Data Analysis Fundamentals

INTRODUCTION

- This highly participative training course provides you with the essential skills to enable you to analyse financial data effectively for your personal and organisational benefit – very quickly moving you from a beginner to a trained and highly effective data analyst, capable of evaluating stock prices, sales, exchange rate and oil prices. It will improve every aspect of your role from your ability to collect data to data presentation and analysis.
- Delegates will work through practical case studies, analysing movement in share prices, sales, costs as well as exchange rates and oil prices. You will learn how to manipulate data, assess profitability and make sound investment decisions. With the aid of clear explanations, discussions and detailed material in both hard and soft copy it will enable you to transfer skills and knowledge for your personal and organisational benefit.

In this Data Analysis Fundamentals training course, participants will develop the following competencies:

- Analytical skills to improve your understanding and decision making
- Communication skills supported by graphical and statistical analysis
- Excel skills to aid presentation and analysis of business data
- An ability to forecast data
- Basic Statistical knowledge and skills

PROGRAMME OBJECTIVES

- Select the most appropriate Methods of Data Collection
- Present Data in an interesting and meaningful manner
- Analyse data using statistical methods
- Use Probability to estimate data
- Understand the Limitations of Data and Data Analysis and undertake Hypothesis Testing
- Use Data Analysis and Forecasting Techniques to make business & investment decisions

WHO SHOULD ATTEND?

- Professionals who wish to gain an introduction to Data Analysis in order to improve their analytical skills and understanding of data
- Personnel moving into roles where they will need to produce data and / or use data to make decisions
- Individuals interested in investment analysis and stock price performance

TRAINING METHODOLOGY

- Delegates will be provided practical work to enable them to actively participate and develop their skills in the evaluation of practical case studies relevant to their workplace. This training course will also use clear explanations, discussions and video material to aid understanding and development, moving delegates from beginners to proficient analysts.

PROGRAMME SUMMARY

- This training course covers the essential skills to enable you to collect, present, and analyse data. It will enable delegates to make a significant personal impact within their organisation, capable of understanding data provided or to use data to make meaningful business and investment decisions.

PROGRAM OUTLINE

Data and Methods of Data Collection

- Types of Data – Primary and Secondary Data; Quantitative and Qualitative Data
- The Role of Data Analysis in Business
- Methods of Collecting Data – Surveys, Interviews, Focus Groups etc.
- Sample Design – Random, Systematic, Stratified etc.
- Planning a Sampling Survey
- Organising the Data Received and Information Management

Presentation of Data

- Methods of Presentation
- Using Excel to aid Presentation
- Simple Bar Charts, Line Graphs, Pictogram, Pie Charts etc
- Time Series Analysis
- Interpolating and Extrapolating
- The Interpretation of Data Presentation

Statistical Analysis of Data

- Random Variables – Discrete and Continuous
- Using Excel to aid Analysis
- Mean, Median and Mode
- Variance and Standard Deviation
- Co-variance and Correlation
- Probability – Binomial, Normal and Poisson Distribution

Evaluating Data and Decision Making

- The Limitations of Data and Data Analysis
- Populations and Samples
- Confidence Intervals
- Hypothesis Testing
- Testing 2 Means – Independent and Paired Samples
- Decision Making using Decision Trees

Data Analysis and Forecasting Techniques

- Forecasting, Sales; Costs; Budgets, Production etc
- An Introduction to the Data Analysis Tools in Excel
- What-If Analysis and Scenario Manager using Excel
- Linear Regression
- Basic Solver and Goal Seek
- Variance Analysis – comparing Forecast to Budgets