# Smart Green Halal Tourism in Post-Disaster Recovery: How Religiosity Conditions Dual Pathways to Continuance Intention

**Program PPMI FSRD ITB 2026 · Kegiatan Penelitian**

Qoriah[1]*, Riadh Alfy[2], Kahfiati Kahdar[1], Deny Willy Junaidy[1], Gregorius Prasetyo Adhitama[1], Alfi Syahrah Siregar[2], Andi Kasman[3], Umi Asma' Mokhtar[4]

[1] Fakultas Seni Rupa dan Desain, Institut Teknologi Bandung, Indonesia; [2]Universitas Pendidikan Indonesia, Indonesia; [3]Universitas Padjadjaran, Indonesia;[4]Universiti Kebangsaan Malaysia, Malaysia

## Abstract

West Sumatra's post-disaster tourism recovery requires sustainable, Muslim-friendly services. This study examines how smart green tourism technologies and Muslim-friendly attributes relate to continuance intention through perceived value and satisfaction, with religiosity conditioning these indirect pathways.

Cross-sectional survey data from 410 domestic Muslim tourists were analysed using partial least squares structural equation modelling (PLS-SEM) in SmartPLS 4. The analysis employed 10,000 bootstrap subsamples, Conditional Mediation, and PLSpredict to assess structural relationships and predictive performance.

All 14 hypotheses were supported, including four significant moderated mediation indices. Both destination attributes were positively associated with continuance intention, directly and through parallel value and satisfaction pathways. Religiosity strengthened these indirect associations, although one was insignificant at low levels. The model explained 42.7% of continuance intention variance ($R^2$ = 0.427), with favourable predictive performance ($Q^2$predict = 0.320), informing sustainable, faith-sensitive destination management.

**Keyword:** Post-disaster halal tourism; Smart green tourism technologies; Religiosity..

## Introduction

West Sumatra ranks second in the Indonesia Muslim Travel Index (IMTI) 2025, reflecting its established position in Muslim-friendly tourism. However, the November 2025 hydrometeorological disaster disrupted infrastructure, accessibility and tourism activities, highlighting the need for reliable services and sustainable destination management.

Rooted in Minangkabau's Islamic cultural traditions, West Sumatra provides a distinctive setting for integrating digital sustainability initiatives with Muslim-friendly tourism services. Smart green tourism technologies support accessible information and environmentally responsible travel, while Muslim-friendly attributes accommodate tourists' faith-related needs.

Despite their complementary roles, limited research has examined how these destination attributes relate to continuance intention through distinct evaluations of perceived value and satisfaction. The extent to which religiosity conditions these indirect relationships also remains insufficiently understood.

Drawing on the Stimulus–Organism–Response (SOR) framework, this study addresses these gaps within West Sumatra's regional post-disaster recovery context, without assuming that individual disaster exposure or recovery outcomes were directly measured.

## Research Method

This study employed a quantitative cross-sectional survey within West Sumatra's regional post-disaster tourism recovery context. Preparatory field observations in March 2026 examined destination conditions and accessibility. Following ethics approval on 11 April 2026, the questionnaire was piloted with 40 respondents to assess clarity and contextual suitability before the main survey.




*Figure 1. Field observations in West Sumatra.*

Between April and June 2026, field-based and online surveys yielded 410 valid responses from domestic Muslim tourists recruited through purposive sampling. Eligible participants were aged 18 or above and had previously visited West Sumatra. Field recruitment covered Padang, Padang Pariaman, Solok, Tanah Datar and Padang Panjang. Pilot respondents were excluded from the main analysis.

The Stimulus–Organism–Response (SOR) model comprised six reflective constructs measured using 57 retained indicators. Data were analysed using PLS-SEM in SmartPLS 4, with 10,000 bootstrap subsamples to assess direct, indirect and moderated mediation effects.

Conditional Mediation (CoMe) examined indirect effects across religiosity levels, while PLSpredict assessed out-of-sample predictive performance.

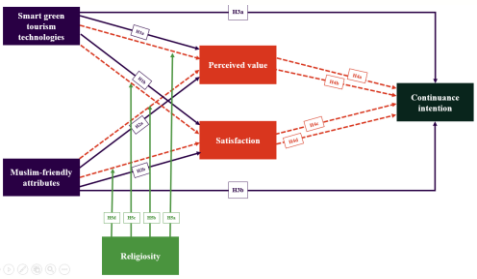



*Figure 2. Conceptual SOR model.*

## Discussion & Result

PLS-SEM supported all 14 hypotheses, comprising six direct associations (β = 0.164–0.373), four indirect effects (β = 0.075–0.096), and four moderated mediation indices (ω = 0.037–0.052; p ≤ 0.004). Smart green tourism technologies and Muslim-friendly attributes were positively associated with continuance intention, both directly and through perceived value and satisfaction. These complementary pathways highlight the importance of perceived benefits and experiential fulfilment.

Conditional Mediation (CoMe) revealed that religiosity moderated the first-stage relationships, with indirect associations strengthening at higher religiosity levels. Although all four moderated mediation indices were significant, one conditional pathway was not significant at low religiosity.

The model explained 42.7% of continuance intention variance ($R^2$ = 0.427) and demonstrated favourable out-of-sample prediction ($Q^2$predict = 0.320). These findings support integrating sustainable digital services with credible Muslim-friendly provisions while prioritising tourists' perceived value and satisfaction in post-disaster destination management.

## Conclusion

This study demonstrates that smart green tourism technologies and Muslim-friendly attributes are complementary dimensions of sustainable halal tourism. Perceived value and satisfaction provide distinct yet parallel pathways to continuance intention, while religiosity conditions the strength of these indirect relationships.

The findings provide an empirical basis for integrating reliable digital information, environmentally responsible services, and credible Muslim-friendly facilities. Destination managers should also consider tourists' perceived value and satisfaction when developing responsive tourism services within regional post-disaster recovery.

These findings should be interpreted within the study's cross-sectional design and purposive sampling approach, which limit causal inference and statistical generalisation. As disaster exposure and recovery outcomes were not directly measured, future research should examine the model across destinations and recovery stages, incorporating longitudinal evidence and direct assessments of tourism recovery.