sound credit union

Team B4

W CENTER FOR BUSINESS ANALYTICS
UNIVERSITY *of* WASHINGTON | TACOMA

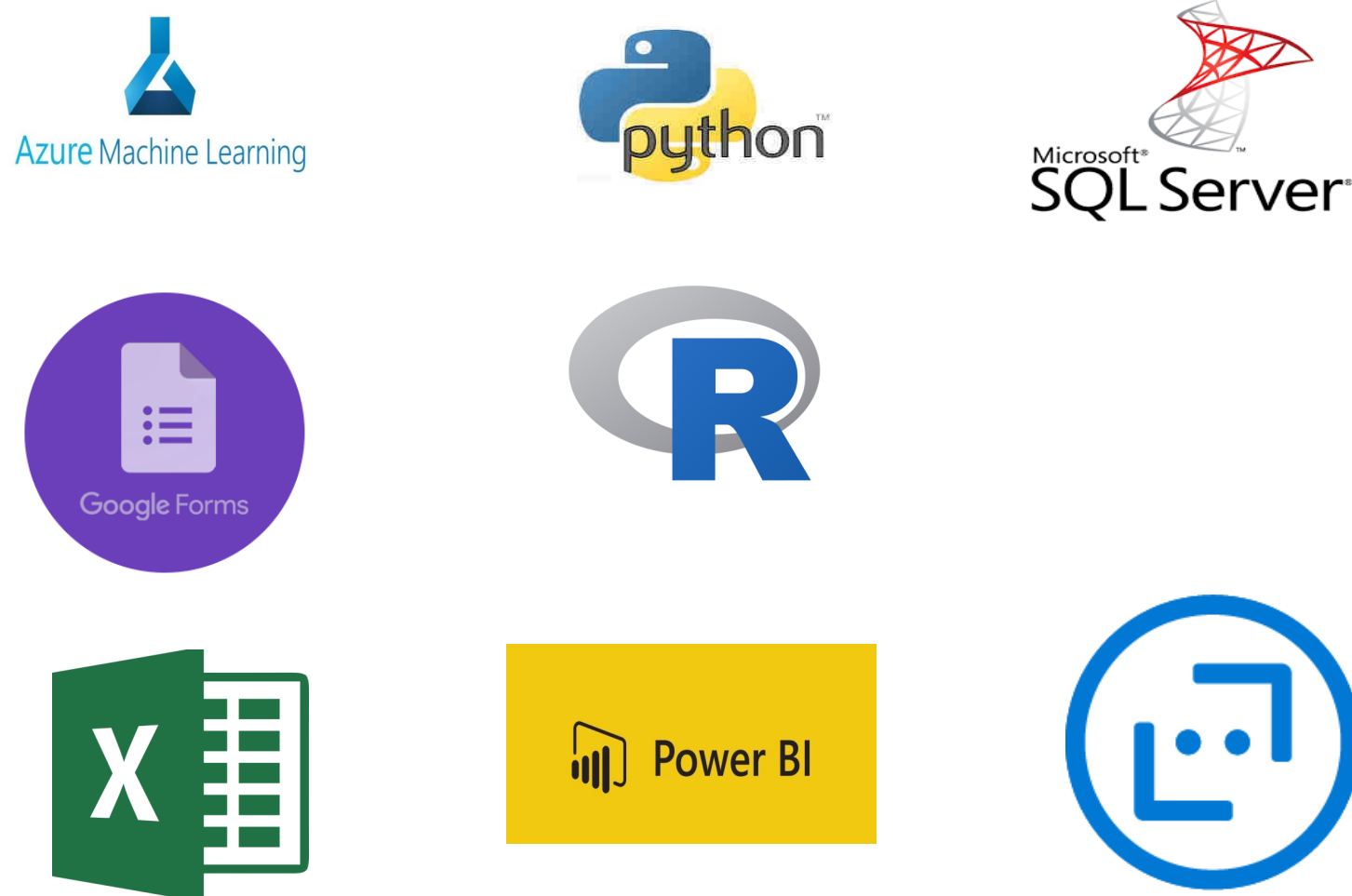# Sound Credit Union: Forecasting Checking Accounts

Trevor Davia	Nirupa Kalathur	Archana Gunthala	Manbir Gill	Ernest Holdbrook-Smith
Tdavia@uw.edu	Nirupak@uw.edu	arcreddy@uw.edu	mgill98@uw.edu	Holdbe@uw.edu

Data Tools & Techniques

Azure Machine Learning · python · Microsoft SQL Server · Google Forms · R · Excel · Power BI
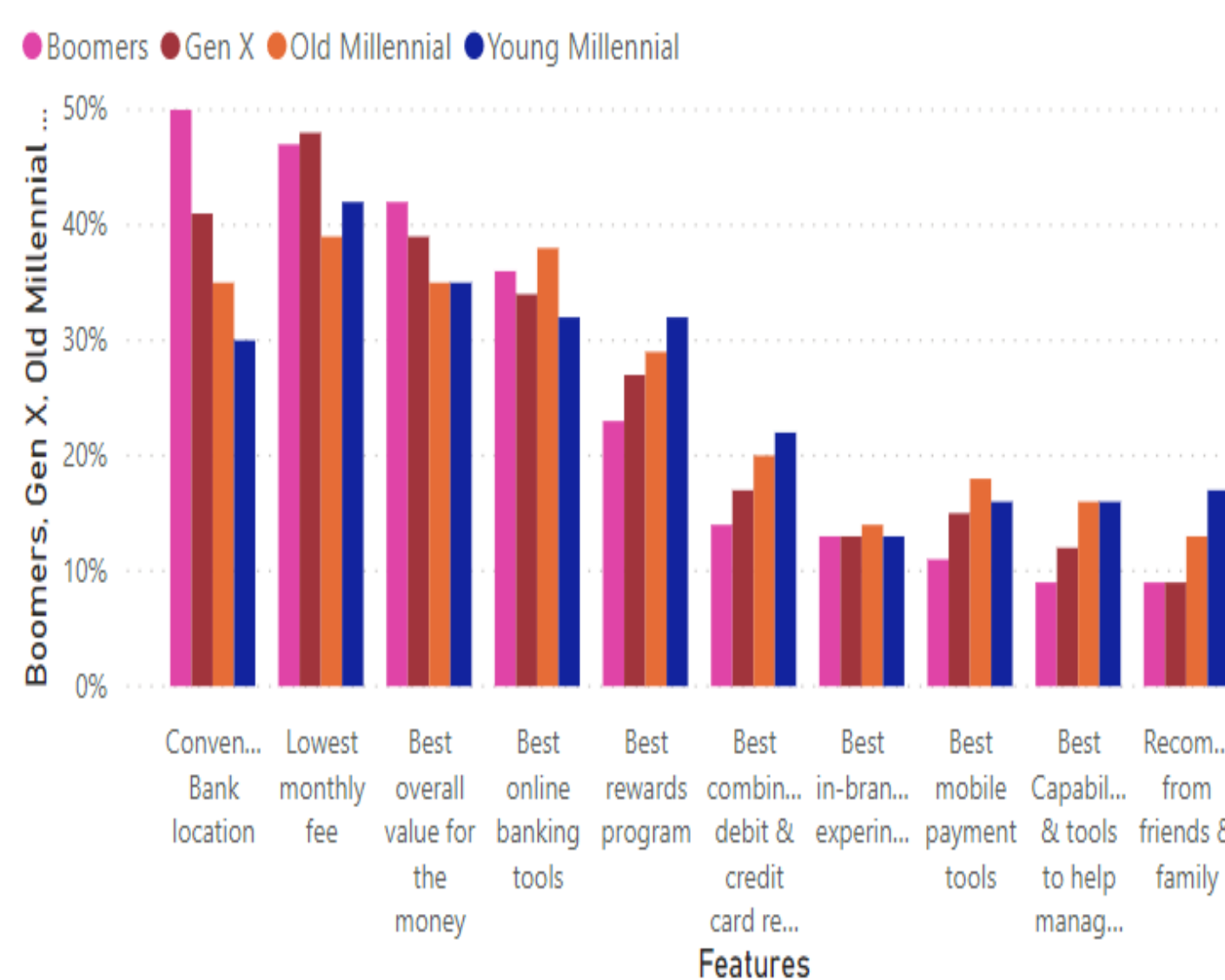
Project Background: Increase the member base of millennials and generation Z in the retail banking sector and look to significantly expand its checking accounts portfolio to include this demographic by investigating what banking incentives and services are most attractive to this cohort.

Project Objective: Conduct an investigative market research analysis and create a prescriptive analytical model using intelligent software to predict which type of account and associated features is a prospective banking member most likely to choose based on their banking preferences and needs.
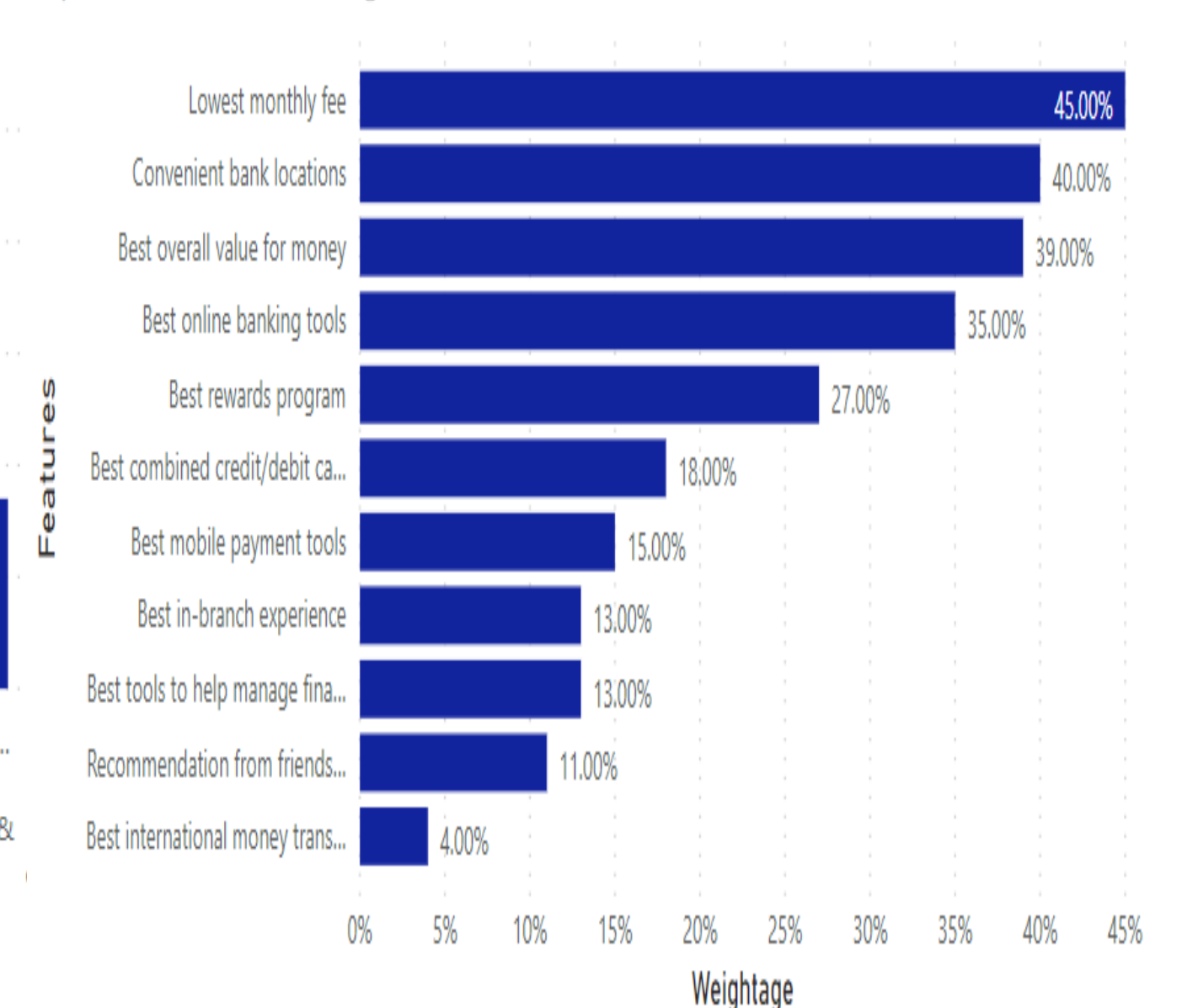
Descriptive & Diagnostic Analytics

- Goal was to identify what banking incentives are the most attractive to Millennials and Generation Z?
- Used the Power BI visualization software to analyze different checking accounts and demographic information.
- Created a set of feature analytics broken down in different sectors by demographics, fees, balances etc.

Boomers, Gen X, Old Millennial and Young Millennial by Features

Top features for new checking accounts

Feature	Weightage
Lowest monthly fee	45.00%
Convenient bank locations	40.00%
Best overall value for money	39.00%
Best online banking tools	35.00%
Best rewards program	27.00%
Best combined credit/debit ca...	18.00%
Best mobile payment tools	15.00%
Best in-branch experience	13.00%
Best tools to help manage fina...	13.00%
Recommendation from friends...	11.00%
Best international money trans...	4.00%

Predictive & Prescriptive Analysis

- Utilized Azure's machine learning environment
- Inputs that attributed to the predictive model included FICO score, Zip code, Income, Age etc.
- Multiclass decision jungle algorithm worked best for our model.
- Google forms served as the basis to form our checking account survey.
- Top 3 features identified were online/mobile banking, higher dividends, and accounts with rewards programs built in.

Cognitive Analytic Approach

- Developed a Chatbot application that can accurately predict and recommend a checking account type based on consumer inputs and historical recommendations.
- Word Cloud generated showed similar trends amongst the qualitative data.

Summary & Recommendations:

- Millennials are drawn towards free or no maintenance accounts, rewards programs and online/mobile banking features.
- The member survey in conjunction with the chatbot functionality will create a more personalized experience and also benefit people looking to open a checking account with Sound.
- By tailoring responses to create a best match fit for millennial's needs and lifestyle when it comes to their finances and banking, there is an added benefit while attracting this member base.