Info-Graphics - Methods for Reporting and Data Analysis

Visualization of images and graphics, data analysis, and reporting format

Introduction

The corporate culture always expects efficiency and advancements in the workplace. Regardless of their line of business, infographics and data analysis techniques are becoming more and more crucial for organizations. The availability of a sizable dataset presents difficulties for managers and calls for their analytical prowess. The ability to analyse data and report using appropriate methodologies is crucial for decision-making that improves corporate performance goals. However, reporting, presenting, and summarizing data are all necessary for data analysis. The goal of this training session on infographics: data analysis and reporting techniques is to provide the attendees the skills they need to analyse numerical data, report on it, and show it visually.

This training session on Course N Carry Data Analysis & Reporting will emphasize:

- To give attendees a thorough grasp and hands-on practice of a variety of increasingly popular analytical techniques and numerical data representation methods
- To enable delegates to identify the kinds of analyses that are most appropriate for different kinds of challenges
- To provide participants with the necessary background information and theoretical understanding to assess when the application of a technique is likely to produce false outcomes.
- To provide participants with a working vocabulary of analytical words so they can read and understand standard textbooks and journal articles in the fields of data analysis, statistics, and probability as well as communicate with professionals in these fields.
- To provide a few fundamental statistical techniques
- To investigate the capabilities of the Data Analysis Tool and the usage of Excel 2010 or 2013 for data analysis

Objectives

The goal of this training course on infographics: data analysis and reporting techniques is to give analysts and professionals from many industries the tools they need to analyse numerical data and the hands-on skills they need to turn that data into knowledge through the right analysis. Participants will learn critical communication skills and how to use infographics to show facts to other members of the organization.

After completing this training program in data analysis and reporting, you will understand:

- Infographics are used in analytical methods and graphical displays.
- The capacity to identify the kinds of analysis appropriate for the data's structure
- Sufficient theoretical understanding and background to determine if a certain approach results in false findings
- Appropriate communication skills to interact with data analysis specialists and the ability to read and understand standard analytical reports
- Solid grounding in statistical ideas and procedures

Training Methodology

Using a problem-based learning methodology, this Info-Graphics training course gives participants a series of real-world numerical data analysis challenges from a variety of industries, including quality control, engineering, finance, and logistics.

It is evident from each situation that a distinct strategy to data analysis is required. Owing to scheduling constraints, it will not be feasible to address every issue raised during the training session. However, upon completion of the training session, each delegate will receive detailed solutions to all of the challenges as takeaways for future learning.

This training course on Info-Graphics in Data Analysis and Reporting Techniques is fully applications-oriented, with less time dedicated to the mathematical aspects of analysis and maximum time spent using useful Excel techniques and comprehending their rationale.

In order to study the utterly realistic data analysis difficulties, delegates will spend nearly all of their time investigating Excel's data analysis and representation capability, including the Data Analysis Tool Pack.

Organizational impacts

Decision-making excellence will improve an organization's capacity to compete globally. As a result of their training in Info-Graphics Data Analysis and Reporting Techniques, the participants and the teams they work with will be more equipped to influence the organization with recommendations based on unbiased data analysis, which will ultimately result in a higher performing business.

After taking this Info-Graphics in Data Analysis and Reporting Techniques training course, participants will gain new perspectives on the applications of Excel and the field of data analysis. They will also discover why the world's top businesses view data

analysis as crucial to providing high-quality products and services at competitive prices.

Personal Imapct

A variety of the more popular analytical techniques and data representation approaches will be explained to participants, along with their practical application. These methods are directly applicable to a broad range of problems. The capacity to identify which kinds of analysis are most appropriate for certain issues will be covered, and participants will get enough theoretical and background information to enable them to assess whether an applied approach is likely to provide inaccurate results.

Who should attend?

The purpose of this training course on Info-Graphics in Data Analysis and Reporting Techniques is to assist project managers whose work involves manipulating, representing, interpreting, and/or analyzing data. It is expected that you are familiar with Microsoft Excel (2003, 2007, 2010, or 2013) and a PC.

Delegates should be numerate and love working with numerical data on a computer as this training course includes a lot of computer-based data analysis using Excel 2010.

A wide range of professionals can benefit from this Course N Carry Data Analysis & Reporting training course, but the following will be especially helpful:

- Managers of operations participating in the data analysis
- Managers of finances
- Managers of risks
- Executives and non-executives at the board level

Course Outline

Day 1

Overview and Qualitative Data

- Data analysis: What is it?
- A refresher on basic statistics and adjustments for tiny sample sizes
- An Excel fast start guide

- Using statistics to describe data sets
- Using graphics to display data sets
- How to use Excel to produce an infographic
- How infographics convey data in comparison to more conventional techniques
- The distribution that is typical

Day 2

Analysis of Time Series and Frequency

- The regularity of occurrence
- Histograms
- Pareto evaluation
- Tables and charts with pivots
- What sets an Excel dashboard apart from an infographic
- Analysis of time series
- Trending information
- Theory of estimation

Day 3

Interactive spreadsheets for Six Sigma modelling, scenario analysis, and confidence

- Intervals of confidence
- Control chart utility for oil and gas businesses
- An overview of Six Sigma
- Error bars
- Brief case studies

Day 4

Analysis of Regression System modeling and equations

- Simplest regression analysis and calculations of greatest likelihood
- Fitting curves
- Fits of polynomial curves
- Equations for data description
- Forecast
- Simulating systems with a single input and one output
- Multivariate analysis and modeling of multiple input, one output systems
- Regression's applicability to oil and gas firms

- Utilizing the proper reporting style when presenting data

Day 5

ANOVA and Correlation Analysis

- Variations among datasets
- Analysis of correlations
- Functions of autocorrelation
- Variance analysis (ANOVA)
- Review of all taught ideas and their practical applications