Expertise and tools

Tools used and why MFO Consulting use it

Different software tools are used to handle specific tasks (e.g. some for statistical testing, some for modeling and simulations, and others for creating clear visualizations). This ensures results are accurate, understandable, and actionable for strategic decisions.

Task	Software	Explanation
Statistical analysis	SAS JMP, R, Python, SPSS, GraphPad Prism	Performs statistical tests, cleans and organizes data, identifies significant differences.
Modeling and simulation	R, MATLAB, Phoenix WinNonlin, NONMEM, MOE	Simulates outcomes, predicts responses, and supports compound optimization or treatment strategies.
Data visualization	GraphPad Prism, R, MATLAB, PowerPoint, Canva, Adobe Illustrator	Transforms results into clear graphs, figures, and visuals for reporting and decision-making.
Behavioral data analysis	ANY-maze, Noldus, MATLAB	Tracks and analyzes animal behaviors to extract meaningful insights.
Clinical study management and analysis	REDCap, OpenClinica, Medidata Rave, SAS Clinical	Collects, manages, and analyzes patient data; supports regulatory-compliant reporting and trial tracking.

How statistical analyses are performed

Statistical analyses are conducted through a structured and rigorous process. First, raw measurements are organized into spreadsheets or specialized software to ensure data are clean and well-structured. The distribution of the data is then assessed to determine whether it follows a normal pattern, which guides the choice of statistical tests. Finally, predictive modeling and scenario simulations are carried out using tools like R, MATLAB, Phoenix WinNonlin, or NONMEM, providing insights that help guide strategic decisions. Contact me at

contact@mfoconsulting.ca for more details on the statistical tests I use and how they can support your project.

How data is presented

Data can be presented in multiple ways to make complex results easy to understand. Clear graphs such as bar charts, boxplots, curves, or heatmaps illustrate trends depending on the type of data. Annotated figures include means, standard deviations, and significance markers for clarity. Predictive models show expected outcomes or treatment effects, while client-focused summaries accompany each visual to explain the implications for decision-making.

Schedule a consultation

If you'd like to discuss how I can support your project with data analysis, modeling, and visualization, please contact me at **contact@mfoconsulting.ca**.