

Understanding tourists' ecological protection intentions in intangible cultural heritage tourism: an extended TPB approach from Sri Lanka

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Abstract

Purpose – The present study aims to investigate the role of psychological factors on ecological protection behavioural engagement of tourists visiting Intangible Cultural Heritage (ICH) sites in Sri Lanka aligns with the theory of planned behaviour (TPB). It contributes to the existing research by investigating the perceptions of tourists for ICH sites and how they lead to the formation of policies that combine economic development with cultural protection. The study investigates the impact of attitudes, perceived behavioural control and personal and subjective norms on tourists' intention to behave pro-environmentally.

Design/methodology/approach – Quantitative and positivist research methods were used to achieve the quantitative outcomes of the study. Data were gathered from 384 local and international tourists who had visited major ICH sites in Sri Lanka's Central Province using a structured questionnaire through a convenience sampling method. The collected data were analysed using the Statistical Package of the Social Sciences statistical package. Descriptive statistics, correlation and multiple regression analysis were used to address the research questions and do the hypotheses testing of the study.

Findings – The factors affecting ecological protection including attitude, subjective norm, perceived behavioural control and personal norm have a significant impact on behavioural intention. Perceived behavioural control was the most powerful predictor, while other factors also showed a significant impact on behavioural intention and confirmed the TPB. Sri Lankan tourists had more pro-environmental intentions than the international tourists based on the mean comparison test.

Research limitations/implications – The findings highlight the importance of integrating behavioural, moral and infrastructural strategies in sustainable ICH tourism management. Tourism authorities, destination managers and policymakers should enhance eco-infrastructure, environmental communication and culturally sensitive visitor guidance to encourage responsible tourist behaviour and support the long-term preservation of ICH and ecological sustainability.

Originality/value – The research gives empirical evidence from the South Asian ICH tourism setting, which confirms that personal norms should be considered in TPB. It is informative both theoretically and practically in enhancing environmental conservation practices within the tourism sector of ICH.

Keywords Intangible cultural heritage, Ecological protection behaviour, Theory of planned behaviour, Sustainable tourism, Sri Lanka

Paper type Research article

1. Introduction

Intangible Cultural Heritage (ICH) is seen as a living cultural expression that includes rituals, festivals, performing arts, traditional craftsmanship, indigenous knowledge systems, religious practices and community-based cultural traditions. In contrast to tangible heritage, ICH is constantly re-created by the communities in reaction to the surrounding environment, history and social context, making it inextricably linked with local identity, cultural continuity and



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ecological surroundings (Qiu *et al.*, 2022). Based on the foregoing, it is evident that ICH tourism does not only entail the consumption of cultural experiences but also requires tourists to engage in a responsible way with living traditions, the host communities and environmentally sensitive cultural spaces (Shakya and Vagnarelli, 2024; [ECONOMUSÉE Network Society, 2024](#)).

Booming tourism has increased the strain on the culturally and ecologically sensitive destinations. The high number of tourists visiting heritage tourism sites, congestion, waste disposal, inappropriate visitor behaviour and poor visitor management have led to the issue of sustainability of heritage tourism, especially in the developing economies (Fauzi *et al.*, 2023; Zhang and Ran, 2024). The problems are more critical in ICH settings due to the fact that cultural practices are usually enshrined in sacred spaces, rural communities, natural landscapes and everyday life in the community. Consequently, uncontrolled tourism may not only result in ecological degradation but also in the commodification and undermining of living cultural practices ([ECONOMUSÉE Network Society, 2024](#); Qiu *et al.*, 2022).

Sri Lanka offers a suitable and pertinent environment to explore the ecological protection behaviour within ICH tourism. The country possesses a rich base of cultural heritage that includes traditional religious rites, cultural festivals, ayurvedic-based medicine, traditional craftsmanship, performing arts and a community-based system of knowledge. After the post-pandemic recovery and recent economic challenges, tourism has become of the highest importance in national recovery, and with the growing tourist influx, renewed pressures on national cultural and environmental resources are evident (Sri Lanka Tourism Development Authority, 2024). As such, the readiness of the tourists to embrace environmentally responsible behaviour has now become critical in the maintenance of ICH tourism in Sri Lanka.

The central problem addressed in this study is that ecological protection in ICH tourism cannot be achieved only through tourism policy, infrastructure development or destination management. It is also based on the behavioural responsibility and the readiness to act responsibly by the tourists in their interaction with cultural and ecological spaces (Han *et al.*, 2020; Zhang and Ran, 2024). In the Sri Lanka context, the development of the tourism industry has been highly emphasised in terms of increasing visitor arrivals, the competitive nature of the destination and earnings of the tourism industry, while little focus has been made on the issue of tourist responsibility within the ICH sites (Kularatne *et al.*, 2019; Sri Lanka Tourism Development Authority, 2024). This poses an immediate problem since reckless tourist behaviours have the potential to undermine the quality of the environment, cultural authenticity and community well-being of heritage-based destinations.

This is of particular significance as Sri Lanka does not have systematic behavioural mechanisms to guide tourists in ICH sites as compared to countries like Japan and Bhutan, which have cultural interpretations, visitor codes of conduct and moral engagement as the systematic behavioural mechanisms in encouraging responsible visitor behaviour (World Bank, 2018). The lack of eco-infrastructure, poor behavioural advice, inconsistent environmental communication and the lack of integration of moral responsibility into visitor management are clear practical gaps in the Sri Lankan context (Zhang and Ran, 2024; Piramanayagam *et al.*, 2023). Thus, to plan efficient and context-sensitive sustainability policies, knowledge about psychological factors which promote the development of ecological protection behaviour is required.

Despite a significant growth in the research on sustainable tourism, there are still a number of gaps in the literature. To begin with, the available literature has primarily concentrated on the practices of organisational sustainability, green hotels, general destination management and natural tourism environments (Kularatne *et al.*, 2019; Han *et al.*, 2020; Fauzi *et al.*, 2023). Second, active participants in ecological safeguarding in the heritage setting, tourists, have been comparatively under-researched. Third, pro-environmental behaviour studies have tackled more natural attractions and physical heritage sites, whereas ecological protection behaviour in ICH tourism remains understudied, particularly in South Asian destinations like Sri Lanka.

The theory of planned behaviour (TPB) is an appropriate theoretical framework that should be used to investigate the ecological protection intentions of the tourists. TPB describes the behavioural intention in terms of attitude, subjective norms and perceived behavioural control. It has extensively been used in the study of tourism, environmental behaviour and sustainable consumption research, given that it explains how individuals develop intentions to engage in responsible behaviour. Nevertheless, recent research contends that the original TPB might not be suitable to represent moral and value-based motivation of sustainability-related behaviour, especially in a culturally and ethically sensitive context (Helferich *et al.*, 2023; Islam *et al.*, 2024).

This study further expands TPB by adding the concept of personal norms as another predictor of morality. Personal norms are internalised moral obligations that motivate individuals to act in a responsible manner even when they are not subjected to external pressure. This is highly relevant to ICH tourism because tourists may feel an ethical responsibility to respect cultural traditions, sacred spaces, local communities and natural surroundings (Helferich *et al.*, 2023; Islam *et al.*, 2024; Sorcaru *et al.*, 2024). Nevertheless, there is a dearth of empirical studies investigating the role of personal norms in supporting ecological protection intention in ICH tourism, especially in Sri Lanka and other South Asian settings.

Accordingly, this study is timely and unique as it investigates the ecological protection behavioural intentions of tourists in Sri Lankan ICH tourism using an extended TPB model. In contrast to the earlier literature where the literature mostly focuses on green hotels, general sustainable tourism, natural attractions or physical heritage sites, the focus of the present study is on behavioural responsibility in ICH tourism and integrates individual norms to capture the moral aspect of ecological protection (Kularatne *et al.*, 2019; Han *et al.*, 2020; Qiu *et al.*, 2022; Zhang and Ran, 2024). This difference is significant since ICH tourism implies living cultural practices where ecological degradation can also impact cultural continuity, community well-being and heritage authenticity.

The primary aim of the study was to investigate the psychological determinants of the intention to participate in the ecological protection behaviour in ICH sites, in Sri Lanka. In particular, the research questions how attitude, subjective norms, perceived behavioural control and personal norms can predict the ecological protection behavioural intention of tourists. These variables were chosen according to the initial TPB model and the recent extensions that emphasise the significance of moral responsibility in sustainable behaviour.

This study offers empirical evidence, based on Sri Lanka, a South Asian tourism environment, where ICH, religious values, community involvement and the sustainability of developing countries all intersect. Thus, the study has both theoretical significance to sustainable tourism and consumer behaviour literature and practical value to the policymakers, tourism authorities and destination managers who want to balance tourism development with ecological and cultural conservation (Piramanayagam *et al.*, 2023; Shakya and Vagnarelli, 2024; Zhang and Ran, 2024).

2. Literature review, research hypotheses, conceptual framework and operationalisation

2.1 Theoretical review

The current research is based on the TPB, which describes how individual behavioural intention is formed through attitude, subjective norms and the perceived behavioural control (Ajzen, 1991). TPB suggests that people are more likely to intend to do a behaviour when they think the behaviour is good, when they think that society values the behaviour and when they believe that they have the ability, resources and opportunities to do it. This explanatory ability has led to the widespread use of TPB in the studies of sustainable tourism, green consumption, environmental protection and tourist pro-environmental behaviour (Han *et al.*, 2020; Piramanayagam *et al.*, 2023; Raza *et al.*, 2024).

TPB is especially applicable to ICH tourism since the intellectual, social and situational factors shape the ecological protection intentions of tourists. Tourists do not just consume a

tourism experience in ICH settings; they also engage with the living traditions, rituals, religious practices, craft knowledge and communities. Thus, their readiness to act responsibly may be influenced by the fact that they value ecological protection, are expected to act responsibly by important social actors and whether the site provides adequate facilities and guidance. Recent studies in tourism also indicate that TPB is still applicable in explaining sustainable tourist behaviour, particularly when extended to reflect context-specific psychological and moral factors (Esfandiar *et al.*, 2023; Fauzi *et al.*, 2023; Zhang and Ran, 2024).

Nonetheless, the initial version of TPB has been criticised due to its insufficient focus on the moral responsibility in sustainability-related behaviour. Ecological protection in ICH tourism is not only a rational or socially influenced practice but also an ethical duty that is related to the continuity of culture, the well-being of communities and the preservation of the environment. Thus, this research is an expansion of TPB to include personal norms as a moral predictor of ecological protection behavioural intention. Personal norms represent the moral obligation of tourists to act responsibly, which should be internalised in the form of personal norms (Helferich *et al.*, 2023; Islam *et al.*, 2024; Sorcaru *et al.*, 2024). Based on this, the TPB framework, which was extended in this study, incorporates the cognitive, social, control-related and moral explanations of the ecological protection intention of tourists.

2.2 Attitude and ecological protection behavioural intention

Attitude can be defined as the positive or negative assessment of an individual towards the performance of a specific behaviour. Among tourists who have positive attitudes in the context of protecting the environment, positive attitudes are more likely to believe that responsible actions including waste reduction, adherence to site regulations and protection of natural landscapes are significant and useful. Empirical research reveals that the attitude of the tourists towards environmental protection has a significant impact on the intention of the tourists to be responsible in their behaviours (Han *et al.*, 2020). Positive evaluations of the environmental conservation efforts can increase the readiness of tourists to adhere to the ecological regulations, minimise their waste and promote the conservation efforts.

Empirical studies indicate that tourists' attitudes towards environmental protection have a significant impact on their intention to engage in responsible behaviour. Favourable assessments of environmental conservation activities can enhance tourists' adherence to ecological rules, reduce waste and support conservation efforts (Han *et al.*, 2020). Positive intentions toward environmental protection in heritage tourism are continually supported by the emotional attachment to cultural experience, resulting in increased behavioural intentions (Piramanayagam *et al.*, 2023). In developing tourism destinations, it has also been shown that tourists who view ecological protection as positively affecting the sustainability of destinations are more likely to behave responsibly (Raza *et al.*, 2024). The attitude in ICH tourism has extended beyond the environment-related concern to cultural respect and perceived responsibility towards the host communities. When the tourists associate ecological protection with cultural continuity and social harmony, positive attitudes are likely to be translated into behavioural intention. The given value evaluation supports the attitudinal channel in TPB, particularly, the heritage setting, in which environmental degradation is perceived as a threat to the cultural meaning not only to physical assets (Qiu *et al.*, 2022; Helferich *et al.*, 2023). Therefore, attitude will influence the ecological protection intentions:

- H1. There is a significant impact of tourists' attitudes on their intention to engage in ecological protection behaviour at ICH sites in Central Province, Sri Lanka.

2.3 Subjective norms and ecological protection behavioural intention

Subjective norms are those social pressures that are perceived by an important person or group to do or to avoid a certain behaviour. In the context of tourism, the expectations of family

members, friends, travel companions, tour guides, local communities, religious representatives and other visitors may affect tourists. TPB proposes that where people feel that key social groups are pressuring them to act in a responsible manner, people are more likely to engage in plans to undertake such behaviour (Helferich *et al.*, 2023).

Research has demonstrated that social pressure from family, relatives, friends and tour guides positively affects the environmentally responsible behaviour of tourists in collectivist cultures (Wu *et al.*, 2022; Helferich *et al.*, 2023). Tourists in heritage tourism are guided by the rules of the group or cultural etiquette as social cues (Islam *et al.*, 2024). The South Asian culture shows a collectivist orientation whereby the social approval, cultural etiquette and moral expectations govern behaviour since they are part of subjective norms. Certainly, the behaviour of tourists in ICH settings can be changed based on their perceived expectations of local people, religious leaders and other tourists and the preference confirms the effect of normative influence on culturally framed settings (Wu *et al.*, 2022; Piramanayagam *et al.*, 2023; Yanying and Thurai selvam, 2024). Therefore, the subjective norms will contribute positively to the ecological protection intentions of the tourists in the ICH sites:

- H2. There is a significant impact of subjective norms on intention to engage in ecological protection behaviour at ICH sites in Central Province, Sri Lanka.

2.4 Perceived behavioural control and ecological protection behavioural intention

Perceived behavioural control is the degree to which people believe that they possess the ability, resources and opportunities to carry out a behaviour. In ecological conservation, tourists will be more inclined to want to act responsibly when they think that the facilities, information and support which they need to act responsibly are available. Past research indicates that tourists are more receptive to adopt ecological protection behaviour when they believe that they have adequate control over behaviours like waste disposal, compliance and use of environmentally friendly facilities (Han *et al.*, 2020).

The studies found that tourists use more ecological protection behaviours when they believe that they have adequate control over them, including disposal of waste, environmental labels and desirable facilities (Han *et al.*, 2020). Negative behaviour may be caused by poor facilities or a lack of directions, even in cases where intentions are positive (Zhang and Ran, 2024). Recent research on new tourist destinations also indicates that the ease of undertaking pro-environmental behaviour is suitable to predict behavioural intention (Raza *et al.*, 2024). The perceived behavioural control in the development process of destination tourism is caused by situational constraints and not individual capacity. The perceived control may be even more significant in the intention formation process because such factors as a lack of adequate eco-infrastructure, insufficient guidance and informal control over sites may reduce the confidence that tourists have in performing pro-environmental activities (Zhang and Ran, 2024). Therefore, behavioural control can impact the intentions to protect the ICH sites:

- H3. There is a significant impact of perceived behavioural control on intention to engage in ecological protection behaviour at ICH sites in Central Province, Sri Lanka.

2.5 Personal norms and ecological protection behavioural intention

Personal norms are based on moral responsibility, and individuals should behave in a good and eco-friendly manner. According to previous studies, moral responsibility has become a valid predictor of pro-environmental intentions when it is associated with moral and cultural issues (Helferich *et al.*, 2023). Tourists in heritage tourism perceive that they possess a moral responsibility to maintain cultural practices and cultural environments, and this drives them to be more interested in engaging in environmental conservation programs (Islam *et al.*, 2024). There is empirical evidence that personal norms can enhance the predictive power of behavioural explanations of moral motivation, which are not influenced by social pressure and

perceived control (Piramanayagam *et al.*, 2023). Individual norms are internalised in cultural learning, religious values and socialisation in morality and have a very strong influence on ICH tourism. It is possible to motivate the behaviour of environmental protection using these ethical rules without any social pressure, and individual standards can be supported in ecologically sensitive heritage environments (Islam *et al.*, 2024; Sorcaru *et al.*, 2024). Therefore, the personal norms in the cultural orientation of ICH tourism play a vital role in developing intentions to protect the environment:

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- H4. There is a significant impact of personal norms on intention to engage in ecological protection behaviour at ICH sites in Central Province, Sri Lanka

2.6 Conceptual framework

Despite the wide usage TPB to explain pro-environmental behaviour in tourism, there are still some gaps in the literature. Most existing research is concentrated on green hotels, natural attractions, general sustainable tourism, or physical heritage sites, whereas the intentions of tourists to protect the ecological environment of ICH tourism are not fully explored (Han *et al.*, 2020; Qiu *et al.*, 2022; Piramanayagam *et al.*, 2023; Raza *et al.*, 2024). Moreover, the original TPB has largely been used to explain behaviours based on the attitude, subjective norms and perceived behavioural control (Ajzen, 1991; Helferich *et al.*, 2023; Islam *et al.*, 2024).

To fill these gaps, this research recommends an extended TPB model to explain the ecological protection behavioural intention among tourists in ICH tourism. The model incorporates the attitude, subjective norms and perceived behavioural control as the original constructs of the TPB model, and personal norms are added as another construct of the moral predictor. Attitude is the positive assessment of ecological protection, subjective norms are the social and cultural expectations and the perceived behavioural control is the perceived ability of the tourists to act responsibly. Personal norms add to the model, internalising the moral imperative of the tourists to preserve cultural and ecological resources. Thus, the framework relates rational, social, control-based and moral factors to explain ecological protection intentions in Sri Lankan ICH tourism. Figure 1 illustrates the conceptual model of the study, considering the study relationship.

2.7 Operationalisation

All the variables were operationalised using the measurement scales adopted in the past empirical studies to ensure reliability and validity. The attitude towards ecological protection was measured by the positive attitudes towards importance, significance, worthiness and showing care based on ecologically responsible behaviour (Dioba *et al.*, 2024; Zhang and Ran, 2024). The subjective norms were operationalised according to perceived social demands of significant others on ecological protection, considering their assistance, beliefs and advice (Brechignac, 2020; Zhang and Ran, 2024). Perceived behavioural control was measured using perceived ease, capability, time and resource availability (Shakya and Vagnarelli, 2024; Zhang and Ran, 2024). The personal norms were measured using duties, responsibility and guiltiness (Navaneethakrishnan, 2014; Zhang and Ran, 2024). The behavioural intention towards ecological protection was measured using comfort, losing time, actual actions and compliance with rules (Han *et al.*, 2020; Zhang and Ran, 2024).

3. Research methodology

This research adopted a quantitative, cross-sectional survey research design to explore the ecological protection behavioural intentions of tourists in the ICH tourism in Sri Lanka. The quantitative approach was suitable in the study, as the research tested hypothesised relationships between attitude, subjective norms, perceived behavioural control, personal norms and ecological protection behavioural intention. The cross-sectional design was

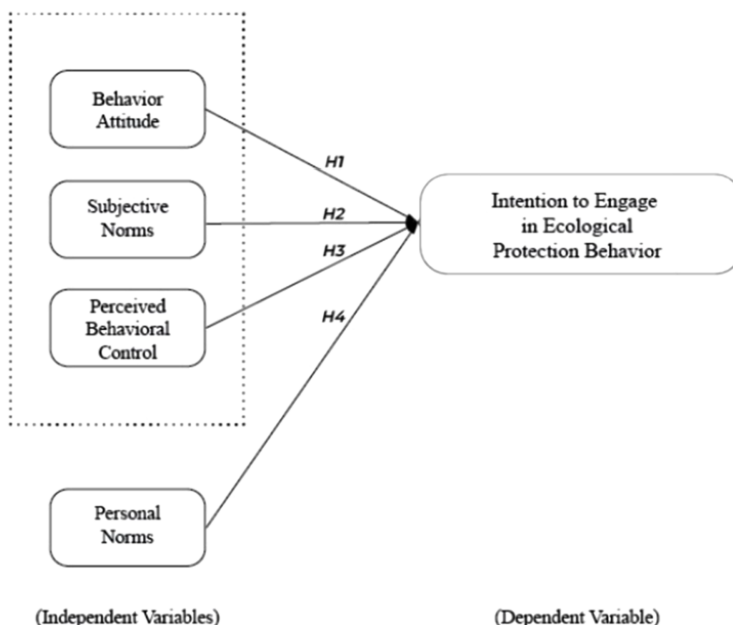


Figure 1. Conceptual model. Source: Authors' compilation based on literature review

appropriate since the data were gathered at a single point in time of tourists who had experience in ICH tourism. The research was based on a positivist research philosophy and deductive research methodology, where the proposed extended TPB model was tested using structured measurement and statistical analysis (Creswell and Creswell, 2018).

3.1 Research procedure and sampling

The target population comprised of local and international tourists who had visited or participated in the ICH sites and activities in the Central Province of Sri Lanka. The Central Province was chosen as it hosts culturally meaningful rituals, religious activities, traditional performances, craft-related activities and heritage-based tourism experiences, which attract both local and international tourists (Sri Lanka Tourism Development Authority, 2024).

The convenience sampling method was employed since the overall population of the tourists visiting the sites of ICH in the Central Province was large, mobile and hard to identify using a complete sampling frame. The convenience sampling was thus appropriate to access qualified respondents who were at hand via tourism-related online platforms (Saunders *et al.*, 2023). The Google Form questionnaire was disseminated via various tourism-related social media pages, travel groups and message groups related to tourism in the Central Province. The questionnaire was left open to one month and the participation was voluntary. Additionally, while visiting these sites, tourists were keen on answering the questionnaire face to face.

Only tourists who had visited or experienced ICH-related tourism sites or activities in the Central Province were eligible for the study. Finally, the final analysis was made using 384 valid responses, which was deemed as sufficient to conduct multiple regression analysis and behavioural research based on a number of independent variables (Hair *et al.*, 2019). Though there is a limitation of full statistical generalisability of convenience sampling, inclusion of both domestic and international tourists with various demographic and tourism-related backgrounds enhanced contextual representativeness of the sample.

3.2 Data collection instrument

A structured self-administered questionnaire was used in gathering the data based on pre-existing measurement items in prior research. The questionnaire consisted of two sections. Demographic and tourism-related data, such as gender, age, nationality, education level, employment status, income level and frequency of visiting ICH sites, were collected in the first section. The second portion assessed the study variables: attitude, subjective norms, perceived behavioural control, personal norms and ecological protection behavioural intention.

Measurement of all constructs was done using multiple items on a five-point Likert scale that ranged between 1 = strongly disagree and 5 = strongly agree. Attitude was an assessment of the ecological protection made favourably by the tourists. The subjective norms were the measures of perceived social influence by other important people. Perceived behavioural control: appraised ability, resources and opportunity to participate in ecological protection behaviour were measured. Personal norms were the measurement of the moral obligation and personal responsibility, whereas ecological protection behavioural intention measured the willingness of the tourists to adhere to rules and be responsible when visiting ICH sites.

To improve content validity, the questionnaire items were adapted from prior empirical studies and reviewed by academic professionals familiar with tourism, sustainability and behavioural research. Their feedback was used to improve wording clarity, contextual relevance and item suitability. A pilot test was also conducted prior to the main survey in order to enhance clarity, wording and contextual appropriateness of the questionnaire.

The questionnaire was first prepared as a structured physical survey form based on the study variables and measurement items adopted from previous literature. It was then translated into a Google Form so that the data collection becomes easier for both the local and international tourists. The aim of the research was well articulated in the introduction section of the form before respondents could answer the questionnaire. The response was voluntary, and the respondents were made aware that their responses would only be used in the academic context. Ethical aspects were upheld by considering anonymity and confidentiality. This process helped the researcher to gather information in a cost-effective manner and preserve the privacy and ethical practices of respondents.

Statistical Package of the Social Sciences was used to analyse the gathered data. The demographic profile of the respondents was analysed using frequency distribution analysis, while descriptive statistics were used to summarise the characteristics of the study variables. Reliability was measured through Cronbach's alpha, with a value above 0.70 taken to be acceptable. Principal component analysis (PCA), Kaiser–Meyer–Olkin (KMO) values, Bartlett test and factor loadings were used to test construct validity. Lastly, hypothesis testing was done by analysing the correlation and regression results. It helped to determine the strength and direction of the relationships of attitude, subjective norms, perceived behavioural control and personal norms and ecological protection behaviour among tourists (Hair *et al.*, 2019).

4. Results

4.1 Common method bias

As the data were collected on the same respondents using one self-administered questionnaire, common method bias was evaluated to make sure that the relationship between the study variables was not artificially exaggerated by the method of data collection. After the complete collinearity method suggested by Kock (2015), the values of variance inflation factors (VIFs) were analysed regarding all key constructs. The outcomes showed that all VIFs were less than the suggested value of 3.3, which indicated that common method bias was not a severe problem in this study. Thus, the perceived relationship between attitude and subjective norms, perceived behavioural control and personal norms and ecological protection behavioural intention can be regarded as satisfactory to be further analysed.

4.2 Respondent profile

Table 1 illustrates the distribution of demographic characteristics throughout the whole sample of respondents. The respondent profile shows that the sample consisted of 384 tourists with different demographic and tourism-related characteristics. Female respondents represented the majority of the sample at 64.1%, while male respondents accounted for 35.9%. Most respondents were relatively young, with the largest age groups being 26–35 years (33.6%) and below 25 years (33.3%). In terms of nationality, Sri Lankan tourists formed the majority at 68.8%, while international tourists represented 31.3% of the sample. Most respondents were graduates (39.8%), followed by diploma holders (16.7%) and those with secondary education (16.4%). Regarding employment, the largest group was employed in the private sector (58.1%). Monthly income was fairly distributed, with the highest proportion earning Rs. 250,001–500,000/\$ 3,001–5,000 (24.7%). In terms of ICH site visits, most respondents visited 2–3 times per annum (43.5%), followed by those who visited once per year (37.2%). Overall, the profile indicates that the sample included both domestic and international tourists with varied demographic backgrounds and different levels of ICH tourism experience.

4.3 Descriptive statistics

Descriptive analysis revealed that the respondents had positive perceptions of ecological protection within ICH tourism. The attitude towards ecological protection had a mean value of

Table 1. Respondent characteristics

Variable	Category	Frequency	Percentage (%)
Gender	Female	246	64.1
	Male	138	35.9
Age group (years)	Below 25	128	33.3
	26–35	129	33.6
	36–45	86	22.4
	46–55	33	8.6
	Above 55	8	2.1
Nationality	Sri Lankan	264	68.8
	International	120	31.3
Education level	Secondary education	63	16.4
	Diploma	64	16.7
	Graduate	153	39.8
	Postgraduate	56	14.6
	Professional qualification	48	12.5
Employment status	Private sector	223	58.1
	Public sector	54	14.1
	Student	49	12.8
	Entrepreneur	39	10.2
	Unemployed	11	2.9
	Retired	8	2.1
Monthly income	< Rs. 50,000/< \$ 500	92	23.9
	Rs. 50,001–150,000/ \$ 501–1,000	65	16.9
	Rs. 150,001–250,000/ \$ 1,001–3,000	92	23.9
	Rs. 250,001–500,000/ \$ 3,001–5,000	95	24.7
	> Rs. 500,000/> \$ 5,000	40	10.4
Frequency of visiting ICH sites (per annum)	Once	143	37.2
	2–3 times	167	43.5
	4–5 times	56	14.6
	More than 5 times	18	4.7

Source(s): Table by authors

3.29, indicating that tourists gave high scores for environmentally responsible behaviour. The subjective norms had a mean value of 3.42, indicating moderate to strong social influence promoting ecological protection behaviour. Perceived behavioural control had a mean score of 3.37, indicating that the respondents felt confident in their ability to participate in ecological protection activities when visiting ICH sites. The largest mean of 3.36 was observed in personal norms, highlighting the relevance of moral obligation and personal responsibility in determining the behavioural intentions of tourists. The dependent variable, ecological protection behavioural intention, also revealed a high mean of 3.67, indicating that tourists were very willing to engage in ecologically responsible behaviours during ICH tourism activities. The descriptive findings suggest that ecological protection has a favourable behavioural environment.

4.4 Data reliability and validity

Cronbach’s alpha was used to determine the internal consistency in terms of reliability of the measurement scales. The constructs were all above the recommended value of 0.70, which showed that the level of reliability was satisfactory (Nunnally, 1978).

PCA tested construct validity. All KMO values exceeded the acceptable value of 0.70, confirming the sample adequacy. The Bartlett’s test is significant with $p < 0.05$. This indicates suitability for the factor analysis (Hoelzle and Meyer, 2012). All factor loadings were above 0.60, indicating high convergence validity and the appropriateness of the measurement model.

Additionally, theoretically consistent relationships of variables were used to support construct validity. The results of the observed correlation between the independent constructs (Pearson correlation values range from 0.384 to 0.628) and ecological protection behavioural intention were in line with expectations based on the extended TPB, which contains preliminary evidence of convergent validity.

4.5 Correlation and regression analysis

Table 2 presents the outcomes of the correlation and regression analysis, which indicate that all independent variables had positive and significant relationships with ecological protection behavioural intention at the 0.05 level of significance. Attitude had a moderate, positive correlation with behavioural intention, indicating that a positive review of ecological protection is related to greater intentions to act responsibly. The relationship between subjective norms and environmentally responsible intentions was also positive, which implies that perceived social expectations can be a source of behavioural intention. There was also a significant positive relationship between perceived behavioural control, indicating that tourists who perceived themselves as having the ability to adopt ecological protection behaviour. The relationship between personal norms and behavioural intention supports the significance of moral responsibility in ICH tourism contexts.

The relative effect of independent variables on the ecological protection behavioural intention was also analysed using multiple regression analysis. The regression model was statistically significant ($F = 229.741, p < 0.05$) and accounted for 70.5% of the variance in behavioural intention. The most important predictor was personal norms, which demonstrated

Table 2. Correlation and regression results

Independent variable	Correlation (<i>r</i>)	Sig. (<i>p</i>)	Regression coefficient (β)	Sig. (<i>p</i>)
Attitude	0.641	<0.05	0.283	<0.05
Subjective norms	0.621	<0.05	0.151	<0.05
Perceived behavioural control	0.750	<0.05	0.364	<0.05
Personal norms	0.686	<0.05	0.312	<0.05

Source(s): Table by authors

that moral obligation is a key factor in the formation of intentions towards ecological protection. Attitude and perceived behavioural control had a high impact, while subjective norms had a lesser impact. These findings demonstrate that cognitive, control-related and moral variables are integrated to influence tourists' ecological protection behavioural intentions. The regression results supported all the proposed hypotheses (H1-H4).

5. Discussion

The results indicate the applicability TPB in explaining the ecological protection behavioural intentions of tourists in ICH tourism. All of them were significant and proved that the intention to protect the ecology is determined by a complex of cognitive assessment, social influence, the perceived ability and moral responsibility. This helps to support the TPB framework proposed by [Ajzen \(1991\)](#) as well as extends its applicability to those tourism contexts that are culturally embedded in nature and where the notion of environmental responsibility bears a close association with the concept of cultural preservation.

The results of the ecological protection intention of tourists are highly contingent on perceived behavioural control, suggesting that perceived behavioural control is a more critical determinant of the results of the ecological protection intention of tourists. This is supported by other studies such as [Han et al. \(2020\)](#) and [Zhang and Ran \(2024\)](#), which postulate that situational feasibility is the core of pro-environmental behaviour in tourism. The lack of waste facilities, ambiguous environmental signs and informal management of sites may increase the perceived control of tourists in making their decision whether to act responsibly or not, in the Sri Lankan ICH context. Hence, positive attitudes *per se* might not suffice unless the tourists feel practically capable of being sustainably active.

The high contribution of personal norms also gives prominence to the moral aspect of ecological protection in ICH tourism. As opposed to general tourism contexts, ICH tourism entails living traditions, religious values, community practices and cultural meanings. Thus, the ecological protection can be seen by tourists not only as an environmental activity but also as a moral obligation to maintain cultural continuity and community well-being. This is in line with recent research that recommends the extension of TPB with moral constructs to better explain sustainable behaviour in ethically sensitive contexts ([Helferich et al., 2023](#); [Islam et al., 2024](#); [Sorcaru et al., 2024](#)). This result is notable since it demonstrates that internal moral obligation, and not external pressure or rational analysis, is one of the factors that influence responsible behaviour in ICH tourism.

Subjective norms also made a significant contribution to behavioural intention, but their contribution was not as strong as perceived behavioural control and personal norms. This finding is in line with the literature on TPB, which acknowledges the fact that social influence depends on the cultural and situational context. Responsible behaviour can be encouraged by expectations of the local communities, the tour guides, religious representatives and other tourists in the collectivist and heritage-based tourism environment in Sri Lanka ([Wu et al., 2022](#); [Piramanayagam et al., 2023](#)). Nevertheless, the weaker position of subjective norms implies that the inner moral responsibility of tourists can be more effective than the social expectations outside the tourist in the ICH setting.

Attitude also proved to be a significant predictor, as it demonstrated that tourists who are favourably assessing ecological protection have higher chances of intending to behave in a responsible manner. This follows prior tourism research, which has associated positive environmental attitudes with positive intentions of responsible behaviour ([Han et al., 2020](#); [Raza et al., 2024](#)). The results, however, also show that attitude is to be facilitated by moral engagement and practical enabling conditions. This verifies that sustainable tourist behaviour is multidimensional and cannot be attributed to awareness or positive evaluation alone ([Piramanayagam et al., 2023](#)).

In general, this study contributes to the literature on sustainable tourism by demonstrating that the interaction of rational, social, control-related and moral factors shapes the ecological

protection intention in ICH tourism. The primary value of it consists in the fact that it shows that the ICH tourism needs to be presented in terms of a context-sensitive behavioural framework, as tourists are not only visitors to a specific destination but also temporary members of living cultural and ecological systems. Consequently, the sustainability measures in tourism ICH must be combined with awareness-raising, green infrastructure, societal direction and moral dialogue as a means of enhancing sustainable tourist behaviour (Pratiwi *et al.*, 2017; Silva *et al.*, 2026).

6. Implications

6.1 Theoretical implications

This research has a number of theoretical contributions to the literature on sustainable tourism, ICH tourism and pro-environmental behavioural intention. To start with, the study extends the use TPB by empirically validating its applicability in the area of ICH tourism, which is relatively understudied. Although TPB has been widely used in research on environmental behaviour, green consumption, hospitality and natural or physical heritage tourism, there is little evidence of its application in ICH tourism. By establishing that attitude, subjective norms and perceived behavioural control significantly affect the ecological protection behavioural intention of tourists in culturally embedded and socially interactive tourism contexts, this study demonstrates that TPB can still be a valuable theoretical framework in explaining responsible tourist behaviour in culturally embedded and socially interactive tourism contexts.

The results enhance the TPB framework by confirming the theoretical utility of the personal norms as another moral construct. The great impact of personal norms demonstrates that the intentions of tourists in eco protection are not determined by the rational analysis alongside social pressure and perceived control only, but the internalised moral responsibility defines such intentions. This is especially needed in ICH tourism, where preserving the environment is intricately linked to cultural continuity, respect for the community and responsible conduct. Thus, the research confirms the recent claims according to which the original TPB model could be extended when investigating the topic of sustainable behaviour used in the context of morally sensitive issues. The emphasis on personal norms enhances the explanatory capabilities of TPB because the moral aspect of tourist behaviour remains unaccounted for by the original constructs proposed in the TPB.

This research adds to the theoretical knowledge by demonstrating the relative significance of the control and morality-based factors in the ecological protection intentions. The results suggest that the perceived behavioural control and personal norms are especially influential in determining the intentions of tourists. This implies that sustainable behaviour in ICH tourism is not only dependent on the positive attitudes or social norms but also on the perceived capability of the tourists to act responsibly and the internal feeling of moral responsibility. In this way, the study builds upon TPB based tourism research by showing the combined effects of cognitive, social, control-related and moral factors to explain ecological protection intentions.

Lastly, the research gives context-specific theoretical evidence in Sri Lanka, a South Asian tourism context that has received little consideration in the sustainable tourism behaviour research. To a great extent, the literature that has been developed so far within the framework of TPB has been developed in the context of Western or general tourism. Through the application of the extended TPB model to the Sri Lankan ICH tourism, this study enhances the cultural and geographical relevance of the sustainable behaviour theories. It shows that behavioural theories should be construed within certain cultural, moral and heritage-based contexts. Thus, the research can be useful in developing the theory, as it provides a more context-sensitive explanation of the ecological protection intentions of the tourists in the ICH tourism.

6.2 Managerial and policy implications

The results have practical implications for tourism authorities, ICH site administrators, tour guides, community stakeholders and policymakers. The findings have a solid basis for developing behaviour-oriented sustainability policy in the ICH tourism because the regression model has been able to explain 70.5% of the variance in the sustainability policy behavioural intention of tourists visiting ICH tourism. Perceived behavioural control indicated the greatest impact, followed by personal norms, attitude and subjective norms. Consequently, viable measures must focus on enhancing the capacity, moral obligation, positive judgement and social support of the tourists to act responsibly.

ICH site managers should enhance tourists perceived behavioural control by making ecological protection behaviour more convenient to perform. Since perceived behavioural control was found to be the strongest predictor, the sites should have visible waste receptacles, recycling centres, clear eco-signage, water refilling, and simple behavioural instructions written in Sinhalese, Tamil, and English. Such provisions can assist the tourist to convert good intentions into actual behaviour.

Furthermore, managers and policymakers are advised to strengthen their own norms by making ecological protection a moral duty. As personal norms showed a strong positive impact, the communication with the visitors should relate to environmental protection and cultural respect, community well-being and preservation of ICH practices. Short messages at entry points, visitor centres, web pages and social media can be used to demonstrate how responsible behaviour protects the culture and the environment.

There is a role for tour guides and local cultural actors as sustainability communicators. Since the subjective norms had a significant impact on intention, guides, performers, religious representatives and community members have an opportunity to influence tourist behaviour through their stories and behaviours. Training of guides must include ecological narration, visitor responsible management and cultural competence communication.

Moreover, awareness campaigns should be targeted to strengthen the attitude-building initiatives. As the meaning of attitude had a significant impact on the intention, posters, short videos, QR-based guides and social media campaigns should be used by regulatory authorities and site managers to convey the message about the advantages of ecological protection to heritage preservation, visitor experience and livelihoods.

7. Limitations and future research suggestions

This study has several limitations. First, the research used a cross-sectional design, which captures the ecological protection intentions of tourists at a single point in time but does not consider changes in their views or behaviour at various levels of the tourism experience. Future researchers may consider longitudinal designs to investigate the dynamics of ecological protection intentions at the pre-visit, visit- and post-visit stages at ICH sites.

The convenience sampling reduces sample representativeness and might limit the extrapolation of the results to the study setting. Probability based sampling or mixed sampling methods can be used in future studies to enhance external validity. This research aims at behavioural intention, rather than actual ecological protection behaviour. Intention is a good predictor, even though it is not always translated into practical action.

It is recommended that future research should involve behavioural observations, diary techniques, or post-visit tests to obtain true behaviour. Furthermore, qualitative research may produce more information about the moral rationality and the situational limitations of tourists. Comparing cross-country studies of South Asian ICH destinations would also strengthen contextual knowledge and theory building.

8. Conclusion

This research examined ecological protection behavioural intentions of tourists in ICH tourism in Sri Lanka, through an extended TPB framework. The results indicated that the intention to

perform ecological protection behaviour at ICH sites was significantly influenced by the attitude, subjective norms, perceived behavioural control and personal norms. Among them, perceived behavioural control and personal norms proved to be especially strong predictors, showing that tourists tend to act in a way that is more responsible when they believe that they can act responsibly and when they have a personal sense of moral obligation to take care of cultural and environmental resources.

The research is relevant to the sustainable tourism literature by broadening the TPB model through the inclusion of personal norms. This shows that the intent of ecological protection in ICH tourism does not necessarily depend on the rational consideration, social pressure and perceived control but on internalised ethical responsibility. The paper also gives context-specific evidence in Sri Lanka, thus enhancing the generalisability of behavioural theories in South Asian ICH tourism contexts. On a practical note, the results indicate that sustainable ICH tourism management must go beyond the general awareness campaigns. Tourism agencies and managers of tour sites and communities should improve eco-infrastructure, provide clear visitor guidance, use tour guides as sustainability communicators and associate ecological protection with cultural respect and community health. Such actions will assist in turning the positive intentions of tourists into a really responsible behaviour.

This study provides a valuable foundation to be used in future research. Future research can assume longitudinal, observational, or comparative research designs to extend the research on ecological protection behaviour in ICH tourism. In general, the long-term sustainability of ICH is determined by the willingness and ability of tourists to take responsible actions.

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