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Integrating Online and Real-time Qualitative & Quantitative Data in Tourism

From data to tourism intelligence



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The Value of Mixed Methods in Tourism Research

Qualitative Depth

Captures motivations, emotions, and experiences through stories and feedback.

Reveals the "why" behind tourist choices.

Quantitative Breadth

Measures behaviors, demographics, and spending patterns.

Shows the "what" and "how many" of tourism activities.

Combined Power

Creates comprehensive understanding of tourism phenomena.

Enables both macro trends and micro insights.

M. Teresa Borges-Tiago et al.

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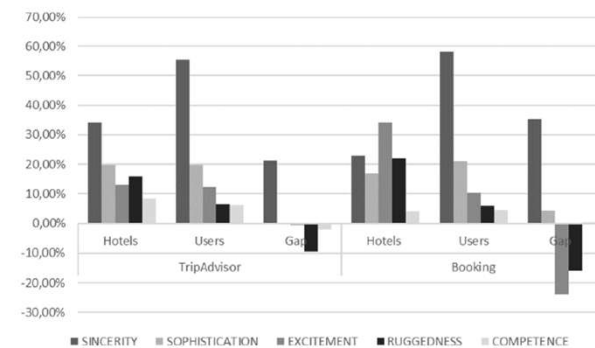


Fig. 2. Brand personality traits communicated by the different sources.

truzda resuarn on Travel Truvist Tourytist

Review



Safel on Tuda preview



Link fast

Truvifuctivw.

Sources of Qualitative and Quantitative Tourism Data Online

Qualitative Sources

- Travel blogs and vlogs
- Review platforms (TripAdvisor, Yelp)
- Social media conversations
- Open-ended survey responses

Quantitative Sources

- Website analytics
- Online booking statistics
- Mobile app usage data
- Structured survey results
- Bank data
- GIS-data

Hybrid Sources

- Location check-ins with comments
- Rating systems with reviews
- Tagged social media photos



Methods for Integrating Qualitative and Quantitative Data



Merging

Combining datasets for unified analysis.

Example: Linking review content with booking patterns.



Connecting

Using one dataset to inform analysis of another.

Example: Survey responses guiding statistical investigation.



Quantizing

Converting qualitative data into numerical values.

Example: Coding sentiment in reviews as scores.




Hybrid Analysis

Applying mixed methods analytical techniques.

Example: Text mining with statistical validation.

Table 3
Default sentiment scale used in Semantria Adapted from: [Lexalytics \(2020\)](#).

Sentiment	Range
Negative	< -0.05
Neutral	[-0.05 to 0.22]
Positive	> 0.22



	Booking.com	TripAdvisor	Chi2	P (2-tails)
CONSTRAINING	0.08%	0.14%	0.523	0.469
DISLIKED & LIKED	33.56%	15.16%	1390715	0.000
INTERESTING	0.05%	0.17%	45.117	0.000
LITIGIOUS	0.05%	0.10%	3.61	0.057
MODAL WORDS				
STRONG	1.01%	2.49%	226.661	0.000
NEGATIVE	15.97%	18.51%	1929.205	0.000
POSITIVE	47.41%	60.93%	3047.942	0.000
SUPERFLUOUS	0.03%	0.09%	11.407	0.001
UNCERTAINTY	1.84%	2.42%	99.867	0.000

Fig. 4. Results from SA by platform.

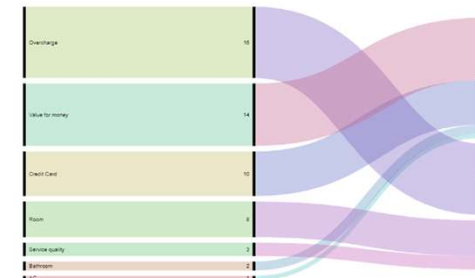
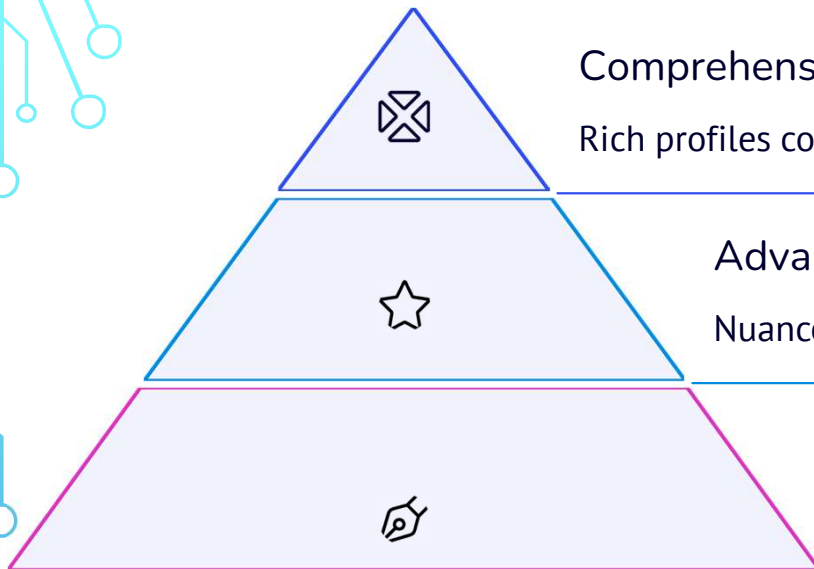


Fig. 6. Dispersion of subjects within the litigious comments.

Applications in Tourism Profiling



Comprehensive Tourist Personas

Rich profiles combining behaviors and attitudes

Advanced Market Segmentation

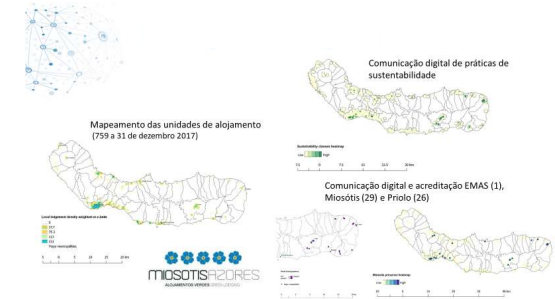
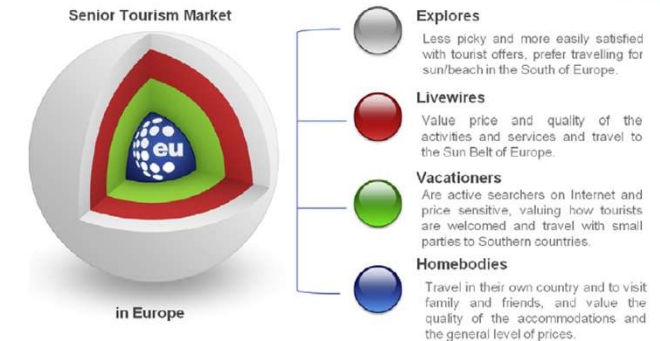
Nuanced traveler groups based on multiple dimensions

Hidden Pattern Discovery

Revealing insights invisible to single-method approaches

Tourism organizations can develop a deeper understanding of travelers by integrating numerical data with rich qualitative insights.

This enables more targeted marketing and personalized service delivery.



Challenges and Considerations



Time & Resource Intensity

Integration requires significant effort and expertise



Methodological Biases

Subjectivity in coding and interpretation



Data Compatibility Issues

Ensuring different data types work together

Organizations must balance the benefits of integrated approaches against practical limitations.

Technical solutions are emerging, but human expertise remains essential.



Conclusion & Best Practices



Start Small, Scale Gradually

Begin with pilot projects focusing on specific tourism questions.



Invest in Right Tools

Select software that handles both qualitative and quantitative analysis.



Build Diverse Teams

Combine expertise in statistics, data science, GIS, and qualitative research.



Maintain Iterative Approach

Regularly calibrate between data types to ensure balanced insights.



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