Google Cloud

Insights from a single dataset

Previously, you learned that organizations rely on data to gain insights that drive important decisions. In this reading, you'll explore how a single dataset can serve various teams, and how visualizations can differ based on the needs of these teams. You'll also uncover the nuances of data exploration across different teams, like customer service, marketing, and product development through a detailed example.

Data exploration

Data exploration is the process of understanding a dataset by inspecting its characteristics, identifying patterns, and asking questions. Data exploration helps analysts navigate their data to identify the most important pieces of information, and address the needs of different teams.

A thoroughly analyzed and explored dataset can reveal many insights. Different teams within an organization may approach the same dataset with different questions, each tailoring their learning to their specific operational goals. These learnings can then be translated to actionable insights through visualizations for teams to refer to, share, and align their strategies.

On-the-job applications

This example illustrates the important role of data exploration, especially how it affects different analysis needs, and influences outcomes:

Consider a single dataset containing information about an education company's recent launch of a mobile application. The company collects various data points and measures to ensure multiple teams like customer service, marketing, and product development have data relevant to them. Each team gathers unique insights and visualizes them in a way that's most useful for their operations. As a reminder, not every data point or collection of points is relevant to every team.

Customer service analysis

The customer service team explores data related to user queries, complaint resolutions, and feedback scores to improve user interactions, and enhance support related to the app launch. They create a dashboard with a bar chart comparing the number of complaints versus resolutions, along with the average feedback score from users, and a queue of tickets for user queries. The customer service team uses the insights from the dataset to optimize their service processes and improve customer satisfaction. These insights also help the customer

service team ensure a positive user experience related to questions, comments, and concerns about the app.

Marketing strategy development

Using the same dataset, the marketing team gains insights on user purchasing behaviors, the performance of various marketing channels, and user segmentation to fine-tune their marketing strategies and campaigns promoting the app features. The marketing team creates a report detailing average engagement from the company website and social media, and advertising spending across marketing channels. The report also includes a regional map to display average downloads around the world.

In this example, both the customer service and marketing teams are interested in data points involving the users, but each team has its own unique point of view, with different needs from visualizations created from the insights.

Product enhancement insights

The product development team is interested in data involving app usage, reported issues, and feature requests. The team creates a dashboard including the average time spent on the app, the top three reported issues, and a chart of most requested features. These data points drive their product development plans about app enhancements, updates, and new feature developments. Both the product development team and the customer service team are concerned with elevating the user experience, but in this case, it's related to the app.

Key takeaways

A single dataset can reveal a variety of insights that can meet the specific needs and objectives of many different teams. Different departments like customer service, marketing, and product development can use the same dataset to extract specific insights that impact their operational strategy. These insights can then be used to create powerful visualizations for teams to align their operational strategies with their organization.

Resources for more information

Review this resource to learn more:

- Learn everything you need to know about exploratory data analysis, a method used to analyze and summarize datasets: What is exploratory data analysis?