Bias Detection Report

Analysis of Distribution Bias in "Status of existing checking account"

The Chi-Square test was conducted on the "Status of existing checking account" feature to assess distribution bias. The results are as follows:
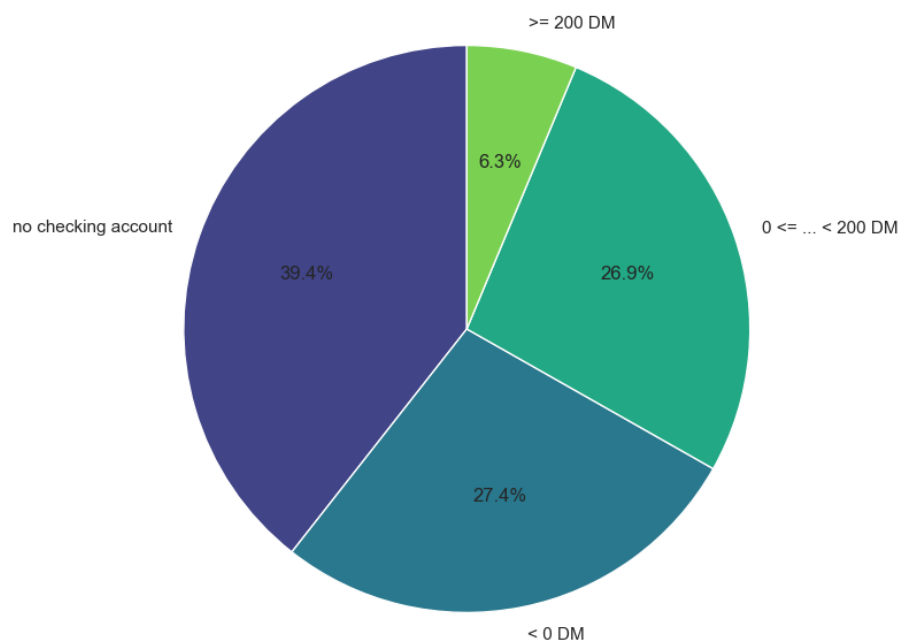
- Chi-Square Statistic: 226.57

- p-value: 7.64e-49

These results indicate a significant deviation from the expected uniform distribution, suggesting an extreme bias in the distribution of checking account statuses.

Visualization of the distribution was attempted through both bar and pie charts. The pie chart successfully illustrates the distribution of account statuses:

Bar Chart of Status of existing checking account

The pie chart visually confirms the statistical findings, showing a clear imbalance in the representation of different account statuses.

Conclusion:

Based on the analysis, the "Status of existing checking account" feature shows extreme bias. This may impact the fairness and reliability of any analyses or decisions based on this data. It is recommended to investigate the causes of this imbalance and consider approaches to mitigate its effects.