Black Friday Project Data Summary

Executive summary report

OVERVIEW

This project involves analyzing a dataset of Black Friday sales to uncover key insights into customer behavior, product performance, and market trends. Using Python libraries like Pandas, Numpy, and Seaborn, the analysis focuses on demographics, purchasing patterns, and multi-variable relationships to provide actionable insights. Visualizations such as pie charts, bar plots, and count plots are used to highlight trends in age, gender, marital status, occupations, and product preferences, helping businesses optimize their strategies for maximum impact.

PROJECT STATUS

- Explored dataset to find any unusual values.
- Dataset exploration and cleaning have been completed, with null values handled effectively.
- Individual and multi-column analyses, including demographics (age, gender, marital status) and product performance, have been successfully conducted..
- Built the groundwork for future exploratory data analysis, visualizations, and models.

NEXT STEPS

1. Conduct a complete exploratory data analysis.
2. Perform any data cleaning and data analysis steps to understand unusual variables (e.g., outliers).
3. Use descriptive statistics to learn more about the data.

KEY INSIGHTS

- Male customers contribute significantly more to purchases than females, with younger age groups driving the majority of sales
- Certain product categories and occupations exhibit higher purchasing frequencies, indicating targeted marketing opportunities.
- Combining demographic variables like gender and marital status provides deeper insights into customer preferences and behavior.
- Unmarried individuals account for 60% of the dataset, showing higher purchasing activity compared to married individuals.