

Applied HR Analytics and Data Visualization Training

Duration: 2 Days

Description

HR professionals increasingly need to turn operational data into information, analyze it and use it to support strategic decisions. Moving from a support function to a strategic partner requires measurement and effective management, supported by data analytics, business intelligence and machine learning.

This case-based course helps HR professionals create web and mobile reports using HR business intelligence tools and interpret HR data with analytical methods and machine learning. The aim is to conduct statistical analysis and derive insights using appropriate tools without requiring prior programming or algorithm knowledge.

Who Should Attend?

HR professionals, department managers, compensation and reporting specialists, graduates pursuing careers in HR analytics and data, and HR directors and managers seeking digital skills.

Outline

Day 1: HR Information Systems

- Big data and human resources
- The three Vs of big data
- HR information systems: from operational needs to strategic priorities
- Data quality and ways to improve it

HR Analytics

- What is HR analytics?
- The HR analytics value pyramid
- Strategic HR, HR analytics and HR metrics
- Examples of global HR KPIs
- Implementing HR analytics
- Identifying problem areas and strategic priorities

Data Visualization in HR Analytics

- Business intelligence: HR applications and its relationship with data analytics
- What is a data model and how is it built?
- Developing a research strategy

Collecting and Cleaning Data

- Basic SQL queries
- Categorizing data
- Cleaning missing data

Basic Analysis Methods

- Basic visualizations: boxplots and dot plots
- Mean, median, standard deviation and their relationships
- Regression analysis with Weka
- Correlation coefficients and interpretation with Excel and R
- Identifying outliers

Case Study

- Designing an Excel dashboard
- Reporting a prepared dataset using web and mobile tools
- Sharing the reporting dataset in a business intelligence exercise

Day 2: Analytical Methods

- Chi-square tests
- Linear regression with Weka and Excel
- Decision trees with Weka
- Forecasting with Excel 2013 and later
- Data visualization
- Communicating results effectively
- Action planning and communication
- Critical success factors in HR analytics

Data Mining

- What is data mining?
- Creating histograms
- Hands-on data mining with CSV files

Case Study 1

- HR business intelligence: reporting HR data on mobile and web tools, building on day one

Case Study 2

- Identifying employees with a higher risk of leaving

Case Study 3

- Predicting performance

Case Study 4

- Exploring relationships between age, tenure, time in position and performance results

Case Study 5

- Forecasting workforce requirements

Case Study 6

- Analyzing advertising expenditure and training hours to assess their relationships with business results

Case Study 7

- Exploring relationships between employee characteristics, such as gender and organizational unit, and performance results

Prerequisites

Basic Excel knowledge is sufficient.