Alumni Project Roulette: Chevy EV Project

Caroline Maciag

I chose to analyze and review the "2021-12: Electric Vehicles" alumni project consisting of a live R Shiny dashboard. Together, the group of students outlined a data-driven plan for Chevrolet, a division of General Motors, to accelerate near-term growth in all-electric vehicle (EV) market share. The presentation clearly and effectively laid out the problem context, data sources, methods and approach, core findings, forecasting analysis, and overall recommendations. The live application seems to be a very strong visual aid– operationalizing the analysis by letting users explore EV and charging-station trajectories by geography.

The core business challenge is framed very efficiently as well, showing how the industry recovery and rising consumer interest in alternative-fuel vehicles have created a window to gain share in EVs. The team outlines two external factors that give Chevy a chance to grow. First, the 2021 Infrastructure Investment and Jobs Act- which sets aside $7.5 billion to expand charging stations in underserved communities. Second, Chevy's favorable pricing in comparison to other EV's (such as Tesla Model 3). With this context, the alumni had some great core questions: First, how does charging infrastructure affect EV sales and Chevy's share, especially in less-affluent areas? Second, where would new chargers most boost GM's share? And lastly, which demographic factors, aside from income and charging access, best define Chevy's EV customer base?

I found their project overall to be very efficient thinking about it from a client perspective. I especially enjoyed playing around with the Shiny app. The only addition I could think of would be tying the forecasting results to regional dealer priorities, or in other words

highlighting which counties are projected to see the fastest growth in Chevy EV share so managers know where to focus their efforts. This small suggestion would make the already strong analysis even more actionable. Nonetheless, I was very impressed with this group's work on this project, and hope to take some inspiration from it for my group's current project.

While my group has already committed to a renewal-forecasting project for Elara Health (fictitious company based on a real healthcare company), seeing the Chevy EV project sharpened how I think about scoping and framing. The Chevy team focused on a very specific, high-value business outcome rather than metrics like total EV adoption. For our project, this reinforces the importance of keeping our goals closely connected to business decisions (i.e.- predicting renewals and timing in ways that directly support revenue forecasting and staffing alignment). Overall, I would say that the alumni project analysis did influence my own group's project, especially in its purpose and ensuring our deliverables are actionable for stakeholders.

Since our team is already assembled for the Elara Health project, I wouldn't say that reviewing this alumni project helped with project group assembly. However, the Chevy project gave me more confidence that my team has a really good balance of skills that will work great in combination. I was impressed by how the alumni group assigned roles for each member, and further on combined analytics, segmentation, and visualization into a cohesive package. I'm glad to have partnered with classmates whose expertise spans data cleaning and feature engineering, predictive modeling, clustering methods, and dashboard or app development and extensive monitoring skills. This mix of skillsets mirrors the cross-functional approach of the alumni group, so I am reassured that we will have a strong final project like theirs.