

QVC Data Analytics Challenge

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Based on the data that was provided by QVC our team was able to derive an interactive web application that enables QVC to make confident decisions. Our application is highly customizable, allowing all levels of management and employees to drill down and view the information that is important to the individual. Each answer to the QVC questions are custom designed not to only answer the question, but to provide insight on the big picture of the company's operation. Every dataset was used, both independently and jointly, to provide new insight on product sales. The application is easy to use and requires no technical background to understand.

What are the products and product categories that sell best in the US Market?

For this question we provided the user with interactive pie charts and a U.S. heat map capable of drilling down to retrieve sales data for the entire United States, individual states, and specific counties. The pie charts provide the top sales categories along with a drill down of the top ten products per category. This dynamic approach enables users to quickly derive answers on a macroscopic level and see trends through a microscopic lens.

How effective are QVC's campaigns in driving product sales?

This web application allows the user to compare sales with campaign spending through the use of line and bar graphs. The user can dynamically choose the categories and campaigns they want to view and compare average sales with sales during a campaign.

How effective are QVC's on-air broadcast and on-air personalities in driving product sales?

In this section, the application renders a scatter plot that allows the user to observe the trend of product sales when the product is on air, and the user can drill down to individual observations. The application also renders a spline curve for each particular host that creates a unique insight into the correlation of sales versus airtime because the graph interpolate data at points that are theoretical.

What is the impact of QVC's social networking presence on driving product sales?

We've evaluated and provided an integrated view between public sentiments and the trends of product sales. This synchronous view allows the user to track how social media affect total product sales.

Conclusion

Our web application could be used as another business intelligence tool for QVC. The data gathered from other information systems could be dynamically integrated into our web application and provide decision makers with real-time information about their business operations.