Workshop 01 - Introductory Analytics using TIBCO Data Science Workbench (Statistica) (2 days)

Prerequisite

None.

Objectives

Introducing delegates to:
- Basic Usage of Workbench (Statistica)
- Working with Data and Menus
- Using Analytics Menus
- Working with Graphs & Output
- Automating Frequently Used Tasks
- Asking Analytical Questions from Data
- Aligning Analytical & Data Questions to Business Objectives
- Essential concepts in analytics which are the foundation of most statistical tests
- Descriptive analytics and how to describe data
- Quantifying relations between continuous and categorical variables

Description

This two-day workshop is designed to instruct the student on how to take advantage of the Basic Functionality in Workbench (Statistica) as well as how to take advantage of the various analytical techniques to characterize data and subsequently explore relations between continuous and categorical data.

Outcome

Delegates will leave the workshop with an excellent theoretical and practical understanding of using the Tools available in Workbench (Statistica) as well as applying these in an operational and business context.

Topics*

1. Working with Workbench (Statistica)
   1.1. The Workbench (Statistica) Environment
   1.2. Getting help
   1.3. Data files
   1.4. Handling your data
   1.5. Cleaning your data
   1.6. Using formulae
   1.7. Handling output
   1.8. Exporting data
2. Graphs & exploratory graphic tools
   2.1. Graphs of input data
   2.2. Graphs of block data
   2.3. Graphs menu
   2.4. Auto-updating graphs
   2.5. Creating compound graphs
   2.6. Annotating graphs
   2.7. Customising graphs
3. Workbench (Statistica) Visual Basic
   3.1. SVB analysis macros
4. Analytical Questions & Business Alignment
5. Essential concepts in analytics
6. Descriptive analytics for continuous variables
   6.1. Measures of location
   6.2. Measures of variation
   6.3. Measures of distribution shape
   6.4. Measures of ranges
   6.5. Assessing normality
7. Relations between continuous variables
   7.1. Correlations
8. Relations between categorical variables
   8.1. Frequency tables
   8.2. Cross tabulation
   8.3. Chi-square test
9. Relations between continuous and categorical variables
   9.1. t-tests
   9.2. Breakdown tables
   9.3. One-way ANOVA
10. Analysis of non-normal data (nonparametric methods)
   10.1. Nonparametric descriptive analytics
   10.2. Comparing 2 independent samples
   10.3. Comparing 2 dependent samples
   10.4. Comparing multiple independent samples

* Note that the list of topics covered may vary slightly depending on the nature of the business questions to be answered, and the content of the supporting data supplied by the delegates

11:00 – 11:15 Break (15 min)
11:15 – 12:15 Session 1 (1 Hour)
12:15 – 12:45 Lunch (30 min)
12:45 – 13:45 Session 1 (1 Hour)
13:45 – 14:00 Break (15 min)
14:00 – 15:00 Session 1 (1 Hour)

Timing

10:00 – 11:00 Session 1 (1 Hour)