

BUSINESS STATISTICS FOR MANAGERS

(Made Easy with Microsoft® Excel)

INTRODUCTION

Business managers in the 21st century have access to large amounts of information. A major issue is how to use the available information to make better decisions. Sorting, organizing and analyzing data becomes mere activities unless one is able to gain insights into what the data is revealing and accurately make use of the information for further actions. This training program teaches the basic principles and concepts of the use of Statistics for decision-making and demonstrates the power of proven techniques used by highly successful managers in many functional areas of business such as accounting, finance, operations, and marketing. Real business scenarios are used extensively throughout the course to provide an applied context for the workings of statistics.

Unlike traditional Statistical courses that emphasize on meticulous calculations and deriving formula, this training program smartly utilizes common computer spreadsheet techniques (such as MS Excel) to simplify tedious tasks such as calculations, graphing and searching of statistical tables. Our emphasis, therefore, is to focus more on value-added learning such as fast *analysis of business data, interpreting results, taking actions to improve operational controls*, and making *sound business decisions*. Combining various teaching methods such as group discussions and real business case studies, this program also includes computer simulations with an emphasis on participation throughout. This training program is a must for modern managers, executives and engineers whose jobs require handling lot of data and making business and operational decisions.

CONTENTS :

- Introduction
 - Why use MS Excel as a statistical tool?
 - Easy charting and tabling techniques for better decision-making.
 - Easy graphing for business presentations.
- Presenting and Describing Information:
 - Collecting and organizing data
 - Accelerated method to construct problem solving tools (tables and charts)
 - Get new perspectives on data with pivot table.
 - Descriptive Statistics
- Drawing Conclusions from Populations, Based on Sample Information
 - Basic Probability & Discrete Probability Distributions
 - Normal Distribution & Sampling Distribution
 - Confidence Interval Estimation
- Fundamentals of Hypothesis Testings:
 - What is and why do Hypothesis Testing?
 - One sample testing - - t-test, Z-test
 - Two-sample testing - - Z-test, F-test
- Analysis of Variance (ANOVA):
 - What is and why do ANOVA ?
 - One-way ANOVA
 - Two-way ANOVA
- Simple Linear Regression Model and Correlation

- Simple Regression model
- Correlation coefficient
- Interpret the effects of Price and Advertisements on Sales
- Statistical applications in quality improvements:
 - Prioritizing action plans with Pareto Diagram, separating the “Vital Few” from the “Trivial Many”.
 - Analyzing data with Histogram & Probability Plots
 - Basic principle of Statistical Process Control (SPC)
 - What is a control chart?
 - Using control charts to gauge and control process improvements
- Exercises and Case Studies:
 - Real business scenarios & case studies
 - Business decision-modeling
 - Individual and group exercises

Special note: Participants must have basic Microsoft Excel spreadsheet skills such as data entry, using formulas, work with cell references, edit graphs, printing, etc.

OBJECTIVES

At the end of the program, participants will be able to:

- Understand the overall concepts, principles and methods using Statistics for making sound business decisions.
- Utilize the computer to quickly to analyze data, transform it into valuable business information and make business presentations.
- Utilize the computer to quickly construct powerful tools for problem solving and operational controls.
- Know how to efficiently draw conclusions about large populations based only on information obtained from samples.
- Perform hypothesis testing and Analysis of Variance (ANOVA) techniques.
- Acquire working knowledge of process control and quality improvement techniques.

WHO SHOULD ATTEND

This program is useful for Managers, Executives or Head of Department who need to make decisions for their businesses/ operations.

ADMINISTRATIVE DETAILS

Duration : 2 days

Time : 9.00am – 5.00pm

Venue : In-house or external training program

Note: Computers loaded with MS Excel software must be made available for participants to work on it. It is highly preferable that participants bring their own laptops. Value-added Excel templates will be provided for the participants.

ABOUT THE TRAINER

Nelson Kok is a graduate from the Universiti Sains Malaysia, and holds a Master in Business Administration (MBA) and a B.Sc (Hons) degree in Physics. He has more than 24 years of work experiences, of which 17 years are in Training & Development related field, working with both multinational companies such as AT&T Consumer Products Pte Ltd, Corner Peripherals Sdn Bhd, Read-Rite (M) Sdn Bhd, and local companies such as Globetronics Technology Berhad, Amquest Sdn Bhd and GGN Solutions.

He now served as an associate consultant and a freelance corporate trainer to several training providers in Malaysia, China, Singapore & Sudan Africa. He has conducted many training programs for both multinational and local companies. He also served as a lecturer for several higher learning institutes such as Open University Malaysia (OUM), Society of Business Practitioners, UK (SBP), International Centre for Quality, Sudan. Throughout his career, he was a certified trainer for many management, quality and productivity programs such as *Performance Management System (PMS)*, *Managerial Decisions & Business Modeling*, *Managerial Statistics*, *Effective Leadership Skills*, *Train-The-Trainer*, *Total Quality Management (TQM)*, *Statistical Process Control (SPC)*, *Quality Control Circles (QCC)*, *Quality Improvements using 7QC Tools*, *7 Steps Problem Solving*, *5S Good Housekeeping*, *QIT*, *MRPII*, *ERP*, *Team Building Program*, *Effective Meetings Workshop*, *Effective Supervisory Skills*, *Communication and Leadership Skills*, *Problem Solving & Decision Making*, *Effective Time Management*, *Motivation At Work*, *Frontline Leadership Program*, and *7 Habits of Highly Effective People*. He has also conducted many quality audits and was directly involved in company's ISO 9001 and Quality Management Excellence Award (QMEA) certifications. Nelson's area of specialization is in helping organizations to achieve higher effectiveness and productivity using proven Management, Quality and IT tools and techniques.