



# ADVANCED RESEARCH METHODS IN HOSPITALITY AND TOURISM

EDITED BY

DR. FEVZI OKUMUS  
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# **Advanced Research Methods in Hospitality and Tourism**

The Advanced Research Methods in Hospitality and Tourism book makes a great contribution to literature by providing a cutting-edge overview on research methods used in hospitality and tourism. A range of useful chapters written by experts in our field focus on different topics including mixed-method research methods, scale development, application of neuromarketing, and text mining approaches. This is a comprehensive methodology overview from world-class experts, and the readers can get extensive knowledge and experiences on different research methods. The book will support researchers and students undertaking research, and it is therefore highly recommended.

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# Chapter 1

## Introduction

*S. Mostafa Rasoolimanesh, Shiva Jahani and Fevzi Okumus*

Over the last 20 years, the number of hospitality and tourism peer-reviewed journals has grown from 10 to 300 (and counting) – an average of 145% increase per year and a total 2,900% increase over 20 years (Nunkoo, 2018). Over this period, research in the hospitality and tourism industry has grown in breadth and depth, and the questions needing answers have grown in complexity. As such, scholars need to apply advanced research methodologies (Ali, Rasoolimanesh, Sarstedt, Ringle, & Ryu, 2018; Hadinejad, Moyle, Scott, & Kralj, 2019; Okumus, Koseoglu, & Ma, 2018; Rasoolimanesh, Ringle, Sarstedt, & Olya, 2021; Rasoolimanesh, Wang, Mikulić, & Kunasekaran, 2021; Rasoolimanesh, Wang, Roldán, & Kunasekaran, 2021; Tavakoli & Wijesinghe, 2019). To this end, the editors have produced this book that introduces advanced research methodologies relevant to current research in hospitality and tourism.

This first chapter provides a preview of the chapter content in this book. A paragraph is dedicated to each chapter. Methodologies covered in this chapter include mixed-method approaches to tourism and hospitality research, scale development, psychophysiological tools, importance of archival materials, the importance and challenges of ratings and review in online databases, text mining, scientific inquiry, qualitative analysis of social media historical data, Q-methodology incorporating photo-elicitation, and research ethics.

In Chapter 2, Jaylan Azer, Babak Taheri, and Martin Gannon have provided a critical view on mixed-method approaches to tourism and hospitality research. They highlighted the growth and popularity of mixed-methods research (MMR) over recent decades compared to mono-qualitative and mono-quantitative approaches. The authors discussed (1) research paradigm, (2) reasons to apply mixed-methods designs, (3) rigorosity of MMR, (4) advantages and challenges of MMR, and (5) guidelines for application of MMR in tourism and hospitality research.

In Chapter 3, Elizabeth Agyeiwaah has highlighted the exploratory sequential mixed-methods design with an example of small tourism enterprises in Ghana. She examined the application of exploratory sequential mixed-methods design, which involves the first phase of qualitative data collection and analysis that informs the second phase of quantitative data collection for a thorough

explanation of the results. This design is applied in the context of small accommodation enterprises (e.g., homestay) to highlight its advantages.

Ali Bavik, Kuo Chen-Feng, and John Ap have illustrated the scale development process in Chapter 4. The authors of this chapter state that numerous scales have been developed and utilized in the tourism and hospitality field, yet their psychometric properties have not been systematically reviewed. This gap compromises researchers' ability to develop better measures and make better measurement decisions. The authors reviewed 56 scales and related development procedures as well as summarized the psychometric properties of the scales. Ali et al. provided recommendations for future tourism and hospitality scale development.

Hakan Boz and Erdogan Koc have discussed the role and potential of psychophysiological tools of research in tourism and hospitality in Chapter 5. Encounters between customers and service providers often include frequent (and sometimes intense) contact and social interactions, which may determine customers' satisfaction and dissatisfaction. As such, examining customers' emotional reactions and the correlation with their satisfaction outcomes aids researchers and practitioners in understanding how customers' emotions may influence planning, marketing, implementation, and satisfaction. Psychophysiological tools, often referred to as neuromarketing tools, allow researchers to collect realistic data regarding customers' emotions related to service encounters. The authors explained and discussed the use of tools such as the electroencephalography (EEG), eye tracker, the Galvanic skin response, and facial expression recognition.

Parisa Saadat Abadi Nasab, Neil Carr, and Trudie Walters in Chapter 6 have highlighted the importance of archival material and how, despite its secondary nature, it can provide first-hand information for researchers. By providing a variety of examples from tourism, hospitality and leisure, the authors demonstrated how this underused data can be a valuable resource for these areas of study. To illustrate how to use archival material as data, the authors provided a step-by-step process to analyzing archival photographs. The authors also discussed the challenges and ethical considerations associated with using archival material while also providing suggestions for the use of this data source in future studies.

In Chapter 7, Juan Pedro Mellinas and Eva Martin-Fuentes have highlighted the importance and challenges of ratings and reviews in online databases as a new source of data for tourism research. Data from websites like TripAdvisor are replacing or complementing traditional questionnaires and interviews. However, TripAdvisor does not provide information on sample design and the possible biases that this could entail. The authors proposed a methodology to estimate the percentage that the sample of self-interviewed individuals accounts for over the total population under study in order to calculate the reliability of the results obtained.

In Chapter 8, Gozde Ozturk and Abdullah Tanrisevdi have illustrated text mining approach with an example from cruise tourism. Text mining studies extract information and meaning from texts as viable data. This process does not lend itself well to manual analysis of individuals' thoughts and feelings. Therefore,

studies that automatically reveal meaningful information have become a necessity. In response to this need, sentiment analysis studies have developed. Sentiment analysis applies natural language processing techniques to automatically identify and analyze subjective information in natural language settings. This chapter sheds light on researchers and practitioners about sentiment analysis in hospitality and tourism. The technical details described throughout the chapter with a case study to provide clear insights and guidelines for researchers to apply this method.

Ismail Shaheer, Neil Carr, and Andrea Insch have discussed qualitative analysis of social media historical data in Chapter 9. Social media is noted for its usefulness and contribution to destination marketing and management. Social media data is particularly valued as a source to understand issues such as tourist behavior and destination marketing strategies. Among the social media platforms, Twitter is one of the most utilized in research. The use of Twitter in research poses two significant considerations which are the challenge of obtaining historical data and the importance of qualitative data analysis. To address these two points, the authors presented a hands-on approach to collecting historical data from the Twitter platform. As such, they argued that retrieving tweets using hashtags and keywords on the Twitter website provides a corpus of tweets that is valuable and sufficient for research, especially for qualitative inquiries. In addition, the value of qualitative analysis of Twitter data is presented, demonstrating how such an approach captures more in-depth information, enables appreciation and inclusion of the non-conventional language used on social media, enhances understanding of the relationship between individual elements in a message, distinguishes between *noise* and useful information, and recognizes information as the sum of all parts in the data.

In Chapter 10, Paulin P.L. Wong and Balvinder Kaur Kler have highlighted an innovative qualitative method to collect data to understand host community place meanings by combining focus group interviews and visitor employed photography with an adapted Q-methodology. This chapter elaborates on original qualitative methods used to collect data consisting of verbal and pictorial techniques, and an adapted Q-methodology incorporating photo-elicitation. The research design for data collection is provided as a guideline to illustrate how the study progressed through two essential parts. This study contributes to a gap in method on how to extract pictorial measures on a collective basis to systematically produce group place meanings.

In Chapter 11, Giovanna Bertella has discussed the research ethics of examining animals' roles in tourism and hospitality. In recent decades, an increasing number of scholars have been interested in exploring animals and their roles in the context of tourism, hospitality, and leisure. Recent studies have covered both the practical and theoretical aspects of this topic, sometimes including considerations of animal ethics. The author argued that it is time to reflect on the research ethics and the methodological implications of such emerging perspectives. This chapter presented a literature review addressing the recent shift in tourism, hospitality, and leisure studies from human/animal dualism and anthropocentrism toward a recognition and inclusion of the animals' perspectives. He developed a set of

guidelines for a methodology to underpin research about and with animals, inspired by the ecofeminist care tradition and elaborated according to the reviewed literature and the author's personal experience. The guidelines involve reflexivity, philosophical and practical clarifications of the research perspective and content, the researchers' knowledge of animals, and the possible impact of such research on the animals. Three main approaches are identified: a fictional approach, multispecies ethnography, and a multispecies technology-based approach.

Finally, Chapter 12 written by the editors has summarized and synthesized the recommendations provided by the authors of each chapter for applications on the illustrated methods in hospitality and tourism research.

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## Chapter 2

# A Critical View on Mixed-Method Approaches to Tourism and Hospitality Research

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### Abstract

Mixed methods research (MMR) represents an alternative methodological approach, combining qualitative and quantitative research styles, and enabling researchers to explore complex phenomena in detail. This chapter provides a critical view of mixed methods research and its application in social science research, with examples from tourism and hospitality used to guide those aiming to undertake mixed-methods research projects. The chapter provides insight into the characteristics of MMR, distinguishing it from a multi-method approach. It also provides a detailed explanation of different MMR designs and highlights the advantages and challenges of adopting a mixed-methods approach. Moreover, the chapter discusses approaches to analysis which are pivotal to MMR design. Finally, the chapter concludes with recommendations for researchers hoping to adopt a mixed-methods approach.

*Keywords:* Mixed-methods; research design; hospitality research design; tourism research design; social sciences research design; alternative research design

### Introduction

The popularity of mixed methods research (MMR) has grown over recent decades, with its position alongside singular qualitative and quantitative approaches to research now firmly established (Gibson, 2017; Teddlie & Tashakkori, 2009). Serving as a “third way,” a mixed-method approach is not concerned with replacing traditional qualitative or quantitative techniques but it instead combines the strengths of each in order to minimize and/or negate any

weaknesses therein (Johnson, Onwuegbuzie, & Turner, 2007; Khoo-Lattimore, Mura, & Yung, 2019). Accordingly, a mixed-method approach to research can be broadly characterized as:

The type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purpose of breadth and depth of understanding and corroboration. (Johnson et al., 2007, p. 123)

Nevertheless, while the *combined* deployment of qualitative and quantitative techniques is core to MMR, some ambiguity remains regarding the differences between multi-method and mixed-method approaches to research. In contrast with MMR, multi-method approaches combine multiple qualitative methods (e.g., case studies and ethnography) *or* multiple quantitative methods (e.g., surveys and experiments) (Harrison & Reilly, 2011). Therefore, multi-method research reflects the notion of multiple operationalism favored by early social science researchers, with this originally introduced to improve the validity of research findings (Campbell & Fiske, 1959). In the 1970s, multi-method approaches evolved, motivated by a desire to convey the potential for triangulation born from the deployment of quantitative and qualitative data sources as a means of cross-validation (Denzin, 1978; Jick, 1979). However, despite the shared concession that using a range of methods can help to strengthen research processes, an emphasis on multiple operationalism, convergent validation, and methodological triangulation is more closely related to a multi-method, as opposed to mixed-method, approach to research (Harrison & Reilly, 2011; Johnson et al., 2007).

Accordingly, MMR extends beyond simple triangulation in pursuit of validation (Creswell, 2014; Johnson & Onwuegbuzie, 2004), serving instead to legitimize studies underpinned by pragmatic philosophical assumptions by integrating both qualitative and quantitative methods to answer research questions that cannot be addressed using a single method (Creswell & Clark, 2011; Doyle, Brady, & Byrne, 2009). As such, there is a range of circumstances where a mixed-methods approach proves most appropriate. For example, under conditions where one source of data is considered insufficient or incomplete; initial results require further explanation; or where a research project has multiple phases. To this end, the decision to adopt MMR in pursuit of research aims is often pragmatic, paradigmatically underpinned by a combination of assumptions from potentially incongruous viewpoints. This chapter, therefore, begins by discussing the paradigmatic foundations of MMR prior to discussing the approach itself in greater depth.

## Research Paradigm

MMR is characterized by heated discourse concerning the incongruity between the multiple perspectives required to appropriately deploy a mixed-method design

and established understanding of research philosophy (Khou-Lattimore et al., 2019). Moreover, the complexity of MMR's paradigmatic foundations is exemplified by how this approach is operationalized in practice; those conducting MMR must embrace ontological, epistemological, and axiological viewpoints from a range of (often competing) methodological traditions (Table 1). Accordingly, debate has centered on *whether, how, and the extent to which* research paradigms should be 'mixed,' irrespective of the functional benefits of adopting a mixed-method approach.

Table 1. Competing Characteristics of MMR.

Criteria	Explanation
Uses of positivism:	Positivists claim that reality is "out there," capable of being accessed and understood with the right tools, whereas post-positivists believe that reality can never truly be comprehended. As a result, Post-positivists typically use multiple methods to capture "reality" as much as possible.
Acceptance of postmodern sensibilities:	Postmodern researchers argue that the positivist method is one way of telling a story, and that this might be no better or no worse than any other method. Therefore, these researchers seek alternative methods for assessing their study. However, positivists and post-positivists contend that what they do is good science, free of individual bias and subjectivity, and they see postmodernism as an attack on reason and truth.
Capturing the individual's point of view:	Qualitative researchers argue that quantitative researchers may not capture the subject's view because they prioritize empirical materials. In response, some quantitative researchers consider qualitative studies as less objective.
Examining the constraints of everyday life:	Quantitative scholars rely on probabilities derived from the study via randomization, whereas qualitative researchers seek a case-based position that directs their attention to the particular cases.

*Source:* developed by authors based on Creswell (2014), Guba and Lincoln (2005), and Harrison and Reilly (2011).

Given the core differences in research philosophy outlined in Table 1, some scholars go so far as to advocate against mixing research paradigms and subsequent methodological strategies entirely, with this perspective on MMR captured by the moniker “incompatibility thesis” (Guba & Lincoln, 2005). Accordingly, this perspective contends that the two prevailing research paradigms (positivism and constructivism) are fundamentally incompatible, with irrevocable ontological, epistemological, and axiological differences. Furthermore, those adopting this perspective suggest that the diversity in views characteristic of positivism and constructivism are fundamentally incompatible to reasoning (e.g., deductive vs. inductive), legitimizing knowledge, generalizing findings (e.g., nomothetic versus ideographic statements) and accepting causal relations (Bryman, 2006b), further stressing the incompatibility of MMR design more generally.

Nevertheless, two main research paradigms are typically adopted to justify an MMR approach to social science research, with this also evidenced across hospitality and tourism studies. First, *pragmatism* (problem-based or objective-based) is proposed as a paradigm capable of prompting mutual dialogue between the (apparent) empirical and theoretical/philosophical incongruences core to MMR (Khoo-Lattimore et al., 2019). A pragmatic underpinning challenges the notion that “predetermined frameworks” form truth and knowledge (Easterby-Smith, Thorpe, & Jackson, 2012, p. 32) and, therefore, researchers can use any methodological approach to tackle research questions and problems (Maarouf, 2019).

Methodologically, pragmatism contends that a research project can sit within an inductive or deductive research phase at different intervals (Baggio & Mariani, 2019; Teddlie & Tashakkori, 2009). Accordingly, an “abductive” approach to reasoning is proposed as a practical alternative, with this used to support a process of inquiry that assesses previous inductive results (Morgan, 2007). At this abductive stage, the goal is to explore the data, identify patterns, and suggest plausible hypotheses via discreet categories. Subsequently, the deductive approach enables forming logical and testable propositions based upon plausible premises, with inductive reasoning serving to approximate the truth in parallel to pragmatically guiding the general inquiry (Teddlie & Tashakkori, 2009). This abductive approach is employed when sequentially integrating qualitative and quantitative methods, serving as the philosophical bedrock of much MMR design (Baggio & Mariani, 2019; Morgan, 2007).

Second, *post-positivist* perspectives can serve as a response to the shortcomings of positivism. Generally, a positivist philosophy encourages researchers to perceive reality objectively, leaving little room for the subjective interpretation of results (Hudson & Ozanne, 1988). Accordingly, Ackroyd and Fleetwood (2000) identify the functional drawbacks of reducing research philosophy to two opposed perspectives:

We arrive at the commonly held position that there are two basic perspectives on offer: either the world is objectively and unproblematically available and capable of being known by the systematic application of the empirical techniques common to