



DIRECTORATE OF RESEARCH & CONSULTANCY

ADVANCED EXCEL, POWER (BI) BUSINESS INTELLIGENCE FOR DATA ANALYTICS, REPORTING, FORECASTING AND DECISION SUPPORT TRAINING

Duration: Three Days
Venue Best Western Hotel
Participation: K7000 pp

Course Overview

In today's data-driven business environment, organisations generate vast amounts of information from operational, financial, customer, and regulatory activities, making the ability to transform data into actionable insights essential for effective decision-making and performance management. This practical, hands-on training programme equips participants with advanced Microsoft Excel and Power BI skills to analyse, model, visualise, and communicate data effectively. Participants will learn how to prepare and analyse data, automate processes, perform forecasting and scenario analysis, and develop interactive dashboards and business intelligence solutions that support strategic decision-making. Through real-world case studies, practical exercises, and business simulations, the programme provides immediately applicable skills that enhance productivity, reporting quality, operational efficiency, and organisational performance.

Learning Objectives

The Advanced Excel, Power (BI) Business Intelligence Training Programme is designed to equip participants with practical skills and techniques to:

- Transform data into meaningful insights for informed decision-making.
- Develop financial models using Ms Excel.
- Analyse data and create impactful reports using Advanced Excel.
- Build interactive dashboards and Business Intelligence solutions with Power BI.
- Automate processes to improve efficiency and productivity.
- Use Excel and Power BI strategically to enhance organisational reporting and decision-making.
- Apply data-driven techniques for performance monitoring, planning, and forecasting.

Target Audience

This programme is ideal for professionals who regularly work with data and reports, including managers, accountants, auditors, analysts, planners, monitoring and evaluation officers, revenue and compliance staff, and administrative personnel. It is equally suitable for supervisors and team leaders who require analytical insights to monitor performance.

Training Methodology

The training will be highly practical, interactive and application oriented. Learning is delivered through short conceptual presentations, guided demonstrations and hands-on exercises.

Course Outline

| Day One | | |
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| Advanced Data Preparation and Data Quality Management | | Time |
| <p>Learning Outcome</p> <p>This session focuses on strengthening participants' ability to prepare and manage high-quality data that serves as the foundation for effective analytics and Business Intelligence</p> | <ul style="list-style-type: none"> Understanding the Business Intelligence lifecycle Data quality principles and governance Data cleaning and validation techniques Managing duplicates, inconsistencies, and missing values Advanced sorting and filtering techniques Structuring data for analytics and reporting | 08:30 - 10:30 |
| Health Break | | 10:30 - 11:10 |
| Formulas, Functions and Business Analytics | | Time |
| <p>Learning Outcome</p> <p>Participants will develop advanced analytical capabilities using Excel functions and formulas to improve decision-making, reporting, and problem-solving.</p> | <ul style="list-style-type: none"> Logical functions (IF, IFS, AND, OR, SWITCH) Advanced lookup functions (XLOOKUP, INDEX-MATCH) Dynamic array functions Conditional aggregation (SUMIFS, COUNTIFS, AVERAGEIFS) Date, time, and financial functions Error handling and formula auditing Applications in budgeting and reconciliations | 11:00 - 13:00 |
| Lunch break | | 13:00 - 14:00 |
| PivotTables, Data Modelling and Analytical Reporting | | Time |
| <p>Learning Outcome</p> <p>This session develops participants' analytical skills by enabling them to convert data into meaningful business insights and management reports.</p> | <ul style="list-style-type: none"> PivotTables and Pivot Charts Calculated fields and measures Slicers and timelines Trend and variance analysis Performance and management reporting Linking multiple data sources Turning data into actionable insights | 14:00 - 16:30 |
| Day Two | | |
| Business Intelligence Concepts and Power BI Fundamentals | | Time |
| <p>Learning outcome</p> <p>Improve efficiency through process optimisation and technology</p> | <ul style="list-style-type: none"> Introduction to Business Intelligence BI frameworks and decision-support systems Excel versus Power BI Connecting to multiple data sources Data transformation using Power Query Building data models for reporting Introduction to Power BI interface and workflows | 08:30 - 10:30 |
| Health Break | | 10:30 - 11:00 |
| Data Visualisation | | Time |
| <p>Learning outcomes</p> <p>This session focuses on communicating insights effectively</p> | <ul style="list-style-type: none"> Principles of effective data visualization Selecting appropriate charts and visualizations | 11:00 - 13:00 |

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| through visual analytics and executive-level reporting. | <ul style="list-style-type: none"> Advanced Excel charts and graphs Waterfall, Pareto, and Combo Charts Data storytelling techniques Identifying trends, risks, and opportunities Executive reporting best practices | |
| Lunch break | | 13:00 - 14:00 |
| Interactive Dashboards | | Time |
| Learning Outcome Participants will design dynamic dashboards and KPI scorecards that support performance monitoring and management decision-making. | <ul style="list-style-type: none"> Dashboard design principles KPI development and performance measurement Interactive dashboard design in Excel Power BI dashboard development Drill-down and interactive reporting Dashboard optimisation and usability | 14:00 - 16:00 |
| Day Three | | |
| Forecasting, Budgeting and Decision-Support Models | | Time |
| Learning Outcome Participants will learn practical techniques for forecasting, planning, budgeting, and evaluating alternative business scenarios. | <ul style="list-style-type: none"> Business forecasting techniques Predictive analytics and trend analysis What-if analysis Goal Seek and Scenario Manager Sensitivity analysis Budgeting and planning models Risk assessment and decision-support tools | 08:30 - 10:30 |
| Health Break | | 10:30 - 11:00 |
| Automation, Power Query and Productivity Enhancement | | Time |
| Learning Outcome This session focuses on improving productivity through automation and streamlined reporting processes. | <ul style="list-style-type: none"> Automation in analytics and reporting Advanced Power Query techniques Data transformation workflows Refreshable reporting systems Automating recurring reports Macro recording and automation concepts | 11:00 – 13:00 |
| Lunch | | 13:00 – 14:00 |
| Integrated Business Intelligence Project and Executive Reporting | | Time |
| Learning Outcome Participants will apply all concepts learned throughout the programme to develop a complete Business Intelligence solution. | <ul style="list-style-type: none"> End-to-end analytics project Data preparation and transformation Advanced data analysis Dashboard development Forecasting and scenario modelling Executive reporting and presentation Action planning for workplace implementation | 14:00 - 16:00 |
| Certificate Presentation | | |

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