

Statistical Data Analysis in the Hospitality Industry

STATISTICAL DATA ANALYSIS IN THE HOSPITALITY INDUSTRY

MINJUNG SHIN

University of Houston Libraries



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INTRODUCTION

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This book covers the basic principles of statistics necessary to conduct hospitality research. The primary topics addressed will include the links between theory, research design, and statistical techniques; variable measurement and frequency distributions; summary statistics for central tendency and variation; hypothesis testing; and bivariate correlation and regression analysis. Students will be able to attain critical thinking skills necessary for analyzing, evaluating, and making decisions about issues in hospitality and related areas in the following objectives.

- Summarizing data descriptively using frequency distributions in the form of tables, charts, and graphs
- Testing hypotheses and comparing group means
- Summarizing the relationship between two or more variables using correlation analysis, regression analysis, and analysis of variance
- Estimating the underlying constructs by using factor analysis.

1.

CHAPTER 1: SAMPLING & MEASUREMENT

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2.

CHAPTER 2: DESCRIPTIVE STATISTICS

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3.

CHAPTER 3: Z-SCORES

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4.

CHAPTER 4: PROBABILITY DISTRIBUTION

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5.

CHAPTER 5: HYPOTHESIS TESTING

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6.

CHAPTER 6: COMPARISON OF TWO GROUPS

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7.

CHAPTER 7: ANALYSIS OF VARIANCE (ANOVA)

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8.

CHAPTER 8: LINEAR REGRESSION & CORRELATION

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9.

CHAPTER 9: MULTIPLE REGRESSION & CORRELATION

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APPENDIX A: NORMAL DISTRIBUTION TABLE (Z-SCORE TABLE)

This section links to the Standard Normal Cumulative Probability Table provided by the University of Houston Math Department.

- [Appendix A: Normal Distribution](#)

APPENDIX B: T-TABLE

This section contains a link to the t-distribution Table provided by the University of Houston Math Department.

- [Appendix B: t distribution table](#)

APPENDIX C: F-TABLE

This section contains a link to the F-table provided in the government site tables used in statistics. (NIST/SEMATECH e-Handbook of Statistical Methods, <http://www.itl.nist.gov/div898/handbook/>, January 3, 2009)

[Appendix C: F-table](#)