

Making Effective Decisions with Business Statistics - 3 Days

Course 196 Overview

- You Will Learn How To**
- Fully support your business decisions through proven statistical techniques
 - Manage contingencies and risks to enhance your business strategies
 - Optimize your decisions by applying measurements and tests to your data
 - Leverage survey techniques to effectively evaluate data
 - Prepare your organization for future trend fluctuations through statistical forecasting methods
 - Present information with precision and clarity
- Course Benefits** In today's uncertain economic climate, professionals need to ensure that their business decisions are based on correct factual analysis. This introductory course takes the mystery out of statistics so that you can analyze your data with clarity and precision. By evaluating data using proven statistical business tools and techniques, you learn to make effective, fact-based business decisions.
- Who Should Attend** Those interested in improving their decision-making process, including managers, project managers and business analysts. Experience with Excel at an introductory level is assumed. No prior knowledge of statistics or data analysis is required.
- Hands-On Training** Hands-on activities reinforce how statistical techniques are applied to business processes. Exercises, completed in Excel, include:
- Selecting the best chart for a business decision
 - Applying decision trees effectively to create a business strategy
 - Validating the efficacy of an improvement
 - Choosing a cost-effective sample size for a survey
 - Preparing and authenticating forecasts
 - Identifying misleading results

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Course 196 Outline

Introduction and Overview

- The need for robust data in the decision-making process
- Defining key statistical terminology
- Identifying qualitative and quantitative data types
- Selecting the right charts to support decisions

Managing Decisions under Uncertainty

Assessing probable outcomes

- Determining events that impact your decisions
- Combining probabilities for a stronger estimate
- Weighing the probabilities of related and unrelated events

Planning a business strategy using decision trees

- Building a decision tree from probabilities
- Applying expected values to determine the best outcome

Gaining competitive advantage

- Modeling a competitor's decision process
- Leveraging backward conditional probabilities
- Bolstering your estimates with public information

Supporting Decisions with Valid Data

Exploiting effective measuring techniques

- Interpreting data with fact-based measures
- Ensuring the correct measures are used to structure results
- Improving the accuracy of your findings with key measures of dispersion

Bulletproofing decisions

- Validating your results by quantifying skewness
- Optimizing your measures by removing outliers

Leveraging the power of distributions

- Calculating the probability of success
- Finding the probability of defects

Driving Your Decisions through

Statistical Tests

Making informed decisions from a data subset

- Estimating key measures from a dataset
- Calculating ranges

Verifying decisions

- Deriving alternative possibilities
- Testing decisions using tangible data
- Selecting a one- or two-tailed test to guarantee accuracy

Assessing a performance improvement

- Collecting data to baseline the improvement
- Checking for changes in key performance indicators (KPIs)
- Mitigating error by choosing an appropriate confidence level

Answering Business Questions through Surveys

Gathering meaningful data

- Choosing the best type of survey
- Designing effective survey questions

Maximizing the integrity of your data through probability-based sampling methods

- Random
- Stratified
- Systematic
- Cluster

Avoiding common mistakes in sampling

- Convenience
- Judgment

Ensuring data robustness

- Qualifying surveyed data by selecting the right sample size
- Deciding the required level of confidence
- Choosing the most cost-effective level of accuracy

Recognizing Trends with Strong

Forecasting Techniques

Evaluating the model that best predicts your data

- Linear
- Exponential
- Logarithmic

- Forecasting accurate projections
- Measuring the "goodness of fit"

Forecasting business developments

- Selecting the number of forecast periods
- Applying the trendline formula

Refining your forecast

- Discovering seasonality in your data
- Integrating seasonal factors for an improved forecast

Presenting Data and Conclusions Accurately

Pinpointing statistical quirks

- Uncovering techniques used to mislead
- Data dredging
- Biased samples

Preparing results for presentations

- Ensuring the main points are communicated
- Sidestepping common mistakes in charts