# Data Analysis & Interpretation

## OUTLINE

### SESSION 1: Evolution of Data Analysis & Changing Expectations

- What data-driven decision-making means with real world examples
- Insights and Research professional as Investigator, Interpreter, Integrator, and Inspirer
- Becoming data fluent, a.k.a. the power of accessing and analyzing many types of data for a 360 view
- Techniques are evolving, and continue to be based on the fundamentals
  - Data Analyst ⟶ Business Strategist
  - Data Analyst ⟶ Data Scientist
  - Statistics ⟶ Machine Learning
- A how-to guide to turn data into actionable insights
- Applied exercises

### SESSION 2: Wrangling the Data (Capturing, Cleaning, Configuring, & Connecting Data Sets)

- Types of quantitative data (nominal, ordinal, interval, ratio)
- Handling outliers & missing values
- Weighting quant data
- Working with secondary data
- Introduction to more complex data sets
- Linking data sources
- Working with unstructured text e.g. open ends
- Blurring of lines between qual and quant data
- Synthetic responses 101
- Applied exercises

OUTPUT: CLEAN DATA SET

### SESSION 3: Uncovering What the Data Means

- Avoiding common errors in analytical procedures
- Reading frequency distributions and crosstabs
- Interpreting descriptive statistics to summarize data
- Interpreting significance testing to assess differences, linked to familiar methodologies, e.g. concept testing
- Practical challenges in trending data, pre v post, linked to familiar methodologies, e.g. brand tracking
- Difference between statistical and business significance
- Determining relationships with multivariate analyses, e.g. when to use factor, cluster, regression analyses linked to familiar methodologies, e.g. segmentation
- Data visualization for interpretation
- A starter guide for tapping into AI for data analysis & interpretation
- Applied exercises

OUTPUT: FINDINGS

### SESSION 4: Putting the Puzzle Pieces Together

- Adding perspective, i.e. the importance of context
- Triangulation of sources e.g. Integrating and reconciling data from different sources (primary and secondary data)
- Linking to strategy and business outcomes
- Communicating insights for greater impact
- Measuring insights' value
- Applied exercises

OUTPUT: INSIGHT & ACTION

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