This indicates stronger purchasing power and preference for higher-value products among older customer segments.

Business Implication

- Marketing strategies should prioritise Adult and Young Adult customers as core revenue-generating segments.
- Product positioning and promotional messaging should align with the purchasing behaviour of these age groups.
- Youth-focused initiatives should be carefully evaluated to ensure profitability justification.

3. Product Performance and Demand Concentration

Insight: A small number of products account for a disproportionately large share of revenue and indicating a strong concentration of demand among top-performing items with Road bikes generating \$37.38M, Mountain Bikes \$23.59M and Touring Bikes \$8.07M. These three product lines account for most of the total revenue.

Interpretation: Sales performance follows a classic “top-heavy” pattern where a limited product set drives most of the financial results.

Business Implication:

- Inventory planning should prioritise high-performing products to reduce the risk of stock-outs.
- Underperforming products should be reviewed for pricing, promotion, or potential rationalisation.
- Marketing campaigns should feature proven top-selling products rather than spreading effort evenly across the catalogue.

4. Sales Seasonality and Time Trends

Insight: Sales exhibit a clear seasonal pattern:

- Revenue peaks in **June (\$10.06M)** and **December (\$10.15M)**
- Revenue declines between **July and September**, averaging approximately **\$6.4M per month**.

Interpretation: Demand aligns with cycling seasonality and consumer purchasing behaviour, making sales timing predictable across years.

Business Implication:

- Inventory levels should be increased ahead of peak months to meet anticipated demand.
- Promotional activity should be timed to precede peak sales periods.
- Stock exposure and holding costs can be reduced during predictable low-demand periods.

Recommendations

Based on the analysis, the following actions are recommended:

1. **Prioritise High-Revenue Regions**
Focus marketing investment and sales initiatives on United States, Australia, and the United Kingdom, while developing targeted improvement strategies for underperforming markets such as Canada.
2. **Align Marketing to High-Value Customer Segments**
Concentrate customer acquisition and retention efforts on Adult and Young Adult customers, who together contribute over \$84M in revenue.
3. **Optimise Inventory Around Top Products**
Ensure sufficient stock availability for Road Bikes, Mountain Bikes, and Touring Bikes, particularly ahead of peak seasonal demand.
4. **Plan Around Seasonal Demand Cycles**
Use historical seasonality trends to guide inventory planning, staffing, and promotional timing to maximise revenue capture and minimise excess stock.

Conclusion

The dashboard presents **aggregated historical performance across multiple years**, with year-level filtering available to support deeper analysis where required.

This analysis provides BikeGear Solutions with a clear, data-backed view of sales performance across regions, customers, products, and time. The insights generated support more informed decision-making in marketing, inventory management, and demand planning.