MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net

DATA ANALYSIS & MODELLING TECHNIQUES

""Transforming Data into Insightful Models for Informed Decision-Making and Strategic Planning""

Schedule

Date	Venue	Fees (Face-to-Face)
19 – 23 Jan 2026	Dubai, UAE	USD 3495 per delegate
15 – 19 Feb 2026	Manama, Bahrain	USD 3495 per delegate
09 – 13 Aug 2026	Doha, Qatar	USD 3495 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

Introduction

Modern organizations are inundated with data—but data alone does not lead to better decisions. To create value, professionals must transform raw data into insights, forecasts, and decisions using analytical tools and modelling techniques. This course bridges the gap between data and decision-making.

This intensive five-day training equips analysts, managers, and planners with practical skills to structure, analyze, and interpret data using modern modelling frameworks. From Excel-based analysis to scenario modelling, forecasting, and regression techniques, the course is highly hands-on and immediately applicable.

Objectives

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

- Understand the principles of data structuring, cleansing, and exploratory analysis.
- Use descriptive and inferential statistics to draw business-relevant conclusions.
- Build scenario-based and predictive models for planning and evaluation.
- Apply forecasting, regression, and sensitivity techniques to datasets.
- Present insights effectively using charts, dashboards, and summaries.
- Support decision-making through structured analytical workflows.

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Why Attend

- Gain confidence working with quantitative data in Excel and other tools.
- Learn how to construct and test models to support operational or strategic planning.
- Enhance your ability to identify patterns, correlations, and performance drivers.
- Improve the clarity and influence of your reporting and presentations.
- Contribute more effectively to analytics, budgeting, risk, and strategy teams.

Target Audience

This program is designed for:

- Business and financial analysts
- Strategic planners and performance managers
- Project managers and engineers
- Marketing and operations analysts
- Anyone responsible for working with data to make better decisions

Individual Benefits

Key competencies that will be developed include:

- Quantitative and logical thinking
- Data visualization and modelling skills
- Statistical interpretation and forecasting
- Analytical reporting and Excel proficiency
- Decision support and scenario planning

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved forecasting and planning accuracy
- Stronger data-driven recommendations
- Standardized tools and models for recurring analysis
- Increased analytical capability across departments
- Enhanced reporting that supports faster, smarter decisions

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Live Demonstrations – Excel and modelling walkthroughs
- Hands-On Exercises – Real datasets and business scenarios
- Toolkits – Templates for dashboards, models, and reports
- Case Studies – Applied analytics and decision-making
- Group Work – Scenario evaluation and solution comparison
- Knowledge Checks – Reinforcement through quizzes and recap sessions

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Course Outline

Detailed 5-Day Course Outline

Training Hours: 7:30 AM – 3:30 PM Daily Format: 3–4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Data Foundations and Descriptive Analysis

- **Module 1: Structuring and Preparing Data for Analysis (07:30 – 09:30)**
- Data formats, quality checks, and cleaning
- Handling missing values and outliers
- Data normalization and preparation in Excel
- **Module 2: Exploratory Data Analysis (09:45 – 11:15)**
- Summary statistics, distributions, and variability
- Sorting, filtering, conditional formatting
- Creating custom KPIs and metrics
- **Module 3: Visualizing Patterns and Trends (11:30 – 01:00)**
- Charts, dashboards, pivot tables
- Time series visualization and formatting tips
- Correlation and comparison visuals
- **Module 4: Practical Lab – Exploring Real Dataset (02:00 – 03:30)**
- Group activity: identifying patterns and building dashboards

Day 2: Business Modelling and Scenario Analysis

- **Module 5: Introduction to Modelling Techniques (07:30 – 09:30)**
- What is a model? Inputs, processes, outputs
- Deterministic vs. stochastic modelling
- Structuring Excel models with clarity and logic
- **Module 6: Building Scenario Models (09:45 – 11:15)**
- What-if analysis, data tables, goal seek
- Sensitivity analysis and drivers of change
- Use cases: pricing models, resource planning
- **Module 7: Case Study – Budget Planning Model (11:30 – 01:00)**
- Model walkthrough from inputs to summary
- Peer review and output interpretation
- **Module 8: Workshop – Build Your Own Scenario Model (02:00 – 03:30)**
- Structured exercise using real-time feedback

Day 3: Statistical Tools and Forecasting

- **Module 9: Basic Statistical Analysis (07:30 – 09:30)**
- Mean, median, mode, standard deviation
- Confidence intervals and sampling
- Histogram creation and interpretation
- **Module 10: Regression and Correlation (09:45 – 11:15)**
- Linear regression in Excel
- Interpreting slope, intercept, R^2
- Multivariate modelling basics
- **Module 11: Forecasting Techniques (11:30 – 01:00)**
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Moving averages and exponential smoothing

- Forecast sheet tool in Excel
- Error analysis and forecast accuracy
- **Module 12: Lab – Sales and Demand Forecasting (02:00 – 03:30)**
- Build a forecast and compare different methods

Day 4: Risk, Optimization, and Decision Support

- **Module 13: Risk Modelling and Sensitivity Tools (07:30 – 09:30)**
- Tornado charts and sensitivity reports
- Data tables and Monte Carlo simulations (intro)
- Risk-adjusted decision-making
- **Module 14: Optimization and Resource Allocation (09:45 – 11:15)**
- Excel Solver: minimizing cost, maximizing output
- Constraints, objectives, and assumptions
- Supply chain and production applications
- **Module 15: Presenting Analytical Results (11:30 – 01:00)**
- Building executive summaries and dashboards
- Writing analytical conclusions
- Visualization tools and best practices
- **Module 16: Team Exercise – Optimization Challenge (02:00 – 03:30)**
- Scenario competition with team presentations

Day 5: Integration, Application, and Reporting

- **Module 17: End-to-End Analytical Case (07:30 – 09:30)**
- Full case walkthrough from raw data to report
- Participants apply full workflow
- **Module 18: Team Project – Build and Present Your Model (09:45 – 11:15)**
- Live problem-solving with peer feedback
- Apply course tools to real scenario
- **Module 19: Lessons Learned and Future Tools (11:30 – 01:00)**
- Recap of tools, models, and skills
- Advanced tools overview: Power BI, Python, etc.
- Building your analytical career path
- **Module 20: Final Review and Certification Briefing (02:00 – 03:30)**
- Participant presentations
- Feedback and certificate distribution

Certification

Participants who complete the program will receive a Certificate of Completion in **Data Analysis & Modelling Techniques,** recognizing their proficiency in using data models and analytical tools to support strategic business decisions.

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Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
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