😀 AutoMate Multi-Agent System

Intelligent data analysis with LLM-powered agents

📝 Query Input

Enter your business question:

> Example: What are the top 5 product categories by revenue?

💡 Example Queries

Or choose an example:

show me Top 20 popular product categories with their orders, average price and corresponding rev… ⌄

🔍 Analysis Results

🚀   Run Analysis

📊 Analysis Progress

==

✅ Analysis completed successfully!

🎯 System Status

✅ API Key configured

✅ Data path found

🗂 Found 8 data files

❯   View data files

💼 Business Insights & Recommendations

EXECUTIVE SUMMARY

In the past three months, the "health_beauty" category emerged as the top performer in terms of both orders and revenue, with 1,203 orders generating $170,188.07. The data highlights significant opportunities in the health and beauty sector, while also revealing potential growth areas in other categories like "watches_gifts" and "housewares."

KEY INSIGHTS

- **Top Performer**: "Health_beauty" leads with the highest number of orders (1,203) and revenue ($170,188.07), indicating strong consumer demand.
- **High Revenue Generators**: "Watches_gifts" and "housewares" follow, with revenues of $114,640.26 and $97,904.10$, respectively, suggesting these categories are also popular among consumers.
- **Average Price Insights**: Categories like "watches_gifts" and "cool_stuff" have higher average prices ($168.34 and 162.89), which may contribute to their substantial revenue despite fewer orders.
- **Emerging Categories**: "Sports_leisure" and "auto" show promising revenue figures ($82,010.92 and $70,309.18$), indicating potential for growth.
- **Lower Revenue Categories**: "Fashion_bags_accessories" and "food" have lower revenues ($12,531.85 and $10,314.90$), suggesting a need for strategic marketing or product adjustments.

BUSINESS IMPLICATIONS

- **Opportunity in Health and Beauty**: The strong performance of the "health_beauty" category suggests a robust market presence and potential for further investment in marketing and product expansion.
- **Growth Potential in Mid-Tier Categories**: Categories like "sports_leisure" and "auto" could benefit from targeted promotions to increase their market share.
- **Price Strategy Considerations**: High average prices in certain categories may limit order volume; a review of pricing strategies could optimize sales and revenue.

ACTIONABLE RECOMMENDATIONS

1. **Enhance Marketing for Top Categories**: Increase marketing efforts for "health_beauty" to capitalize on its popularity and drive further sales.
2. **Promotional Campaigns for Mid-Tier Categories**: Develop targeted promotions for "sports_leisure" and "auto" to boost visibility and attract more customers.
3. **Review Pricing Strategies**: Analyze pricing for high average price categories like "watches_gifts" to ensure competitiveness and maximize order volume.
4. **Product Line Expansion**: Consider expanding product lines in high-performing categories to capture a larger market share.

5. **Focus on Underperforming Categories**: Investigate the reasons behind lower revenues in "fashion_bags_accessories" and "food" and adjust strategies accordingly.

NEXT STEPS

- **Conduct Customer Surveys**: Gather customer feedback on preferences and satisfaction across different categories to inform product and marketing strategies.
- **Monitor Sales Trends**: Continuously track sales data to identify shifts in consumer behavior and adjust strategies in real-time.
- **Evaluate Competitor Strategies**: Analyze competitor offerings and pricing to ensure competitive positioning in the market.
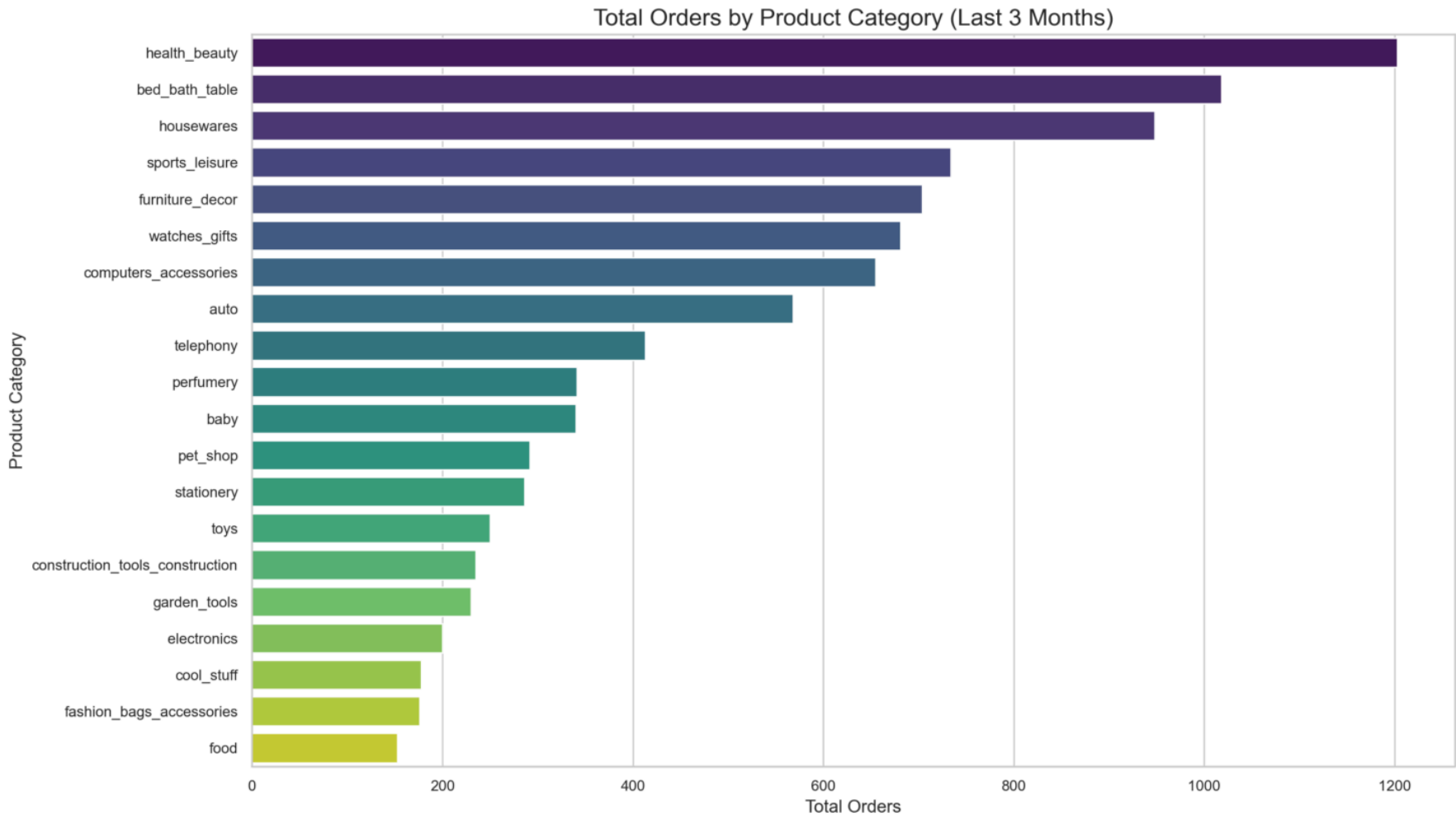
📊 Data Results

Query Results:

	product_category_name_english	total_orders	average_price	total_revenue
0	health_beauty	1203	141.4697	170188.07
1	watches_gifts	681	168.3411	114640.26
2	housewares	948	103.2744	97904.1
3	bed_bath_table	1018	90.9222	92558.82
4	sports_leisure	734	111.7315	82010.92
5	auto	568	123.7838	70309.18
6	furniture_decor	704	98.5022	69345.54
7	computers_accessories	655	95.8024	62750.57
8	telephony	413	136.4061	56335.71
9	perfumery	341	113.9979	38873.27

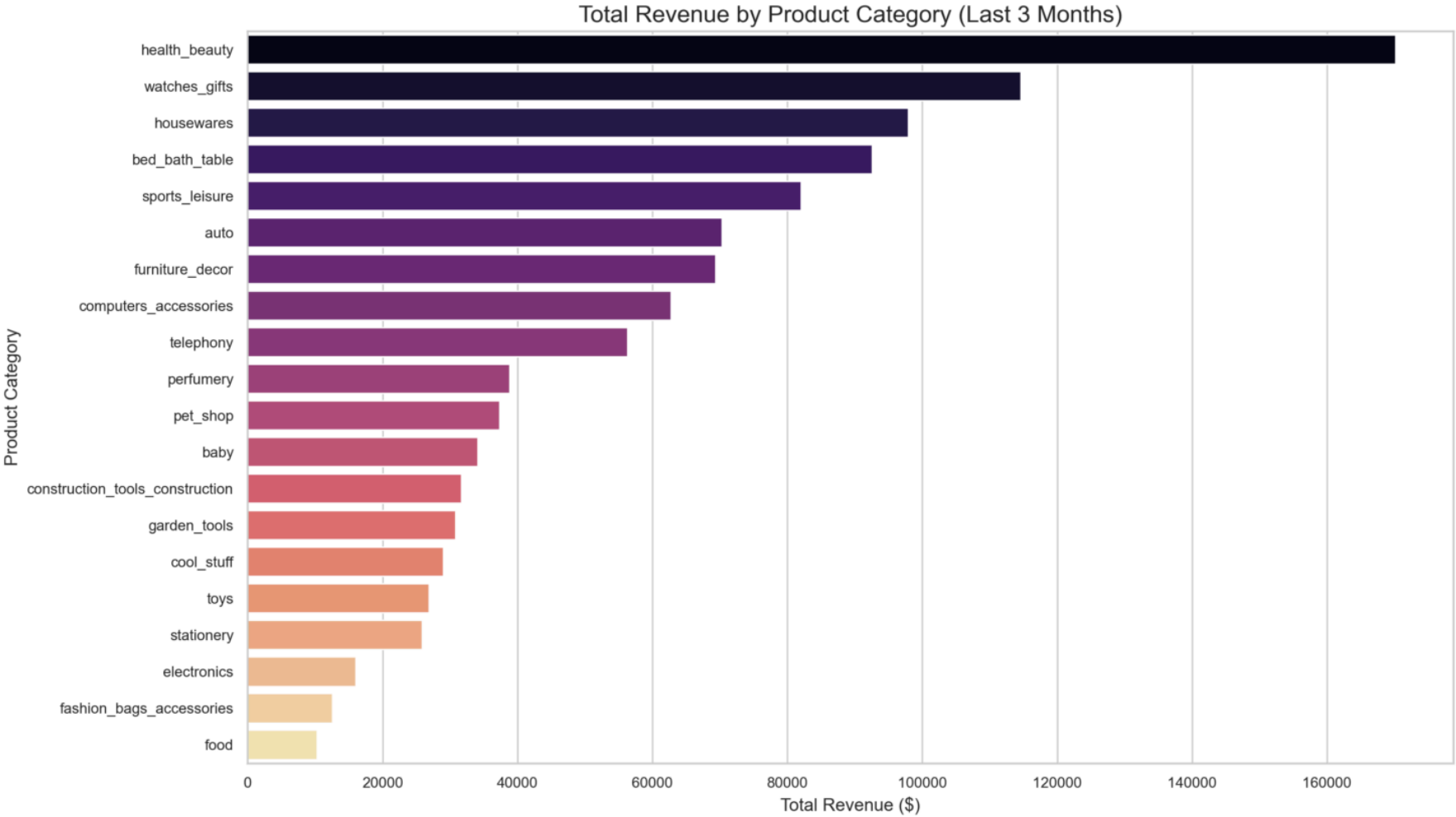📥 Download Query Results (CSV)

📈 Additional Visualizations

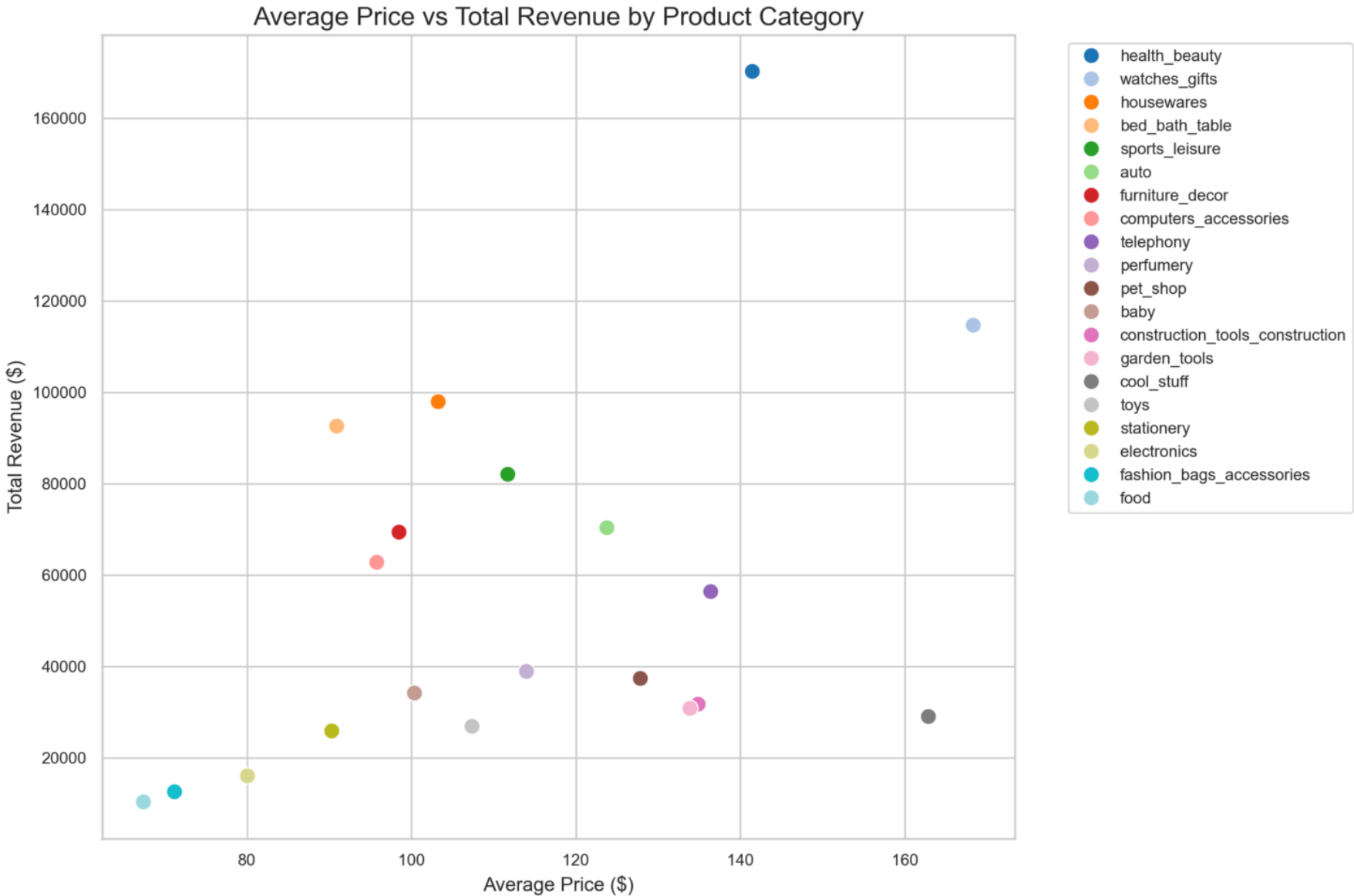*Charts from exploratory analysis, clustering, and other agents*

> ⌄   👁 Orchestrator (3 charts)

Total Orders by Product Category (Last 3 Months)

[Download]

Total Revenue by Product Category (Last 3 Months)

Download

Average Price vs Total Revenue by Product Category

Legend:
- health_beauty
- watches_gifts
- housewares
- bed_bath_table
- sports_leisure
- auto
- furniture_decor
- computers_accessories
- telephony
- perfumery
- pet_shop
- baby
- construction_tools_construction
- garden_tools
- cool_stuff
- toys
- stationery
- electronics
- fashion_bags_accessories
- food

⬇ Download

📋 Quick Summary

Datasets Analyzed	Agents Executed	Visualizations Created
8	4	3

Multi-Agent Data Science System - Powered by LangGraph & OpenAI