Project Management Data Dashboard for a Health Insurance Provider Mayura Kumar Grand Valley State University

Abstract

A data dashboard is an information management tool that visually tracks, analyzes and displays key performance indicators, metrics and key data points to monitor a business process. Data dashboards can be adapted to meet specific needs. Behind the scenes, a dashboard connects to data files or services, but on the computer screen it displays this data in form of tables, line charts, bar charts and gauges. A data dashboard is the most efficient way to track multiple data sources in real time. It provides a central location to monitor and efficiently analyze performance.

The purpose of this project is to develop a dynamic data dashboard with the intention of highlighting organizational and team data on a daily basis for a local health insurance provider. Teams typically have several people working on a variety of projects and this dashboard highlights all the projects that a particular team has worked on as well as the budgeted cost for a particular project. It is also connected to a live extract to ensure the highest form of accuracy.

Methodology

PROCEDURES: For the dashboard, data was accumulated for all the projects and team resources as well as the links between them which includes the number of hours, the budgeted cost per month and other related information. The data is a view that was created in SQL and was then integrated with the TableauTM software. The end user of this dashboard was involved in the entire project phase for the dashboard. The end user elicited the requirements of the dashboard per the business need. The requirements were then integrated with findings from various articles on usability of dashboards to thus build an effective data dashboard.

DESIGN: The end user's requirements were first documented. After that was achieved, the data was collected based on the specified requirements. The data included the list of employees and contractors, the projects that the team resources have been working on as well as their hours and the budgeted cost. After the dashboard was built, the last thing that was done was to validate the dashboard to ensure the quality of the data. This step was crucial as it is important to be able to ensure that the dashboard that is being viewed is of the highest form of accuracy.

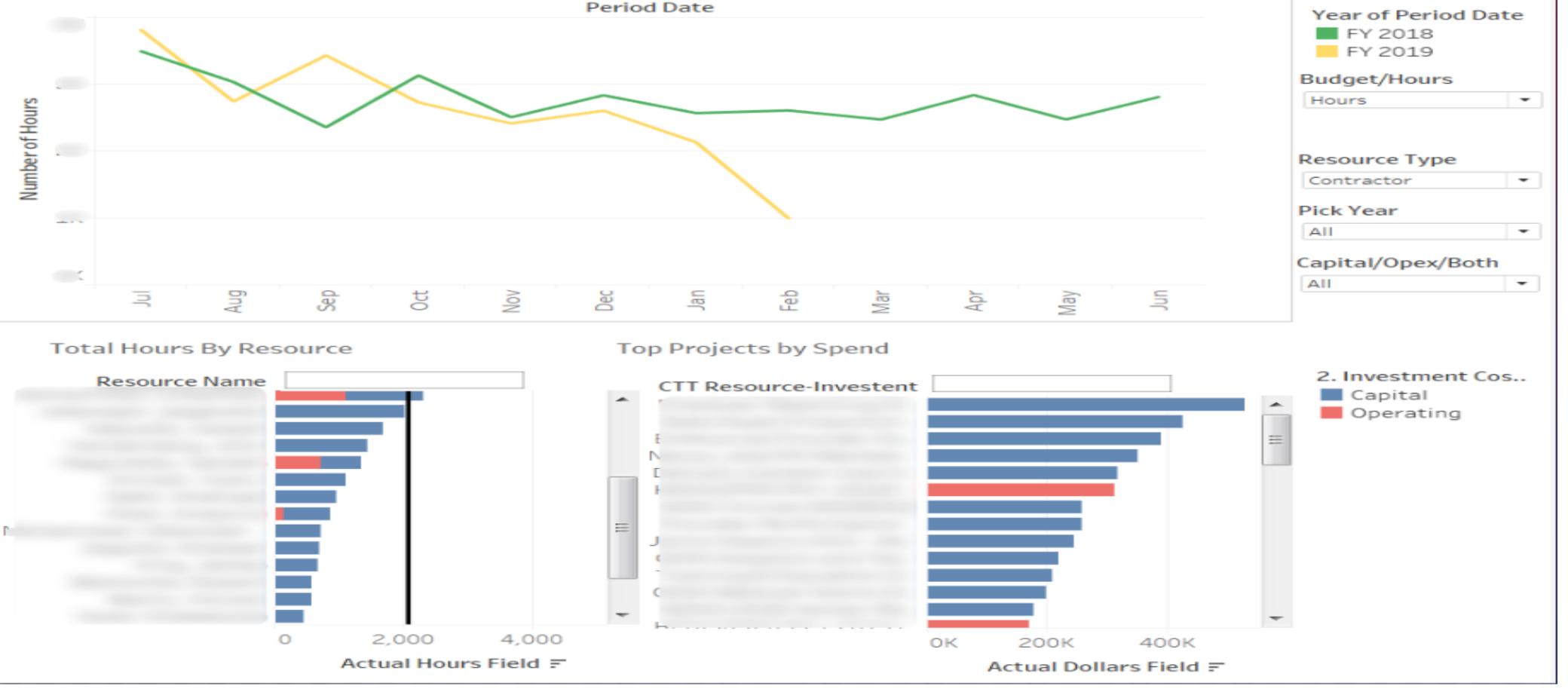
OUTCOME: This project focusses on serving the needs of business users and leadership. It will be integrated into the everyday use of project management for the organization. The usage of visualizing this data goes beyond just the immediate leadership. It helps in viewing a high as well as low level detail of the team resources and team projects. This in turn, helps further project analysis. It will also help people defend our team if the need arises.

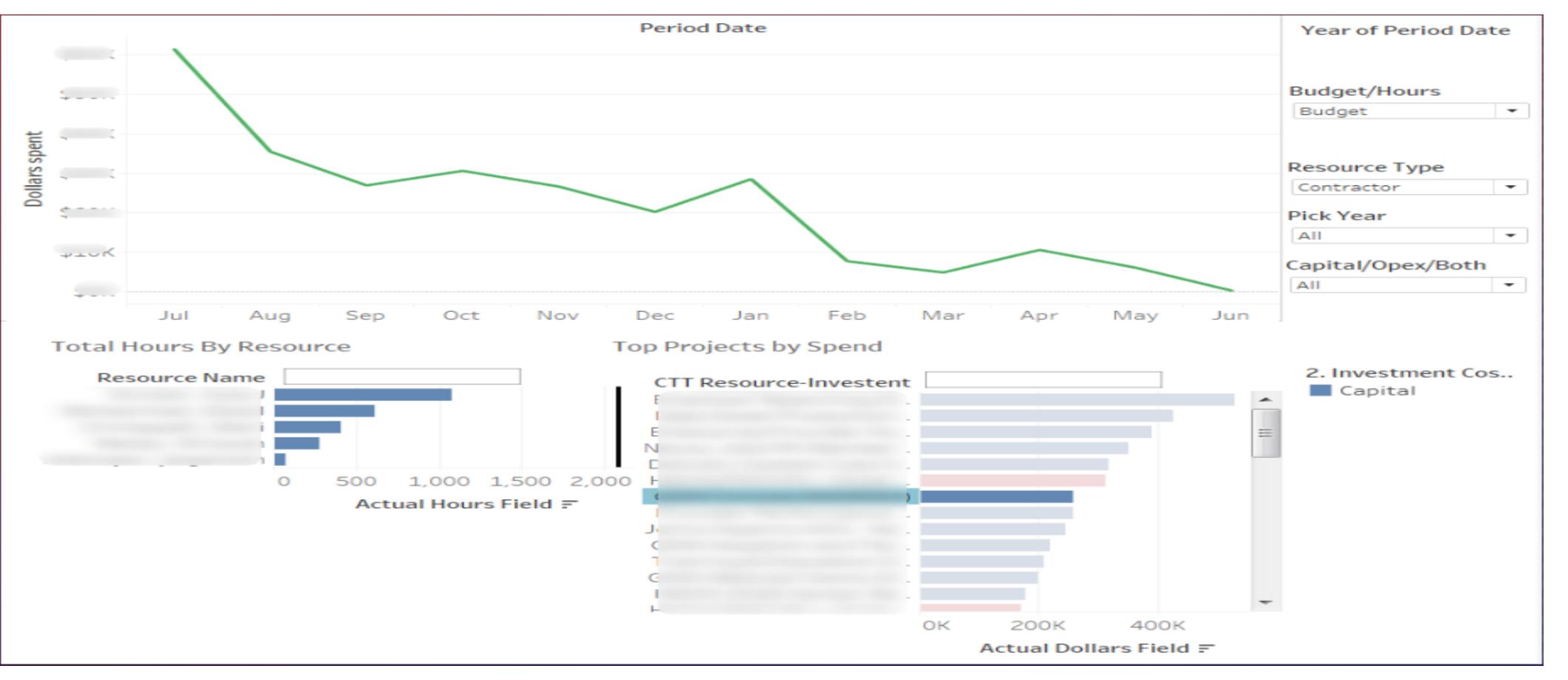
IMPACT: This dashboard helps users analyze and view all the resource and project information and thus support a more efficient project management environment.

Acknowledgement: I would like to thank Prof. Guenter Tusch for guiding me throughout the duration of this project. I would also like to thank Courtney Dowdle, Manager, Spectrum Health for his valuable inputs.

Data Dashboard









How many hours has resource A worked for the fiscal year 2018?

With the various filters available, one can easily search for the resource's name in the search box provided. If the user clicks on the resource's name, the projects that the resource has worked on will show up. It will also show us a graph of the budgeted cost by month and the hours spent by month. This feature thus helps not only leadership but also project managers to manage project resources and budgeted costs.

How have contractors impacted the budget of this team for the fiscal year 2019?

Typically companies have contractors assigned to projects and need to understand those costs separately. By selecting a contractor only view, this dashboard highlights all the projects that have resources as contractors, lists all the contractors, their hours & budgeted cost and other essential information. You can also pick a fiscal year or whether it is capital or operational in addition to the employee type.

For Project B, how many resources have logged hours towards it? Accordingly, what was the budgeted cost for that project?

By selecting a project name, it highlights all the resources that have worked on that project, the hours and the budget. It is also possible to search for a project name in the search box given. A higher level of detail is obtained when you click on both the resource name and the project. This thus could be a good starting point for further analysis into the project.