**Maven Analytics Coffee Challenge**

**Project Title:** Great American Coffee Taste Test: Consumer Preferences Insights

**Project Goal:** Utilize insights from "The Great American Coffee Taste Test" to develop a comprehensive data-driven strategy for the investors' entry into the US coffee market. This entails identifying the target audience and their preferences, determining the optimal product offerings in terms of coffee beans and drinks, and formulating a pricing strategy aligned with customer value perception. The ultimate aim is to provide actionable recommendations that will enable the investors to successfully launch their first coffee shop and capture a significant share of the market.

**The project steps included:**

1. **Data Acquisition**: The initial step involved downloading the dataset from the Maven Analytics website.
2. **Dataset Importation**: Following data acquisition, the dataset was imported into Power BI.
3. **Exploratory Data Analysis:** Various exploratory data analysis (EDA) techniques were applied to understand the data's quality, structure, and distribution,
4. **Data Cleaning and Preparation:** To ready the dataset for analysis, extensive steps were required. These included creating new queries and helper tables (for data extraction and manipulation), unpivoting, grouping, changing column names, and value replacement to ensure compatibility with charts. Additionally, a new index column: Response\_ID was introduced to resolve case sensitivity issues. Data cleaning measures were also implemented to enhance integrity, such as changing data types, addressing missing values, and correcting misspellings.Top of Form

To maintain data integrity and provide a more comprehensive representation of the dataset, blank values were replaced with 'Unspecified' instead of being removed. For example, in the 'Satisfaction at Cafes' category, this adjustment resulted in a satisfaction rate of 51%, which better reflects the majority sentiment than the initial 59% obtained by removing blanks.

1. **Data Modelling**: To facilitate analysis and visualization, new and helper tables were connected to the main table.
2. **Comprehensive Analysis**: Leveraging Data Analysis Expressions (DAX) measures, a comprehensive analysis was conducted to generate new insights and enhance analytical capabilities.
3. **Report Design**: A single-tab report was designed to effectively communicate insights. The canvas size was customized to accommodate numerous visuals and insights. Additionally, a custom theme inspired by coffee colours was applied, along with a background image, to enhance the report's aesthetics.

**Key Findings:**

1. **Target Audience**: The largest demographic is between 25-34 years old, followed by those aged 35-44. Predominantly, coffee consumers are male, constituting 62% of respondents, with females at 21%, Unspecified – 13%. The Other group includes Non-binary, Prefer not to say and Others.
2. **Education and Employment**: Respondents with Bachelor’s degrees form the largest group – 44%, followed by those with Master’s degree – 18%. 67% of respondents are employed full-time, with students and part-time employees each comprising 5%. The Other group includes Retired - 2%, Homemaker - 2% , Unemployed - 3%, Unspecified group -15%.
3. **Coffee Consumption Habits**: 41% of respondents prefer to drink 2 cups of coffee daily, following 1 cup group – 32%. The top five favourite coffee drinks include Pour over (27%), Latte (17%), Regular drip coffee (11%), Cappuccino (8%), and Espresso (8%).
4. **Location Preference**: 90% of respondents drink coffee at home, while 35% consume it at the office, 29% at a café, and 17% on the go. Notably, Pour over (57%), Espresso (38%), and French press (18%) are favourite drinks at home.Despite their preference for Latte and Cappuccino, respondents tend not to brew these drinks at home possibly due to time, equipment, or skill constraints.
5. **Caffeine Preference**: A significant majority (91%) prefer full-caffeine coffee, with 5% opting for half-caffeine and 3% for decaf.
6. **Coffee Taste Preferences**: Fruity flavour is the most preferred (24%), followed by chocolatey (16%), full-bodied (12%), bright (9%), and nutty (8%). Most respondents favour very strong (11%) or strong coffee (46%), while 37% prefer medium roast.
7. **Blind Coffee Test**: Among blind coffee tests, Coffee D emerged as the top preference, followed by Coffee A. Coffee D scored highest in personal preferences (AVG 3.36 out of 5), Acidity (AVG 3.86 out of 5) and lowest in bitterness (AVG 2.16%).
8. **Coffee Budget:** In terms of coffee budget, 27% of respondents typically spend between $6 and $8 per cup of coffee, with the next most significant group paying $8 to $10 (25%). Most respondents find it reasonable to pay $8 to $10 (22%) for a cup of coffee, followed closely by those willing to pay $10 to $15 and those willing to pay $6 to $8 (16% each group). Regarding monthly expenditure, 32% of respondents allocate between $20 and $40 for coffee, with the $40 to $60 group following closely behind (26%). Additionally, 51% of respondents believe they are receiving good value for money at cafés.

**Recommendations for investors:** Based on the data-driven analysis of the coffee consumption preferences among respondents, here are some key recommendations for investors opening their first coffee shop:

1. **Café Opening Strategy**: Focus on 25-44 year-olds in urban areas, selecting spots near offices or trendy neighbourhoods to appeal to educated professionals.
2. **Product Offering**: Highlight top five drinks: Pour Over, Latte, Regular Drip Coffee, Cappuccino and Espresso. Focus on drinks like Latte and Cappuccino, favourites that are less commonly brewed at home. Invest in hiring and training skilled baristas who can consistently deliver these high-quality beverages.
3. **Coffee Selection**: Source quality beans with fruity and chocolatey flavours and prioritize light and medium roasts.
4. **Promotions**: Offer promotions on preferred coffee drinks like Pour Over and Espresso, and introduce offers on trending drinks like Iced Coffee or Diet Cappuccino to attract a diverse clientele.
5. **Capitalizing on Complex Flavours**: Feature Coffee D-like flavours, known for their sharp acidity and mild bitterness to tap into the market's desire for rich, complex coffee profiles.
6. **Price Strategy**: Emphasize the $8-$10 price range, offering additional options in the $6-$8 and $10-$15 ranges to cater to a broader audience. This approach aligns with customer satisfaction and takes into account their typical monthly coffee expenditure of $20-$60.

**In summary**, by implementing these recommendations, investors can maximize their chances of success in the competitive coffee market while catering to the preferences and expectations of their target audience.