Business Analytics for Managers: Data-Driven Decision Making

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Technical depth: Conceptual · **Practical mode:** Case study

Introduction

Organisations invest heavily in data platforms and analytics teams, yet many major decisions are still taken on instinct, or on analysis that nobody at the table can challenge. Analytics projects answer the wrong question, forecasts are accepted without scrutiny and biased findings slip through. This Core Concept course equips senior managers to commission analytics well, interrogate its results and weigh evidence against risk when they decide. Participants examine decision cases from several sectors and leave with an Analytics Use-Case Portfolio and Decision Brief for their own organisation.

Course Objectives

- Judge an organisation's analytics maturity and the fit between its recurring decisions and the data available to support them
- Frame business problems as analytical questions and commission work through the CRISP-DM lifecycle
- Interrogate statistical outputs, forecasts and experiment results with the questions a decision maker should ask before relying on them
- Recognise cognitive biases and analytical traps that distort data-based decisions, and set review safeguards against them
- Oversee analytics and model risk, privacy and accountability using international governance standards
- Produce an Analytics Use-Case Portfolio and Decision Brief ready for executive approval

Target Audience

- Senior managers and directors accountable for commercial, operational or service decisions
- Heads of function sponsoring analytics, business intelligence or data platform investments
- Executives overseeing strategy, performance management and transformation offices
- Finance directors and budget holders evaluating forecasts and business cases
- Operations executives responsible for capacity, supply and service-level decisions
- Public sector directors accountable for policy and service delivery choices

CONCEPT

Course Outline

Day 1: Analytics, Decisions and Organisational Maturity

- Gartner Analytic Ascendancy Model: Descriptive to Prescriptive Analytics
- Decision Inventory Mapping Recurring Decisions to Data
- Analytics Maturity Diagnosis with the DELTA Plus Model
- Analytics Value Chain from Data to Decision to Outcome
- Data-Driven Culture Signals and the HiPPO Effect

Day 2: Decision and Analytics Frameworks

- CRISP-DM Lifecycle from Business Understanding to Deployment
- Decision Quality Framework: Six Elements of a Sound Decision
- Cynefin Framework for Matching Analysis to Decision Context
- Balanced Scorecard and OKR Metric Hierarchies
- ISO/IEC 38505-1 Board Responsibilities for the Use of Data

Day 3: Commissioning and Interrogating Analysis

- Issue Trees and Hypothesis-Driven Question Framing
- Reading Correlation, Regression and Statistical Significance Reports
- Forecast Scrutiny: MAPE, Forecast Bias and Scenario Ranges
- A/B Tests and Randomised Controlled Trials as Decision Evidence
- Decision Trees, Expected Value and Sensitivity Analysis

Day 4: Bias, Model Risk and Analytics Governance

- Cognitive Bias Checklist for Data-Informed Decisions
- Simpson's Paradox, Survivorship Bias and Spurious Correlation Traps
- Model Risk and AI Accountability under ISO/IEC 42001
- Privacy and Ethical Use Review Based on ISO/IEC 29100 Principles
- Analytics Operating Models: Centralised, Hub-and-Spoke and Federated

Day 5: Case Work and the Decision Brief

- Retail Pricing Case Study: Challenging the Analysis Before Approval
- Hospital Capacity Case Study: Deciding on a Forecast Under Uncertainty
- Use-Case Prioritisation with a Value-Feasibility Matrix
- Analytics Use-Case Portfolio and Decision Brief Drafting
- Executive Panel Review and Brief Defence

Skills You Will Gain

- Analytics Strategy Alignment
- Decision Framing
- Evidence Evaluation
- Forecast Scrutiny
- Bias Mitigation
- Analytics Governance Oversight
- Use-Case Prioritisation

Why Attend This Course

- Return to work with an Analytics Use-Case Portfolio and Decision Brief, already challenged by an executive panel of peers
- Ask analysts the questions that expose a weak finding before it reaches a board paper
- Direct analytics budgets towards the decisions that matter most rather than the data that is easiest to report
- Compare decision practice with senior managers from other sectors and countries using analytics to steer their organisations

Conclusion

Analytics creates value only when leaders ask the right questions, test the evidence and act on it with a clear view of the risk. This course moves from analytics maturity and the decisions an organisation makes, through the frameworks that structure analysis and decision quality, to commissioning and interrogating analytical work, and then to the biases, model risks and governance duties that accompany it. The final day turns that material into an Analytics Use-Case Portfolio and Decision Brief that participants take back to their executive team.