

2nd International Conference on Resilience and Sustainable Regions

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Sustainability, Technology, and Co-Creation: Shaping the Future of Sustainable Tourism

SHIFT-Sustainability-oriented, Highly interactive, and Innovation-based Framework for Tourism marketing
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Led by the Polytechnic Institute of Setúbal (Higher School of Business Sciences) in a network with the Estoril Higher School of Hotel and Tourism, the Polytechnic Institute of Lisbon (Higher School of Social Communication) and the University of Algarve (Higher School of Management, Hotel and Tourism). Partnership with Tourism and Tourism of Portugal, IP.

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Introduction & Context

- Task 4 explores how sustainability values, technology, and co-creation interact in tourism.
- It builds on the conceptual model developed in Task 3.



Link to Task 3

- Task 3 developed a conceptual model based on literature and qualitative data.
- Six hypotheses were proposed, grounded in TAM, TPB, SDL, and UTAUT frameworks.



Objective of Task 4

- Empirically validate the conceptual model
 - Quantitative approach:
 - Construction and Validation of the Questionnaire
 - Models estimated using PLS (Partial Least Squares)- Evaluation in two phases: measurement model and structural model
 - Steps by Target Group: Tourists; Residents; Agents
 - Qualitative approach:
 - Focus Group – 5 Portuguese experts in the field of tourism



Objective of this presentation

- To explore the interplay between sustainability values, technology importance, and co-creation in the tourism context - through the tourist's perception.
- To understand how sustainability-driven attitudes influence tourists' adoption of technology and, through this mechanism, foster more engaging and responsible co-creation practices that shape the future of sustainable tourism.



Methodology

- Method: PLS-SEM (analysis using SmartPLS 4.0)
- Sample: 401 tourists in Lisbon
- Data collection: Feb–Apr 2024 using electronic tablets
- Constructs: Sustainability values, Technology importance, Co-creation value & co-creation intention

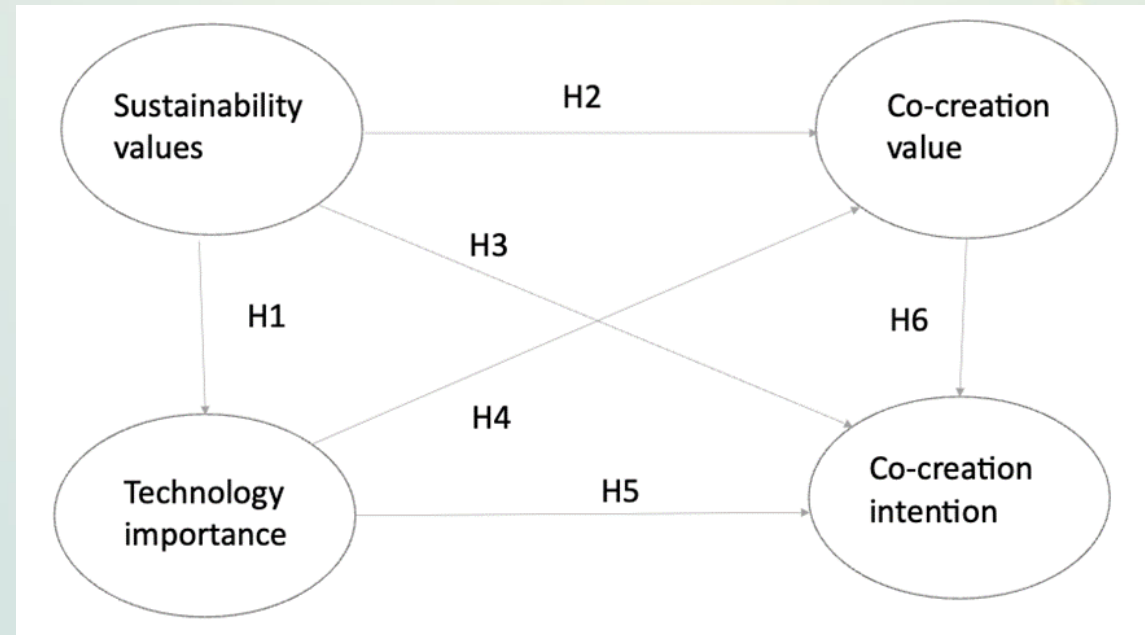


Conceptual Model Tested

- Six hypotheses (H1-H6)
 - H1: Tourists' sustainability values positively influence their perceived importance of technology
 - H2: Tourists' sustainability values positively influence their perceived value of co-creation
 - H3: Tourists' sustainability values positively influence their intention to participate in co-creation activities
 - H4: Tourists' perceived technology importance positively influences their perceived value of co-creation.
 - H5: Tourist's perceived technology importance positively influences their intention to participate in co-creation activities
 - H6: Tourists' perceived value of co-creation positively influences their intention to participate in co-creation activities
- Mediating role of technology importance



Conceptual Model Tested



This figure shows the conceptual model tested, with six hypotheses including the mediating role of technology importance between sustainability values and co-creation outcomes

Model Validation

- All constructs showed high reliability (Cronbach's Alpha > 0.87)
- Composite Reliability > 0.88; AVE > 0.70
- Discriminant validity confirmed (Fornell-Larcker criterion)
- No multicollinearity (VIF < 3.3)



Structural Model Results

- Sustainability \rightarrow Technology Importance: $\beta = 0.256$,
 $p < 0.01$
- Technology Importance \rightarrow Co-Creation Value: $\beta = 0.379$,
 $p < 0.01$
- Technology Importance \rightarrow Co-Creation Intention:
 $\beta = 0.524$, $p < 0.01$
- Co-Creation Value \rightarrow Co-Creation Intention: $\beta = 0.359$,
 $p < 0.01$



The path analysis showed that sustainability values significantly predict technology importance, which in turn predicts co-creation value and co-creation intention, all with strong statistical significance.

Interpretation

- Full mediation: Technology importance
- Sustainability → Co-creation intention via technology importance
- R^2 for co-creation intention: ~54% explained variance



These results indicate a full mediation effect, where sustainability values influence co-creation intention only through technology importance. The model explains about 54% of variance in co-creation intention, highlighting technology as a key enabler.

Key Findings

- Sustainability values do not directly influence co-creation
- Technology importance fully mediates the relationship
- Technology is a key enabler of co-creation
- Perceived value of co-creation strongly influences intention



Practical Implications

- Invest in user-friendly, accessible technology
- Align technological solutions with sustainability values



These findings suggest tourism stakeholders should invest in technologies aligned with sustainability concerns, enhancing tourists' experiences, engagement, and satisfaction while promoting responsible tourism.

Conclusion

- Technology is essential for translating sustainability values into action
- Co-creation is enhanced through digital tools
- Future research should explore broader contexts and variables



Next Steps

- Subgroup analyses
- Publications and dissemination



Our next steps include conducting subgroup analyses, integrating these results with other analyses, and preparing publications to share these insights with academia and industry.

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Thank you

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