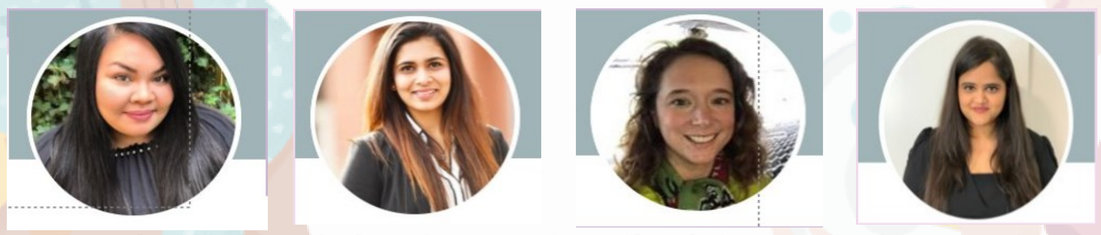
PROJECT INKIND: DATA-DRIVEN SUPPORT FOR LIFE'S CHALLENGING MOMENTS

PROJECT OVERVIEW

Leverage Give InKind data to identify insights that help answer business opportunities that drive "Prosocial Behavior":

- **Where is help needed the most?**
- **What drives virality of support?**

UW MSBA TEAM 4



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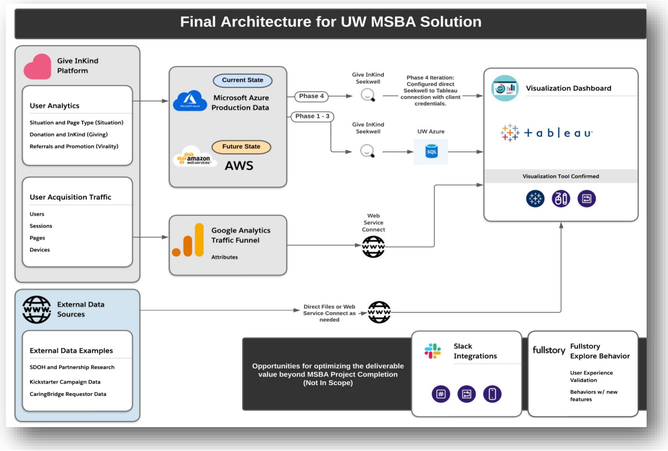
TECHNOLOGY SOLUTION TOOLS

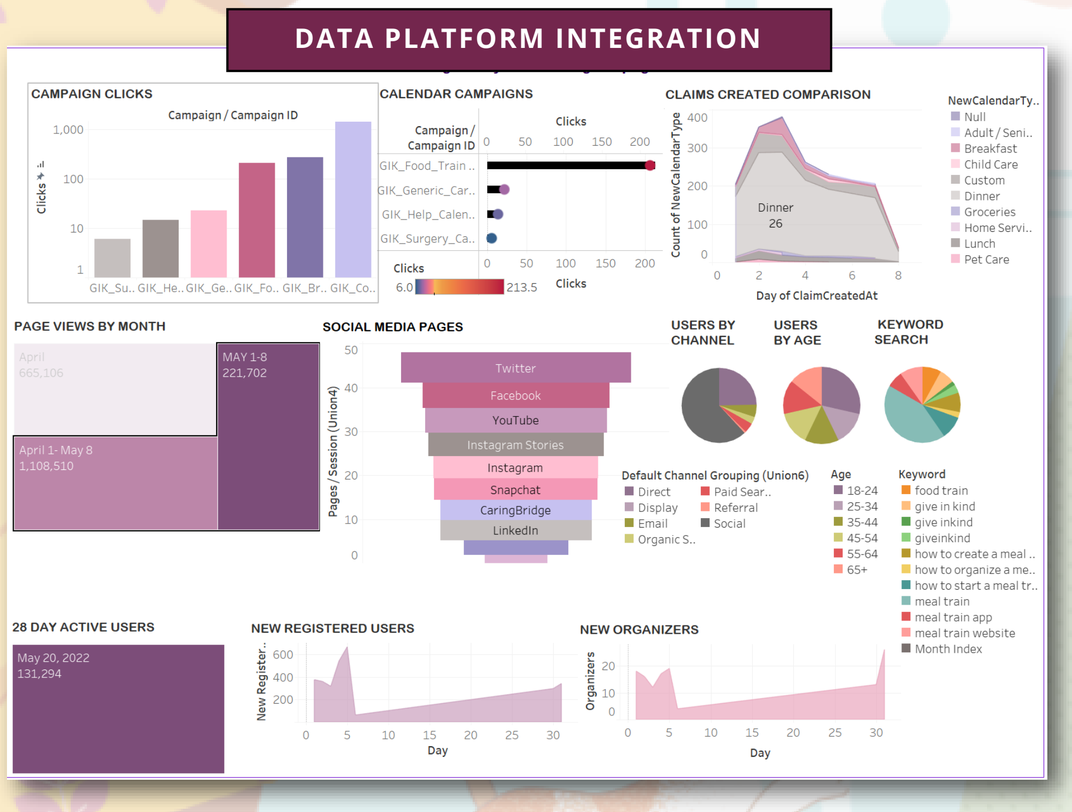
HIGH-LEVEL PROJECT DELIVERABLES



- AUTOMATED DASHBOARDS
- USER ANALYTICS
- EXTERNAL RESEARCH

DESCRIPTIVE & DIAGNOSTIC ANALYTICS

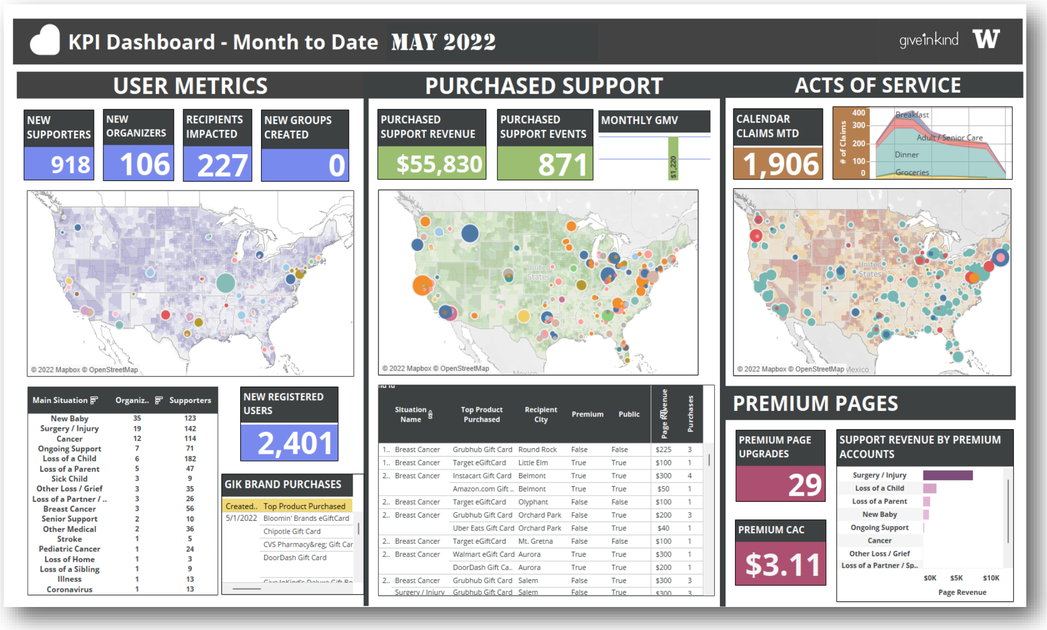
DATA PLATFORM INTEGRATION



Upon leveraging web marketing traffic from Google Analytics, the above dashboard was created by performing unions between Google Sheets in the data modeling window of Tableau. This provides Give InKind had the ability to view data from multiple data platforms in one marketing dashboard, drawing inferences from these visualizations as a tool for measuring the success of online marketing campaigns.

AUTOMATED KPI DASHBOARD FOR OPERATIONS ANALYTICS

The KPI Dashboard solution provides Give InKind the ability to monitor operations analytics and user demographic activity. The data ETL pipeline was sourced from a SQL-based tool called Seekwell, which the team queried desirable data for operational needs. Analysis efforts detailed below were applied to confirm tangible and intangible prosocial support insights as illustrated on the KPI Dashboards.

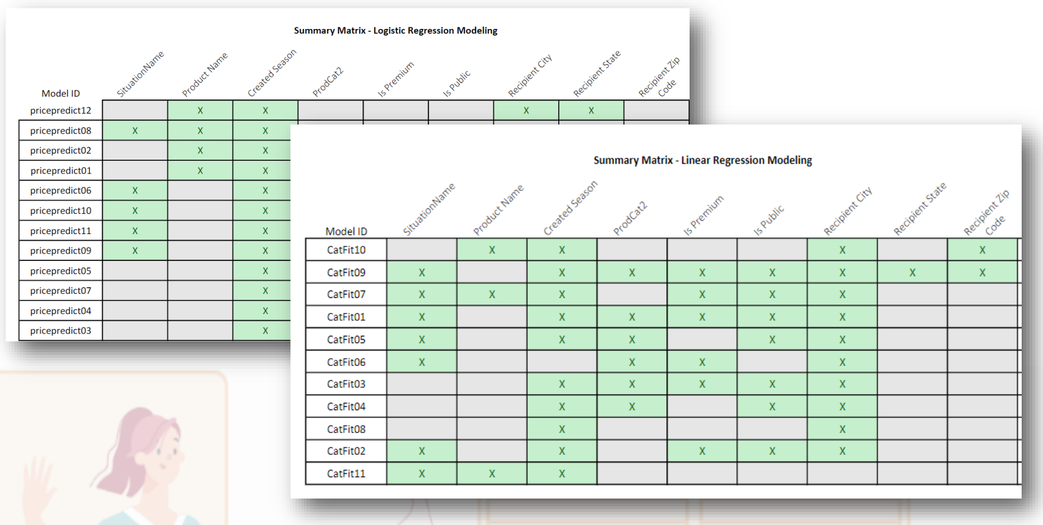


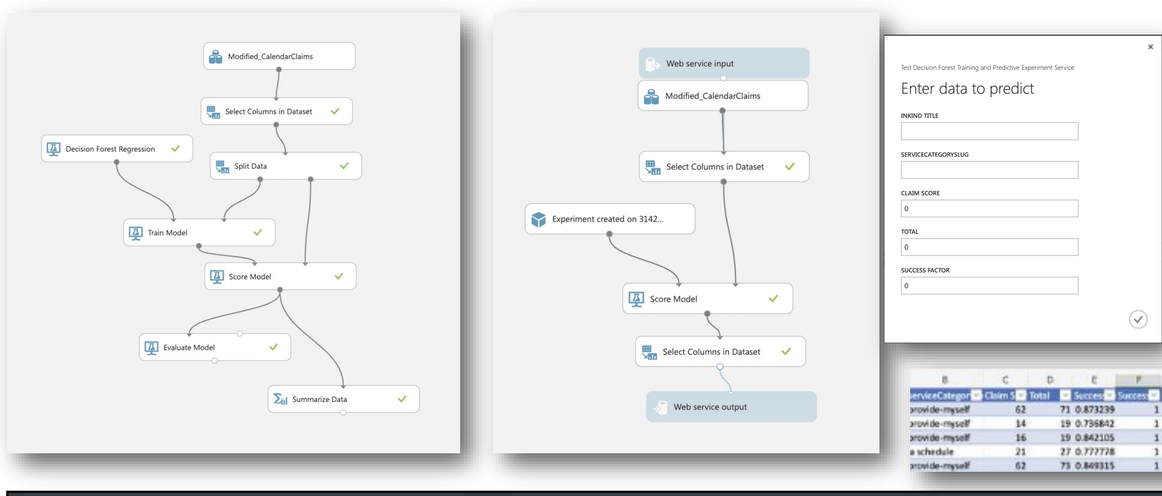
PREDICTIVE & PRESCRIPTIVE ANALYTICS

INTANGIBLE PROSOCIAL SUPPORT MODELING

Give InKind's platform of coordinating support during times of crisis has a dual focus on tangible and intangible acts of prosocial behavior. When measuring intangible prosocial support, a logistic regression model with a bagging method for outliers suggested a correlation between dinner, home services, custom, and pet care and a successful campaign. A Naïve Bias Classifier with 89% precision and 83% accuracy confirmed this. A Decision Forest calculator was created in Azure Machine Learning and outputs to Excel that predict the success of a campaign based on types of support requested. The calculator predictive results has an 89% accuracy with an RMSE score of 10.

TANGIBLE PURCHASED SUPPORT MODELING





When measuring the results to solve for what drives support or prosocial behavior, both a Logistic and Linear Regression analysis resulted in a parsimonious model proving a relationship between variables such as zip code, premium page, and product names as they relate to tangible prosocial support, considering purchases can be measured quantitatively. Data visualizations were created to help validate these findings and served as a main object within the KPI Dashboard deliverable.

EXTERNAL RESEARCH

The UW MSBA team conducted additional industry, company, and marketing research on prosocial behavior. This analysis offered discovery to comparable platforms like Caring Bridge, Meal Train, Kickstarter, and GoFundMe. The results suggested the value in community-based partnerships like faith organizations, emergency management organizations, health organizations that can be relied upon to build a community of help during crisis. To assist with this recommendations, MSBA Team 4 created a "Partnership Dashboard" within Tableau that contains references to public resources such as the Federal Emergency Management Agency, United States Fire Administration, Veterans Administration, Mega Churches, and US Census.