# DIGITAL SKILLS FOR MANAGERS: DATA MANAGEMENT, ANALYTICS AND VISUALISATION

## INTRODUCTION

**Data Handling Skills** are the most important 21st century skills required for business executives, managers and directors who now need to make revenue and cost decisions based on data and evidence. As such, **Data Analytics** is an invaluable tool for creating value in a business. With data analytics, an organisation can obtain a comprehensive view of market conditions, customer needs and preferences, internal capabilities and many more. Usage of data analytics also improves decision making processes by eliminating biasness**. In this session, participants are introduced to basic understanding of Data Management, Protection and Collection processes. Data Visualisation techniques and how to translate insights into actionable outcomes for decision making will be discussed.** Participants will learn about business statistical methods applied in and also, how to build management reporting dashboard for visualisation and decision making.

In doing so, participants will learn how to test the significance of relation amongst variables and after, use it for business purposes. **There will be many hands-on exercises using practice enterprise data sets relating to customers, sales and marketing.**

## OBJECTIVE

**Participants will be able to:**

- Understand the principles behind data collection, protection and management from data systems and extract them for analysis
- Interpret and apply statistical techniques to generate descriptive, predictive and prescriptive insights
- Understand how to present data and insights visually for management reporting and decision making purposes
- Understand practices in companies that apply data analytics in sales, customer and marketing business decision making.

## COURSE OUTLINE

- Basics of Data Collection, Protection and Management
- Extraction of Data from Systems - Types and Sources
- Applications of Data in Business Decisions
- Framework for Business Data Analysis
- Descriptive Statistics and Business Statistical Tests
- Predictive Analytics: Correlation Analysis between Variables
- Predictive Analytics: Modelling for Variables Causing an Outcome
- Regression Analysis and Forecasting of Business Outcomes
- Prescriptive Analysis – Applications and Limitations
- Data Visualisation – Using Charts for Data Insights
- Data Visualisation - Using Pivot Tables and Pivot Charts for Multiple Variables
- Applications of Business Analytics in Sales, Marketing and Customer Analysis

## METHODOLOGY

**The course will be delivered through a combination of the following methods:**

- **Lecture –** To establish initial knowledge transfer
- **Interactive discussions –** To facilitate sharing of ideas and experience within class
- **Case studies & videos –** To illustrate applications
  **Hands-on exercises –** To facilitate application of knowledge transfer

As such, participants need to bring a working laptop, installed with MS Excel. Participants are also recommended to install free analytics software called R and Gretl.

## TARGET AUDIENCE

**For Executives, Managers and Directors** who use data to extract trends and propose commercial solutions. Case studies will touch on customer analysis and retention, market segmentation, marketing effectiveness and sales analytics.

## TRAINER PROFILE

**Mr Freddy Liew** is an award recipient of the SNEF-STEPHEN LEE AWARD for leadership development in Tripartism and Industrial Relations.

Prior to SNEF, Freddy worked with big data at a Global Consulting Firm, Singapore Management University and Ministry of Education. During his previous work, he helped Fortune 500 clients generate useful insights through his work on HR and customer related data. He also worked with professors to provide statistical analysis for banks to better understand and forecast financial variables. Freddy is well versed with various data methods and software and have conducted many runs of data analytics courses for various clients.

Freddy graduated from Nanyang Technological University with Honours in Mathematics and Economics. He also holds a Master of Science in Economics (majoring in Statistics) from the Singapore Management University. He also holds a Post-Graduate Diploma in Education from the National Institute of Education.

Please refer to SNEF website for available dates

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| Duration | : | **1 day, 9am to 5pm (7 hours)** |
| Course Venue | : | **SNEF HQ (Paya Lebar Square)** |
| Course fee | : | **$300.00 (before GST)** |

**Register online at SNEF website, www.snef.org.sg**
**Click on 'Training" and Course Category "Human Resource/Industrial Relation"**
**Or Click: https://snef.org.sg/course_category/human-resource-industrial-relation/**

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