

🤖 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:

What product categories are frequently bought together with sports and leisure?

🔍 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 Our analysis reveals that customers who purchase sports and leisure products often buy items from the health and beauty category as well. This presents a significant opportunity for cross-promotional strategies. Additionally, there are notable associations with housewares and watches, which could be leveraged to enhance sales.

KEY INSIGHTS

- **Health and Beauty Connection:** Customers buying sports and leisure products are over twice as likely to also purchase health and beauty items, indicating a strong complementary relationship.
- **Housewares Association:** There is a notable pattern where sports and leisure buyers also purchase housewares, suggesting potential for bundled offers.
- **Watches and Gifts:** A smaller, yet significant, portion of sports and leisure buyers also purchase watches and gifts, which could be targeted for special promotions.
- **Construction Tools and Perfumery:** These categories show weaker associations but still present niche opportunities for targeted marketing.

BUSINESS IMPLICATIONS

- **Cross-Promotion Opportunities:** The strong link with health and beauty products suggests potential for joint promotions or bundled deals to increase average transaction value.
- **Product Placement:** Consider strategic placement of housewares and watches near sports and leisure sections to capitalize on these buying patterns.
- **Targeted Marketing:** Tailor marketing campaigns to highlight the complementary nature of these products, particularly focusing on health and beauty.

ACTIONABLE RECOMMENDATIONS

1. **Develop Bundled Offers:** Create promotional bundles combining sports and leisure products with health and beauty items to drive sales.
2. **In-Store Placement Strategy:** Position housewares and watches near sports and leisure sections to encourage impulse buys.
3. **Cross-Category Promotions:** Launch targeted marketing campaigns that highlight the benefits of combining sports and leisure with health and beauty products.
4. **Customer Segmentation:** Identify and target customer segments that frequently purchase these combinations for personalized marketing efforts.
5. **Seasonal Campaigns:** Utilize seasonal events to promote these product combinations, such as fitness resolutions in January or summer sports activities.

NEXT STEPS

- **Further Analysis:** Conduct deeper analysis to understand the specific products within these categories that are most frequently bought together.
- **Customer Feedback:** Gather customer feedback to understand motivations behind these purchasing patterns.

- **Monitor Sales Data:** Track the impact of implemented strategies on sales to refine and optimize promotional efforts.

Data Results

Analysis Results:

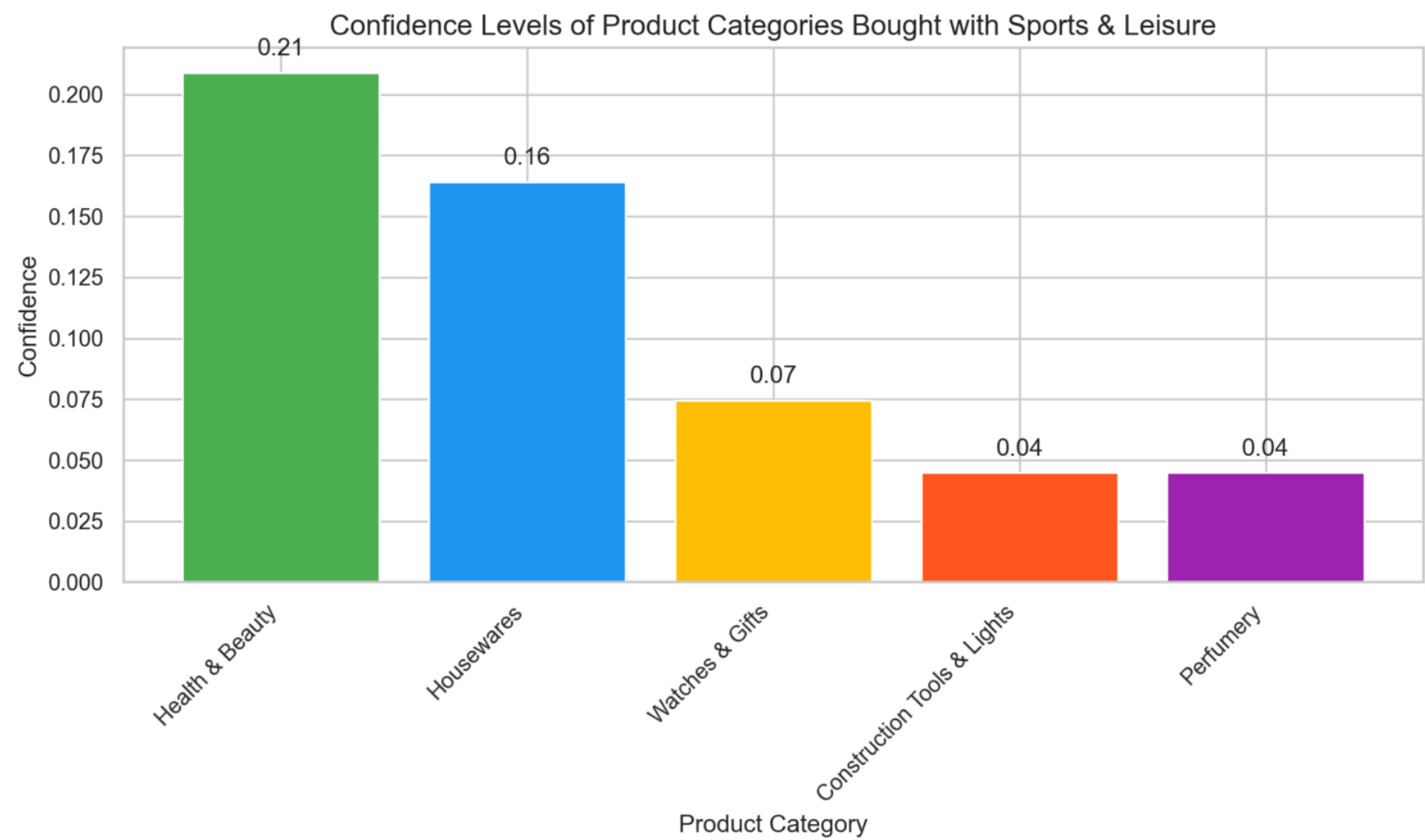
	antecedents	consequents	support	confidence	lift
0	sports_leisure	health_beauty	0.0193	0.209	2.1701
1	sports_leisure	construction_tools_lights	0.0041	0.0448	1.8085
2	sports_leisure	watches_gifts	0.0069	0.0746	1.3563
3	sports_leisure	perfumery	0.0041	0.0448	1.252
4	sports_leisure	housewares	0.0151	0.1642	1.1702

 Download Analysis Results (CSV)


Additional Visualizations

Charts from exploratory analysis, clustering, and other agents

▼ ⓘ Orchestrator (1 chart)



Health & Beauty products have the highest confidence level, indicating a strong complementary relationship with Sports & Leisure.

 Download



Quick Summary

Datasets Analyzed

8

Agents Executed

5

Visualizations Created

1

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