MERCURY

Effective Business Decision-Making Using Data Analysis Conference

29 March – 2 April 2027
Johannesburg (South Africa)



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Ref: 8114_1059568 **Date:** 29 March – 2 April 2027 **Location:** Johannesburg (South Africa) **Fees:** 5300 Euro

Introduction

Every professional strives to make quality decisions. Quality decisions result from carefully and thoroughly evaluating relevant information, often generated through statistical data manipulation. Still, only a few professionals possess the quantitative reasoning skills to interpret such statistical findings meaningfully and validly themselves or question the interpretations given by others.

Decision-making for business data analysis requires quantitative analytical skills. It can limit a professional's effectiveness in making quality decisions.

This decision-making for business data analysis program aims to develop an appreciation of quantitative methods' role in management decision-making, thereby empowering professionals with additional decision-making skills.

Data Analytics for Effective Business Decision-Making

The role of data analytics in business decision-making is pivotal, and this course is designed to equip participants with the necessary skills. By understanding the methodologies, tools, and techniques presented throughout the course, professionals will learn how to leverage data analytics for business decisions.

Data analysis can lead to more informed, strategic decisions that propel businesses forward. The practical application of these concepts is emphasized, making this an invaluable business decision-making course for those seeking to integrate data analytics into their strategic planning and problem-solving processes.

Participants will explore how data analytics helps make business decisions and how to use data analysis to achieve effective business outcomes. This business decision-making training course provides an in-depth look at data analytics, ensuring participants can implement what they've learned in real-world situations.

The Effective Business Decision-Making using Data Analysis Conference is about data analytics for decision-making, where networking and knowledge exchange will enhance the concepts' applicability.

Targeted Groups

- Professionals in management support roles.
- Analysts who typically encounter data/analytical information regularly in their work environment.
- Those who seek to derive greater decision-making value from data analytics.

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Conference Objectives

At the end of this effective business decision-making using data analysis conference, the participants will be able to:

- Appreciate the role of Data Analysis as a Decision Support tool.
- Explain the scope and structure of the statistics discipline.
- Understand the importance of data quality in data analysis.
- Select an appropriate Data Analysis methodology to apply to specific management situations.
- Apply a cross-section of Data Analysis tools and techniques.
- Meaningfully interpret statistical output to inform decision-making.
- Critically assess statistical findings with confidence.
- Interact meaningfully and with confidence with Data Analysts.
- Initiate with confidence in their Data Analysis projects.
- Learn techniques to support strategic initiatives.

Targeted Competencies

At the end of this effective business decision-making using data analysis conference, the target competencies will be able to:

- 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.
- Integrating statistical thinking into the work domain.

Conference Content

Unit 1: Setting the Scene and Observational Decision-Making

- Setting the Quantitative Scene.
- The Decision Support Role of Quantitative Methods in Management.
- Thinking Statistically about Applications in Business Practice.
- The Elements and Scope of Quantitative Management.
- Data and the Importance of Data Quality.

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Unit 2: Using Excel to Paint a Picture of Your Data

- Summary Methods Using Tables and Graphs to Profile Data.
- One-way, Two-way, and Multi-way Pivot Tables.
- Graphic Displays and Breakdown Analysis.
- Numeric Descriptors.
- Central and non-central locations Dispersion Distribution Shapes.
- Graphical summary using Box plots.

Unit 3: Statistical Inferential Decision Making - harnessing Uncertainty

- Using sample evidence to address management issues through statistical inference.
- How to measure and quantify Uncertainty using Probability Distributions.
- The importance of Sampling.
- Statistical Decision-Making Methods.
- Approaches: Confidence Intervals and Hypothesis Testing.
- Techniques: Z- and T-statistics, Analysis of Variance, Chi-Square.
- Addressing Practical Management Issues.
- Estimation Testing for Differences Multiple Sample Comparisons.

Unit 4: Predictive Decision Making - Using Models to Build Relationships

- Statistical models exploit statistical relationships between measures to prepare forecasts and make predictions.
- The Value of Statistical Modelling.
- Modeling Approaches.
- Regression Models, Time Series Analysis Autoregressive Models.

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Unit 5: Data Mining - A Brief Overview

- An Overview of Data Mining.
- Definition of the Data Mining Process data preparation.
- Data Mining Functions.
- Prediction / Estimation / Classification / Descriptive.
- Purpose Methodology Interpretation Likely Applications.
- Cluster Analysis Discriminant Analysis.
- Logistic Regression Classification Trees Neural Networks.
- Market Basket Analysis Customer Relationship Management CRM.
- Overview of Selected Data Mining Techniques analysis by NCSS.
- Descriptive Modeling Segmentation Strategies.
- Predictive Modeling Classification Estimation Prediction Strategies.
- Typical Applications.

Unit 6: Decision Analysis for Management Judgement

- Using Decision Models to structure/evaluate complex decision scenarios.
- Multi-Criteria Decision Modelling Illustrations of Two Practical Tools.
- SMART Simple Multi-Attribute Rating Technique.
- AHP Analytical Hierarchy Process.