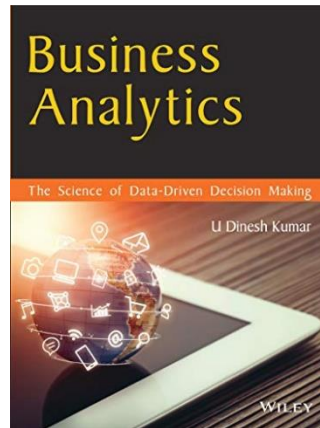


Reference Book:

Business Analytics: The Science of Data - Driven Decision Making **by** U. Dinesh Kumar



TOPICS

1. Introduction To Business Analytics

- Data-Driven Decision Making (Stages)
- Pyramid Of Analytics

2. Business Analytics: The Science of Data-Driven Decision Making

- Business Context, Technology, Data Science
- Types Of Analytics

3. Six Sigma

4. Descriptive Analytics

- Data Types & Scales
- Population & Sample
- Measures Of Central Tendency
- Percentile, Decile, And Quartile
- Measures Of Variation

5. Sampling & Estimation

- Why And When to Sample?
- Population Parameters and Sample Statistic
- Sampling Process
- Probabilistic Sampling - Types
- Non-Probabilistic Sampling – Types

6. Predictive Analytics (Linear Regression)

- Simple Linear Regression
- Testing Your Regression
- Linear Least Squares Fitting

7. Forecasting Techniques

- Introduction To Forecasting
- Demand Forecasting Objectives
- Time-Series Data
- Components Of Time-Series Data
- Forecasting Techniques
- Forecasting Accuracy Measures

8. Prescriptive Analytics

- Prescriptive Analytics Problems (In Business)
- Prescriptive Analytics Problems (General)
- Linear Programming
- Linear Programming Model Building Steps

9. Confidence Intervals

- Interval estimate
- Confidence level
- Confidence Interval for population mean

10. Central Limit Theorem

11. Questionnaire, Data Analysis & Survey

- Formulating Hypothesis
- Questionnaire design
- Variables identification, data collection, analysis
- Coding qualitative data

12. Hypothesis testing

- Statistical tests (t-test, Z-test, Chi-square test)
- Results & Implications