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# Environmental Sustainability in Muslim-Friendly Tourism: Evaluating the Influence of Schwartz's Basic Value Theory on Tourist Behaviour in Indonesia

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**Abstract:** This study employed Schwartz's basic value theory and the theory of planned behaviour (TPB) to elucidate environmentally sustainable tourist behaviour (ESTB) among Muslim tourists in Indonesia. Two central inquiries were examined. Firstly, the impact of intrapersonal environmental and non-environmental values on the ESTB of Muslim tourists was scrutinised. Secondly, the mediating role of environmental attitude (EA) on these intrapersonal values towards ESTB in Muslim-friendly destinations in Indonesia was assessed. A cross-sectional survey, conducted in June and July 2022, collected data from 300 Muslim tourists at Muslim-friendly destinations in Indonesia. Participants, aged 17 and above, were selected through a purposive sampling approach; they had obtained a CHSE certificate in Malang during the transition from epidemic to the new normal era and had visited at least one of the 26 Muslim-friendly tourist spots. Analysis using the Structural Equation Model (SEM) revealed that while environmental knowledge (EK) and attitudes positively influenced ESTB, environmental concern (EC) and religious value (RGV) did not demonstrate a direct impact. Moreover, it was discerned that EA played a significant mediating role between RGV, EC, EK, and environmentally sustainable behaviours. It was further observed that individuals endorsing egoistic values typically exhibited weaker pro-environmental beliefs and were less inclined towards pro-environmental actions. Conversely, those with altruistic values displayed stronger pro-environmental beliefs, consequently impacting their environmental sustainability behaviour (ESB) in Muslim-friendly tourist destinations.

**Keywords:** Schwartz's basic value theory; Theory of planned behavior; Environmental sustainability; Tourism behaviour; Muslim-friendly tourism

## 1. Introduction

Schwartz's theory of basic values, combined with the TPB, was employed to investigate ESTB. A marked rise, approximately 30% since 2016, in the number of Muslim tourists globally has been reported by Master Card Crescent Rating. As a result of rigorous efforts, Indonesia emerged as a leading Muslim-friendly tourist destination, surpassing the standards set by the 2019 Global Muslim Travel Index (GMTI). Such recognition potentially positions Indonesia to attract tourists globally. Nevertheless, the declaration of Covid-19 as a global pandemic in March 2020 severely affected the tourism sector, especially the Muslim-friendly niche. For Indonesia to compete internationally, especially targeting the burgeoning market of Muslim tourists, the development of Muslim-friendly tourism is postulated as a critical strategic positioning strategy. It is further contended that Muslim-friendly tourism could be employed as a recovery strategy in the aftermath of the Covid-19 pandemic.

Drawing from the GMTI 2021 rankings, Indonesia currently stands at the fourth position after Malaysia, Turkey, and Saudi Arabia. This ranking accentuates the need for a comprehensive strategy involving multiple stakeholders: the government, service providers in the tourism sector, the hotel and restaurant industry, and tourists themselves. Concurrently, the Indonesian government's endeavours to bolster the creative economy and local tourism are evidenced by the implementation of Cleanliness, Health, Safety, Environment Friendly (CHSE) protocols. This

alignment with CHSE is posited to coincide with the growing tourist interest in eco-friendly travel. The business sector has also perceived 'greening' as pivotal, influencing various market segments. A gradual increase in public awareness regarding environmental issues has been documented (Han et al., 2010; Han & Kim, 2010).

It has been postulated by certain academicians that environmental sustainability challenges can be addressed through fostering eco-friendly behaviour in individuals (Han, 2020; Steg & Vlek, 2009). Over recent decades, sustainable behaviour has garnered significant attention across academic circles and among the general populace (Dong et al., 2020; Garvey & Bolton, 2017). Eco-friendly tourism is conceptualised as travel which, at the minimum, doesn't harm the environment at both local and global levels, and optimally might even enhance it (Fenitra et al., 2021). Such tourists have been identified variously as green tourists, sustainable tourists, or eco-friendly travellers (Juvan & Dolnicar, 2017). Previous research has highlighted a distinct correlation between the beliefs and behaviours of green consumers (Arslan et al., 2012; Barr et al., 2005; Gadenne et al., 2011). However, studies exploring EA using the theory of reasoned action approach (TRA) and TPB indicated disparities (Ajzen & Fishbein, 1980; Ajzen, 1991; Pickett-Baker & Ozaki, 2008).

In the exploration of intrapersonal, non-environmental characteristics, RGV emerged as a significant facet. It has been posited that tourists' inclination towards environmentally responsible behaviour is influenced by a myriad of internal and external drivers (Han & Hyun, 2017; Han & Hyun, 2018; Han & Yoon, 2015). Among these, intrapersonal components, encompassing emotions and attitudes, were identified to exert a more pronounced influence on tourists' participation in environmentally beneficial actions, while extrinsic determinants were found to be less impactful on such behaviours (Han et al., 2018). Religious ideals, considered as one variant of intrapersonal elements, are proposed to substantially shape the behaviours of environmentally-conscious individuals (Hasnah Hassan, 2014). It is acknowledged that a plethora of religions and religious tenets exist globally (Minton, 2015). Nevertheless, a prevailing sentiment across the majority of these religions, as underpinned by environmental ecology theory, is the interconnectedness of all life and the inherent inclusion of every individual as a fragment of nature (Yang & Huang, 2018). In this context, RGV are perceived as environmental ethics. Specifically, these personal values encapsulate facets of self-transcendence, inclusive of universalism, altruism, and mandates of virtue, which actively steer ethical benchmarks and personal norms (Padel & Foster, 2005).

EC has been deemed a crucial precursor, positively associated with eco-friendly behaviour. Typically, it's examined as the individual's behavioural assessment in the context of ecological or natural systems (Okumah et al., 2020). EC encompasses an individual's level of concern about environmental issues, emotional evaluations of these problems, and willingness to support rectification efforts (Felix et al., 2018).

EK has been pinpointed as vital for the sustainability intent/behaviour concerning hospitality/tourism products (Chan et al., 2014). EK pertains to the information individuals possess about environmental issues and their competency to comprehend and evaluate their societal and environmental impacts (Chekima et al., 2016). EK's paramount role in defining eco-friendly behaviour has been underscored, with many studies suggesting a positive influence of environmental awareness on ESB (Kang et al., 2013; Kumar et al., 2017; Taufique et al., 2017). Nonetheless, an information deficit has been observed to negatively impact green purchasing behaviour (Connell, 2010).

EA has been described as a relatively stable evaluation pertaining to situations, issues, or actions (Okumah et al., 2020). EA encapsulates individual beliefs, concerns, values, and intentions around environmental matters (Groening et al., 2018). Additionally, EA is believed to reflect personal beliefs regarding the outcomes of green consumer behaviour (Ajzen & Cote, 2008).

This study seeks to elucidate the behaviour of Muslim tourists in Indonesia's Muslim-friendly tourism sector, rooted in Schwartz's theory of basic values. The pivotal research questions revolve around the influence of intrapersonal environmental and non-environmental values on Muslim tourists' ESB and the potential mediation of EA in this relationship within Muslim-friendly tourist destinations in Indonesia.

## 2. Literature Review

### 2.1 The Nexus Between RGV and Environmental Perspectives, EA, and ESTB

Historically, values have been postulated to motivate and influence behaviour (Fenitra et al., 2022). Within this scope, religion delineates numerous moral guidelines serving as life's tenets (Hasnah Hassan, 2014). Such foundations, as deduced by Safie & Nazarpoor (2015), exert profound influence on individuals' perceptions, subsequently delineating moral conduct boundaries. Studies have underscored the impact of religious beliefs on environmental consciousness (Felix et al., 2018; Mustofa, 2006; Schultz et al., 2004). It has been elucidated in marketing studies that religious beliefs profoundly influence purchasing behaviours, and subsequently, these beliefs affect tourists' destination choices and product predilections (Essoo & Dibb, 2004; Weidenfeld & Ron, 2008). Empirical evidence suggests a positive correlation between religious beliefs and environmentally conscious behaviour (Wang et al., 2020).

### 2.2 EA and EC as Precursors to Sustainable Tourism Behaviour

Rooted in the Schwartz model, altruistic actions are perceived within a socio-psychological behaviour spectrum. This model implicitly assumes an innate human value orientation favouring others' welfare, indicating a predisposition towards actions averting harm. Stern et al. (1993) augmented this perspective, introducing a robust theoretical matrix for environmental apprehension. Verma et al. (2019) established a significant correlation between EC and consumers' inclinations towards green hotel accommodations. Further, it has been determined that environmental cognizance augments pro-environmental consumer behaviour (Bhuian et al., 2018). Studies further denote a significant relationship between guests' participative attitudes in green hotel initiatives and their EC (Han et al., 2018).

### 2.3 The Interplay Between EA, EK, and Sustainable Tourist Behaviour

Several theoretical frameworks position knowledge as a pivotal determinant of sustainable conduct. This is evident in Ajzen's TBP, where knowledge contributes to perceived behavioural control, contingent on perceived behavioural intricacy (Ajzen, 1991). Previous research underscores the influence of EK on attitudes (Singh & Bansal, 2012; Yeoh & Paladino, 2013). Moreover, consumer awareness has been found to wield significant influence on decision-making processes. Empirical studies have further revealed a positive relationship between EK and the intent to purchase green products (Juvan & Dolnicar, 2016).

### 2.4 Environmental Beliefs and Their Implications for Eco-Friendly Tourism Behaviour

Drawing upon the theory of planned behaviour, attitude is conceptualised as a disposition reflecting either favourability or aversion towards a particular behaviour (Ajzen, 1991). Attitudes toward environmental responsiveness culminate in pro-environmental behaviours. A plethora of research has endeavoured to elucidate the correlation between EA and respective behaviours (Mustofa, 2006; Singh & Bansal, 2012).

### 2.5 Mediating Influence of EA

In line with the TRA, attitudes have been proposed to mediate behavioural influences (Ajzen & Fishbein, 1980). Individuals exhibiting heightened environmental awareness are posited to foster sustainable attitudes, resulting in tangible actions mitigating adverse environmental impacts in tourist locales. Consequently, EA has been postulated to serve as a mediating conduit between EC and sustainable tourist behaviours, as evidenced by Yarimoglu & Gunay (2019).

This literature review has delineated the intricate relationships between RGV, EA, EK, beliefs, and their respective influences on sustainable tourism behaviours. The comprehensive examination offers a foundation for further research and theoretical development in this domain.

## 3. Methodology

### 3.1 Sampling and Data Collection

In light of the prevailing epidemic, a quantitative methodology was adopted. An online survey was administered during June and July of 2022. Muslim visitors to Malang, who had been awarded a CHSE certificate during the transitional epidemic period and had either visited or were currently visiting one of the 26 designated Muslim-friendly tourist spots, were identified and approached. The sampling strategy employed was purposive, with criteria requiring respondents to be at least 17 years old. Malang Raya, situated in East Java, Indonesia, is recognised as one of the top destinations for Muslim travellers. These 26 venues were identified based on their CHSE certification and are illustrated in a geographical representation provided in Figure 1.

Of the digital surveys distributed, feedback was received from 330 respondents. Out of these, 300 responses were selected that were comprehensive and fulfilled the designated criteria.

### 3.2 Measurement Tools

Items with religious emphasis were adapted from Bhuian et al. (2018). Instruments gauging EK were sourced from Juvan & Dolnicar (2016). An EC scale was formulated by Schultz (2001), focusing on egoistic concerns, altruistic considerations, and biospheric issues. The metric for the EC variable incorporated indicators adopted from Felix et al. (2018), Han et al. (2018), and Verma et al. (2019). Instruments capturing EA were borrowed from Yarimoglu & Gunay (2019) and Han et al. (2009). Indicators championing environmentally sustainable tourism were extracted from Stern (2002) and de Groot & Steg (2007).

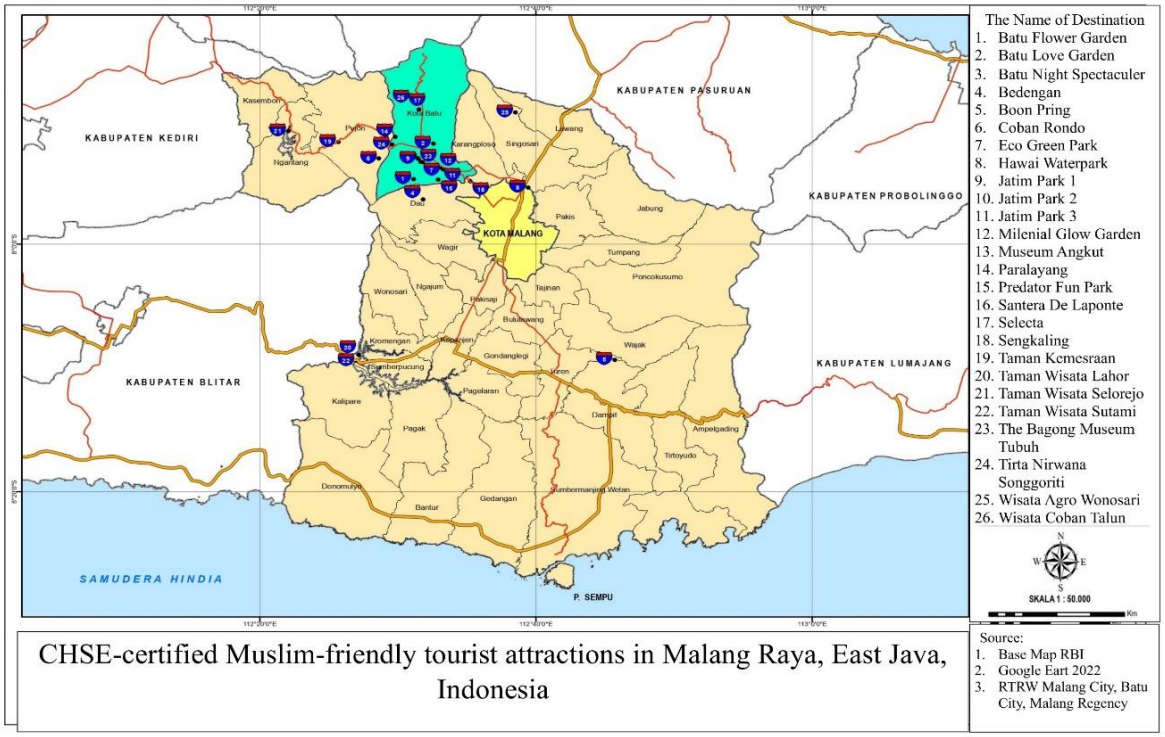


**Figure 1.** Map depicting CHSE-certified Muslim-friendly tourist attractions in Malang Raya, East Java, Indonesia

### 3.3 Data Analysis

The SEM with Maximum Likelihood (MLE) estimation, grounded on the variance matrix, was utilised to decipher the data (Ferdinand, 2000). The Smart partial least square (PLS) method was implemented, being particularly apt for explorative studies that aim to identify primary determinant variables or ascertain particular constructs (Ferdinand, 2000). Analyses via PLS encompassed two distinct stages. Firstly, the measurement model (Outer Model) assessed the representation of latent variables by observed ones. Secondly, the structural model (Inner Model) evaluated the estimated relationships among the latent variables. The research model is presented in Figure 2.

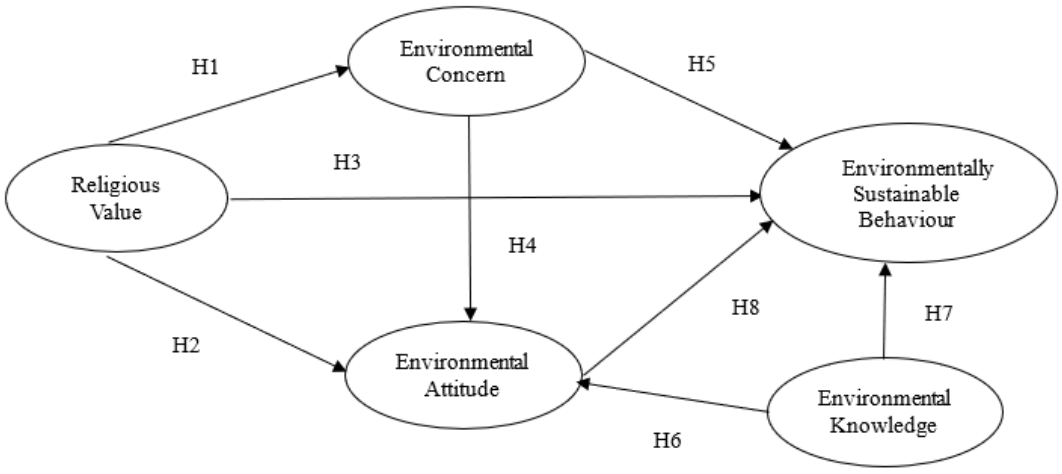


**Figure 2.** Research model

### 3.4 Hypotheses

The hypotheses postulated for this study are as follows:

H1: RGV positively influences EC.
H2: RGV exerts a positive effect on EA.
H3: RGV has a favourable impact on ESTB.
H4: EA is positively influenced by EC.
H5: EC exerts a favourable effect on ESTB.
H6: EK positively impacts EA.
H7: EK influences ESTB positively.
H8: EA has a favourable effect on ESTB.
H9: The relationship between RGV and ESTB is mediated by EA.
H10: EA mediates the influence of EC on ESTB.
H11: The impact of EK on ESTB is mediated through EA.

## 4. Results

A sample size of 300 respondents was utilised in this study, meeting the stipulated sample size criterion as suggested by Hair et al. (2019). From the valid responses received, 66.33% were identified as female and the remaining 33.67% as male. In terms of age distribution, 44.41% were within the age range of 17–25 years, 15.65% aged 26–30, 14.70% between 31-40 years, 23% from 40-50 years, and 2.24% aged 50 and above. The respondent's occupation distribution revealed that 39.33% were students, 10% held positions as ASN but not lecturers, a mere 0.67% were from TNI/POLRI, 28% were self-employed, 2% identified as housewives, 0.33% as doctors, and 19.67% as lecturers (Table 1).

**Table 1.** Demographic data of respondents

| Category | | Frequency | Percentage % |
|---|---|---|---|
| Gender | Male | 101 | 33.67 |
| | Female | 199 | 66.33 |
| Age | 17-25 | 132 | 44,41 |
| | 26-30 | 46 | 15,65 |
| | 31-40 | 44 | 14,70 |
| | 40-50 | 71 | 23,00 |
| | >50 | 7 | 2,24 |
| Education Level | Secondary or below | 85 | 28,76 |
| | Higher Diploma/Ass Deg | 9 | 2,88 |
| | Bachelor degree | 117 | 38,66 |
| | Master degree or above | 89 | 29,71 |
| Occupation | Student | 118 | 39.33 |
| | ASN not a lecturer | 30 | 10 |
| | TNI/POLRI | 2 | 0.67 |
| | Self-employed | 84 | 28 |
| | Housewife | 6 | 2 |
| | Doctor | 1 | 0.33 |
| | Lecturer | 59 | 19.67 |
| Total | | 300 | 100 |

### 4.1 Convergent Validity and Reliability

An evaluation of the gathered data indicated a robust association between the items, validating convergent validity. The results revealed that both loading and AVE surpassed the 0.50 threshold, while Alpha and CR exceeded 0.70, consistent with the guidelines set by Hair et al. (2019). For the EC variable, outer loading values exceeded 0.70 and the AVE was calculated as 0.554, confirming its validity. Cronbach's alpha, at 0.837, and composite reliability, at 0.881, further substantiated the reliability of the measurements. Similar findings were observed for the EK and ESTB variables, with all values meeting the designated criteria (Table 2).

### 4.2 Discriminant Validity

The analysis of discriminant validity indicated a lack of a substantial association between factors. Findings, as depicted in Table 3, revealed that the Heterotrait Monotrait (HTMT) ratio did not exceed the critical value of 0.90, thereby establishing the validity and reliability of all constructs. Following this, an evaluation of the structural model was undertaken.

**Table 2.** Evaluation of measurement model

| Variable and Sources | Items | Items | λ | α | CR | AVE |
|---|---|---|---|---|---|---|
| EC<br>Felix et al. (2018);<br>Han et al. (2018);<br>Verma et al. (2019). | EC2 | "I realize the environmental problems that arise from tourist visits will have consequences in the future." | 0.706 | 0.837 | 0.881 | 0.554 |
| | EC4 | "I realize the environmental problems that arise from tourist visits will have consequences on health." | 0.696 | | | |
| | EC5 | "I realize the environmental problems that arise from tourist visits will have consequences on health." | 0.673 | | | |
| | EC6 | "I am aware that environmental problems that arise from tourist visits will have consequences for children or future." generations." | 0.786 | | | |
| | EC7 | "I realize the environmental problems that arise from tourist visits will have consequences for everyone." | 0.784 | | | |
| | EC8 | "I realize the environmental problems that arise from tourist visits will have consequences on Plants." | 0.809 | | | |
| EK,<br>Chekima et al. (2016);<br>Juvan & Dolnicar (2017). | EK1 | "I know about environmental issues and their impact on tourism." | 0.736 | 0.775 | 0.856 | 0.599 |
| | EK2 | "I know the latest updates on eco-friendly tourism and how to minimize the holiday impact of tourism." | 0.849 | | | |
| | EK3 | "I understand the mandatory requirements of the eco-friendly tour packages that I visit such as CHSE certificates." | 0.769 | | | |
| | EK4 | "I understand the provisions for implementing health protocols on the tour packages that I visit." | 0.736 | | | |
| RGV,<br>Bhuian et al. (2018). | RGV2 | "I believe that my religious teachings are the guide of life." | 0.722 | 0.766 | 0.840 | 0.513 |
| | RGV3 | "I believe that religion is the most important thing in life." | 0.734 | | | |
| | RGV4 | "I carry out worship based on religious beliefs." | 0.714 | | | |
| | RGV5 | "One form of worship is to pay attention to the sustainability of the surrounding environment." | 0.701 | | | |
| | RGV6 | "I do worship not only based on religious beliefs but also for good purposes." | 0.709 | | | |
| EA<br>Yarimoglu & Gunay (2019);<br>Han et al. (2009). | EA1 | "I believe that environmental protection projects in tourism are very important." | 0.752 | 0.845 | 0.891 | 0.624 |
| | EA2 | "I feel virtuous when engaging in eco-friendly behaviour." | 0.637 | | | |
| | EA3 | "In my opinion, it is very important to increase environmental awareness among the community." | 0.866 | | | |
| | EA4 | "In my opinion, it is very important to increase knowledge about how to maintain the environmental sustainability." | 0.866 | | | |
| | EA5 | "I think it is very important to promote environmental protection in the tourism industry." | 0.804 | | | |
| ESTB<br>Stern (2002);<br>de Groot & Steg (2007);<br>Juvan & Dolnicar (2016). | ESTB1 | "I refuse to use tourism providers if they don't follow environmental protection standards." | 0.754 | 0.826 | 0.878 | 0.590 |
| | ESTB2 | "I use environmentally certified tourism destination providers such as CHSE." | 0.783 | | | |
| | ESTB3 | "I once chose not to go on vacation to avoid a negative impact on the environment." | 0.680 | | | |
| | ESTB4 | "I behave to help other travelers to learn about the importance of protecting tourist destinations that implement CHSE." | 0.843 | | | |
| | ESTB5 | "During visits to tourist destinations that reduce the negative impact on the environment." | 0.773 | | | |

Note: CR = composite reliability; AVE = average variance extracted

**Table 3.** Discriminant validity using HTMT ratio

| Construct | EA | EC | EK | RGV | ESTB |
|---|---|---|---|---|---|
| EA | | | | | |
| EC | 0.548 | | | | |
| EK | 0.461 | 0.437 | | | |
| RGV | 0.440 | 0.309 | 0.678 | | |
| ESTB | 0.653 | 0.372 | 0.298 | 0.318 | |

### 4.3 Variance Analysis of $R^2$ Values

The obtained $R^2$ values for EC, EA, and ESTB were found to be 0.103, 0.406, and 0.343, respectively as depicted in Table 4. A mere 10.3% of the variance in EC was explained by the RGV variable, placing it in the weak category. The variances for EC and ESTB ranged from weak to moderate. Furthermore, Q2 values were observed to span from 0.053 to 0.245, underscoring the model's notable predictive significance. Effect sizes of the constructs (f2) ranged between 0.006 and 0.290, indicating a spectrum of effects from minor to substantial on the dependent variable.

**Table 4.** Variance explained in the endogenous variables

| Latent Variable | R-Squared | Q2 | Result |
|---|---|---|---|
| EC | 0.103 | 0.053 | Weak |
| EA | 0.406 | 0.245 | Moderate |
| ESTB | 0.343 | 0.193 | Moderate |

### 4.4 Analysis of the Structural Model

PLS-SEM, facilitated by SmartPLS software, was employed. Path analysis revealed a positive association between RGV and EC, substantiating H1. Positive associations were observed between RGV, EC, and EK with EA, thereby supporting H2, H4, and H6. However, only EK and EA exhibited a positive association with ESTB, leading to the acceptance of H7 and H8. Contrarily, H3 and H5, linking RGV and EC, respectively, to ESTB, were not substantiated. A significant mediating role of EA was discerned in the associations between RGV and ESTB, EC and EST, and EK and ESTB, leading to the validation of H9, H10, and H11 (Figure 3).

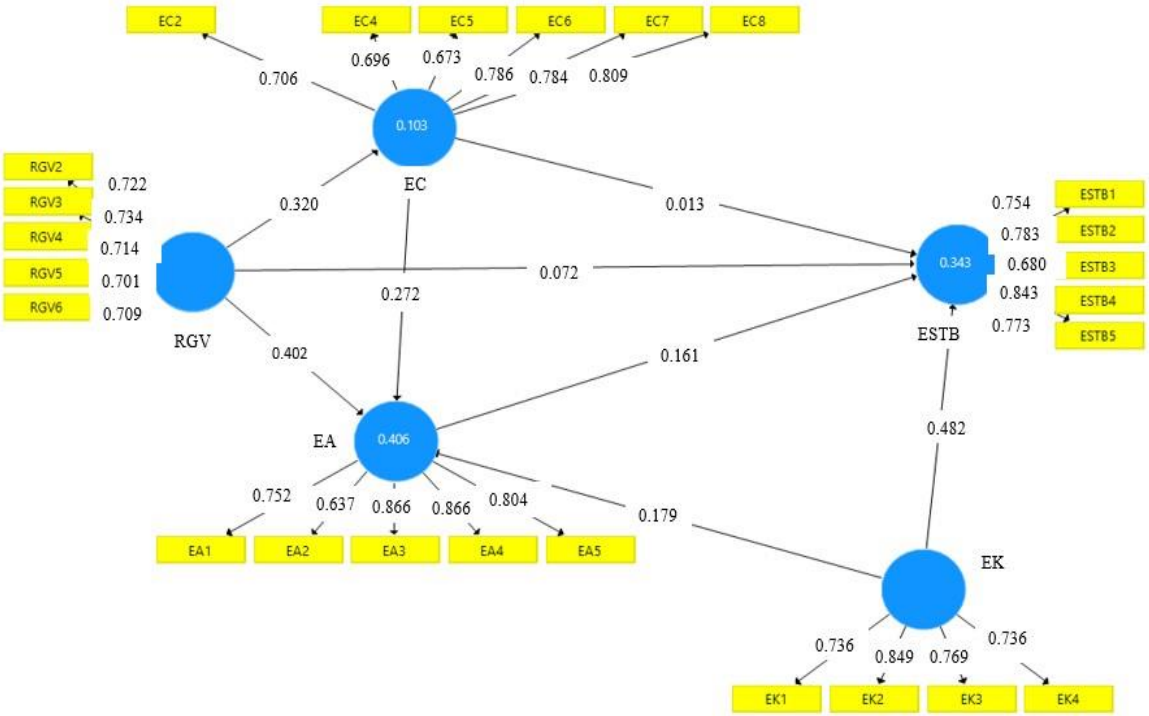


**Figure 3.** Structural model

**Table 5.** Direct and indirect values within the PLS model

| | Hypothesis | *β* | *t* | *p* | Result |
|---|---|---|---|---|---|
| H1 | RGV→ EC | 0,320 | 5,727 | *** | Supported |
| H2 | RGV → EA | 0,402 | 6,985 | *** | Supported |
| H3 | RGV → ESTB | 0,072 | 2,806 | 0.098 | Unsupported |
| H4 | EC → EA | 0,272 | 5,752 | *** | Supported |
| H5 | EC → ESTB | -0,013 | 0,226 | 0,411 | Unsupported |
| H6 | EK → EA | 0,179 | 3,537 | *** | Supported |
| H7 | EK → ESTB | 0,482 | 9,767 | *** | Supported |
| H8 | EA → ESTB | 0,161 | 2,806 | ** | Supported |
| H9 | RGV → EA → ESTB | 0.065 | 2.515 | ** | Supported |
| H10 | EC → EA → ESTB | 0.044 | 2.580 | ** | Supported |
| H11 | EK → EA → ESTB | 0.029 | 2.120 | * | Supported |

(Bootstrap samples = 5000, n = 300 cases); *p < 0.05; **p < 0.01; ***p < 0.001

Findings, as depicted in Table 5, the association of RGV with EC was determined (path coefficient = 0.320, t-value = 5.727, $p < 0.001$) and with EA among tourists identifying as Muslims (path coefficient = 0.402, t-value = 6.985, $p < 0.001$). However, no association was found with ESTB (path coefficient = 0.072, t-value = 2.806, $p = 0.098$). EC was not found to be associated with ESTB (path coefficient = -0.013, t-value = 0.226, $p = 0.411$). A notable association was discerned between EK and both EA (path coefficient = 0.179, t-value = 3.537, $p < 0.001$) and ESTB (path coefficient = 0.482, t-value = 9.767, $p < 0.001$).

It was concluded that the mediator, "EA", nullified certain effects. Specifically, H9, suggesting a relationship between RGV and EA, was validated (path coefficient = 0.065, t-value = 2.515, $p < 0.01$). Similarly, H10, positing a relationship between EC and EA, found empirical support (path coefficient = 0.044, t-value = 2.580, $p < 0.01$). The proposed association in H11 between EK and attitude was also substantiated (path coefficient = 0.029, t-value = 2.120, $p < 0.05$).

## 5. Discussion

The findings revealed a positive correlation between the comprehension of Muslim tourists' RGV and their EC. This aligns with Felix et al. (2018), which proposed that religious individuals globally express heightened EC compared to their non-religious counterparts. Increasing the religious significance for Muslim travellers, it was found, elevates their EC at Muslim-friendly travel destinations. However, heightened religious significance in Muslim travellers did not directly foster environmentally sustainable behaviour. This resonates with the assertions of Martin & Bateman (2014) that profound commitment to intrapersonal religion doesn't necessarily induce ecocentric behaviour. Consequently, within Muslim-friendly travel destinations, tourists with profound religious commitment were observed to be less responsive to environmental messages or exhibited diminished eco-friendly behaviour than others.

Further findings suggested that an improved environmental consciousness among Muslim tourists augments their eco-friendly attitude at tourist destinations. This appears to contradict the findings of Verma et al. (2019), who suggested that EC significantly moulds Indian consumers' attitudes towards green hotels. However, this EC doesn't invariably translate into environmentally sustainable behaviour among tourists.

Building upon this, it was determined that knowledge about environmental issues moulds the disposition towards environmentally-friendly tourist behaviours. This discovery strengthens prior research, particularly Juvan & Dolnicar (2016) and Fenitra et al. (2021), advocating that environmental perceptions are amendable upon acquisition of relevant information. Tourists, when cognizant of the repercussions of their actions on the environment, tend to adopt sustainable practices.

Furthermore, EA was identified as a significant catalyst fostering environmentally friendly tourist behaviour. It was observed that as EA of Muslim tourists amplifies, the propensity for adverse behaviours diminishes in Muslim-friendly locations. This finding is congruent with Fenitra et al. (2021), which suggests that a strong environmental disposition positively impacts sustainable behavioural intentions.

Significant contributions to the existing literature were made by examining the interplay of RGV and tourist sustainability concerning environmental values, attitudes, and behaviour. It was discerned that EA acts as a mediator between RGV and ESTB. Thus, the direct influence of RGV on ESTB is attenuated, necessitating its mediation through EA.

Furthermore, EA was found to bridge the gap between EC and ESTB. This implies that direct prediction of ESTB from EC might not be significant unless mediated by EA.

Lastly, a correlation was drawn between EK and ESTB, mediated by EA. The depth of the tourists' environmental expertise, combined with their genuine interest in environmental issues, was found to play a pivotal role in their behaviour at tourist destinations. This finding fortifies the knowledge-attitude-behaviour (KAB) model as elucidated by Felix & Braunsberger (2016) and Siyavooshi et al. (2019).

Recommendations for stakeholders:

- Managers overseeing Muslim-friendly tourist destinations should ensure comprehensive facilities, particularly focusing on sanitation, as feedback has indicated occasional inadequacies.
- Policy makers, primarily the government, ought to continue endorsing and supervising the implementation of the CHSE certification at tourist destinations.
- Adequate budget allocation is imperative for the upkeep of amenities at tourist destinations. Consideration could be given to integrating this cost into the fees levied on tourists, as some indicated willingness to incur additional expenses for enhanced services.

In conclusion, EA plays an instrumental role in influencing environmentally sustainable behaviour among tourists at Muslim-friendly destinations. Systemic support from key stakeholders, including the government and tourism service providers, is essential to ensure adherence to service standards and foster environmental sustainability in the tourism industry.

## 6. Conclusions

Associations between RGV and EC were observed. Additionally, it was discerned that EK correlated with ESTB. Contrarily, RGV and EC were found to exert no direct influence on such behaviour. Mediation by EA was evident across religious beliefs, EC, and EK in relation to environmentally friendly tourist conduct.

This research offers notable insights into Schwartz's theory of basic values and the TPB. In accordance with cognitive dissonance predictions, tourists holding environmental beliefs often encounter psychological dissonance and guilt, particularly when failing to act in line with such beliefs. Those endorsing egoistic values were identified as being less inclined towards pro-environmental actions and holding weaker pro-environmental convictions. On the contrary, individuals upholding altruistic values were typically more predisposed to pro-environmental actions and possessed more entrenched pro-environmental convictions. Such tendencies were observed to impact their environmentally sustainable behaviours in Muslim-friendly tourist destinations.

The mediating role of EA across RGV, EC, EK, and ecologically friendly tourist behaviour was established. It is posited that the behaviours of Muslim tourists in Muslim-friendly locales are predominantly shaped by their EA.

Several limitations in this study warrant attention. Notably, the unfamiliarity of some tourists with governmental policies concerning CHSE was identified. This unfamiliarity is posited as a reason for EC not influencing environmentally friendly behaviour. A perception emerged suggesting the CHSE certificate primarily targets destination managers, with no direct bearing on tourists' environmentally responsible behaviours in Muslim-friendly venues.

For stakeholders, particularly in the wake of the COVID-19 pandemic that led to diminished tourist influx, an avenue for more nuanced research emerges. This research could focus on sustainable tourist behaviours, particularly as they relate to attributes of the destination based on trip experiences. It is imperative for managers of Muslim-friendly sites to closely evaluate the infrastructure, with emphasis on sanitation provisions. Complaints from tourists, particularly regarding sanitation, have been reported in several destinations. Moreover, the enhancement of facilities catering to religious observances is underscored.

The sampling scope of this study was geographically constrained, suggesting the potential for expanded and varied sampling in future inquiries. Additionally, forthcoming studies could consider delving into ESTB through the lens of gender disparities, given existing research suggesting women's heightened EC.

## Author Contributions

Conceptualization, N. A. S.; methodology, N.A.S., T.H., and I.S.; software, N.A.S.; validation, N.A.S., T.H., and I.S.; formal analysis, N. A. S.; investigation, N.A.S., T.H.; resources, N.A.S.; data curation, N.A.S., T.H., and I.S.; writing—original draft preparation, N.A.S., T.H.; writing—review and editing, N.A.S.; visualization, N.A.S.; supervision, N.A.S.; project administration, N.A.S.; funding acquisition, T.H. All authors have read and agreed to the published version of the manuscript.

## Data Availability

The data used to support the research findings are available from the corresponding author upon request.

## Conflicts of Interest

The authors declare no conflict of interest.

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