Introduction

**About USAA:**
Established in 1922, USAA is a leading provider of insurance, banking, and financial services to over 13 million United States military members, veterans, and their families. Their mission is to empower their members to achieve financial security through highly competitive products, exceptional service and trusted advice. They seek to be the #1 choice for the military community and their families.

**Goals:**
Given a set data, we want to analyze phone & digital channel member activity, using various methods, to increase customer efficiency, identify trends, and explore external factors. In doing so, we develop greater accuracy to explore hypotheses and focus on investigation of statistical methods, regression, and factor analysis.

Research Methodology & Work

- Binary Model Team
- Import Necessary Packages
- Clean & Merge Dataframes
- Determined Useful Columns
- Designed Model
- Split Data into Training (~80%) and Test (~20%) Data
- Created Intelligible Visuals
- Showcasing Data
- Refined Model to Increase Accuracy & Incorporated into Exhibition

Conclusions & Future Goals

- Identified trends that are applicable to members of USAA
- Explored methods to increase efficiency in customer support
- Considered how external factors affect members relationship with USAA
- Investigated differences in channel usage (mobile app, phone, internet) and how these can be leveraged to increase customer activity & make USAA more financially efficient

During our Project, We:

- Identified trends that are applicable to members of USAA
- Explored methods to increase efficiency in customer support
- Considered how external factors affect members relationship with USAA
- Investigated differences in channel usage (mobile app, phone, internet) and how these can be leveraged to increase customer activity & make USAA more financially efficient

Data Visualization & Insights

- **Property and Casualty Insurance Purchase by Marital Status**
- **The Property and Casualty Count for age groups. A large spike can be seen around age 20, which can be because many users buy property like a home or a car at this age and need to insure it.**

Binary Model:

- **Using XGBoost in Python, we were able to develop a binary model that used customers' age, marital status, and opportunities (number of sessions with USAA) to predict if USAA customers will purchase Property and Casualty Insurance with over a 75% success rate.**

References & Acknowledgements

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