



Effective Business Decisions Using Data Analysis

Course Venue: UAE - Dubai

Course Date: From 19 Jan 2020 To 23 Jan 2020

Course Place: Boulevard Sheikh Mohammed Bin Rashid

Course Fees: 4150 GBP



Introduction

This interactive, applications-driven 5-day course will highlight the added value that data analytics can offer a professional as a decision support tool in management decision making. It will show the use of data analytics to support strategic initiatives; to inform on policy information; and to direct operational decision making. The course will emphasize applications of data analytics in management practice; focus on the valid interpretation of data analytics findings; and create a clearer understanding of how to integrate quantitative reasoning into management decision making. Exposure to the discipline of data analytics will ultimately promote greater confidence in the use of evidence-based information to support management decision making.

This course will feature:

- Discussions on applications of data analytics in management
- The importance of data in data analytics
- Applying data analytical methods through worked examples
- Focusing on management interpretation of statistical evidence
- How to integrate statistical thinking into the work domain

objectives

By the end of this course, participants will be able to:

- Appreciate data analytics in a decision support role.
- Explain the scope and structure of data analytics.
- Apply a cross-section of useful data analytics.
- Interpret meaningfully and critically assess statistical evidence.
- Identify relevant applications of data analytics in practice.

Contents

Day One

Setting the Statistical Scene in Management

- Introduction; The quantitative landscape in management
- Thinking statistically about applications in management (identifying KPIs)
- The integrative elements of data analytics
- Data: The raw material of data analytics (types, quality and data preparation)
- Exploratory data analysis using excel (pivot tables)
- Using summary tables and visual displays to profile sample data

Day Two

Evidence-based Observational Decision Making

- Numeric descriptors to profile numeric sample data
- Central and non-central location measures
- Quantifying dispersion in sample data
- Examine the distribution of numeric measures (skewness and bimodal)
- Exploring relationships between numeric descriptors
- Breakdown analysis of numeric measures



Day Three

Statistical Decision Making - Drawing Inferences from Sample Data

- The foundations of statistical inference
- Quantifying uncertainty in data - the normal probability distribution
- The importance of sampling in inferential analysis
- Sampling methods (random-based sampling techniques)
- Understanding the sampling distribution concept
- Confidence interval estimation

Day Four

Statistical Decision Making - Drawing Inferences from Hypotheses Testing

- The rationale of hypotheses testing
- The hypothesis testing process and types of errors
- Single population tests (tests for a single mean)
- Two independent population tests of means
- Matched pairs test scenarios
- Comparing means across multiple populations

Day Five

Predictive Decision Making - Statistical Modeling and Data Mining

- Exploiting statistical relationships to build prediction-based models
- Model building using regression analysis
- Model building process - the rationale and evaluation of regression models
- Data mining overview - its evolution
- Descriptive data mining - applications in management
- Predictive (goal-directed) data mining - management applications