# **SAMI AI ADVANCED ANALYTICAL TOOL - Executive Summary**

#### **Data Understanding**

- Auto-detect data types (categorical vs. numerical).
- Describe distributions (mean, median, mode, etc.).
- Identify missing values and data quality issues.
- Generate summaries for quick profiling.

### **Visual Analysis**

- Charts: bar, line, pie, histograms, scatterplots.
- Correlation heatmaps and outlier visuals.
- Trend and category breakdowns for easier exploration.

### **Advanced Analysis**

- Correlation matrices (Pearson, Spearman).
- Outlier detection and anomaly flagging.
- Segmentation summaries (e.g., K-means clustering prep).
- Time series trend decomposition (seasonality, trends).

## Al-Enhanced Insights

- Plain-language summaries of data trends and patterns.
- Detect unusual behavior or standout segments.
- Recommend next steps (e.g., hypothesis testing, deeper dives).

## File Handling

- Supports .xlsx, .csv, .xls file formats.
- Auto-detects and previews multiple Excel sheets.
- Handles large structured or semi-structured datasets.

# Typical Use Cases

- Brand imagery and perception analysis.
- Concept testing evaluations.
- Customer satisfaction and behavior analysis.
- Survey and tracking data analysis.
- Business performance dashboards and presentations.