



Digital Consumer Pathways and Tourist Citizenship behaviour in Cocoa Tourism: an AISAS Model Approach

Usep Suhud ^{a, b}, Doni Sugianto Sihotang ^a, Sunthorn Boonkaew ^c,
Laelah Purnamasari ^d, Muaz Azinuddin ^b, Jakkawat Laphet ^e,
Somnuk Aujiरणongpan ^{f, *}

^a Faculty of Economics and Business, Universitas Negeri Jakarta, Jakarta 13220, Indonesia

^b Faculty of Applied Social Sciences, Universiti Sultan Zainal Abidin, Gong Badak 21300, Malaysia

^c School of Accountancy and Finance, Walailak University, Nakhon Si Thammarat 80160, Thailand

^d STAI AL Qudwah, Depok, West Java 16423, Indonesia

^e College of Aviation, Tourism and Hospitality Sripatum University, Khon Kaen 40000, Thailand

^f Faculty of Management Science, Silpakorn University, Phetchaburi 76120, Thailand

* Corresponding author Email: somnuk.aujiरणongpan@gmail.com

DOI: <https://doi.org/10.54392/ajir2635>

Received: 13-11-2025; Revised: 03-07-2026; Accepted: 19-07-2026; Published: 24-07-2026



Abstract: Tourism studies increasingly emphasize the role of digital consumer behaviour in shaping destination competitiveness, yet few studies have examined its application in niche agro-tourism contexts such as cocoa tourism. As a major cocoa producer, Indonesia offers a valuable setting for integrating cocoa farming with tourism to support sustainability, rural development, and local livelihoods. Against this background, the AISAS model (Attention, Interest, Search, Action, Share) provides a useful framework for examining digital tourist decision-making, but its integration with Tourist Citizenship Behaviour (TCB) remains underexplored. This paper extends the AISAS model by incorporating TCB and applies the expanded framework to tourists' behavioural processes in cocoa tourism, with particular attention to advocacy, cultural respect, and sustainability-oriented engagement. Using survey data from 239 participants, the study employs structural equation modelling (SEM) to test the AISAS–TCB framework empirically. The findings confirm the sequential AISAS relationships and show that TCB is a significant antecedent of attention, interest, search, and sharing, highlighting its role in strengthening sustainable tourist engagement. Theoretically, the study contributes to digital tourism research by positioning cocoa tourism as a meaningful context for testing consumer-behaviour models. Practically, it offers implications for policymakers, destination managers, and cocoa-farming communities seeking to align digital engagement with sustainability-oriented tourism initiatives.

Keywords: AISAS Model, Consumer Behaviour, Destination Marketing, Sustainable Tourism, Cocoa Tourism

1. Introduction

Indonesia is among the world's largest cocoa producers, alongside Ghana and Côte d'Ivoire, and its plantations offer considerable potential for agro-tourism. Cocoa tourism provides experiential learning opportunities through visits to cultivation, fermentation, and chocolate-processing activities, while also exposing tourists to local cultural practices. In addition to diversifying the economy, cocoa-based tourism can support rural sustainability by linking agriculture with educational and cultural experiences. Recent studies indicate that plantation- and rural-based tourism can contribute to livelihood sustainability and destination development (Sitorus *et al.*, 2024).

Comparative evidence further shows that cocoa tourism is emerging as a strategy for sustainable development. In Uganda, post-harvest cocoa fermentation has been shown to affect product quality and competitiveness, suggesting that farm-level management can shape agro-tourism experiences (Afoakwa *et al.*, 2008). In Indonesia, studies on sustainable marine and rural tourism emphasize community participation and environmentally responsible practices as foundations for long-term destination competitiveness (Sumardani *et al.*, 2024). At the global level, bibliometric reviews of rural tourism indicate that plantation-oriented tourism, including cocoa agro-tourism, is increasingly framed as a sustainable tourism model that supports biodiversity, community



development, and sustainable markets (Soták-Benedeková *et al.*, 2025). Together, these findings suggest that cocoa tourism can reinforce Indonesia's position in the global cocoa sector while also supporting sustainable innovation in agro-tourism. Cocoa tourism offers a promising avenue for rural development and destination competitiveness, but understanding how tourists engage with this niche market requires a suitable behavioural framework. The AISAS model developed by Dentsu Attention, Interest, Search, Action, and Share has been widely used in tourism research to explain how digital interactions shape tourist decision-making, making it highly relevant to the study of visitor behaviour in cocoa-based agro-tourism.

AISAS model (Attention, Interest, Search, Action, and Share) first postulated by Sugiyama and Andree (Sugiyama & Andree, 2010) is increasingly prominent in research on tourism as a framework for covering the sequential flow of consumer decision-making in the digital domain. In the case of tourism, AISAS is directly relevant as destination sites are intangible products that are significantly reliant on communicated mediation and social influence in shaping the behaviour of tourists. The AISAS model is defined as a primary sequential framework that elucidates the manner in which travelers engage with digital content, from initial exposure (attention) to subsequent transmission of experiences (sharing). This sequence is based on cognitive information-processing theory, in which individuals systematically assess stimuli prior to initiating behavioral responses. In modern social media environments, new avenues may arise; for example, travelers could perform searches before cultivating interest or participate in sharing behaviors without physical visiting through virtual experiences and user-generated content. This study utilizes a sequential AISAS structure as its main analytical framework, while recognizing that alternate patterns serve as boundary constraints that may affect the intensity and direction of links among various user segments and digital contexts. Recent studies suggest that AISAS provides an integrated perspective on how digital interactions shape tourist movement along the awareness-to-advocacy continuum. For example, Safdar and Bibi (2025) showed that visually appealing social-media messages can attract tourists' attention to eco-tourism destinations and serve as an initial trigger in the consumer journey. Similarly, Fang *et al.* (2023) found that short-form travel videos stimulate tourist interest and emotional engagement, highlighting the importance of user-generated and multimedia content in travel marketing.

The framework has also been supported in later stages of the tourism decision process. Sofiyana and Fahmi (2025) found that Instagram content with accessible links and interactive features can significantly encourage search behaviour among potential tourists. Zhao *et al.* (2024) further showed that online attention and interactive cues help mediate the shift from awareness to deeper information search, confirming the importance of the Search stage in reducing uncertainty. At the Action stage, trust and credibility appear especially important: Pirzado *et al.* (2025) showed that human-like AI chatbots can increase purchase intention, while Jayasingh *et al.* (2025) found that the credibility of AI influencers positively affects tourist action and engagement. Finally, the Share stage is crucial for destination competitiveness because tourists voluntarily disseminate their experiences online, thereby reinforcing the cyclical logic of AISAS. Taken together, these studies support AISAS as a useful framework for explaining tourists' online behaviour and destination marketing sustainability. Although the AISAS framework has been widely applied in internet marketing and tourism, its application to cocoa tourism remains unexplored. Previous studies have used AISAS to explain consumer behaviour in travel shopping, destination marketing, short travel videos, and socially oriented tourism contexts (Fang *et al.*, 2023; Zhao *et al.*, 2024). However, no study has yet examined whether AISAS can explain visitor behaviour in cocoa-based agro-tourism, where the processes of attention, interest, search, action, and sharing may take a distinct form. In addition, integrating TCB into AISAS represents a further contribution. TCB has been identified as an important construct in promoting prosocial and sustainable tourist behaviour (Karim *et al.*, 2025; Zhang *et al.*, 2022), yet its integration with digital consumer-behaviour frameworks such as AISAS remains limited in tourism research. This study addresses that gap by extending AISAS with TCB and applying the combined framework to cocoa tourism.

In view of these gaps, the present study has three main objectives. First, it examines the applicability of the AISAS model in the context of cocoa tourism, a niche sector that has not previously been studied through this framework. Second, it extends AISAS by incorporating TCB as an additional construct to capture prosocial and sustainability-oriented behaviour in digital tourist decision-making. Third, it provides empirical evidence on how these interrelated constructs influence tourist behavioural intentions, engagement, and sustainability-oriented actions in Indonesian cocoa-based agro-tourism destinations.

These objectives generate both theoretical and practical contributions. Theoretically, the study extends AISAS to an underexplored tourism context and incorporates TCB into the model. Practically, it provides guidance for policymakers, destination managers, and local communities seeking to design marketing and participation strategies that attract tourists while strengthening sustainability and community involvement in cocoa tourism.

The need for this research is the increasing significance of harmonizing tourism development with sustainability, digitization, and community empowerment. With the status as one of the world's largest producers of cocoa, Indonesia is uniquely positioned to combine cocoa plantations with agro-tourism development. Nonetheless, even with the potential of the nation, research about cocoa tourism is lacking, specifically regarding the behaviour of tourists and digital participation. Without an inclusive understanding of tourists' participation in cocoa-based destinations via digital means, there is a risk that stakeholders will underestimate the potential of the sector in contributing to the livelihoods of the countryside and sustainable development in the field of tourism.

Equally important is the integration of behavioural constructs such as AISAS with prosocial constructs such as TCB. Although AISAS has been useful in explaining digital decision-making in tourism, its application to cocoa tourism remains limited. Integrating TCB adds a new perspective by linking tourist decision-making with sustainability-oriented behaviours such as sharing positive experiences, supporting community development, and practising environmentally responsible conduct. This contribution is not only theoretical; it also offers practical implications for destination managers and policymakers. By positioning cocoa tourism at the intersection of digital engagement and sustainability, the study addresses an important gap in both research and practice and highlights the potential of cocoa tourism to contribute to Indonesian tourism competitiveness and rural sustainability.

2. Literature Review

2.1 Attention

In AISAS, Attention is the first stage of consumer engagement, in which individuals are exposed to tourism-related information through various stimuli, particularly digital media. Attention is important because it introduces potential tourists to destination offerings and initiates the decision process. Recent studies show that visually rich social-media posts, such as images, short videos, and influencer content, play an important role in capturing users' initial attention to travel experiences. For instance, [Safdar and Bibi \(2025\)](#) found that exposure to visually rich ecotourism posts on Instagram and Facebook significantly increased users' awareness and interest in destinations and triggered subsequent stages of engagement.

Similarly, [Lestari *et al.* \(2024\)](#) demonstrated that social-media components such as hashtags, captions, likes, and sharing can effectively draw attention to outbound tourism packages and strengthen consumer recall. In an agro-tourism context, the ability of content to attract attention directly influences whether potential tourists become interested enough to seek further information. This interpretation is consistent with [Fuadiyah *et al.* \(2025\)](#), who found that attention generated through social-media marketing and brand image significantly influences consumers' purchase intention in the hospitality sector.

2.2 Interest

In the AISAS model, Interest is the stage at which tourists move from awareness to a stronger mental and emotional focus on a destination. This stage is important because it determines whether initial awareness develops into deeper engagement that later encourages information search and behavioural intention. Recent literature highlights the importance of digital storytelling, user-generated content, and multimedia environments in shaping tourist interest and destination competitiveness.

For instance, [Fang *et al.* \(2023\)](#) found that short-form travel videos play an important role in generating travel inspiration, and that presenter likability, visual appeal, and design characteristics substantially influence tourists' cognitive and emotional processing. This finding suggests that interest is not only a cognitive judgment but also an emotional response to vivid visual content. Similarly, [Aboalghanam *et al.* \(2025\)](#) showed that user-generated content plays an informative role in destination imagery and mediates tourists' visit intentions. Within the AISAS continuum, destination imagery can therefore be understood as the cognitive representation of interest that links attention with active consideration of travel options.



Beyond content design, narrative quality is also an important driver of interest. Wu and Lai (2025) showed that storytelling in luxury-hotel short videos enhances narrative engagement and positively shapes brand attitude, underscoring the role of storytelling as an affective connector within AISAS. Tourism and hospitality research likewise shows that consumer-generated mini-travel videos can significantly increase engagement and intention to visit destinations, while visual authenticity and production quality remain key drivers of interest (Bai *et al.*, 2025). Moreira *et al.* (2025) similarly argued that engaging digital stories sustain consumer attention and transform it into interest by creating psychological immersion and self-identification with the destination message.

2.3 Search

In the AISAS model, the Search phase marks the transition from passive awareness and interest to active information seeking. This stage is especially important in tourism because destinations are intangible products, and tourists rely on trustworthy, accessible, and persuasive information sources to reduce uncertainty and guide decision-making. Researchers increasingly emphasize that the digital environment strongly shapes how consumers search for tourism information. For example, Sofiyana and Fahmi (2025) examined the application of AISAS on Instagram by BPJPH and found that the provision of direct links and easy digital pathways can significantly increase consumer search activity. These findings highlight the importance of transparency and ease of access in encouraging active search and further information processing.

In addition to organizational content, electronic response mechanisms and peer interaction have a strong effect on search behaviour. Mou and Wang (2025) showed that internet-based travel reviews processed through AI-augmented text mining and attention mechanisms influence tourists' search processes by providing socially validated and emotionally descriptive information. Zarezadeh *et al.* (2023) likewise demonstrated that tourists adopt different search strategies depending on motivation, perceived risk, and situational context, highlighting the heterogeneity of the search phase. Zhao *et al.* (2024) further confirmed that online attention and interactive platform cues can trigger search behaviour and mediate the transition from initial awareness to deeper investigation. Taken together, these studies show that the Search stage in AISAS is not uniform; rather, it is a dynamic process shaped by platform design, peer-generated content, and tourists' cognitive motives.

2.4 Action

In the AISAS model, the Action stage is the point at which tourists translate search and interest into actual behaviour, such as booking, purchasing, or using tourism products. This stage is important because it reflects the extent to which digital strategies generate concrete economic or participation outcomes for destinations. Recent research suggests that action is strongly associated with trust, technological mediation, and value perception in digital contexts.

Hasim *et al.* (2025) found that digital marketing strategies, particularly those based on social-media engagement and brand awareness, significantly influence purchase intentions among Malaysian halal-cosmetics consumers. Although the context differs from tourism, the underlying mechanism is similar: product quality and credibility can help convert intention into action. In tourism technology contexts, Pizado *et al.* (2025) showed that human-like chatbots enhance consumer trust and purchase intention, highlighting the role of personalization and humanization in encouraging action. Likewise, Jayasingh *et al.* (2025) found that the informativeness, credibility, and human-likeness of AI influencers positively affect consumer purchase intention and engagement, providing further evidence for the role of mediated trust in shaping behavioural outcomes. In addition, Dang and Ha (2025) observed that ESG practices in tourism enterprises not only build brand equity but also positively influence purchase intention, suggesting that sustainable and ethical practices are increasingly important drivers of action in consumer decision-making.

2.5 Attention and Interest

Under the AISAS model (Attention, Interest, Search, Action, Share), attention refers to customers' first exposure to tourism-related stimuli through digital media, followed by the development of interest as a deeper cognitive and affective engagement with the tourism product (Sugiyama & Andree, 2010). In cocoa agro-tourism,



attention is usually triggered by social-media-driven user-generated materials such as pictures, brief videos, and narratives disseminated online. Prior studies also show that visual intensity and aesthetic attractiveness in digital content function as important attention-grabbing stimuli that precede interest (Safdar & Bibi, 2025). In addition, interactive social-media elements such as hashtags, captions, likes, and shares can strengthen destination awareness and recall (Lestari *et al.*, 2024). This process is not one-sided; rather, interest is strongly associated with digital storytelling and presentation authenticity (Bai *et al.*, 2025; Wu & Lai, 2025). The transition from attention to interest is further strengthened when the content has high narrative quality and cultural relevance, thereby encouraging psychological immersion among prospective tourists (Moreira *et al.*, 2025). Accordingly, the following hypothesis is proposed:

H1: Attention has a positive and significant effect on interest.

2.6 Interest and Search

Interest plays an important role in prompting tourists to search actively for more information. Within the AISAS model, interest marks the shift from passive awareness to deeper cognitive and affective involvement, encouraging individuals to seek further information about a destination. In cocoa agro-tourism, where destinations are often unfamiliar and require additional cognitive processing, interest becomes the motivational force that drives tourists toward search and more deliberate decision-making.

This theoretical relationship finds strong support in recent research. Aboalganam *et al.* (2025) demonstrated that user-generated content reinforces destination imagery, thereby mediating interest and information search. Similarly, Bai *et al.* (2025) found that the visual authenticity and production quality of mini-travel videos increase tourists' motivation to learn more about a destination. The resultant emotional engagement at the interest stage consequently elicits the next habitual step: conducting an online search to reduce doubt and gather relevant data. Furthermore, Moreira *et al.* (2025) argued that compelling storytelling sustains curiosity and encourages deeper inquiry as emotionally invested consumers seek to justify their interest through additional information search. On this occasion, interest operates as a mental bridging point between early attention and intentional behaviour, and the search stage functions as a movement from curiosity to decision-driven activities. With this line of thinking, Hypothesis 2 is defined by:

H2: Interest has a positive and significant effect on search.

2.7 Search and Action

In the AISAS model, the Search stage marks a shift from initial intention to active information seeking in order to reduce ambiguity and support decision-making. In the context of cocoa agro-tourism, where destinations are often unfamiliar and experience-based, the search process plays a central role in shaping the eventual decision to act. This process includes consulting online reviews, multimedia resources, word-of-mouth information, and destination details to verify the impressions formed during the attention and interest stages.

Empirical evidence confirms the importance of the search stage in shaping subsequent behaviour. Mou and Wang (2025) demonstrated that online reviews enhanced through artificial-intelligence text mining can influence tourists' search processes by providing socially validated and emotionally descriptive information. Zarezadeh *et al.* (2023) likewise showed that tourists employ different search strategies depending on motivation, perceived risk, and situational context, highlighting the heterogeneity of this stage. Once sufficient and credible information is obtained, tourists are better positioned to move to the action stage through booking, visiting, or engaging with tourism products. Finally, Zhao *et al.* (2024) confirmed that online attention and interactive platform cues can help move users from information search to actual behaviour by reducing uncertainty and strengthening trust. Thus, decisions at the action stage are strongly shaped by the perceived quality and completeness of information obtained during search. Accordingly, Hypothesis 3 is stated as follows:

H3: Search has a positive and significant effect on action.



2.8 Action and Share

Within the AISAS framework, the action stage is the behavioural outcome of prior engagement, whereby tourists convert search behaviour into tangible actions such as visiting, booking, or purchasing tourism products. Once action has occurred, it often initiates the final stage of sharing, in which tourists voluntarily disseminate their experiences across digital platforms. Sugiyama and Andree (2010) argued that the sharing stage creates a feedback cycle that not only closes the AISAS sequence but also restarts it by generating awareness among potential future visitors. In tourism, Suhud and Allan (2020) showed that sharing behaviour is a digital extension of tourist action, as visitors often upload reviews, pictures, and stories that reinforce destination imagery and trust. Similarly, Suhud *et al.* (2022) found that digital sharing functions as a social validation mechanism that sustains post-visit engagement, especially for small-scale tourism businesses. Jayasingh *et al.* (2025) further demonstrated that credible and human-like AI influencers can encourage not only purchase intention but also users' willingness to share experiences online. In sustainable tourism contexts, Karim *et al.* (2025) also noted that post-visit sharing can support ecological responsibility by encouraging others to practise green tourism. Thus, sharing can be understood as both a behavioural extension of action and a prosocial act that supports destination competitiveness through peer communication on digital platforms.

H4: Action has a positive and significant effect on share.

2.9 Tourist Citizenship Behaviour

TCB includes tourists' voluntary and discretionary behaviour that transcends transactional interactions and contributes value to sustainable destination development. TCB denotes the voluntary pro-social actions of tourists that enhance environmental sustainability, cultural respect, and destination advocacy, as evidenced by behaviors such as endorsing sustainable practices, preserving environmental quality, promoting favorable destination characteristics, and honoring local cultural values within cocoa tourism contexts. In accord with the broader organizational citizenship behaviour framework, the focus of the TCB in tourism is on tourists' pro-social behaviours, a positive word-of-mouth promotion, cultural respect, and support for sustainability, which is useful for destination competitiveness and resilience.

Recent studies highlight sustainability values and cultural principles as central elements of TCB. Karim *et al.* (2025) demonstrated that sustainability perceptions supported by blockchain-mediated transparency positively influence environmentally responsible actions, suggesting that internet-based trust mechanisms can promote citizenship behaviour in tourism. Martaleni *et al.* (2021) highlighted that religiosity and inclusive service quality foster loyalty in halal tourism, including voluntary supportive actions among both Muslim and non-Muslim tourists, thereby strengthening the cross-cultural dimension of TCB. Similarly, Sitorus *et al.* (2024) showed that community-based participation and visitor engagement in Bukit Lawang ecotourism encourage responsible tourist behaviour and support the protection of natural and cultural heritage. Beyond tourism, Navarro-Medina *et al.* (2025) argued that education for critical citizenship can foster socially responsible and reflective individuals who may transfer these dispositions into sustainable and community-oriented tourist behaviour.

2.10 Tourist Citizenship Behaviour and Attention

TCB reflects tourists' voluntary prosocial behaviour that extends beyond transactional exchange and contributes to sustainable destination development. Within the AISAS–TCB framework, TCB is positioned as an antecedent that can stimulate each stage of the digital behavioural process, including attention. Tourists who are already inclined toward advocacy, cultural respect, and environmental responsibility are more likely to pay attention to tourism messages that reflect these values. Karim *et al.* (2025) showed that sustainability perception and transparency promote environmentally responsible responses, implying that sustainability-oriented tourists are more receptive to messages aligned with their prosocial orientation. Similarly, Martaleni *et al.* (2021) found that tourists guided by cultural and religious inclusion are more attentive to destination messages reflecting shared moral and social values. In nature-based tourism, Sitorus *et al.* (2024) demonstrated that community participation and visitor engagement increase tourists' attentiveness to sustainable destination initiatives. Extending this view, Navarro-Medina *et al.* (2025) argued that individuals with stronger citizenship awareness are more likely to notice information



related to community welfare and sustainability. Accordingly, TCB can promote attention by shaping tourists' selective perception toward socially and ecologically responsible information in digital media.

Based on these theoretical arguments and empirical findings, the following hypothesis is proposed for cocoa agro-tourism:

H5: Tourist citizenship behaviour has a positive and significant effect on attention.

2.11 Tourist Citizenship Behaviour and Interest

TCB can be defined as voluntary, prosocial, and sustainability-focused behaviour that goes beyond transactional exchange by encouraging tourists to care for the environment, respect local culture, and act as responsible members of society (Zhang *et al.*, 2022). Recent evidence further suggests that tourists with stronger prosocial dispositions are more likely to exhibit tourist citizenship behaviour and destination patronage intention (Rodríguez-Sánchez *et al.*, 2025). This tendency aligns with the "Interest" stage of the AISAS paradigm, which involves the development of intellectual curiosity and emotional bonding with a destination once awareness has been established (Bai *et al.*, 2025; Wu & Lai, 2025).

Previous studies also indicate that tourists driven by altruism, sustainability, and social responsibility tend to show stronger interest in destinations when the destination values align with their personal identities and moral commitments (Rodríguez-Sánchez *et al.*, 2025). For example, Zhu *et al.* (2024) showed that eco-empathy and respect for nature can strengthen emotional engagement with environmentally sustainable experiences. Similarly, Sitorus *et al.* (2024) found that community involvement and perceptions of sustainability increase affective engagement and curiosity to learn more about a destination.

On a theoretical level, TCB can therefore be positioned as an antecedent of interest. Tourists who display prosocial tendencies such as advocacy, empathy, and responsibility are expected to develop greater emotional and cognitive interest in destinations that reflect sustainability and community well-being (Martaleni *et al.*, 2021).

This form of interest can then serve as a bridge through which responsible behavioural tendencies develop into more active tourism behaviour within the AISAS–TCB framework.

H6: Tourist citizenship behaviour has a positive and significant effect on interest.

2.12 Tourist Citizenship Behaviour and Search

Tourist Citizenship Behaviour (TCB) encompasses voluntary, prosocial, and sustainability-driven acts such as environmental stewardship, cultural empathy, and promotional activities that benefit destinations (Zhang *et al.*, 2022). Tourists who espouse these sentiments are often driven to obtain comprehensive and accurate information before reaching a travel decision. This corresponds to the 'Search' activity in the AISAS model, which signifies the shift from emotional involvement to active cognitive search (Zhao *et al.*, 2024). Similarly, Sitorus *et al.* (2024) found that tourists interested in community-developed and environmentally responsible destinations actively explore information concerning environmental management and community involvement. Taken together, these studies suggest that ethically engaged tourists are more likely to search for value-consistent and sustainability-related destination information before acting.

The relationship between TCB and search can also be explained by the idea that moral involvement and digital literacy enhance cognitive curiosity and information verification. Mou and Wang (2025) argued that tourists search online reviews to assess the authenticity of destinations using AI-filtered information. Similarly, Zarezadeh *et al.* (2023) showed that tourists' motivation and sense of responsibility shape their search patterns for sustainable and community-centred holidays. These findings suggest that ethical awareness and prosocial orientation encourage tourists to search more actively for sustainability-related and value-consistent information before making travel decisions.

Therefore, TCB can be regarded as an important antecedent of search, as tourists' ethical awareness and emotional investment encourage them to seek sustainability-related and community-centred information before travelling. This theoretical relationship supports the following hypothesis:



H7: Tourist citizenship behaviour has a positive and significant effect on search.

2.13 Tourist Citizenship Behaviour and Share

The link between TCB and sharing behaviour indicates how tourists' voluntary, prosocial behaviour becomes post-visit advocacy online. Tourists who actively support green and community-directed approaches are more likely to post their experiences online as a form of moral articulation and digital engagement. Rodríguez-Sánchez *et al.* (2025) showed that prosocial dispositions strengthen tourist citizenship behaviour and destination patronage intention, indicating that socially oriented tourists are more likely to engage in supportive destination behaviours. Likewise, Liu *et al.* (2023) demonstrated that tourists' operant resources and perceived value positively influence online citizenship behaviour in sustainable tourism, including recommendations, feedback, and experience sharing. Chen *et al.* (2024) further showed that digital media can stimulate eco-guilt and empathy with nature, which in turn foster tourists' pro-environmental behavioural intention. Additionally, Zhang *et al.* (2020) illustrated how parasocial interaction and emotional attachment fortify destination brand love, thereby boosting tourists' intention to share travel experiences. Taken together, these studies indicate that TCB not only fosters responsible behaviour but also inspires online sharing, reinforcing sustainability advocacy and peer influence within tourism systems.

H8: Tourist citizenship behaviour has a positive and significant effect on share.

Figure 1 presents the integrated AISAS–TCB research model developed to explain consumer decision-making in cocoa-based agro-tourism. The model proposes that behavioural responses are shaped by digital interaction with user-generated content on social media through the AISAS sequence: attention, interest, search, action, and sharing. Each construct is measured using validated indicators that reflect tourists' perceptions and behavioural intentions in relation to cocoa tourism destinations encountered through social media.

In addition, the model positions TCB as an antecedent and reinforcing factor within these behavioural processes. Voluntary actions such as recommending destinations, providing positive reviews, and promoting tourism experiences beyond immediate consumption are incorporated into the AISAS framework. In this way, the model places tourists' prosocial and advocacy-oriented behaviour at the centre of destination competitiveness. By integrating these elements, the model offers a broader theoretical perspective on digital tourism marketing and highlights the strategic role of consumer-driven engagement in promoting sustainable cocoa tourism.

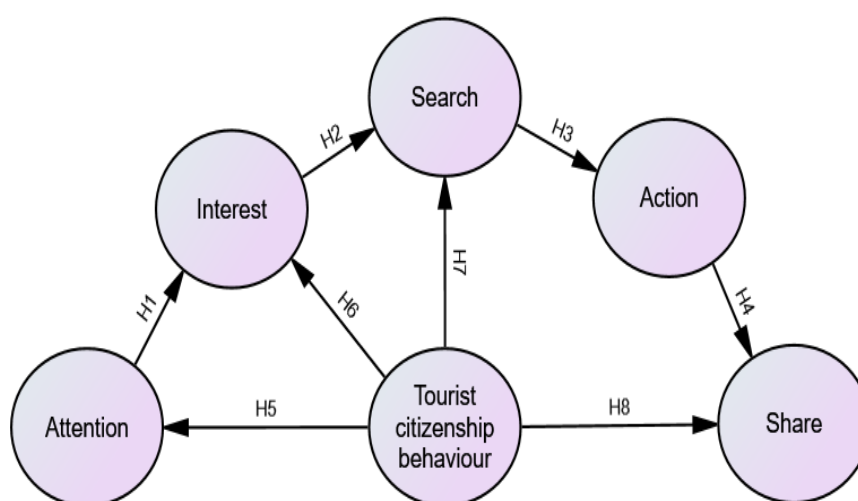


Figure 1. Research model

3. Research method

3.1 Sampling

Samples for this study were tourists, both with and without histories of experiences in visits to cocoa plantations, as long as their ages are over 17 and are aware of cocoa plantations as one of the destinations for



tourists. A convenience technique of sampling was applied in selecting potential respondents and led to a total respondent pool of 239 participants who meet the specifications set. Those who expressed their desire to participate were provided with a means of accessing an internet questionnaire, which was prepared and administered through Microsoft Forms so as to ensure ease of widespread accessibility and convenience in data collection.

3.2 Measurements

Sugiyama and Andree's AISAS model has been introduced and subsequently applied in numerous studies on digital consumer behaviour and tourism marketing. In the present study, measurement indicators were adapted from prior literature to ensure validity and consistency with established constructs. Specifically, AISAS dimension items were adapted from [Wei and Lu \(2013\)](#), [Suhud and Allan \(2020\)](#), and [Suhud *et al.* \(2022\)](#), while Tourist Citizenship Behaviour items were adapted from [Zhang *et al.* \(2022\)](#). All indicators employed a six-point Likert-type scale, where 1 represented "strongly disagree" and 6 represented "strongly agree," allowing respondents to express subtle differences in opinion without a neutral midpoint.

3.2.1 Content validity and source mapping of TCB

The Tourist Citizenship Behaviour (TCB) construct was adapted from [Zhang *et al.* \(2022\)](#). The original measurement items were reviewed and modified to reflect the context of cocoa tourism while preserving their conceptual meaning. The adaptation process focused on four dimensions of tourist citizenship behaviour, namely sustainability support, environmental responsibility, destination advocacy, and respect for local culture. To ensure content validity, all retained items were examined for conceptual consistency with the original construct and contextual relevance to cocoa tourism. Items with satisfactory factor loadings (≥ 0.40) and conceptual clarity were retained for subsequent analyses.

As presented in Table 1, each retained TCB item is mapped to its original source, conceptual dimension, contextual adaptation, and justification for retention. This source mapping demonstrates that the adapted items maintained their theoretical foundation while being appropriately contextualized for cocoa tourism. All retained items exhibited satisfactory conceptual clarity and acceptable psychometric properties and were therefore considered suitable for subsequent analyses.

Table 1. Source Mapping of Tourist Citizenship Behaviour Items

Item	Adapted from	Original dimension	Adapted meaning in this study	Justification for retention
TCB1	Zhang <i>et al.</i> (2022)	Sustainability support	Supporting sustainable practices in cocoa tourism	Consistent with sustainability-oriented citizenship behaviour and demonstrated acceptable validity
TCB2	Zhang <i>et al.</i> (2022)	Environmental responsibility	Protecting the environment at cocoa destinations	Represents environmentally responsible tourist behaviour with acceptable factor loading
TCB3	Zhang <i>et al.</i> (2022)	Destination advocacy	Promoting positive aspects of cocoa tourism	Reflects voluntary advocacy and positive word-of-mouth behaviour
TCB4	Zhang <i>et al.</i> (2022)	Respect for local culture	Respecting local culture and supporting community well-being	Captures prosocial behaviour toward host communities and cultural preservation

To improve measurement transparency and content validity, Table 2 summarizes the original sources of each construct, the retained measurement items, and their contextual adaptation to the cocoa tourism setting. All items were adapted from previously validated scales and modified only to reflect the context of cocoa tourism while preserving their original conceptual meaning.

Table 2. Sources and adaptation of measurement items

Construct	Original source	Retained items	Adaptation
Attention	Wei & Lu (2013); Suhud & Allan (2020)	AT1–AT4	Adapted to the cocoa tourism context
Interest	Wei & Lu (2013)	IN1–IN4	Contextualized for cocoa tourism
Search	Suhud <i>et al.</i> (2022)	SE1–SE5	Adapted to the study context
Action	Suhud <i>et al.</i> (2022)	AC1–AC4	Adapted to the study context
Share	Suhud <i>et al.</i> (2022)	SH1–SH4	Adapted to the study context
Tourist Citizenship Behaviour	Zhang <i>et al.</i> (2022)	TCB1–TCB4	Adapted to cocoa tourism and reviewed for content validity

All measurement items were reviewed to ensure conceptual consistency with the original scales and contextual relevance to cocoa tourism. Only minor wording modifications were made without altering the underlying theoretical constructs. This adaptation process helped preserve the content validity of the measurement instrument.

3.3 Data Analysis

Quantitative data from the study were analysed using a four-step process to determine validity, reliability, and robustness of the structural model. First, validity was determined using exploratory factor analysis (EFA) through SPSS version 29. An indicator was considered valid if the factor loading was greater than or equal to 0.40 and thus each item significantly loaded on the construct it was intended for. Secondly, the reliability of the data was determined using Cronbach's alpha with constructs being reliable if alpha coefficients were higher than 0.70 according to normally used psychometric guidelines. Third, convergent validity was determined using the measure of the average variance extracted (AVE) with a cut-off point of at least 0.50 being used for acceptability. Fourth, hypothesis testing was performed using structural equation modelling (SEM) using AMOS version 29 where the paths were considered significant if CR values equalled or greater than 1.96, utilizing Maximum Likelihood (ML) estimation. Initial data screening revealed no significant breaches of normalcy assumptions. Minimal missing data were addressed through listwise deletion. All indicators were evaluated with standardized estimates. The model fit was assessed using representative indices (e.g., CFI, RMSEA, CMIN/DF), which are generally recognized as adequate for evaluating model adequacy across several fit characteristics, instead of providing a comprehensive array of indices.

To ensure the robustness of EFA as well as SEM, the fit of the model was also evaluated against pre-specified standards. The model was said to fit adequately if it met the requirements of probability ($0.05 < p \leq 1.00$), chi-square ratio ($0 \leq X^2/DF \leq 2.00$), comparative fit index ($0.95 \leq CFI \leq 1.00$), and root mean square error of approximation ($0 \leq RMSEA \leq 0.05$) as posited by Schermelleh-Engel *et al.* (2003), Tabachnick *et al.* (2007), Hu and Bentler (1995), and Browne and Cudeck (1992). In taking up this stringent multi-stage measure, analysis not only ensured the construct validity and construct reliability but also the structural integrity of postulated model so as to ensure robustness as well as replicability of the empiric findings of the study.

3.4 Common Method Bias

Because all data were collected using a self-administered questionnaire, several procedural remedies were implemented to reduce the potential influence of common method bias (CMB). First, respondents were informed that their participation was voluntary and that all responses would remain anonymous and confidential, thereby reducing evaluation apprehension. Second, the questionnaire clearly stated that there were no right or wrong answers and encouraged respondents to answer honestly based on their own opinions and experiences. Third, the measurement items were adapted from previously validated scales and contextualized for cocoa tourism to improve clarity and reduce ambiguity (Podsakoff *et al.*, 2003).

In addition, Harman's single-factor test was conducted to examine the potential influence of common method variance. The first unrotated factor accounted for 37.48% of the total variance, which was below the recommended threshold of 50%, indicating that common method bias was unlikely to be a serious concern in this study.



4. Results

4.1 Participants

Table 3 presents the demographic profile of the 239 participants. Females represented a larger share of the sample (59.4%) than males (40.6%). Most respondents had an undergraduate education (43.9%), followed by diploma holders (23.8%) and those with a high school certificate (21.8%). Only a small proportion reported postgraduate qualifications (10.0%) or less than high school education. In terms of age, the sample was dominated by young adults, especially those aged 21–24 years (38.5%), followed by respondents aged 25–29 years (18.0%) and 35–39 years (18.4%). Occupationally, 59.8% were employed, 26.4% were not working, 10.9% were self-employed, and 2.9% were retired. More than half were unmarried (54.8%), while 29.7% were married, 10.0% were separated or divorced, and 5.4% were widowed. Regarding cocoa plantation visits, the largest proportion had visited once (38.9%), followed by more than twice (27.6%) and twice (26.8%), whereas only 6.7% had never visited. Overall, the sample is dominated by young, educated, and digitally active individuals with prior awareness of cocoa-related tourism, making it appropriate for testing the AISAS–TCB framework in a digital tourism context; however, this profile may also limit generalizability to older or less digitally engaged tourist groups.

Occupational status was also diverse: 59.8% worked, 26.4% did not work, 10.9% worked for themselves, and 2.9% retired. Maritally, more than half of the participants were not married (54.8%), while 29.7% were married, 10.0% were separated or divorced, and 5.4% were widowed. Lastly, concerning their visit experience with cocoa plantations, the greatest percentage visited a single time (38.9%), with more than twice (27.6%) and twice (26.8%) following. Much less (6.7%) never visited a cocoa plantation. In total, the demographic breakdown highlights that the study sample is dominated by young, educated, and digitally active individuals with pre-existing knowledge of cocoa-dependent tourism experiences and thus are an extremely relevant sample with which it is feasible to test the AISAS–TCB framework.

Table 3. Profile of participants

Profile		Frequency	Percent
Sex	Male	97	40.6
	Female	142	59.4
	Total	239	100.0
Level of education has been completed	Less than high school	1	0.4
	Diploma	57	23.8
	Postgraduate	24	10.0
	Undergraduate	105	43.9
	High school	52	21.8
Group of age	>39	19	7.9
	17-20	8	3.3
	21-24	92	38.5
	25-29	43	18.0
	30-34	33	13.8
	35-39	44	18.4
Occupational status	Employed	143	59.8
	Unemployed	63	26.4
	Self-employed	26	10.9
	Retired	7	2.9
Marital status	Unmarried	131	54.8
	Separated/divorced	24	10.0

Experience visiting cocoa plantation	Married	71	29.7
	Widowed	13	5.4
	Never	16	6.7
	Twice	64	26.8
	More than twice	66	27.6
	Once	93	38.9

4.2 Data Validity, AVE, and Reliability Tests

Table 4 shows the results of construct validity test, convergent validity test, and reliability test for the AISAS–TCB model on cocoa tourism. All constructs demonstrated acceptable validity and were therefore categorised as valid based on the established validity criteria. Similarly, the AVE for all constructs was between 0.521 and 0.627; hence the values obtained exceeded the minimum of 0.50 and can therefore be taken as adequate indicators of convergent validity. Likewise, the Cronbach alpha for all constructs was between 0.640 and 0.735; hence internal consistency was ensured for all variables and can therefore be assumed to be reliable. Therefore, it can be concluded that all constructs Attention, Interest, Search, Action, Share, and Tourist Citizenship Behaviour obtained adequate psychometric properties. The preliminary analysis revealed that multiple items within the Interest construct displayed negative loadings, suggesting possible multidimensionality and inconsistent item orientation. The second dimension of Interest was eliminated, resulting in the exclusion of these items. Subsequent to this revision, all preserved measurement items had positive factor loadings of at least 0.40 and satisfied the necessary validity criteria, so ensuring a unidimensional and conceptually coherent measurement model. Therefore, the measurement model of this study was valid and reliable and therefore provided a strong basis for further analysis of structures for the study of relationship formulation for the AISAS-TCB concept.

Table 4. Results of Data validity, AVE, and Reliability tests

Variables and indicators	Factor Loadings	AVE	Cronbach's Alpha
Attention		0.579	0.773
At1. I think someone's social media post about a review of a Chocolate/Cocoa Plantation would catch my attention.	0.837		
At2. I would have the opportunity to see someone's post about a Chocolate/Cocoa Plantation on my social media.	0.791		
At3. I would learn the latest information about a Chocolate/Cocoa Plantation from someone's social media posts.	0.709		
At4. I think someone's social media posts about photos and videos of selfies at a Chocolate/Cocoa Plantation would catch my attention.	0.698		
Interest		0.546	0.640
In1. I feel interested in cocoa plantation destinations after being exposed to engaging visual content on social media.	0.769		
In2. I develop curiosity to learn more about cocoa plantation destinations after encountering online information.	0.75		
In3. I perceive cocoa plantation destinations as appealing based on the information I encounter online.	0.745		
In4. I am inclined to explore cocoa plantation destinations further after initial exposure to related content.	0.689		
Search		0.538	0.735
Se1. I search for information about cocoa plantation destinations after viewing related photos or videos on social media.	0.794		



Se2. I develop an intention to visit a cocoa plantation after seeing positive reviews on social media.	0.708		
Se3. I seek additional information from various sources after reading positive reviews about cocoa plantations.	0.685		
Se4. I become interested in visiting a cocoa plantation after exposure to visual content on social media.	0.657		
Se5. I ask others for more information about cocoa plantation destinations after seeing their shared experiences online.	0.641		
Action		0.543	0.717
Ac1. I perceive cocoa plantation destinations as worth visiting after reading positive reviews.	0.769		
Ac2. I intend to visit cocoa plantation destinations after being exposed to positive reviews.	0.746		
Ac3. I am willing to visit cocoa plantation destinations based on favourable information.	0.718		
Ac4. I develop a plan to visit cocoa plantation destinations after viewing related content on social media.	0.714		
Share		0.558	0.735
Sh1. I share my cocoa plantation experiences by posting reviews on social media.	0.77		
Sh2. I recommend cocoa plantation destinations through my social media posts.	0.763		
Sh3. I communicate my experiences of visiting cocoa plantations on my social media account.	0.739		
Sh4. I am willing to share my cocoa plantation experiences with others through social media.	0.713		
Tourist citizenship behaviour		0.521	0.692
Tcb1. I support efforts to improve sustainability practices at cocoa plantation destinations.	0.75		
Tcb2. I behave responsibly to help maintain the environment at cocoa plantation destinations.	0.724		
Tcb3. I promote positive aspects of cocoa plantation destinations to others.	0.712		
Tcb4. I respect local culture and contribute to the wellbeing of communities at cocoa plantation destinations.	0.701		

4.3 Hypotheses Tests

AISAS sequential processes are empirically verified: Attention significantly influences Interest, Interest stimulates Search, Search stimulates Action, and Action stimulates Share. These results lend support in favour of the AISAS model providing an adequate portrayal of consumer buying decision behaviour in internet-based tourism markets.

Further, the model underscores the cornerstone role of TCB as an amplifier of consumer participation via the AISAS process. TCB makes significant positive contributions on various dimensions, including Attention, Interest, Search, and Share, and thus acts as an antecedent and behavioural outcome amplifier. It underscores tourists' self-driven pro-social and advocacy behavior as central in improving destination competitiveness. Specifically, AISAS-TCB integration offers theoretical and practical understanding for the digital marketing of tourism, specifically in cocoa-based agro-tourism development with the deployment of social media participation and consumer-centric advocacy.



Figure 2 depicts the structural model used in testing the hypothesized relationships between AISAS constructs (Attention, Interest, Search, Action, and Share) and TCB. The fit analysis reveals strong model fit indices (CMIN/DF = 1.179, CFI = 0.985, RMSEA = 0.027) in favor of the framework's robustness.

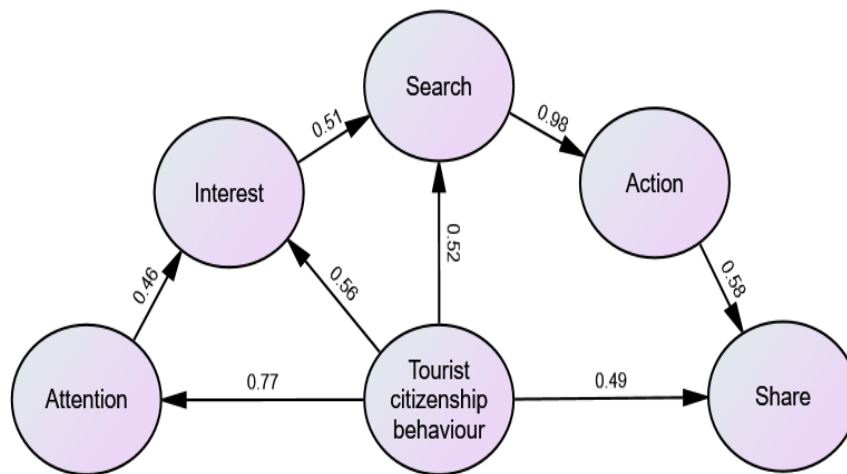


Figure 2. Structural model of the hypotheses tests

The structural model was re-evaluated to verify parameter precision before hypothesis testing. The overall model demonstrated a good fit (CMIN/DF = 1.179, CFI = 0.985, RMSEA = 0.027). The hypothesis testing results are presented in Table 5.

Before estimating the final structural model, several standardised regression weights exceeded 0.99, indicating the presence of a Heywood case. Heywood cases typically arise when parameter estimates fall outside their admissible range, often reflecting empirical under-identification, multicollinearity, sampling fluctuations, or model misspecification. To obtain an admissible solution, equality constraints were imposed on the affected parameters, following established recommendations in the structural equation modelling literature (Kline, 2023). Applying these constraints enabled the model to converge to a proper solution while maintaining theoretically meaningful parameter estimates. A methodological consequence of imposing equality constraints is that the constrained paths share identical parameter estimates and standard errors. Consequently, the associated critical ratio (CR) values become identical because the CR statistic is calculated as the ratio of the parameter estimate to its standard error. Therefore, identical CR values across the constrained hypotheses should be interpreted as a direct consequence of the equality constraints implemented to address the Heywood case rather than as an indication of duplicated statistical computations or estimation errors.

Table 5. Results of the Hypotheses Tests

Hypotheses	Paths	C.R.	p	Results
H1	Attention > Interest	2.752	0.006	Accepted
H2	Interest > Search	12.356	***	Accepted
H3	Search > Action	9.207	***	Accepted
H4	Action > Share	12.356	***	Accepted
H5	Tourist citizenship behaviour > Attention	6.415	***	Accepted
H6	Tourist citizenship behaviour > Interest	3.301	***	Accepted
H7	Tourist citizenship behaviour > Search	12.356	***	Accepted
H8	Tourist citizenship behaviour > Share	12.356	***	Accepted

Note: *** ($p < 0.001$)



5. Discussion

The outcome shows that Hypothesis 1, which states that Attention positively affects Interest, was verified since it was accepted ($C.R. = 2.752, p = 0.006$). This outcome shows that exposure of tourists to digital information concerning cocoa holidays successfully raised their awareness to a higher level of emotional and cognitive interest. This supports the theoretical contribution of the AISAS model, which states that Attention can serve as a bridge that fosters the development of tourists' interest by incorporating aesthetic appeal and informational cues (Sugiyama & Andree, 2010). This hypothesis is consistent with empirical work showing that attractive visual information about ecotourism can raise positive awareness and curiosity (Safdar & Bibi, 2025), while aesthetically engaging short travel videos can generate tourists' emotional interest and narrative engagement (Bai *et al.*, 2025; Wu & Lai, 2025). In the specific context of cocoa tourism, tourists who view socially shared content featuring cultural authenticity and plantation scenery can be expected to develop sufficient emotional interest to inquire further about these destinations.

The results show that Hypothesis 2, which states that Interest positively affects Search, is supported ($C.R. = 12.356, p < 0.001$). This indicates that when tourists develop stronger cognitive and emotional interest in cocoa tourism destinations, they are more likely to search for additional information about those destinations. Within the AISAS framework, interest functions as a motivational bridge through which initial attraction is converted into purposeful information-seeking behaviour (Sugiyama & Andree, 2010). This interpretation is consistent with Fang *et al.* (2023), who found that emotionally stimulating and visually attractive travel videos increase tourists' motivation to explore destinations further, and with Aboalghanam *et al.* (2025), who showed that user-generated content reinforces destination imagery and search intention. Moreira *et al.* (2025) similarly argued that compelling storytelling sustains curiosity and encourages deeper inquiry. Accordingly, the positive path from Interest to Search suggests that emotional engagement with cocoa tourism content stimulates active information search.

The results also support Hypothesis 3, which states that Search positively affects Action ($C.R. = 9.207, p < 0.001$). This finding indicates that tourists who search for information on cocoa tourism are more likely to transform their exploratory intent into concrete behaviour, such as visiting, booking, or participating in cocoa-related activities. In the AISAS framework, search operates as a verification stage in which tourists seek to reduce uncertainty and strengthen confidence before acting (Sugiyama & Andree, 2010). Zhao *et al.* (2024) showed that online attention and interactive platform cues help move tourists from information search to actual behaviour, while Mou and Wang (2025) demonstrated that AI-enhanced online reviews can increase confidence in travel-related decisions. In the context of cocoa tourism, information-seeking through digital platforms, visitor reviews, and destination content therefore appears to play an important role in enabling tourists to move from curiosity to action.

The results further reveal that Hypothesis 4, which states that Action positively affects Share, is supported ($C.R. = 12.356, p < 0.001$). This finding is consistent with the cyclical logic of AISAS, in which completed behavioural activity such as visiting or purchasing is followed by post-consumption engagement in the form of online sharing. Sugiyama and Andree (2010) proposed that the Share stage creates positive feedback for the preceding AISAS stages by generating awareness and interest among potential future visitors. In tourism settings, Suhud and Allan (2020) found that visitors commonly extend their experiences through digital sharing, thereby increasing destination familiarity for others. Karim *et al.* (2025) likewise showed that environmentally responsible tourists tend to share their experiences online as a form of moral communication and advocacy. In cocoa tourism, these findings suggest that tourists who participate in plantation visits and related eco-cultural experiences are likely to share their positive experiences online, thereby amplifying destination visibility and sustainability messaging.

Hypothesis 5 proposed that Tourist Citizenship Behaviour (TCB) positively influences Attention. This hypothesis was supported ($C.R. = 6.415, p < 0.001$), indicating that tourists with stronger prosocial and sustainability-oriented dispositions pay greater attention to digital content that reflects moral and environmental values. Within the AISAS–TCB model, this finding suggests that TCB shapes tourists' selective perception of messages related to community welfare, cultural sensitivity, and environmental sustainability. Karim *et al.* (2025) similarly showed that sustainability perception and transparency can promote environmentally responsible responses, implying that sustainability-oriented tourists are more receptive to value-aligned marketing activities. Sitorus *et al.* (2024) likewise found that community participation and ecotourism engagement can increase visitors' attentiveness to destinations that emphasize local empowerment. Navarro-Medina *et al.* (2025) further argued that individuals with



stronger citizenship awareness are more attentive to information related to social responsibility. Accordingly, the present result suggests that tourists with higher TCB are more responsive to digital storytelling that highlights sustainability-oriented messages.

Analysis of the results reveals that Hypothesis 6, which proposes that Tourist Citizenship Behaviour (TCB) has a positive effect on Interest, is verified ($C.R. = 3.301, p < 0.001$). This finding means that tourists who demonstrate prosocial tendencies towards nature conservation, respect for culture, and willingness to help local communities can more readily develop emotional-cognitive interest in destinations with similar characteristics. In the theoretical context of AISAS-TCB, Tourist Citizenship Behaviour can be viewed as a mental mobilizing factor that promotes affective involvement and curiosity toward sustainable destinations. [Karim *et al.* \(2025\)](#) pointed out that sustainability-minded tourists are naturally interested in environmentally responsible and transparent tourism activities, thereby boosting their emotional involvement. Similarly, [Rodríguez-Sánchez *et al.* \(2025\)](#) showed that prosocial disposition is an important antecedent of tourist citizenship behaviour, indicating that ethically oriented tourists are more receptive to destinations aligned with their values. In a similar vein, [Zhu *et al.* \(2024\)](#) clarified that empathy with nature and respect for nature can increase tourists' emotional attachment to a place and strengthen their interest in a destination. In the context of cocoa tourism, tourists with higher citizenship behaviour can therefore be expected to show stronger interest in sustainable agricultural practices, rural development initiatives, and cultural authenticity.

The findings reveal that Hypothesis 7, stating that Tourist Citizenship Behaviour (TCB) has a positive impact on Search, is supported ($C.R. = 12.356, p < 0.001$). This finding underscores that the more responsible, caring, and sustainability-conscious tourists are, the more initiative they take to seek accurate and value-matched information before deciding to travel. In the AISAS-TCB framework, the influence of TCB acts as a cognitive and moral stimulus that prompts information-seeking activities through moral curiosity and environmental awareness. [Sitorus *et al.* \(2024\)](#) showed that tourists interested in community-based and environmentally responsible destinations actively explore information about environmental management and community involvement. This view is consistent with [Mou and Wang \(2025\)](#), who showed that tourists use AI-enhanced online reviews and destination information to assess authenticity and value before acting. In the cocoa tourism context, such tourists can be expected to explore information on plantation management, community involvement, and sustainability initiatives before visiting. Consequently, the positive effect between TCB and Search indicates that moral awareness and empathy activate informed and sustainability-related decision-making.

Analysis of the results shows that Hypothesis 8, which assumes that TCB has a positive impact on Share, is accepted ($C.R. = 12.356, p < 0.001$). This outcome indicates that responsible and sustainability-oriented tourists are more prone to share their travel experiences as a moral form of communication and advocacy. In the context of AISAS-TCB theory, the Share construct refers to the behavioural consequence of moral performance by tourists who feel compelled to represent and advocate sustainability-related destinations that resonate with nature conservation and community welfare. [Rodríguez-Sánchez *et al.* \(2025\)](#) highlighted that prosocial disposition strengthens tourist citizenship behaviour and destination patronage intention, suggesting a greater propensity for supportive post-visit behaviours. Likewise, [Liu *et al.* \(2023\)](#) showed that online citizenship behaviour in sustainable tourism includes recommendations, experience sharing, and constructive feedback to other tourists and service providers. Additionally, [Zhang *et al.* \(2020\)](#) illustrated how parasocial interaction and emotional attachment fortify destination brand love, thereby boosting tourists' intention to share travel experiences. In a cocoa tourism context, tourists with higher citizenship behaviour are expected to share images, reviews, and travel experiences related to sustainability at cocoa destinations, thereby acting as digital ambassadors. Therefore, the positive outcome of Hypothesis 8 supports the view that responsible behaviour affects not only tourist performance but also proactive sustainability-related communication in digital space.

6. Conclusion

This study extends the AISAS framework by integrating Tourist Citizenship Behaviour (TCB) to explain tourists' digital behavioural processes in cocoa tourism. The findings confirm that the sequential AISAS relationships are supported, demonstrating that tourists progress from attention to interest, search, action, and sharing through digital engagement. Furthermore, TCB significantly enhances tourists' behavioural responses, particularly by



encouraging responsible participation and sharing behaviour, highlighting its importance in sustainable tourism development. The study contributes theoretically by extending the AISAS model to the context of cocoa-based agro-tourism and by incorporating TCB as a complementary construct linking digital consumer behaviour with sustainability-oriented actions. From a practical perspective, the findings provide destination managers and policymakers with a framework for developing digital marketing strategies that encourage tourist engagement while promoting sustainable destination development. This study has several limitations. The data were collected from Indonesian cocoa tourism destinations using a cross-sectional survey and convenience sampling, which may limit the generalizability of the findings. Future research should validate the proposed model in different cultural and tourism contexts, employ longitudinal or mixed-method approaches, and examine additional mediating or moderating variables to further enhance the explanatory power of the AISAS–TCB framework.

References

- Aboalganam, K.M., AlFraihat, S.F., Tarabieh, S. (2025). The impact of user-generated content on tourist visit intentions: The mediating role of destination imagery. *Administrative Sciences*, 15(4), 117. <https://doi.org/10.3390/admsci15040117>
- Afoakwa, E.O., Paterson, A., Fowler, M., Ryan, A. (2008). Flavor formation and character in cocoa and chocolate: A critical review. *Critical Reviews in Food Science and Nutrition*, 48(9), 840–857. <https://doi.org/10.1080/10408390701719272>
- Bai, W., Lee, T.J., Wu, F., Wong, J.W.C. (2025). How effective are user-generated travel short videos in promoting a destination online? *Journal of Vacation Marketing*, 31(3), 578–595. <https://doi.org/10.1177/13567667231221816>
- Browne, M.W., Cudeck, R. (1992). Alternative ways of assessing model fit. *Sociological Methods & Research*, 21(2), 230–258. <https://doi.org/10.1177/0049124192021002005>
- Chen, X., Cheng, Z., Yang, H. (2024). Empowering pro-environmental behavior in tourists through digital media: The influence of eco-guilt and empathy with nature. *Frontiers in Psychology*, 15, 1387817. <https://doi.org/10.3389/fpsyg.2024.1387817>
- Dang, N.T.T., Ha, V.D. (2025). Enhancing brand equity and customers' purchase intention at tourism companies in Ho Chi Minh City: The role of ESG. *Journal of Management World*, 2025(1), 810–821. <https://doi.org/10.53935/jomw.v2024i4.813>
- Fang, X., Xie, C., Yu, J., Huang, S., Zhang, J. (2023). How do short-form travel videos trigger travel inspiration? Identifying and validating the driving factors. *Tourism Management Perspectives*, 47, 101128. <https://doi.org/10.1016/j.tmp.2023.101128>
- Fuadiyah, A., Suhud, U., Krissanya, N. (2025). Evaluation of consumer purchase decisions at cafe on the wheels: What is the role of social media marketing, brand image, and product quality? *International Journal of Education, Social Studies, and Management*, 5(1), 27–44. <https://doi.org/10.52121/ijessm.v5i1.589>
- Hasim, M. A., Harun, A., Ibrahim, F., Hassan, S., Ishak, M. F. (2025). Digital marketing strategies and consumer behaviour: Insights into online purchase intention for halal cosmetics in Malaysia. *PaperASIA*, 41(1b), 93–105. <https://doi.org/10.59953/paperasia.v41i1b.359>
- Hu, L., Bentler, P. M. (1995). Structural equation modeling: Concepts, issues, and applications. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications*. Sage.
- Jayasingh, S., Sivakumar, A., Vanathaiyan, A.A. (2025). Artificial intelligence influencers' credibility effect on consumer engagement and purchase intention. *Journal of Theoretical and Applied Electronic Commerce Research*, 20(1), 17. <https://doi.org/10.3390/jtaer20010017>
- Karim, R., Goh, G.G.G., Lee, Y.L.E., Zeb, A. (2025). To be digital is to be sustainable: Tourist perceptions and tourism development foster environmental sustainability. *Sustainability*, 17(3), 1053. <https://doi.org/10.3390/su17031053>



- Kline, R.B. (2023). Principles and practice of structural equation modeling. Guilford Press.
- Lestari, V.D., Darmayasa, D., Junaid, I. (2024). The use of social media in promoting outbound tour packages at PT. Dwidaya World Wide Makassar. Proceedings International Conference on Marine Tourism and Hospitality Studies, 1(1), 392–399. <https://doi.org/10.33649/iconmths.v1i1.365>
- Liu, T., Ma, C., Xue, J., Li, G., Lu, Q. (2023). The impact of tourist operant resources on online citizenship behavior in sustainable tourism. Sustainability, 15(23), 16148. <https://doi.org/10.3390/su152316148>
- Martaleni, M., Hadiyati, E., Pertiwi, Y. I., Kerti Yasa, N.N. (2021). Role of tourist motivation as mediating variable on visitor decisions at Indonesian tourism village. Innovative Marketing, 17(3), 88–98. [https://doi.org/10.21511/im.17\(3\).2021.07](https://doi.org/10.21511/im.17(3).2021.07)
- Moreira, A.C., Costa, R.A. da, & de Sousa, M.J.N. (2025). Is a good story enough? A critical analysis of storyteller roles in tourism. Journal of Hospitality & Tourism Research, 49(4), 688–704. <https://doi.org/10.1177/10963480241251450>
- Mou, T., Wang, H. (2025). Online comments of tourist attractions combining artificial intelligence text mining model and attention mechanism. Scientific Reports, 15(1), 1121. <https://doi.org/10.1038/s41598-025-85139-3>
- Navarro-Medina, E., Ross, E. W., Pérez-Rodríguez, N., De-Alba-Fernández, N. (2025). Towards an ideal model of education for critical citizenship: An analysis of the Spanish curricular change in social sciences. European Journal of Education, 60(1), e70010. <https://doi.org/10.1111/ejed.70010>
- Pirzado, A.H., Babar, A., Castillo, M.G.A., Rahman, M.M., Muro, M.E. (2025). When AI meets consumer behavior: Exploring how human-like AI chatbots shape trust in consumer purchase intentions. The Regional Tribune, 4(1), 1–13. <https://doi.org/10.63062/trt/WR25.051>
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., Podsakoff, N.P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. Journal of Applied Psychology, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Rodríguez-Sánchez, C., Torres-Moraga, E., Sancho-Esper, F., Casado-Díaz, A.B. (2025). Prosocial disposition shaping tourist citizenship behavior: Toward destination patronage intention. Tourism Management Perspectives, 55, 101334. <https://doi.org/10.1016/j.tmp.2024.101334>
- Safdar, G., Bibi, M. (2025). Social media as a catalyst for eco-tourism growth: Exploring the perception of social media users in twin metropolitan cities (Rawalpindi & Islamabad), Pakistan. Qlantic Journal of Social Sciences and Humanities, 6(1), 12–19. <https://doi.org/10.55737/qjssh.vi-i.25287>
- Schermelleh-Engel, K., Moosbrugger, H., Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. Methods of Psychological Research Online, 8(2), 23–74.
- Sitorus, N.B., Liyushiana, L., Yanti, D., Ngatemin, N. (2024). Exploring tourist desires: A journey into sustainability in Bukit Lawang's ecotourism. Proceedings International Conference on Marine Tourism and Hospitality Studies, 1(1), 380–391. <https://doi.org/10.33649/iconmths.v1i1.366>
- Sofiyan, A., Fahmi, I. (2025). Analisis penerapan model AISAS pada media sosial Instagram oleh Badan Penyelenggara Jaminan Produk Halal (BPJPH) Kementerian Agama Republik Indonesia. Journal of Accounting and Finance Management, 5(6), 1432–1440. <https://doi.org/10.38035/jafm.v5i6.1330>
- Soták-Benedeková, L., Rybářová, J., Tometzová, D., Seňová, A., Rybár, R. (2025). Comprehensive analysis of rural tourism development: Historical evolution, current trends, and future prospects. Sustainability, 17(3), 1045. <https://doi.org/10.3390/su17031045>
- Sugiyama, K., Andree, T. (2010). The Dentsu way: Secrets of cross switch marketing from the world's most innovative advertising agency. McGraw-Hill Professional.

- Suhud, U., Allan, M. (2020). Search, action, and share: The online behaviour relating to mobile instant messaging app in the tourism context. *Journal of Environmental Management and Tourism*, 11(4), 903–912. [https://doi.org/10.14505/jemt.v11.4\(44\).14](https://doi.org/10.14505/jemt.v11.4(44).14)
- Suhud, U., Purnamasari, L., Allan, M. (2022). Online behaviour of micro and small size entrepreneurs: Testing the Attention-Interest-Search-Action-Share (AISAS) model. *Studies of Applied Economics*, 40(2), 1–12. <https://doi.org/10.25115/eea.v40i2.7214>
- Sumardani, R., Wiramatika, I.G., Sengkey, F., Osin, R.F., Anggayana, I.W.A., Nagara, I.M.W.S. (2024). Modeling marine tourism from the perspective of sustainable tourism in Serangan Tourism Village. *Proceedings International Conference on Marine Tourism and Hospitality Studies*, 1(1), 307–322. <https://doi.org/10.33649/iconmths.v1i1.375>
- Tabachnick, B.G., Fidell, L.S., Ullman, J. B. (2007). *Using multivariate statistics* (5th ed.). Pearson.
- Wei, P.-S., Lu, H.-P. (2013). An examination of the celebrity endorsements and online customer reviews influence female consumers' shopping behavior. *Computers in Human Behavior*, 29(1), 193–201. <https://doi.org/10.1016/j.chb.2012.08.005>
- Wu, X., & Lai, I. K. W. (2025). The influence of storytelling in luxury hotel short videos on hotel brand attitude: The mediating role of narrative engagement. *International Journal of Tourism Research*, 27(3), e70055. <https://doi.org/10.1002/jtr.70055>
- Zarezadeh, Z.Z., Benckendorff, P., Gretzel, U. (2023). Online tourist information search strategies. *Tourism Management Perspectives*, 48, 101140. <https://doi.org/10.1016/j.tmp.2023.101140>
- Zhang, H., Cheng, Z., Chen, X. (2022). How destination social responsibility affects tourist citizenship behavior at cultural heritage sites? Mediating roles of destination reputation and destination identification. *Sustainability*, 14(11), 6772. <https://doi.org/10.3390/su14116772>
- Zhang, H., Su, L., Xu, Q. (2020). Do parasocial relationships matter? The impact of social media influencers on tourists' destination brand love and visit intention. *Journal of Travel Research*, 59(8), 1316–1330. <https://doi.org/10.1177/0047287519883039>
- Zhao, S., Kong, Y., Yang, Y., Li, J. (2024). The influencing mechanism of scenic spot online attention and tourists' purchase behavior: An AISAS model based investigation. *Frontiers in Psychology*, 15, 1386350. <https://doi.org/10.3389/fpsyg.2024.1386350>
- Zhu, O. Y., Li, H., Grün, B., Dolnicar, S. (2024). The power of respect for authority and empathy: Leveraging non-cognitive theoretical constructs to trigger environmentally sustainable tourist behaviour. *Annals of Tourism Research*, 105, 103681. <https://doi.org/10.1016/j.annals.2023.103681>

Acknowledgement

Authors are deeply grateful to all the participants who generously shared their time for this research. Their contributions have been instrumental in the success of this study.

Author Contributions

Usep Suhud: Conceptualization, Data curation, Methodology, Investigation, Formal analysis, Resources, Software, Project administration, Writing – original draft. Doni Sugianto Sihotang: Data curation, Methodology, Writing – original draft. Sunthorn Boonkaew: Conceptualization, Investigation, Resources, Visualization, Writing – original draft, Writing – review & editing. Laelah Purnamasari: Validation, Visualization. Muaz Azinuddin: Validation, Visualization. Muaz Azinuddin: Writing - Review & Editing. Jakkawat Laphet: Writing - Review & Editing. Somnuk Aujiapongpan: Conceptualization, Investigation, Resources, Writing – review & editing, Supervision.

Does this article screen for similarity?

Yes



Funding

This research was funded by a research grant from the Ministry of Higher Education, Science, and Technology, Republic of Indonesia. (Funding number: 0419/C3/DT.05.00/2025 and contract number: 083/C3/ DT.05.00/PL/2025).

Declaration of generative AI in the writing process

During the preparation of this work the authors used ChatGPT V.4.0 in order to assist with improving the readability and language of the manuscript. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the published article.

Conflict of Interest

The authors have no conflicts of interest to declare. There is also no financial interest to report. The author certifies that the submission is original work and is not under review at any other publication.

About the License

© The Author(s) 2026. The text of this article is open access and licensed under a Creative Commons Attribution 4.0 International Licenses.

Cite this Article

Usep Suhud, Doni Sugianto Sihotang, Sunthorn Boonkaew, Laelah Purnamasari, Muaz Azinuddin, Jakkawat Laphet, Somnuk Aujiरणongpan, Digital Consumer Pathways and Tourist Citizenship behaviour in Cocoa Tourism: an AISAS Model Approach, Asian Journal of Interdisciplinary Research, 9(3), (2025) 66-85. <https://doi.org/10.54392/ajir2635>