test, and multi-sample test are described on several examples of customer satisfaction studies on a sweet snack, teaching effectiveness, facilities services at an airport. It is useful to note that some other approaches to Likert scales description are also developed in Camparo and Camparo (2013) and Lipovetsky and Conklin (2018). Chapter 3 considers ranking for multivariate populations, known in various applied research, for example, in Chemistry, Engineering, Food Science, Biomedicine, Marketing Research, etc. For multiple response and predictor variables, the nonparametric combinations, or NPC inference is presented by several permutation tests, for instance, Anderson-Darling and multi-focus statistics, with application to food sensory analysis in wine, cream cheese, and bread quality. Chapter 4 focuses on the composite indicators used in performance monitoring (PM) for evaluation the satisfaction with public services, organizations, or products. Performance indicators (PI) are built as composition of several simple indicators, and used with NPC tests, which also include the satisfaction profiles. Implementation of this approach is shown on the students’ overall satisfaction with various organizational and teaching aspects of their university experience. Chapter 5 concludes that the parametric multivariate analysis of variance (MANOVA) should not be used for the rank-based inference by categorical responses but the NPC nonprone to the specifics of distributions should be applied. The chapter describes how a global null-hypothesis can be constructed, test statistics performed, sampling distributions and p-values estimated. Finally, working with the R-package npvm is described, with examples of its application and interpretation of the results.

All examples are illustrated with multiple tables and color graphs, each chapter presents a list of the most recent publications. The book is interesting, innovative, and can serve to researchers interested in trying new techniques in customer satisfaction and other behavioral studies.

References

Camparo, J., and Camparo, L. B. (2013), “The Analysis of Likert Scales Using State Multipoles: An Application of Quantum Methods to Behavioral Sciences Data,” Journal of Educational and Behavioral Statistics, 38, 81–101. [139]

Lipovetsky, S., and Conklin, M. (2018), “Decreasing Respondent Heterogeneity by Likert Scales Adjustment via Multipoles,” Stats, 1, 169–175. [139]

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Sequence Analysis and Related Approaches: Innovative Methods and Applications by Gilbert Ritschard and Mattias Studer. Geneva, Switzerland: Springer, 2018, x+298 pp, $59.98, ISBN: 978-319-95419-6.

This edited volume showcases the research on sequence analysis and related methods for analyzing longitudinal data in a host of applications. The longitudinal data analysis has been useful and popular for several applications. The sequence analysis strategies commonly applied in cross-fertilization across disciplines: development of social psychology, social demography, social history, among others. It has application in a wide area of statistical and related research and applications. The volume provides a good blend of applications and methodological work.

Quantile regression inference strategies commonly applied in survival regression, time series analysis and longitudinal data. However, it has application in a wide area of statistical and related research applications. I think that the use of quantile regression should be more in demand now-a-days, due to availability of ultrahigh dimensional datasets. The methodological contributions emphasize:

• Measuring the precariousness of work trajectories
• Markov based methods for clustering sequences
• Fuzzy and monothetic clustering of sequences
• Network-based sequence analysis
• Joint use of sequence analysis and hidden Markov models

The volume is divided into six parts. There are 15 chapters in total providing a generous review of recent developments to a broad spectrum of Sequence analysis strategy. As one can expect, such a volume can be subject to a list of diverse but related areas. Noting that the volume is originated in the International Conference of Sequence Analysis and Related Methods held in Lausanne, 2016. As indicated by the Editors, all the submissions were evaluated by at least three reviewers.

The editors have done a good job in preparing the Preface, giving a good overview of contributions, providing characteristics of the chapters in a table, short and sweet! Below is a biased selection of title of the respective chapters in the book:

• Case Studies of Combining Sequence Analysis and Modeling
• Sequence History Analysis (SHA): Estimating the Effect of Past Trajectories on an Upcoming Event
• Network Analysis of Sequence Structures
• Multiphase Sequence Analysis
• Combining Sequence Analysis and Hidden Markov Models in the Analysis of Complex Life Sequence Data
• Markovian-Based Clustering of Internet Addiction Trajectories
• Divisive Property-Based and Fuzzy Clustering for Sequence Analysis
• Measuring Sequence Quality

The book is well organized, structured and topics appear in a logical manner. In a sense, the almost all chapters are self-contained. The book includes many useful topic methodologies for practitioners, graduate students and researchers alike, in the broad arena of sequence analysis. The contributions presented such that they make it accessible to readers with moderate to strong knowledge of probability and statistics. One of the main strengths of the volume, is that it provides the methodology and concepts that are illustrated with data examples. The mathematical treatment and formalism are moderate, and the narrative is reasonably modern and clear. The content volume is useful for...
practitioners who want to develop sequence analysis strategies for the problem at hand. In summary, I am happy to report that this is a good collection of work at one place. I think this volume will attract a broad audience. I enjoyed reading some of the chapters, especially on Modeling Mortality Using Life Trajectories. It was good to see the applications of Kaplan-Meier method and Cox regression.

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**Practical Tools for Designing and Weighting Survey Samples (2nd ed.),** by Richard Valliant, Jill A. Dever, and Frauke Kreuter. Cham, Switzerland: Springer, 2018, x + 776 pp., $99.99, ISBN: 978-3-319-93631-4.

The first edition of this book was released in 2013. I do not find any record of a previously reviewed edition in the Techno-metrics Journal. Like the first edition the aim and scope of this edition is to remain the same and it continues to provide tools and techniques for designing and weighting survey samples. Resembling the first edition, the current edition is to continue providing useful information and tools to practitioners, graduate students and researchers in their fields. This edition is seriously revised and updated, resulting in 776 plus pages.

The authors did a fine job in providing the detailed information about new material to this edition in Preface and are reproduced here:

Additional or enhanced examples for:
- Domain sample size calculations (Chapter 3)
- Mathematical programing (Chapter 5)
- Ration estimation, weight calibration, and design effects (Chapter 14)
- Replicate weights (Chapter 15)

Expanded discussion of these topics:
- Estimating unit variances from survey data (Chapter 9)
- Combining undersized sample units and address-based sampling (Chapter 10)
- Weighting (general steps and nonresponse adjustments (Chapter 13)
- Multiphase sampling (Chapter 17)

New items:
- Details on new functions in the PracTools package:
  - nDomain for domain sample size calculations (Chapter 3)
  - deff for the Chen-Rust, Henry, and Spencer design effects (Chapter 14)
  - pclass for estimating response propensities and forming classes (Chapter 13)
  - NradjClass to compute five different nonresponse adjustments in a set of classes using output from pclass (Chapter 13)
- Additional machine learning methods (random forest, cforest) to form weighting classes (Chapter 13)
- Sandwich variance estimators (Chapter 15)
- Entire chapter on nonprobability sampling (Chapter 18)
- Additional exercises and updated references throughout the text

Again, the authors made a substantial revision in this edition. The literature review is relevant and extensive. The format is standard, includes some figures for a clear and smooth grasp of the material. The chapters are nicely structured, well presented and motivated. The main strength of the book is that it offers a good number of examples that based on real datasets emerging from related fields. Further, it is providing enough exercise questions making it easier for adoption as a graduate textbook. The book will be equally attractive to graduate students, practitioners and researchers in respective fields. The book contributes stimulating and substantial knowledge for survey methods for the benefit of a host of scientific communities.

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