CENTRAL BANK OF EGYPT
Egyptian Banking Institute

Empowering HR Excellence:
A Power BI Analytics

Course Overview

HR analytics are becoming increasingly important for organizations to make informed decisions about Their workforce. By analyzing HR data, organizations can identify trends, patterns, and insights that can help them optimize their HR strategies and improve the employee experience.

In this course, dummy datasets have been provided to enable you to learn and practice

HR analytics can help organizations in many ways, Such as:

- Talent Acquisition: By analyzing data on recruitment sources, time to hire, and candidate quality, organizations can Identify the most effective recruitment channels and optimize their recruitment process.
- Talent retention: By analyzing data on turnover rates, employee satisfaction, and engagement, organizations can identify the factors that contribute to employee turnover and take steps to improve retention.
- Performance Management: By analyzing data on employees, performance, organizations can identify areas Where employees need additional training or support and develop personalized development plans.
- Diversity and inclusion: By analyzing data on diversity and inclusion, organizations can identify areas where they need to improve and develop strategies to create a more inclusive   workplace

Who should attend:

HR professionals

Course Objectives

- Learn how to aggregate and combine Human resources data in Power BI
- Learn how to Connect transactional data in Power BI
- Learn how to build relationships between related data sources in Power BI
- Learn how to create comprehensive reports and interactive dashboards with Power BI
- Learn to easily create a wide range of visualization by just dragging and dropping

Why HR Analytics?

- Tailor dashboards to your organization's needs using a simple drag-and-drop interface.
- Pull data from multiple data sources into one place by integrating applications for recruitment, payroll, and more.
- Get insights into hiring performance.
- Monitor inclusions and diversity in your workforce.
- Identify rising stars and low performers within the organization.
- Track the value and quality of training programs to evaluate your investment.
- Get an understanding of employee turnover.
- Create a dash-board employee turnover report

Course Outline

Module 1: Understanding Power BI – Day 1

- Power BI (Desktop Vs Mobile Vs Service)
- Licenses (Free Vs Pro Vs Premium)
- What makes Power BI different from other BI Tools?
- Languages Involved in Power BI (ETL vs ELT, Power Query, DAX, R)

Module 2: Getting Data in Power BI Desktop – Day 1

- Understanding Power BI navigation
- Exploring different data sources in Power BI
- Getting data from the Web
- Getting data from Access File
- Getting data from Excel
- Getting data from Txt, Csv

Module 3: Data Transformation – Day 1

- Navigating query editor
- What is Query?
- What is data transformation?
- Removing row options
- Detect data types
- Text column
- Correcting spelling mistakes
- Changing cases
- Trimming & Cleaning

- Create a custom column
- Check data quality through data preview.

Module 4: Data Modelling – Day 2

- What is a data model?
- Schemas in the data model
- Fact vs Dimensions
- Understand the navigation of the relationship view
- Why is a data model more efficient than a flattened data set?

Module 5: DAX – Day 2

- What is DAX
- What are the Data types in DAX
- What can we calculate using DAX?
- What is Calculated Columns and Calculated Measure?
- Difference between DAX, and M Calculating a column using DAX
- Calculating a measure using DAX
- Calculating a Table using DAX
- Date and time functions:

    - CALENDAR (), DATE (), DATEDIFF(), NOW(), WEEKDAY(), WEEKNUM(), YEAR(), MONTH(), DAY()
- Filter functions:

    - ALL (), ALLEXCEPT (), ALLSELECTED(), CALCULATE(), CALCULATETABLE()
- Information functions:

    - CONTAINS(),ISBLANK(),ISERROR()
- Logical functions:

    AND (),IF(),IFERROR(), NOT(), OR(), SWITCH()
- Math and Statistical Functions:

    - DIVIDE (), SUM (), SUMX (), AVERAGE (), AVERAGEX (), COUNT(), COUNTBLANK(), COUNTROWS(), COUNTX(), DISTINCTCOUNT(), MAX(), MAXX(), MEDIAN(), MEDIANX(), MIN(), MINX(), RANKX()
- Text functions:

    - CONCATENATEX (), FIND (), LEFT (), LEN (), MID (), TRIM ()
- Time Intelligence in DAX

    - What is Time Intelligence

    - Date table properties for Time Intelligence

    - Aggregations over time

    - Total Year till Date, Month till Date, and Quarter till Date

    - Same Period Last Year

    - Calculate the Running Total

    - Using date modifier DATESBETWEEN

    - Shifting forward/backward in time using DATEADD ()

    - Using DATESINPERIOD ()

    Using MAX or LASTDATE ()

    - Using FIRST NON-BLANK () and LAST NON-BLANK ()
- Enhancing the user experience

    - Controlling the visibility of your measures

    - Using What-if parameters

Module 6: HR (RECRUITMENT metrics) – Day 3

- Cost per hire
- Source of hire
- First-year resignation rate
- Turnover rate
- The selection ratio
- Time to fill ratio
- Yield ratio

Module 7: General Workforce Metrics – Day3

- Retirement rate
- Average distance from home
- Engagement rate
- Satisfaction rate

Module 8: HR Performance Metrics – Day 4

- Revenue per FTE [Full Time Equivalent]
- Profit per employee
- Profit per FTE
- Overtime per employee
- Labor cost per employee
- Labor cost per FTE
- Labor cost percentage of total expenses
- Absence rate

- Absence rate per manager/department
- Training expenses per employee
- Training efficiency
- Voluntary turnover rate
- Turnover rate
- Turnover rate per manager/department
- Time until promotion
- Promotion rate

Module 9: Data Visualization – Day 5

- Understand the navigation of report view
- Creating a Bar Chart
- Formatting a Bar Chart
- Changing Chart Type
- Creating and Formatting a Column Chart, Line Chart, Pie Chart, Tree Chart, Card, Matrix, Table, Gauge, Slicer

Module 10: Exploring Filters – Day 5

- Cross Filtering through visuals
- Creating a slicer
- Visual level filter
- Page Level Filter
- Report Level Filter
- Drill through the filter
- Exploring visual options (focus mode, show data, spotlight, export)
- Create images, text boxes, and shapes.
- Save the report
- Print the report

Module 11: Dashboard – Day 5

- Pin visuals from the report to the dashboard
- Difference between report and dashboard
- Why visual interaction isn't supported in Dashboards
- Resizing and moving a visual
- Creating an image tile
- Applying alert on the Card
- Pinning complete report to Dashboard

Module 12: Sample Reports and Dashboard – Day 5

- Getting the Sample reports and Dashboard
- How samples are very helpful?
- Editing sample reports and dashboard

Delivery Method:

In-class

Assessment Strategy:

Participants will be informally assessed based on their interaction during sessions, group exercises

- 60 % Cut of a score of total grades which is "100"

Program language:

Material: English

Instruction and Explanation: Bilingual (EN<>AR)

Course Duration:

40 hours