

Amway - 2025

Evaluating the Impact of Scientific Claims on Product Sales Using AI and A/B Testing

Background

Nutritional supplements can leverage three types of claims: health claims, nutrient content claims, and function claims. These claims serve as key selling points, helping to increase sales and attract new customers to our product catalog. By analyzing the current claims used by our products and assessing their impact on market sales, we aim to measure the business value generated by each claim.

Project Scope

The objective of this project is to identify the claims that drive the most business value in terms of sales relative to overall market performance. The focus will be on the Nutrition business line in the top ten Amway markets, utilizing sales data from the past two years, aggregated by product number and market. Claims data will be sourced from the Claims Substantiation Reports (CSRs) provided by the regulatory team. AI models will be employed to analyze the relationship between individual product claims and their market performance, while Generative AI will be used to create concise summaries of the detailed claim content from the CSRs. Additionally, A/B testing may be utilized to isolate and compare differences across markets.

Deliverables

- **Project Presentation:** A comprehensive presentation summarizing the findings and proposed next steps, to be delivered at the end of the semester.
- **Project Documentation:** A detailed document outlining the software tools used, data cleaning and analysis methods, and any assumptions made during the project.
- **Project Code:** Well-documented code used for the analysis.

Additional Questions

- How does the cost of making a claim impact the return on investment from product sales?
- Are there any outliers in the product claims that could skew results?