

Sustainability and Consumer Behaviour

Edited by

Azilah Kasim

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Editor

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About the Editor

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Preface to "Sustainability and Consumer Behaviour"

In today's world, with a high global population and dwindling resources, there is a great need to understand consumer behaviour and its link with sustainable resource consumption so that marketing effectiveness can be improved. The complex nature of both constructs and how they may interact, however, requires a comprehensive approach in which the concepts are examined from a variety of viewpoints and perspectives. This book contains an interdisciplinary perspective on sustainability and consumer behaviour so that we as a society can get a little closer to understanding these two dynamic constructs as they affect our lives. There are thirteen chapters in this book, each with a special focus on an aspect of consumer behaviour and sustainability, including purchase intentions towards recycled products, environment fit hospitality experiences, purchase intentions of recycling items, consumer loyalty, electric vehicle market consumption, consumption of the educational products, revisit intention, online complaint behaviour, consumer and CSR, eco-friendly behaviour, brand trust and social media consumer communication.

Azilah Kasim
Editor





Article

Factors Influencing the Purchase Intention for Recycled Products: Integrating Perceived Risk into Value-Belief-Norm Theory

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Abstract: Recycling used materials is one way to deal with the depletion of natural resources available on earth. Companies increasingly integrate recycled materials into their production processes and transition towards circular business models. However, although the attitude towards sustainable products is positive, consumers still prefer to buy products made from new instead of recycled materials. Empirical research on factors influencing the purchase intention of recycled products is still limited. This study aims to examine consumers' individual factors that are important in the decision process to buy recycled products. The Value-Belief-Norm (VBN) theory is explored in the context of recycled product purchase intention. Perceived risk is added to the research model as a moderator that hinders purchase intention. The different influences are analyzed using partial least squares structural equation modelling with a sample of 177 respondents from Germany. Results indicate that the causal chain of relationships between values, beliefs, and personal norm has a positive influence on recycled product purchase intention. Perceived risk, on the other hand, has a significant negative direct effect on purchase intention but strengthens the relationship between personal norms and purchase intention. Theoretical and managerial implications as well as avenues for further research are discussed.

Keywords: recycled products; purchase intention; VBN theory; perceived risk; structural equation modeling; SmartPLS

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1. Introduction

The number of natural resources available on earth is limited and humans consume much more than what can be recovered. In 2021, "Earth Overshoot Day" was on 29 July, indicating that all ecological resources that could be restored within one year were used up five months before the end of the year [1]. One way to address the problem of overusing natural resources is integrating recycled materials into the production process of new products. Some of the most common examples of recycling are PET plastic bottles or recycled paper. However, there is a strong shift toward using recycled materials in other areas of consumer goods. For instance, the clothing store chain H&M aims to use 30% recycled materials in their clothes by 2025 [2]. This is an example for the efforts companies make to use resources in a sustainable way. However, extant research shows that consumers have a lower willingness to pay for recycled products than for products made from new materials [3], suggesting an increased perceived risk associated with recycled products [4]. The important question, besides the scale of integrating recycled materials into production processes, is if consumers value such efforts. This paper explores the antecedents of purchase intention of recycled products.

Recycled products can be classified as green products [5]. Previous qualitative and quantitative research has extensively analyzed factors influencing consumers to purchase green products (e.g., [6,7]). In the context of recycled products, Bigliardi et al. [8] proposed an integrative theoretical framework including 20 constructs that influence the purchase

intention of recycled products. These authors emphasize the importance of green consumption drivers on the individual level. Research on pro-environmental consumer behavior has extensively focused on studying the effect of subjective norms; however, the influence of personal norms is less considered [9]. Whereas people with high subjective norms base their actions on other peoples' opinions, personal norms describe a feeling of personal obligation towards a certain behavior [10]. This study focuses on personal norms as a direct lever towards purchase intention. To analyze the effect, the Value-Belief-Norm (VBN) theory [11] is applied. The VBN theory suggests that "green behaviours are more likely to occur when a causal series of variables (i.e., values, beliefs, and personal norms) is present" [12] (p. 2). To the author's knowledge, the VBN model has not yet been discussed and empirically tested for the purchase intention of recycled products. Following Kiatkawsin and Han [13], who explored the intention to behave sustainably, this study uses intention as outcome variable in the VBN model. Additionally, previous research found a negative effect of perceived risk on green product purchase intention [14]. Apart from the direct effect, the author assumes that perceived risk can potentially alter the relationship between personal norms and purchase intention [15]. As an extension to the VBN model, perceived risk is added as a moderator.

The objective of this paper is to empirically test if the VBN model can be applied to the context of recycled product purchase intention. Furthermore, the different effect sizes and their strengths in the causal relationship are explored. As extension of the model, the moderating role of perceived risk is analyzed. This study adds to the existing literature on individual factors influencing consumers' green purchase intention. On the one hand, it extends the knowledge about recycled products and on the other hand, it evaluates how values, beliefs, norms, and perceived risk effect purchase intention.

The paper is structured as follows: Section 2 conceptualizes recycled products and provides an overview of studies analyzing recycled product purchase intention. Furthermore, in this section the research model is established, and hypotheses are developed based on the VBN theory and perceived risk theory. Section 3 provides the research methodology and the measures used for the structural equation model. In Section 4, the study results of the measurement model, the structural model, and the moderating effect are presented. Section 5 discusses the findings and includes theoretical contributions and managerial implications as well as limitations and opportunities for further research.

2. Conceptual Framework and Hypotheses

2.1. Recycled Products

Recycling is the practice of reusing materials from used products, instead of unused raw materials, and turning them into new products of the same quality [16]. In contrast, upcycling refers to reusing materials to make products of better quality and downcycling creates products of lesser value [17]. Apart from conserving the limited natural resources available on earth, recycling has several other substantial environmental benefits including reducing pollution (in water and air), greenhouse gases, and waste [18]. Companies integrate the circular economy business model, where instead of following a wasteful "take-make-dispose" mentality, they retain used products from consumers and re-enter them into a loop system of reuse [19]. This shift to circular products comes with new product or service characteristics that alter the customer experience [20]. Despite the environmental benefits, consumers have a lower willingness-to-pay for recycled products than for the same products made from new materials [3]. This shows that it is important to further explore factors that influence consumers to purchase recycled products. So far, only a limited number of studies have been conducted to find triggers, especially on consumers' characteristics, for recycled product purchase intention (Table 1).

 Table 1. Studies on factors influencing recycled product purchase intention.

No.	Author(s)	Sample	Data Collection	Product Type	Dependent Variable(s)	Independent Variable(s)	Influence
1	[21]	N = 312	Online Survey	Recycled products in general	Purchase Intention	 Positive image Perceived product safety Perceived quality Sustainability or environmental benefits 	+ + n.s. n.s.
2	[22]	N = 497	Online Survey	Recycled clothing	Purchase Intention	 Environmental concern Personal norms Perceived value Willingness to pay a premium price 	+ + + +
3	[23]	N = 16	Qualitative Interviews	Athletic apparel made of recycled polyester	Purchase Intention	 Functional value Social value Emotional value Conditional value Epistemic value 	+ + + + + +
4	[4]	N = 49	Online Survey	New vs. recycled: Paper, single use camera, toner cartridge, tire, auto parts, cell phone, printer/fax	Willingness to Pay	Functional risk	-
5	[24]	N = 495	Online Survey	rPET bottle-based apparel	Purchase Intention	QualityImageSafetySustainability	+ n.s. + +
6	[25]	N = 258	Online Survey	Products made of recycled ocean plastic	Purchase Intention	 Anticipated conscience Value for money Perceived functionality Risk of contamination 	+ + +
7	[26]	N = 425	Online Survey	Fashion products made of recycled plastic waste	Purchase Intention	Product qualityCommunity influencePrice	+ + -
8	[27]	N = 217	Online Survey	Recycled clothing	Purchase Intention	 Utilitarian value Subject norms Perceived consumer effectiveness Environmental concern 	+ + + +
9	[3]	N = 2400	Online Survey	Circular products	Willingness to Pay	Information on environmental benefitsThird-party verification	+

Table 1. Cont.

No.	Author(s)	Sample	Data Collection	Product Type	Dependent Variable(s)	Independent Variable(s) Influence
10	[28]	N = 422	Online Survey	Recycled PET products	Purchase Intention	 Perceived quality Image Sustainability Safety
11	[29]	N = 215	Online Survey	Recycled paper, mobile phones and printers.	Purchase Intention	 Attitude toward environmental + protection Perceived quality +

⁺ positive Influence, - negative Influence, n.s. not significant.

2.2. Value-Belief-Norm Theory (VBN)

Individual factors play a central role in the behavioral process of consumers [8]; therefore, this study applies the VBN theory to explore aspects that influence recycled product purchase intention. The VBN theory was developed and first introduced by Stern et al. [11] in the context of social movement support. In this theory, values (altruistic, biospheric, egoistic) impact beliefs (ecological worldview, awareness of consequences and ascription of responsibility). These beliefs influence personal norms, which finally affect behavior. Initially developed to evaluate environmentalism, VBN has been further used to empirically analyze green product purchase behavior such as for cosmetic products [30], sustainable travel mode choice [31], and "alternative fuel vehicles" [32]. For the category of recycled products, to the authors' knowledge, the model has not been empirically tested.

Values can be described as a belief which people base their actions on and how they evaluate certain situations [33]. In the context of recycled products, there are two relevant values: biospheric and altruistic values [8]. Both these values fall under the category of selftranscendence values [34]. People with high biospheric values care about the effect of their actions on the nature and the ecosystem, whereas people with high altruistic values put the well-being of others first [35]. In the original VBN theory, these two values could not be clearly distinguished from each other, resulting in the use of the biospheric-altruistic value orientation as one variable [36]. However, following theoretical explanations, De Groot and Steg [33] provided empirical evidence that biospheric and altruistic values should be analyzed separately. Furthermore, Rahman and Reynolds [37] found that biospheric values are a stronger motivator for pro-environmental purchase intention than altruistic values. Biospheric and altruistic values are predictors of and have a positive influence on environmental concern [38]. Environmental concern is a general stance and concern towards protecting the environment [39]. Based on extant research that support the positive relationship between self-transcendence values and environmental concern, e.g., [40,41], the following hypotheses are formulated:

Hypothesis 1a (H1a). *Biospheric values positively influence environmental concern.*

Hypothesis 1b (H1b). Altruistic values positively influence environmental concern.

Considering the belief part of the VBN theory, apart from environmental concern, awareness of consequences and ascription of responsibility fall under this category. Awareness of consequences is described as the understanding of individuals about the consequences that environmental problems entail [42]. Ascription of responsibility, on the other hand, comprises who is blamed for the consequences of certain actions or situations [11]. Personal norms are the self-constructed behavioral expectations that an individual puts on themself in different situations [43]. Both, awareness of consequences and ascription of responsibility, are antecedents of personal norms, as they trigger the activation of this

mindset [44]. The Norm Activation Model [43] postulated a causal chain of relationships where higher awareness of consequences leads to a greater ascription of responsibility, which in turn increases personal norms [45]. The dependent variable in this study is purchase intention. According to Sheeran [46] (p. 1), "the most immediate and important predictor of a person's behavior is his/her intention to perform it". In the VBN framework, personal norms, when activated, have a direct influence on purchase intention and behavior, e.g., [47,48]. Based on this, the following hypotheses are proposed:

Hypothesis 2 (H2). *Environmental concern positively influences awareness of consequences.*

Hypothesis 3 (H3). Awareness of consequences positively influences ascription of responsibility.

Hypothesis 4 (H4). *Ascription of responsibility positively influences personal norms.*

Hypothesis 5 (H5). *Personal norms positively influence purchase intention.*

2.3. Perceived Risk Theory

Perceived risk, defined as "the expectation of losses associated with purchase" [49] (p. 187), is an important factor in the consumer buying and choice process [50]. Perceived risk has a long history in consumer research and is typically constructed of six types of risks: social, financial, physical, performance, time-related, and psychological risk [51]. All six types of risk can also be present when purchasing recycled products. Table 2 shows perceived risks that could appear in the context of recycled products which are derived from existing literature.

Table 2. Types of Perceived Risk in Recycled Products.

Six Types of Risks	Definitions [50]	Recycled Product Context	Derived from
Social	Risk that the purchase will negatively affect the perceptions of others about the consumer	 Peers could have unspoken, negative associations with recycled products Unwanted "eco-freak" image It is difficult to keep up with current trends because recycled products have a longer life cycle, e.g., fashion products 	[52]
Financial	Risk that the product will not be the best possible monetary gain for the consumer	 Recycled products are more expensive Perceived risk that recycled products must be repaired more often and thus requires more repair costs Worse perceived value for money, because it is not "new" 	[53–55]
Physical	Risk that the product will result in health problems for the consumer	 Risk of chemicals e.g., in counterfeit products Processing of materials is not so well explored, e.g., backpack out of truck tarpaulin that was previously polluted Bad surface feel, e.g., recycled toilet paper 	[56,57]

Table 2. Cont.

Six Types of Risks	Definitions [50]	Recycled Product Context	Derived from
Performance	Risk that the product will not function to the satisfaction of the consumer	 Recycled products are perceived to have a lower quality, break faster and have a weaker performance Less knowledge about processes and effort, worse communication Recycled products often look different than conventional products, not what consumers are familiar with or want 	[58,59]
Time-Related	Risk that the consumer will waste time or lose convenience	 Product availability: Fewer choice options, it involves more time to find the right product Limited variety in recycled products, e.g., not the wanted color, etc. Information search, potentially greenwashing Longer drive to a store that has the recycled product alternative 	[58,60,61]
Psychological	Risk that the product will have a negative effect on the consumers' peace of mind or self-perception	 Feeling of "disgust or contamination", e.g., when wearing recycled clothes Worry or regret that the product was not the right choice 	[62,63]

Extant research shows that consumers perceive green products as more expensive and of lower quality than conventional products [64], resulting in financial and performance risk. Furthermore, Essoussi and Linton [4] found that recycled products with high functional risk result in lower willingness-to-pay. Concerning the relationship of risk and personal norms, De Groot and Steg [65] discovered that perception of risk was a predictor of personal norms in the context of willingness to take actions related to nuclear energy. Additionally, previous research in the context of voluntourism showed that perceived risk acts as a moderator between personal norms and purchase intention that weakens the effect [15]. In the present study, the author assumes that perceived risk has a negative influence and is added to the model as a moderator that alters the effect of personal norms on recycled product purchase intention. Based on this discussion, the following hypotheses are formulated:

Hypothesis 6 (H6). *Perceived risk has a negative influence on purchase intention.*

Hypothesis 7 (H7). *Perceived risk negatively moderates the relationship between personal norm and purchase intention.*

Figure 1 presents the research model in the context of recycled products.

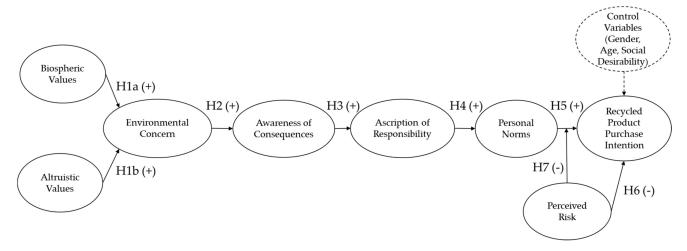


Figure 1. Conceptual VBN Model for Recycled Product Purchase Intention.

3. Method

3.1. Measures

To measure consumers' intention to purchase recycled products, measurement scales and items were developed based on extant literature. Each construct was measured with reflective indicators. First, altruistic and biospheric values were assessed following De Groot and Steg [33] using six items adapted from Schwartz [66] value survey. Environmental concern was examined using three items from the short version of the New Environmental Paradigm scale [67] adapted from Stern et al. [11]. To examine awareness of consequences, a three-item scale adapted from Ibtissem [68] and Jansson et al. [32] was used. Ascription of responsibility and personal norms were measured with three and four items, respectively, adapted from Ibtissem [68]. Perceived risk was assessed using five items adapted from Wang et al. [69]. Lastly, purchase intention for recycled products was measured with three items adapted from Lee and Lee [70]. All items were measured on a five-point Likert scale ranging from 1, strongly disagree, to 5, strongly agree. Only altruistic and biospheric values were measured on a five-point Likert scale ranging from 1, very unimportant to 5, very important. For a complete list of the constructs, corresponding items and sources see Table 3.

Table 3. Construct Scales and Validity.

Construct	Items (Reflective Measures)	Factor Loadings	Sig. (<i>t-</i> Value)	α	AVE	CR
Biospheric Values (adapted from [33])	Preventing pollutionRespecting the earthProtecting the environment	0.912 0.868 0.960	40.261 23.613 95.511	0.901	0.835	0.938
Altruistic Values (adapted from [33])	Social justiceHelpfulEquality	0.850 0.778 0.888	21.625 10.760 28.710	0.797	0.705	0.877
Environmental	The so-called "ecological crisis" facing humankind has been greatly exaggerated (R)	0.840	29.283			
Concern (adapted from [11])	 If things continue on their present course, we will soon experience a major ecological catastrophe 	0.845	28.636	0.747	0.665	0.856
	 Humans are severely abusing the environment 	0.759	15.951			

Table 3. Cont.

Construct	Items (Reflective Measures)	Factor Loadings	Sig. (<i>t-</i> Value)	α	AVE	CR
	Environmental pollution is a problem for society	0.771	20.654			
	The continued increase in environmental pollution is a problem	0.780	18.252			
Awareness of Consequences (adapted	Buying sustainable products will be advantageous for our country	0.714	13.825	0.797	0.549	0.859
from [32,68])	 The quality of the environment will improve if more sustainable products will be bough 	0.707	11.418			
	 Environmental pollution is a serious problem that affects me personally 	0.729	14.335			
	I am jointly responsible for environmental pollution	0.857	31.638			
Ascription of	I feel jointly responsible for the increase in environmental pollution	0.881	39.528			
Responsibility (adapted from [68])	I feel jointly responsible for the death of marine animals because of garbage	0.800	22.539	0.845	0.684	0.896
	 Not only the government and industry are responsible for environmental pollution, but me too 	0.765	16.329			
	I feel morally obliged to buy recycled products, regardless of what others do	0.881	39.875			
Personal Norms	People like me should always buy the recycled version of a product	0.875	44.442			
(adapted from [68])	I feel guilty when I do not buy recycled products	0.764	16.852	0.871	0.720	0.911
	If I would buy a new product, I would feel morally obliged to buy the recycled version of the product	0.868	35.596			
	 I am afraid that the safety of recycled products is not as good as that of new products, so it may present safety risks 	0.831	22.122			
Perceived Risk	I am afraid that recycled products do not function as well as new products	0.901	54.005	0.888	0.747	0.922
(adapted from [69])	I am afraid that buying recycled products is not a good investment	0.859	36.831	0.000	0.7 17	0.722
	I am afraid that recycled products do not last as long as new products	0.866	35.647			
	I am positive towards buying recycled product	0.875	23.107			
Purchase Intention (adapted from [70])	I have the intention of buying recycled products	0.909	65.798	0.859	0.780	0.914
	I think it is a good idea to buy recycled product Note: The latter of the latter	0.864	35.811			

Note: α = Cronbach's Alpha; CR = Composite Reliability; AVE = Average Variance Extracted.

3.2. Data Collection and Sample

To evaluate the VBN theory in the context of recycled product purchase intention, an online survey was conducted. The completion of the questionnaire took approximately ten minutes. Respondents were ensured that their answers are handled with confidentiality and anonymity. The survey included a short description of recycled products and four examples for better understanding: clothes from fabric remnants, jeans from denim scraps, notebooks and printer paper from recycled paper, and furniture from recycled waste wood.

These examples were given to ensure that the focus of this study is on consumer goods and not on packaging. Data collection was conducted in September 2021. The panel provider Clickworker was used to retain a sample size of 200 respondents from Germany. To ensure survey quality, incomplete datasets and respondents who took less than five minutes to complete the questionnaire were deleted [71]. A final sample of 177 respondents remained. Of these respondents, 48% were male and 52% were female, with the majority being in the middle age group 30–49 (62.1%), followed by the 50+ (20.3%) and the 19–29 year-old age group (17.5%). In terms of household income, we saw a fairly even distribution in the sample (13.6% up to 1500€, 11.3% between 1500€ and 2000€, 26% between 2000€ and 3000€, 18.6% between 3000€ and 4000€, 10.2% between 4000€ and 5000€, and 10.7% more than 5000€, with 9.6% not being specified). Most participants' highest degree of education was baccalaureate (28.8%), followed by secondary school (23.7), bachelor's degree (19.2%), diploma (13.0%), master degree (11.3%), and lower secondary school (4.0%).

3.3. Statistical Analysis

For the analysis and the calculations of the research model partial least squares structural equation modeling (PLS-SEM) in SmartPLS 3 [72] was used. This variance-based approach, instead of a covariance-based SEM, was chosen for several reasons: First, it allows small sample sizes while still achieving high levels of statistical power [73]. Regarding sample size, the '10 times rule' provides that "the sample size should be greater than 10 times the maximum number of inner or outer model links pointing at any latent variable in the model" [74] (p. 232). In this model the largest number of paths is five, validating that the sample size is well above the minimum number of participants. Second, PLS-SEM makes no particular assumptions about the data and allows nonnormal data [75]. According to the Kolmogorov-Smirnov test, this is the case for this sample. Lastly, PLS-SEM is the preferred method for exploration and prediction [76]. Even though the model of this study is based on an established theory (VBN model), this research can be considered exploratory, as it analyzes the influence of perceived risk in the framework.

To test the validity and reliability of constructs with the corresponding items in the measurement model, the PLS-algorithm path weighting scheme with 300 iterations and a stop criterion of 10^{-7} [73] was used. For significance testing of the indicator loadings, as well as for path coefficients in the structural model, complete bootstrapping with 5000 subsamples was performed [73].

4. Data Analysis Results

4.1. Measurement Model

All constructs included in the model show one-factor solutions with factor loadings well above 0.5, Cronbach's alphas above 0.7, and explained variances above 50%. Convergent validity was assessed using composite reliability (CR) and average variance extracted (AVE). All CR scores were above the threshold of 0.7 [77] and all AVE values were greater than 0.5 [78]. Discriminant validity was determined using the heterotrait-monotrait ratio of correlations (HTMT, Table 4). All values are below the threshold of 0.85 [79]. All constructs were successfully validated, and the results are presented in Table 3. To test for common method variance (CMV), a full collinearity test was conducted. The variance inflation factors (VIFs) for the latent variables were all well below 3.3, which suggests that common method bias is not an issue in this model [80].

Table 4. Descriptive Statistics and Discriminant Validity (HTMT-ratio).
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	Mean	Standard Deviation	BV	AV	EC	AC	AR	PN	Risk	Intent
BV	4.35	0.81								
\mathbf{AV}	4.21	0.78	0.632							
EC	4.06	0.87	0.405	0.456						
AC	4.10	0.65	0.471	0.467	0.730					
AR	3.61	0.87	0.201	0.261	0.547	0.578				
PN	3.00	0.96	0.277	0.410	0.467	0.552	0.396			
Risk	2.51	1.02	0.228	0.146	0.299	0.577	0.159	0.320		
Intent	3.99	0.80	0.363	0.388	0.540	0.708	0.333	0.663	0.653	

BV = Biospheric Value; AV = Altruistic Value; EC = Environmental Concern; AC = Awareness of Consequences; AR = Ascription of Responsibility; PN = Personal Norms; Risk = Perceived Risk; Intent = Purchase Intention.

4.2. Structural Model

To empirically test the model, structural equation modelling with SmartPLS 3 was used. The model explains 54.6% of variance in consumers' purchase intention of recycled products (R² = 0.546). Both biospheric values (H1a, β = 0.197, p < 0.05) and altruistic values (H1b, β = 0.269, p < 0.05) have a significantly positive effect on environmental concern. Environmental concern has a very strong, positive influence on awareness of consequences (H2, β = 0.570, p < 0.01). The effects of awareness of consequences on ascription of responsibility (H3, β = 0.493, p < 0.01) and ascription of responsibility on personal norms (H4, β = 0.346, p < 0.01) are also significantly positive. The last path in the model also shows a significantly positive influence of personal norms on the dependent variable purchase intention (H5, β = 0.455, p < 0.01). Additionally, perceived risk has a very strong, highly significant, negative influence on purchase intention (H6, β = -0.427, p < 0.01). The results are visualized in Table 5.

Table 5. Results of the Structural Analysis.

Direct Effect		Beta	BCCI (2.5–97.5%)	Mean	Standard Error	t-Value	<i>p</i> -Value	f ²
H1a	$BV \to EC$	0.197	[0.011, 0.392]	0.208	0.098	2.011	0.044	0.033
H1b	$AV \to EC$	0.269	[0.078, 0.432]	0.271	0.091	2.947	0.003	0.062
H2	$EC \rightarrow AC$	0.570	[0.434, 0.675]	0.575	0.061	9.275	0.000	0.481
H3	$AC \rightarrow AR$	0.493	[0.316, 0.623]	0.498	0.076	6.511	0.000	0.321
H4	$\text{AR} \rightarrow \text{PN}$	0.346	[0.154, 0.503]	0.350	0.088	3.929	0.000	0.136
H5	$PN \rightarrow Intent$	0.455	[0.353, 0.548]	0.451	0.050	9.105	0.000	0.410
Н6	$Risk \rightarrow Intent$	-0.427	$[-0.513, \\ -0.329]$	-0.428	0.047	9.105	0.000	0.361
Mod	Moderation Effect		BCCI (2.5–97.5%)	Mean	Standard Error	t-Value	<i>p</i> -Value	f ²
H7	$PN * Risk \rightarrow \\ Intent$	0.098	[-0.150, 0.166]	0.106	0.052	1.899	0.058	0.025
Control Variables		Beta	BCCI (2.5–97.5%)	Mean	Standard Error	t-Value	<i>p</i> -Value	f ²
Gen	Gender \rightarrow Intent		[-0.101, 0.099]	0.001	0.052	0.003	0.997	0.000
Aş	$Age \rightarrow Intent$		[-0.035, 0.152]	0.061	0.048	1.241	0.215	0.008
,	$\overrightarrow{SD} \rightarrow Intent$		[-0.061, 0.133]	0.030	0.050	0.669	0.503	0.002

AV = Altruistic Value; BV = Biospheric Value; EC = Environmental Concern; AC = Awareness of Consequences; AR = Ascription of Responsibility; PN = Personal Norms; Risk = Perceived Risk; Intent = Purchase Intention; SD = Social Desirability.

Regarding the moderation effect, perceived risk is added as a moderator for the relationship of personal norms on purchase intention. A moderator is a third variable that

alters the relationship of two other variables by either strengthening, weakening, or even changing the direction of the effect [73]. Results show that perceived risk has a large effect ($f^2 \geq 0.025$, [73,81]) on the relationship between personal norms and purchase intention, which is significant on a 10% level (t-value = 1.899). This means that higher perceived risk generally strengthens the relationship between personal norms and purchase intention, contradicting H7.

4.3. Control Variables

Statistical control variables were included into the analysis to preclude other possible explanations for the findings [82]. It was controlled for gender, age, and social desirability. In the context of green product purchase intention, socially desirable responding could be a potential issue [83]. To control for social desirability bias, a short, true or false, ten-item-version of the Crowne & Marlowe [84] Social Desirability Scale adapted from Strahan and Gerbasi [85] was included. For the first five answers, true, and for the last five answers false indicated socially desirable answering. The sum of socially desirable answers was calculated, ranging from 0 to 10, with a higher score indicating social desirability. All three controls did not have a significant effect on the results (see Table 5).

5. Discussion

This study was designed to get a better understanding of consumers' purchase intention of recycled products and empirically test the influence of values, beliefs, norms, and perceived risk in this context. Results show that the VBN theory, and thus values, beliefs, and norms have strong predictive power for the purchase intention of recycled products. This is consistent with the findings of Kiatkawsin and Han [13] in the context of pro-environmental behavior and Quoquab et al. [30] for green purchase behavior of cosmetics. In general, this model of the VBN theory, including perceived risk, explains a high amount of variance of the purchase intention of recycled products ($R^2 = 0.546$), which is above the usual 19–35% that this theory explains [86].

Perceived risk, as expected, has a very strong, significantly negative effect on recycled product purchase intention. This is consistent with extant research for other green products, e.g., refurbished products [14]. One counterintuitive finding is that perceived risk moderates the relationship between personal norms and purchase intention in a positive way. Previous research in the context of voluntourism shows contrary results, where if the perceived risk increases, the effect between personal norms and intention weakens [15]. In the present findings, even though the perceived risk of recycled products has a direct negative influence on purchase intention, it acts like an activator for personal norms. If the perceived risk is high, personal norms has a stronger effect on purchase intention. A possible explanation for this is that the moral obligation to contribute to the protection of the environment outweighs the self-interest of consumers.

5.1. Theoretical Contributions

Considering theoretical implications, this study validates the VBN model for a recycling context. Even though the initial VBN model was developed to analyze behavior [11], the present study shows that the theory can also be used with purchase intention as dependent variable. Furthermore, the VBN theory is extended by integrating perceived risk into the model. The results show a significant influence of perceived risk on purchase intention, that should not be neglected in the consumer buying behavior research. Additionally, this study uncovered a significant relationship between perceived risk and the effect of personal norms on purchase intention. In this regard, the findings of the present paper underline the need to include and simultaneously analyze product and individual-related factors in research models [8]. This combination would provide a deeper insight into consumers' green product purchase intention.

5.2. Managerial Implications

From a managerial point of view, it is crucial to minimize the perceived risk of recycled products, as it is a key factor for increasing sales and thus, for corporate success. Companies should apply different methods to increase trust in their green products, e.g., provide certificates or testimonials, work with influencers who are convinced of a products' worth, and ensure guarantees [87]. Additionally, this study can help companies to improve their marketing strategy with content that encourages green consumer behavior. Advertisements should appeal to the awareness of consequences and ascription of responsibility of consumers, as these are important triggers of personal norm [44]. If consumers are aware of the consequences that their behavior has and take responsibility for it, they are going to be more likely to buy green products. Lee et al. [88] found negatively framed information to be most successful for consumers' understanding, remembering and in turn performing sustainable behavior. Negatively framed messages convey the negative consequence of not performing a certain behavior, whereas positively framed messages focus on the positive outcome if a certain behavior is performed [89]. For recycled product purchases, advertisements should appeal to the negative consequences that wasting natural resources have on the environment. These kinds of advertisements enhance personal norms, which is also validated in the context of recycling-aiding products [90]. This is also relevant for institutions or government actions that are promoting green consumption to reach their climate protection goals. Additionally, regulations to oblige companies to use a certain percentage of recycled materials in their products should be implemented.

5.3. Limitations and Future Research

There are some limitations to this study that can be used as avenues for further research. First, only a linear causal chain of relationships between values, beliefs, and norms has been tested in this model. Further research might want to test the direct effects of all variables on purchase intention in order to compare effect strengths and find additional relationships in terms of moderators and mediators. This research also focused on purchase intention as the dependent variable; future studies should test the presented framework for actual purchase behavior. Since this questionnaire was solely distributed in Germany, future replications should be conducted in different countries to analyze potential cultural differences, especially on the relationship between values and environmental concern. Additionally, it would be interesting to explore the purchase intention of specific recycled product types, as this research focuses on recycled products in general. Testing up- and downcycling products could potentially also lead to different findings. Furthermore, the different types of risks associated with recycled products need to be analyzed as well as effective methods to reduce these risks. Lastly, there are many more individual, but also product and context related variables [8] and theories influencing purchase intention. These can be integrated into the VBN theory to get a more complete picture of consumers' recycled product purchase intention.

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Article

Determinants of Customer Intentions to Use Electric Vehicle in Indonesia: An Integrated Model Analysis

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Abstract: Electric vehicles can be a solution to certain social problems in Indonesia, such as pollution and an increase in consumption of energy from fossil fuels, which cannot be met by domestic production. The discussion of the TPB theoretical model, UTAUT2, and risk perception, using the structural equation modeling (SEM) method, in this study aims to provide an overview of the factors that drive interest in adopting electric vehicles in Indonesia. Data were collected from 526 respondents in various cities located in Indonesia. The results showed that the model can estimate the study variables adequately. The constructs of TPB such as attitude toward use (ATU), subjective norm (SBN), and perceived behavior control (PBC) positively affect interest in using electric vehicles. Meanwhile, ATU is influenced by performance and effort expectancies, hedonic motivation, price value, as well as functional, financial, and social risks. Another factor, known as PBC, is influenced by certain facilitating conditions. The ATU factor is the most influential on the use of electric vehicles, therefore factors such as performance expectancy, effort expectancy, hedonic motivation, price value, functional risk, financial risk, and social risk need to be properly analyzed.

Keywords: electric vehicle; theory of planned behavior; unified theory of acceptance and use of technology; perceived risk; intention to use

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1. Introduction

The aim of technological development, such as that of electric vehicles, is to solve emerging social and transportation problems [1], as well as reduce pollution levels [2]. As the country with the fourth highest population density in the world [3], Indonesia has experienced a rise in population of 1.25% [4] with a 6.13% increase in number of vehicles per year [5]. The transportation sector, particularly motor vehicles, is the second-largest contributor to air pollution in Indonesia [6], so attention needs to be paid to this significant rise in usage. In large cities such as Medan, Surabaya, and Jakarta, vehicles contribute more than 50% of air pollution [7]. This makes the level of air quality poor because it cannot meet the threshold standards set by the WHO and is capable of reducing the average life expectancy of Indonesians by 1.2 years [8]. Air pollution due to an increase in the number of vehicles can also cause various disorders in the human respiratory system [9].

Over the last decade, there has been an 8.6% annual increase in the consumption of fossil fuels by the transportation sector [10]. According to PWC [11], more than 17,000 L of fuel is consumed by vehicles every minute, whose pollution is emitted into the environment [11]. Before 2004, Indonesia was able to meet domestic fuel needs by oil and gas

exploration and production activities. However, in subsequent years, the amount of domestic consumption increased compared to total production, which led to the importation of fuel products [11]. This process will increase the burden of state finances when carried out over time. According to Bank Indonesia data collected from 2008–2019, the government's average burden of fuel subsidies was 9.67% [12], unhealthy for state finances [13].

An alternative method to overcome these problems is that of educating users of oil-fueled vehicles to switch to electric motorized ones [6], which are economical, consume lower energy [14], and create a pollution-free environment [15]. The availability of nickel ore processing plants in Indonesia makes the government optimistic about becoming a producer of electric motorized vehicles [16]. In addition, the government issued Presidential Regulation 55 in 2019, which contains a legal umbrella over the electric vehicle program [17]. The regulation stated that buyers of electric motorized vehicles, such as cars and motorcycles, are subject to Tax incentives on Transfer of Names for Motorized Vehicles (BBN-KB). The Indonesian government gives approximately 75% discount to electric motorcycle owners in order to stimulate peoples' willingness to switch, buy and use electric vehicles [18].

Some e-hailing services, such as Grab Indonesia and Gojek, also participate in the green road map by adopting electric motorized vehicles to be rented by their drivers [6]. This move paved the way for electric motorized vehicles to gain wider public recognition and an entry point for commercialization [19]. Grab Indonesia also worked with KYMCO to provide a fleet of electric-based vehicles and battery exchange support facilities supported by PLN (Indonesia's State Electricity Company, Jakarta Selatan, Indonesia) [20]. Besides Jakarta, Bali is one of the few provinces with a progressive provincial policy to accelerate the use of electric motorized vehicles due to the need for a sustainable green transportation system. Toyota Indonesia has joined the EV ecotourism project proposed by the government by providing 30 environmentally friendly cars, including 20 Toyota COMSs (BEV), five Toyota C+pods (BEV), and five Toyota Prius PHEVs [21].

The use of electric vehicles in Indonesia has become important after the emergence of various environmental issues due to a high number of motorized two-wheeled vehicle users, thereby causing pollution that is harmful to health, climate change, global warming, and scarcity regarding Indonesia's oil resources. The various initiatives carried out by the current government are expected to stimulate vehicle users to switch to, buy and use electric vehicles. However, it is important to know people's preferences or expectations regarding electric vehicles, considering that these products are new in Indonesia. Consumers consider at least four factors in assessing electric vehicles, namely price, maintenance, durability, and supporting infrastructure [18]. Skepticism toward the Indonesian electric vehicle program still occurs due to perceptions of the limited mileage factor for batteries [2], the unavailability of public electric charging stations (SPLU), production costs, and prolonged charging time compared to using conventional oil-fueled vehicles [22]. Nevertheless, Indonesia's high number of users is a parameter showing that demand for vehicles is still high. Therefore, the government is optimistic that the Indonesian market will gradually accept electric vehicles.

Behavior related to interest in using a product can be predicted through attitudes, subjective norms (SBN), and perceived behavioral control (PBC), as stated in the Theory of Planned Behavior (TPB) [23,24]. Another factor capable of influencing individual interest in adopting new technology is the ease of use or positive consequences, and the perceived usefulness/benefit of the technology [25]. This approach is referred to as TAM (Theory of Acceptance Model), which was employed by Venkatesh et al. [26] with UTAUT (Unified Theory of Acceptance and Use of Technology). The UTAUT model raises performance expectancy and social influence factors as variables capable of influencing behavioral interest in adopting new technology and associated facilitating conditions. Furthermore, the UTAUT model was developed into UTAUT2 by adding hedonic motivation, price value, and habit variables considered capable of influencing interest in adopting technology, and finally, the decision to adopt/use new technology [27]. In the UTAUT2, TAM, and

TPB models, the risk perception factor is capable of influencing decision-making behavior in adopting or using a technology [28,29], in which the perception of risk of physical harm/injury, financial loss, adverse effect on the social environment, and the loss of time are individual considerations in adopting or using a technology [30,31].

UTAUT2 and TPB integration study models designed to predict technology adoption behavior were developed by Yuen et al. [32]. These show that the TPB model consisting of variables in attitude, perceived norm and behavioral control plays an important role in stimulating technology adoption behavior. Meanwhile, the UTAUT2 model comprises variables in performance and effort expectancies, habit, price value, individual hedonic behavior, and conditions capable of influencing perceived behavioral control. Lee [33] integrated the TAM and TPB models, with perceived risk variables consisting of security, performance, financial, social, and time risk dimensions capable of influencing individual behavior in adopting technology.

UTAUT2, perceived risk, and TPB are important variables in predicting technology adoption behavior; unfortunately, few studies have integrated these three variables to predict interest in technology adoption. Therefore, based on Yuen et al. [27] and Lee [28], this study integrates these three variables to predict technology adoption behavior and discuss the factors capable of influencing the interest of Indonesian people in using electric vehicles, use the UTAUT2 approach, perceived risk, and TPB. This study aims to contribute to the following knowledge areas:

- Development of an integration model for UTAUT2, perceived risk, and TPB in predicting interest in adopting electric vehicles in Indonesia.
- The role of TPB in influencing individual interest in using electric vehicles and Attitude Toward Use (ATU) and Perceived Behavior Control (PBC), which function as mediator variables.
- The role of UTAUT2 and perceived risk in influencing the TPB model.

Furthermore, the study is arranged as follows. Section 2 analyzes the theoretical approach, the model framework, and the hypotheses. Section 3 describes the method used, such as the process of preparing the instrument for questioning the UTAUT2, perceived risk, and TPB variables. Section 4 describes the results regarding data processing and hypothesis testing. Section 5 concludes the study by confirming the theory used.

2. Conceptual Framework

2.1. Literature Review on Electric Vehicle Purchase Intention

The use of electric vehicles has significantly increased in the last decade [34]. Several studies on customers' intentions to purchase electric vehicles have been conducted to achieve varying results depending on the location. Tu and Yang's [35] study in China shows that consumers control the resources required to purchase electric vehicles. Other factors, such as environmental awareness, technological benefit, and availability of the products, affect peoples' purchasing intention. Another study conducted in China revealed that price negatively impacts purchase intention, which is positively affected by social influence, environmental concern, self-esteem, and openness [36]. In India, the predictor variables of attitude, perceived usefulness, ease of use, and risk influence purchase intention for electric vehicles, with the moderation of financial incentives policy [37].

According to the study by Asadi et al. [38], in Malaysia perceived value, attitude, the ascription of responsibility, SBN, personal norms, perceived consumer effectiveness, and awareness of consequences affected consumers' purchase intention positively. This is in line with Afroz et al. [39], in which consumers with high environmental awareness are likely to purchase electric vehicles. A comparative study of China, Russia, and Brazil shows different purchase intention factors [40]. For instance, in Russia and China, personal factors drive purchase intentions. In Brazil, charging infrastructure and purchasing price are bigger than socio-demographic factors. However, these three countries show that environmental awareness positivity affects the customers' purchase intention. A study in

Portugal revealed that age, knowledge, and perceived symbolic value of the electric car positively affect consumers' purchase intention. On the other hand, social and financial risk avoidance, perceived symbolic value of the electric car, and the number of cars per family show a negative affect [41].

Consumers' intentions towards the electric vehicle purchase are a mixture of demographic, situational, contextual, and psychological factors. According to [42–48], psychological factors and demographic profiles have a positive impact on EV purchase intention. Situational and contextual factors are more dependent on consumers' willingness to change, utility, and public acceptance [49–52], along with attitude, PBC, and perceived risk [36,37].

2.2. Theories, Models, and Hypotheses

There are several types of electric vehicle, namely hybrid electric vehicles (HEVs), plug-in hybrid electric vehicles (PHEVs), battery electric vehicles (BEVs), and fuel cell electric vehicles (FCEVs). The theoretical approach in this study uses the integration of UTAUT2 theory, risk perception, and TPB to predict interest in adopting electric vehicles in Indonesia. The process of evaluating consumers based on benefits obtained, environmental influences [53], experiences, knowledge, and previous historical learning [54] has a close relationship with the conception of interest that leads to the behavior of technology adoption [24,26].

In the conceptual model formed, TPB, consisting of ATU, SBN, and PBC, is used to directly predict interest in adoption behavior [24], thereby making the variables good mediators in increasing interest in technology adoption. The UTAUT2 model comprising performance and effort expectancies, habit, price value, and hedonic motivation affects attitudes, while facilitating conditions affect PBC [32]. According to [30,31], the perceived risk model consists of physical, performance/functional, financial, social, and time risk, which play a significant role in influencing changes in individual behavior in adopting technology [30,31]. Figure 1 shows the conceptual study model.

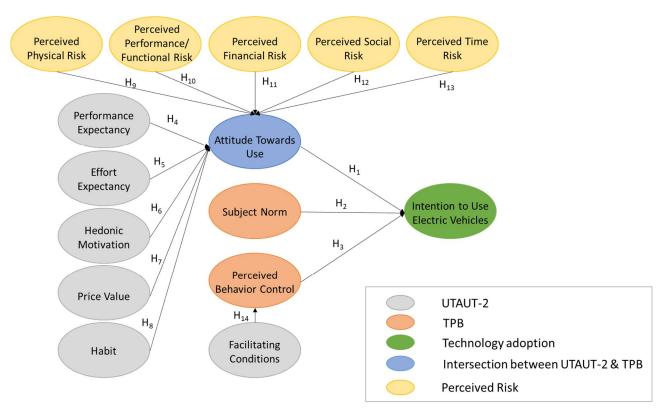


Figure 1. Study Conceptual Model.

2.2.1. Determinants of Interest in Using Electric Vehicles

The TPB approach discusses individual behavior based on logical judgments and information analysis results to reduce negative consequences due to poor decisions [55]. The discussion in the first model explains the relevance of TPB, consisting of three variable constructs, namely attitude toward behavior, SBN, and PBC [24], which are used to predict interest in using electric vehicles. This theoretical construct can predict interest in adopting technology [56].

The first factor determining interest in using electric vehicles is the attitude toward behavior. The theoretical concept of this factor speaks of an individual's evaluation of the behavior, which does not have a negative impact [23]. This means that the higher the positive assessment of a product or service, the stronger the urge to take certain actions that lead to the adoption of the product or service [55]. The feeling of liking, comfort, and happiness while reflecting on a product or service leads to adoption behavior [26]. Urgency, perception of the best choice, and support for useful actions are attributes of attitude toward behavior considered capable of influencing individual interest in adopting technology [44]. Therefore, the hypothesis formed is as follows:

Hypothesis 1 (H1). Attitude Toward Use (ATU) positively affects an interest in using electric vehicles in Indonesia.

The second factor considered to affect interest in using electric vehicles in Indonesia is SBN. This factor is associated with the emergence of social pressure while performing a certain behavior [23]. This means that the greater the social pressure that arises in formal or non-formal legal consequences from the government and the surrounding environment, such as close and influential people, the higher the possibility of a person performing certain behaviors [57]. Support and encouragement from family, close friends, coworkers, and media propaganda as attributes of SBN [44] contributed positively to the adoption of a technology [32]. Based on this, the hypothesis is formed as follows:

Hypothesis 2 (H2). Subjective Norm (SBN) has a positive effect on interest in using electric vehicles in Indonesia.

The third factor of the TPB model is PBC, which has an effect on interest in the adoption of electric vehicles in Indonesia. The theoretical concept of this factor evaluates the perception of the level of difficulty or convenience felt by individuals as a reflection of their past experiences while adopting or using a technology, product or service [23]. This indicates that the higher the individual's confidence in controlling certain situations supported by the availability of resources and opportunities, the higher the perceived ability to control these behaviors [23,55]. Individual interest in using a technology is influenced by beliefs, resource capabilities, and opportunities [32]. Based on this, the following hypothesis was formed:

Hypothesis 3 (H3). *Perceived Behavior Control (PBC) positively affects interest in using electric vehicles in Indonesia.*

2.2.2. ATU Determinants of Electric Vehicles

This section discusses two models that influence ATU of electric vehicles. The first are the 5 UTAUT2 variables, namely performance expectancy model, effort expectancy, hedonic motivation, price value, and habit, in influencing ATU, divided into hypotheses 4–8 (H4–H8). The second model is the role of perceived risk, which consists of components of physical, performance/functional, financial, social, and time risk in influencing ATU of electric vehicles in Indonesia, divided into hypotheses 10–14 (H10–H14). The UTAUT2 model developed by Venkatesh et al. [27] was formed to measure the interest that directs behavior towards the use of technology, based on 6 variables, namely performance and

effort expectancies, hedonic motivation, price value, habit, and facilitating conditions. Yuen et al. [32] integrated the UTAUT2 and TPB models to predict interest in adopting technology. Meanwhile, Lee [33] integrated the model of perceived risk, TAM (Theory Acceptance Model), and TPB to predict interest in adopting technology. However, this study aims to combine the two concepts in the perceived risk model, UTAUT2 and TPB, to predict interest in adopting electric vehicles.

In the first model, the measurement considered to affect the attitude toward the use of electric vehicles is the perception of performance. The attitudes that underlie individuals' like or dislike of something are based on performance appraisals of an object. This means that the better the performance of an object, the higher the individual's positive preference [23,55,58]. Individuals with the belief that technological performance provides benefits for their lives provide positive attitudes which encourage others to use the product [32]. Based on this, the following hypothesis was formed:

Hypothesis 4 (H4). *Performance Expectancy (PE) positively affects attitudes toward the use of electric vehicles in Indonesia.*

The second measurement is the contribution of effort expectancy to attitude toward the use of electric vehicles. The definition of the concept of effort expectancy theory talks about the effort needed to master or become skilled while using a technology [26]. This approach is similar to the theory of perceived ease of use developed by Davis in 1989 regarding the extent to which individuals believe that using technology does not require high effort [25]. However, the concept of UTAUT2 theory was developed from TAM. The ease of using technology leads to a positive attitude [58], low complexity, and feelings of comfort and pleasure [32]. Based on this, the following hypothesis was formed:

Hypothesis 5 (H5). Effort Expectancy (EE) positively affects attitudes toward use (ATU) of electric vehicles in Indonesia.

The third measurement is the contribution of hedonic motivation to ATU of electric vehicles. Hedonic motivation concerns the pleasure or happiness felt while using a technology [27]. Individuals who have the perception that using technology will make them feel happy will be more attached to it and tend to ignore rationality factors [27]. Psychological drives such as satisfaction, pride, emotions, and other subjective feelings are factors that give rise to this motivation [59]. This indicates that the higher the individual's hedonic motivation, the higher the positive assessment of the use of technology [32,60]. This led to the following hypothesis:

Hypothesis 6 (H6). *Hedonic Motivation (HM) positively affects attitudes toward use (ATU) of electric vehicles in Indonesia.*

The fourth measurement concerns the price value of ATU of electric vehicles from the consumer's perspective [61]. The costs incurred and the perceived benefits are evaluated while adopting technology. Supposing the benefit/value obtained from technology is high. If it exceeds the individual expectation, then the value of the appropriate product is likely to be higher, thereby achieving various satisfaction rates [27]. Negative perceptions of the price of a product leads to individual distrust and low interest in usage [62]. Meanwhile, a positive attitude is portrayed by individuals that feel the product has an advantage in terms of price [32]. Based on this, the following hypothesis was formed:

Hypothesis 7 (H7). *Price Value (PV) has a positive effect on attitudes toward use (ATU) of electric vehicles in Indonesia.*

The fifth measurement concerns the influence of habits on ATU of electric vehicles. Habit is defined as previous behavior naturally repeated due to previous experiences

learned by individuals regarding various factors, which become preferences because they are considered useful [27]. However, previous behavior, often carried out, is not directly able to control the performance of future habits, because these are formed from the evaluation process and considered important and useful [63], capable of predicting future behavior [64]. The study conducted by Yuen et al. [32] shows that habits formed due to the developed technology positively affect attitudes. The concept of habit based on Venkatesh et al. [27] is aimed at respondents with experience using the internet. The concept of habit tested in this study is related to habits in the past that impact future decisions. Certain technologies, such as conventional oil-fueled vehicles, lead to a positive and inverse assessment. Therefore, the indicator will be formed with negative questions, and then a reverse score assessment process will be carried out in processing the data to test the consistency of the respondents' answers. Based on this, the following hypothesis was formed:

Hypothesis 8 (H8). *Habit (HB) has a positive effect on attitudes toward the use of electric vehicles in Indonesia.*

The second model concerns perceived risk, which is considered to affect ATU. The perception of risk is related to choices and decision-making in which there are uncertain conditions on the final outcome and consequences [65]. Risk is also related to matters relating to potential losses, costs, and benefits in uncertain and unknown situations [66]. At the beginning of its development, perceived risk consists of two dimensions, namely uncertainty and negative potential (losses) [30]. Over time, this develops dimensions including performance, social, physical, financial, psychological, psychosocial, and time risk [67]. However, this study analyzes the dimensions of physical, performance/functional, financial, social, and time risk influential ATU of electric vehicles [30,31].

The first measurement concerns the perceived physical risk attitude toward the use of electric vehicles, which can be physically harmful when individuals adopt the technology [30]. This danger is not only to individual adopters but also to families that simultaneously adopt the technology [31]. Perceptions of physical harm from innovation lead to negative attitudes toward the product, which results in individuals being resistant and even reluctant towards its adaptation [68]. The safety factor influences consumer attitudes [69,70]. This means that the higher the perception of physical and health hazards that arises from adoption behavior, the lower the individual's positive assessment [31,71]. Based on this, the following hypothesis was formed:

Hypothesis 9 (H9). *Perceived Physical Risk (PPR) has a negative effect on attitudes toward use (ATU) of electric vehicles in Indonesia.*

The second measurement concerns perceived performance/functional risk in ATU of electric vehicles. Performance uncertainty raises the functional risk, which deals with the perception that product innovations may not fully function properly after passing through the trial stage [68]. This indicates a risk of failure of the product and service that allows for consumer dissatisfaction [30]. The belief that the product has passed various tests leads to a positive attitude toward it [72], while the reverse is negative [31]. Consumers are sometimes reluctant to adapt to a technology, specifically those with a high potential risk of performance failure [73]. Based on this, the following hypothesis was formed:

Hypothesis 10 (H10). *Perceived Performance/Functional Risk (PFR) has a negative effect on attitudes toward use (ATU) of electric vehicles in Indonesia.*

The third measurement is of perceived financial risk in ATU of electric vehicles. Financial risk is defined as the possibility that consumers will experience losses because they pay higher than the actual price needed to obtain the product [74]. In other words, consumers are at risk of not obtaining maximum financial benefits while buying products/services [30].

This occurs because there is uncertainty related to an innovative product, which is considered new; therefore, consumers do not have sufficient knowledge on its current or future price, investment feasibility, or operational costs [73]. Clarity on the financial burden that individuals sometimes incur while adopting technologies such as electric vehicles raises consumers' positive perspectives [75]. Sensitivity to price changes and fears about future cost increases lead to negative attitudes regarding adopting technologies such as electric vehicles [31]. Based on this, the following hypothesis was formed:

Hypothesis 11 (H11). *Perceived Financial Risk (PFIN) has a negative effect on attitudes toward use (ATU) of electric vehicles in Indonesia.*

The fourth measurement concerns the effect of perceived social risk on ATU of electric vehicles. Social risk refers to the possibility of a person obtaining negative judgments [30], loss of social relationships, and social discomfort [74] due to the behavior/choices they make [65]. In this context, the environment significantly contributes to the behavior and choices of individuals. Social values obtained from the views and opinions of other people are considered important because leaders and experts increase individual confidence in making choices [76]. In certain products such as electric vehicles, the perceived level of social risk pressure is higher [72] because they are products with a fairly high price qualification. However, individuals are likely to reject and show negative attitudes toward product innovations due to the risk of experiencing social exclusion or negative responses from the surrounding environment, such as family, friends, and coworkers [68]. Negative response from the environment to an innovative product such as an electric vehicle leads potential consumers to react negatively to the product. Based on this, the following hypothesis was formed:

Hypothesis 12 (H12). *Perceived Social Risk (PSR) has a negative effect on attitudes toward use (ATU) of electric vehicles in Indonesia.*

The fifth measurement is of perceived time risk and its effect on ATU of electric vehicles by individuals, to determine lost time [48]. This is in addition to futile efforts to make them uncomfortable while making decisions about buying or adopting products and services [30]. Individuals concerned with adopting innovative technology, such as electric vehicles, need long investment and high costs to affect attitudes to the product and to delay adoption [73] negatively. The risk perception of wasting time, effort, and the emergence of discomfort while using the product makes individuals have a negative attitude toward the product [77]. Furthermore, new products, such as consumer electric vehicles, may require more time and cost sacrifices than conventional ones [31]. Based on this, the following hypothesis was formed:

Hypothesis 13 (H13). *Perceived Time Risk (PTR) has a negative effect on attitudes toward the use of electric vehicles in Indonesia.*

2.2.3. PBC Determinants of Electric Vehicles

This study discusses the role of facilitating conditions on PBC using objective factors, such as the external environment and the availability of resources that allow an action to be carried out more easily [78,79]. Venkatesh et al. [26] stated that facilitating conditions affect the extent to which individuals believe that infrastructure, technical support, and other facilities are available when they adopt or use technology, products, and services. Individuals with a feeling of control over the environment because of conditions and the availability of supporting facilities foster positive attitudes and perceptions towards the adoption of a technology [80]. The availability of facilities increases PBC by shaping preferences for ability and willingness to adopt technology [32]. Based on this, the following hypothesis was formed:

Hypothesis 14 (H14). *Facilitating Conditions (FCs) positively affect the perceived behavior control (PBC) of electric vehicles in Indonesia.*

3. Methodology

The model constructs shown in Figure 1 were conducted using an integrated approach to UTAUT2 (performance and effort expectancies, habit, price value, hedonic motivation), perceived risk (physical risk, performance/functional risk, financial risk, social risk, and time) and TPB (ATU, SBN, and PBC). The next subchapter explains the sample, variable concept and measurement and prepares the study instruments and methods.

3.1. Sample and Sampling Technique

The minimum number of samples in this study was determined by multiplying the number of questions by five [81] to obtain 360 respondents (72 question indicators x 5). The purposive sampling judgment technique was used, which requires the respondent to be at least 17 years old and above before using a vehicle and obtaining a license in Indonesia. A total of 526 data samples were collected from 15 major cities in Indonesia, namely Jakarta, Surabaya, Medan, Bekasi, Bandung, Makassar, Depok, Tangerang, Palembang, Bandar Lampung, Batam, Bogor, Padang, Pekanbaru, and Malang, from July 2021 to December 2021 using Google forms in the Indonesian language.

3.2. Measurement and Variable Concept

This study consists of 15 latent variables, which can only be measured directly using two or more study instruments. The endogenous or dependent latent variables used act as mediators towards use and PBC. Meanwhile, exogenous or independent variables are subjective norms consisting of the UTAUT2 model, performance and effort expectancies, hedonic motivation, price value, habit, and facilitating conditions. Others include perceived risk models, namely physical, performance/functional, financial, social, and time risk.

3.3. Questionnaire Design

The questionnaire model is divided into three parts. The first analyzed the aims and objectives of the study for the respondents, and the second gathered their demographic data. The third is the question instrument regarding the study variable intention to use five question indicators. These include ATU (five question indicators), PBC (five question indicators), SBN (five question indicators), performance expectancy (four question indicators), and effort expectancy (fur question indicators). Others are hedonic motivation (six question indicators), price value (four question indicators), habit (four question indicators), facilitating condition (six question indicators), physical risk (five question indicators), performance/functional risk (five question indicators), financial risk (six question indicators), social risk (fur question indicators), and time risk (fur question indicators), thereby culminating in 72 items. A Likert scale of 1–5 was used in this study, where a score of 1 and 5 denotes the opinion of "strongly disagree" and "strongly agree."

The questionnaire operability can be found in Table 1 below. Numerous questions on construct indicators were reconstructed from the original sources in order that Indonesian respondents could understand them easily. Furthermore, four indicators were used to eliminate the model testing process. The reverse score during data processing was applied to variables with negative questions (-), as shown in Appendix A.

Table 1. Operability Indicator.

Attribute Theory	Research Variable	Operability Indicator	Reference
	Intention To Use	considerations for using, plan to use, willingness to use, impulse of desire, imagining using	[27,33,44]
ТРВ	Subjective Norm	encouragement family, friends, advertising, incentives, and work environment	[44]
	Perceived Behavioral Control	freedom of choice, financial ability, belief in personal abilities, knowledge capability, pessimism	[32,44]
	Attitude Toward Use	urgency to use, right ideas, supportive role, positive ideas, value benefits	[32–44]
	Performance Expectancy	support work activities, friendly to environment, save expenses/costs, increase my work productivity	[27]
	Effort Expectancy	ease of learning, understanding, using and being skilled	[27]
UTAUT-2	Facilitating Condition	availability of sales facilities, refueling electricity, incentives to increase electricity power, safe technology, help center, compatible with conventional vehicles	[27,32]
	Hedonic Motivation	the perception of getting pleasure, comfort, pride, social status, convenience over price, pride in being a pioneer	[27]
	Price Value	reasonable price, value obtained, best price, quality and price	[27]
	Habit	habit of use, attachment, possibility to use, reluctant to try	[27]
	Perceived Physical Risk	risk of accident, seeking charging, risk from charging, risk from battery temperature, risk when exposed to flood	[31,73]
Perceived Risk	Functional Risk	decrease in battery quality, maintenance difficulties, problems when using, incompatibility of battery sensors, lack of technical support	[31]
	Perceived Financial Risk	perceived price reductions, increased expenses, difficult to accept by the market, decreased selling points, high maintenance costs, required additional costs	[31]
	Perceived Social Risk	presumption of arrogant and ostentatious, family pressure, environmental pressure, negative influence from experts	[31]
	Perceived Time Risk	lost a lot of time charging, studying, understanding and waiting time for orders	[31]

3.4. Demographic Data

Table 2 shows the characteristics of 526 respondents used. The frequency distribution based on gender was relatively balanced, with 51% males and 49% females. The highest age range was 26–34 years (36.5%), followed by 17–25 years (35.2%), 35–43 years (24%), and over 44 years (4.4%). Married respondents were 63.9%, unmarried is 35.9%, while the remaining 0.2% are divorced. The highest education levels were Bachelor's Degree (66.5%), Senior High School (23.4%), other D1–D3 39 (7.4%), Master's Degree (2.3%), Doctoral Degree (0.2%), and Junior High School (0.2%).

Table 2. Respondent Demographics Data.

Characteristics	Category	Frequency ($n = 526$)	Proportion
6 1	Female	258	49.0%
Gender	Male	268	51.0%
	17–25	185	35.2%
A	26–34	192	36.5%
Age	35–43	126	24.0%
	>44	23	4.4%
	Married	336	63.9%
Marital Status	Unmarried	189	35.9%
	Other/divorced	1	0.2%
	Junior High School	1	0.2%
	Senior High School	123	23.4%
T.1	Bachelor's Degree	350	66.5%
Education	Master's Degree	12	2.3%
	Doctoral Degree	1	0.2%
	Other	39	7.4%
	<5 million IDR	166	31.6%
	5-15 million IDR	315	59.9%
Income	15-25 million IDR	30	5.7%
	25-35 million IDR	8	1.5%
	>35 million IDR	7	1.3%
	Jakarta	174	33.1%
	Surabaya	39	7.4%
	Medan	6	1.1%
	Bekasi	24	4.6%
	Bandung	84	16.0%
	Makassar	4	0.8%
	Depok	12	2.3%
D ' '1	Tangeran	33	6.3%
Domicile	Palembang	4	0.8%
	Bandar Lampung	3	0.6%
	Batam	32	6.1%
	Bogor	46	8.7%
	Padang	1	0.2%
	Pekanbaru	6	1.1%
	Malang	56	10.6%
	Other Cities	2	0.4%
Jser Conventional	Yes	493	93.7%
Vehicle	No	33	6.3%
Have Knowledge	Yes	429	81.6%
About E.V	No	97	18.4%

Approximately 59.9% earned between IDR 5–15 million (59.9%), 31.6% below IDR 5 million (31.6%), and the remaining 8.5% above IDR 15 million. The domicile of the respondents varied, with 33.1% living in Jakarta, and the rest scattered in other cities. Conventional vehicle users accounted for 93.7%, while 6.3% did not use this type of car. Meanwhile, based on knowledge, 81.6% of respondents knew about electric vehicles, as opposed to the remaining 18.4%.

3.5. Analysis Technique

Path analysis in this study uses the Structural Equation Model (SEM) approach consisting of two basic components. The first is a structural model that connects the path of influence between independent and dependent variables, while the second is a measurement model that allows the use of several indicators to measure independent, dependent,

and SEM variables simultaneously. Therefore, estimation of a separate regression model can be considered accurate [82].

This model must meet various assumptions, including validity testing with the recommended loading factor (λ) at a value of \geq 0.7 (within range 0.4 to 0.95) for each study instrument [82]. The reliability testing has recommended minimum and maximum CR (composite reliability) values of 0.6 and 0.95 (0.6 \leq CR \leq 0.95). This is in addition to the minimum and maximum AVE (average variance extracted) value of 0.5 [83] and 0.90 (0.5 \leq AVE \leq 0.90). In addition, the model fit assumptions that need to be met using the SEM approach include the values of GFI, AGFI \geq 0.80 [84–89], RMSEA \leq 0.07, CFI \geq 0.90 [82], TLI \geq 0.90 [86], and CMIN/DF \geq 3 [87,90].

4. Results

4.1. Measurement Model Results

In SEM testing, the measurement model must be able to meet the minimum standards set theoretically. The measurement model was used to test the study's validation instrument using a loading factor (λ) assessment ranging from 0.4–0.7 [82], while still considering the adequacy of the question instrument. The next step is to analyze the suitability of CR and AVE standards to determine the reliability of the study data. The process is shown in Table 3.

Table 3. Process of Validity and Reliability Construct.

		Ini	tial Model		Final N	Model	
Construct	Indicator	Loading Factor (λ)	CR	AVE	Loading Factor (λ) & Elimination Stage	CR	AVE
	ATU1	0.841			Elimination 23		
	ATU2	0.888			0.884		
Attitude Toward Use	ATU3	0.876	0.944	0.771	0.879	0.936	0.785
	ATU4	0.894			0.891		
	ATU5	0.891			0.890		
	EE1	0.989			Elimination 22		
Effect Essession	EE2	0.983	0.055	0.042	0.915	0.000	0.020
Effort Expectancy	EE3	0.833	0.955	0.842	0.888	0.932	0.820
	EE4	0.855			0.914		
Facilitating Condition	FC1	0.935			0.940		0.785 0.785 0.820 0.841 0.841 0.27 0.809
	FC2	0.901			0.899		
	FC3	0.911			0.911		
	FC4	0.431	0.869	0.547	Elimination 1	0.941	
Containon	FC5	0.440			Elimination 2		
	FC6	0.622			Elimination 6		
	HB1	0.566			Elimination 3		
	HB2	0.889			0.873		
Habit	HB3	0.917	0.895	0.687	0.924	0.927	0.809
	HB4	0.892			0.900		
	HM1	0.844			0.889		
	HM2	0.860			0.883		
Hedonic	HM3	0.831			0.808		
Motivation	HM4	0.778	0.919	0.654	Elimination 15	0.895	0.741
111011111111111	HM5	0.749			Elimination 13		
	HM6	0.785			Elimination 14		
	ITU1	0.849			0.820		
	ITU2	0.852			Elimination 21		
Intention to Use	ITU3	0.834	0.924	0.708	Elimination 20	0.883	0.716
	ITU4	0.834		200	0.856	2.300	3.7.10
	ITU5	0.837			0.862		

Table 3. Cont.

Construct		Ini	tial Model		Final I	Model	
	Indicator	Loading Factor (λ)	CR	AVE	Loading Factor (λ) & Elimination Stage	CR	AVE
Perceived Behavior Control	PBC1 PBC2 PBC3 PBC4 PBC5	-0.855 -0.888 -0.888 -0.589 0.573	0.777	0.597	0.859 0.883 0.894 Elimination 5 Elimination 4	0.910	0.772
Performance Expectancy	PE1 PE2 PE3 PE4	0.588 0.622 0.828 0.825	0.812	0.525	Elimination 7 Elimination 8 0.829 0.853	0.829	0.707
Perceived Financial Risk	PFIN1 PFIN2 PFIN3 PFIN4 PFIN5 PFIN6	0.806 0.819 0.815 0.808 0.827 0.833	0.924	0.669	Elimination 18 0.809 0.809 Elimination 19 0.833 0.843	0.894	0.678
Perceived Performance/ Functional Risk	PFR1 PFR2 PFR3 PFR4 PFR5	0.828 0.821 0.774 0.720 0.781	0.889	0.617	0.789 0.851 0.798 Elimination 11 Elimination 17	0.854	0.661
Perceived Physical Risk	PPR1 PPR2 PPR3 PPR4 PPR5	0.760 0.724 0.805 0.828 0.768	0.884	0.605	Elimination 16 Elimination 9 0.776 0.875 0.754	0.845	0.645
Perceived Social Risk	PSR1 PSR2 PSR3 PSR4	0.766 0.833 0.822 0.650	0.853	0.595	0.758 0.835 0.825 Elimination 10	0.848	0.651
Perceived Time Risk	PTR1 PTR2 PTR3 PTR4	0.726 0.796 0.831 0.780	0.864	0.615	Elimination 12 0.761 0.850 0.795	0.844	0.645
Price Value	PV1 PV2 PV3 PV4	0.851 0.884 0.868 0.819	0.916	0.732	0.850 0.885 0.868 0.819	0.916	0.732
Subjective Norm	SBN1 SBN2 SBN3 SBN4 SBN5	0.855 0.848 0.822 0.852 0.860	0.927	0.718	0.855 0.848 0.822 0.852 0.860	0.927	0.718

As shown in Table 2, the data elimination process was carried out with 23 stages on 23 study instruments considered to have a loading factor (λ) lower and higher than the predetermined value. Meanwhile, data elimination was in the range of values that met the standards as in ATU1, HM4, HM5, HM6, ITU2, ITU3, PFIN1, PFIN4, PFR4, PFR5, PPR1, PPR2, and PTR4, conducted to obtain a good model fit value by eliminating the lowest loading factor (λ) for each variable on changes in the CR and AVE values. The data elimination process is quite accurate because it was conducted using the direct loading factor (λ), CR, and AVE values to meet the recommended validity and reliability standards. These increased the value of the model fit test (GFI = 0.712 \rightarrow 0.836; AGFI = 0.693 \rightarrow 0.819; CFI = 0.895 \rightarrow 0.940; TLI = 0.891 \rightarrow 0.937; RMSEA = 0.048 \rightarrow 0.042, CMIN/DF = 2.193 \rightarrow 1.945) to meet the standard set value as shown in Figure 2.

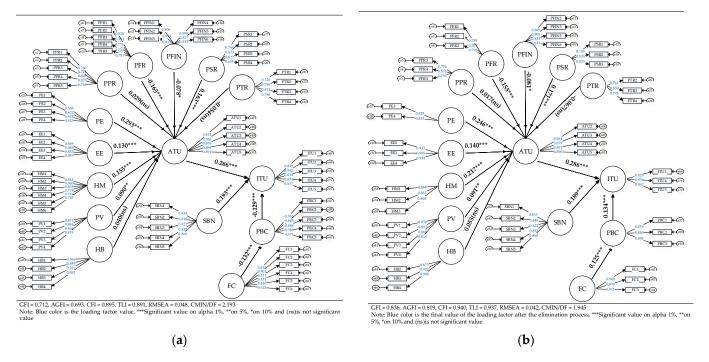


Figure 2. Process of Structural Equation Modeling (SEM) Test. (a) Initial Std. Estimates SEM Before Data Elimination. (b) Final Std. Estimates SEM After Data Elimination.

Therefore, the total study instrument used in this study is 49 indicators. All of these instruments are declared suitable for use and capable of being parameters for the variables they represent. Therefore, the model is considered quite good in estimating changes in the dependent variable with the intention to use electric vehicles because it has fulfilled the assumption value in the model fit.

4.2. Structural Model Results

The structural model explains the ability of the independent variable to estimate the dependent based on the hypothesis formed. This analysis was performed to fulfill the measurement model assumptions, namely validity, reliability, and model fit, to ensure the variables are properly estimated. An independent variable is considered capable of estimating the dependent assuming that the statistical significance value (p-value) is lower than the study error tolerance (alpha 10%, 5%, or 1%) [82]. Figure 2 shows that most of the independent variables are able to predict/affect changes in the dependent as opposed to others.

4.2.1. Hypothesis Test Results' Predictors of Interest in Using Electric Vehicles

The results showed that ATU positively affected interest in using electric vehicles in Indonesia (β = 0.286, p = 0.000). This supports the studies conducted by Yuen et al. [32], Huang and Ge [44], Sanayei and Bahmani [69], and Lee [33], stating that electric vehicles provide many positive benefits, such as a decrease in air pollution levels. This means that the higher the public awareness of the positive benefits obtained using electric vehicles, the higher the incentive to use electric vehicles in the future. These variables have the highest influence compared to the subjective norm and facilitating condition variables, therefore their role makes a very important contribution to stimulus for the use of electric vehicles in Indonesia.

The use of electric vehicles is also influenced by SBNs ($\beta = 0.189$, p = 0.000), which are the second-largest explanatory variable considered to have a positive effect on peoples' interest its usage. These results are in accordance with the studies by Yuen et al. [32], Huang and Ge [44], Safeena et al. [91], Sanaeyi and Bahmani [69], and Lee [33]. According to these, the higher the social pressure from the individual's environment to use electric vehicles,

the greater their interest in usage in the future. Social pressure in this respect does not refer to coercive pressure, but rather to the psychological influence caused by the environment on the adoption of electric vehicles, such as family, friends, workplace, and invitations through advertisements or gratuities. Furthermore, incentives are provided to create social pressure on individuals to try and adopt electric vehicles.

PBC positively affects the interest in adopting electric vehicles (β = 0.134, p = 0.005). These results support the studies by Yuen et al. [32], Huang and Ge [44], Safeena et al. [91], Sanaeyi and Bahmani [69], and Lee [33]. According to them, the higher the individuals' beliefs in an electric vehicle, the higher their interest in adopting and using it appropriately. Individuals with high control over their financial circumstances may have a positive attitude to buying and using electric vehicles in the future.

4.2.2. The Results of Hypothesis Testing Predictors of ATU of Electric Vehicles

Performance expectancy (PE) has a positive effect on ATU of electric vehicles (β = 0.246, p = 0.000). These results are in accordance with the studies by Yuen et al. [32], Thomas et al. [58], and Venkatesh et al. [26,27]. They stated that the better the individual's assessment of the performance of electric vehicles, the greater the benefits. Individuals perceive that the use of electric vehicles tends to save costs and increase work productivity, thereby increasing positive perceptions of the product.

Effort expectancy (EE) positively affects attitudes toward the use of electric vehicles (β = 0.140, p = 0.002). These results support the studies by Yuen et al. [32], Thomas et al. [58], Venkatesh et al. [26,27], and Lee [33]. According to them, those who feel that electric vehicles are easy to understand, learn about and benefit from, thereby adopt positive perceptions to their adaptation in Indonesia.

Hedonic motivation (HM) positively affects ATU of electric vehicles (β = 0.217, p = 0.000). These results are consistent with the studies by Yuen et al. [32] and Le Roux and Maree [60]. The higher the perception of happiness and pleasure obtained while using electric vehicles, the greater the positive assessment. Individuals with a perception of obtaining pleasure and comfort while using these products tend to have a positive attitude, which promotes future use.

Price value (PV) positively affects ATU of electric vehicles (β = 0.091, p = 0.042, sig. at 5%). These results are consistent with the study by Yuen et al. [32], stating that an increase in positive perception of the value of electric vehicles leads to a higher assessment of usage. Furthermore, individuals with a belief that the price of electric vehicles is directly proportional to the quality of the product tend to behave positively and support the electric vehicle acceleration program, thereby generating interest in use in the future.

Habit (HB) positively affects attitudes toward the use of electric vehicles at an insignificant level ($\beta = 0.055$, p = 0.217). These results are not consistent with the study by Yuen et al. [32] but support the theory of Ajzen [63], which explains why past behavior does not directly control future behavior.

Perceived physical risk (PPR) has no negative effect on ATU of electric vehicles ($\beta = 0.017$, p = 0.725). The results of this study contradict the studies by Choi et al. [71] and Sanayei and Bahmani [69] but are consistent with Majali's [31]. Perceptions of physical hazards while using electric vehicles do not lead individuals to perceive electric vehicles negatively.

Perceived performance/functional risk (PFR) has a negative effect on ATU of electric vehicles ($\beta = -0.155$, p = 0.002). These results are consistent with the studies by Majali [31] and Sanayei and Bahmani [69], stating that the higher the possibility of functional risk arising in electric vehicles, the lower the individual's positive perception of electric vehicles. Therefore, those who feel electric vehicles are likely to have problems with the battery, maintenance, and other constraints tend to have a negative attitude and are reluctant in adapting to usage.

Perceived financial risk (PFN) has a negative effect on ATU of electric vehicles ($\beta = -0.081$, p = -0.080, sig. at 10%). These results are consistent with the studies by

Majali [31] and Sanayei and Bahmani [69], stating that the higher the potential for financial loss, the more negative an individual's assessment of electric vehicles. For instance, those who think that purchase will cause an increase in financial burdens, such as electricity, maintenance costs, and purchase of spare batteries, tend to have a negative attitude towards purchasing and using electric vehicles.

Perceived social risk (PSR) positively affects ATU of electric vehicles (β = 0.171, p = 0.000). This contradicts the study by Majali [31] and Sanayei and Bahmani [69], which stated that the higher the social pressure to use electric vehicles, the greater the positive evaluation of electric vehicles. Therefore, individuals resistant to the pressures of the social environment, such as family and work environment, tend to be confident and possess a more positive attitude toward electric vehicles.

Perceived time risk (PTR) has a negative effect on ATU of electric vehicles at an insignificant level ($\beta = -0.067$, p = 0.156). These results are inconsistent with the studies by Majali [31] and Sanayei and Bahmani [69], stating that perceptions of the possibility of individuals losing time while buying and using electric vehicles do not lead to negative evaluations of electric vehicles.

4.2.3. Hypothesis Test Results Predictors of PBC of Electric Vehicles

Facilitating condition (FC) positively affects PBC of electric vehicles (β = 0.125, p = 0.008). These results are in accordance with the studies conducted by Yuen et al. [32], Kumi et al. [80], and Teo [79], stating that the higher the availability of adequate facilities for electric vehicles, the greater the confidence. Individuals who feel that the government is working hard to prepare infrastructure and various incentives while buying and using electric vehicles are more confident adapting to usage.

5. Discussion

The theoretical integration approach of TPB, UTAUT-2, and risk perception in this study aims to determine the effect of theoretical constructs on interest in using electric vehicles. Figure 2 shows that the TPB model can adequately predict interest in using electric vehicles in Indonesia. Interest in using electric vehicles can be estimated by ATU, influenced by the UTAUT2 and perceived risk models. This illustrates that individual positive assessments influence interest in using electric vehicles and ratings of the products influenced by perceptions of performance and effort expectancies, hedonic motivation, price value, functional risk, financial risk, and social risk. Therefore, changes in the assessment of this factor directly or indirectly impact individual interest. Another factor of the TPB model considered to influence users' interest in using electric vehicles is the SBN and PBC, which are influenced by the facilitating condition. The TPB, UTAUT2, and perceived risk constructs can be well integrated into predicting interest in using electric vehicles. However, the habit factors, perceived physical, and time risk in the UTAUT2 are not able to estimate this factor on the ATU of electric vehicles.

This study contributes to Indonesia's policyholders and business actors within the electric vehicle automotive industry. The sensitivity of the positive assessment of the Indonesian people toward this product is influenced by perceptions and judgments on risk, therefore education, publication, and proper introduction must be increased by policymakers and automotive industry players. An understanding of the benefits of adopting and using electric vehicles and the consequences and losses that potential consumers can avoid must be communicated properly through the media. Education and provision of information need to be continuously carried out in public areas. The government must also be able to provide supporting facilities such as independent and public electric charging stations.

This study provides new insights into the development model of Yuen et al. (2020) integrated with the theoretical construct of risk perception. It is also beneficial in providing benefits for knowledge development, but with some weaknesses in its theoretical construction. Therefore, the model validation needs to be retested with a wider area and larger sample to ensure it is more valid and can be generalized. The respondents used in this

study are not focused on users of electric vehicles, due to the small population of owners. Further study needs to be conducted using a wider sample of electric vehicle users to determine habit constructs, perceived time and physical risk accurately. The financial risk factors and price value have similar constructs, therefore further study is recommended to combine them.

6. Conclusions

The highly urgent shift from conventional vehicles to electric vehicles must be carried out in Indonesia as part of its green roadmap. This study was conducted to understand the factors that encourage consumers to purchase and use electric vehicles in Indonesia. Quantitative causality methods using the Structural Equation Modeling approach are expected to provide a complete picture of the factors affecting consumers use of electric vehicles. This study also provides a new approach that merges the use of TPB, UTAUT-2, and Perceived Risk models.

The result indicates that predictors for intention to use electric vehicles, including Attitude Toward Use (ATU), Subjective Norm (SN), and Perceived Behavioral Control (PBC), can assist prediction of interest in using electric vehicles in Indonesia. The model constructed in this research examines the effect of the risk perception variable on attitudes toward use of electric vehicles. The results of this study indicate that only perceived functional risk and financial risk factors have a negative effect on the attitude toward the use of electric vehicles, while the perceived physical risk, time risk, and social risk factors contradict the results of previous studies.

However, some inconsistency with the results of previous studies calls for further research to find discrepancies in the results of this study. The use of control variables such as demographic data in the modeling of future research is likely to provide a better representation in order to deal with the inconsistency of the results of this study.

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Appendix A

Table A1. Questionnaire Construct, Measurement, and Sources.

Construct	Item	Measurement	Sources
	ATU1 ATU2	Using electric vehicles is an important thing. Using an electric vehicle might be a good idea.	[44]
Attitude Toward Use (ATU)	ATU3	By buying and using an electric vehicle, I can play an active role in supporting the government's electric vehicle acceleration program.	[33]
(AIO)	ATU4	I think the program to accelerate the procurement of electric vehicles is a positive/beneficial thing.	[32]
	ATU5	I'm happy if in the end, the electric vehicle I buy can reduce pollution.	

Table A1. Cont.

Construct	Item	Measurement	Sources
	SBN1	If my family and relatives had bought and used an electric vehicle, maybe I would too.	
	SBN2	Maybe I will be interested in using an electric vehicle if my close friends recommend it.	
Subjective Norm (SBN)	SBN3	Advertisements about electric vehicles in various media can promote me to buy and use electric vehicles.	[44]
(SBIN)	SBN4	The tax incentives offered by the government (free transfer fees for electric vehicles)	
	SBN5	made me interested in using electric vehicles. If the environment I work in uses electric vehicles, I might as well use them.	
	PBC1	I have the freedom to decide, whether to electric vehicle or not.	
Perceived Behavioral	PBC2	I have the financial ability to buy an electric vehicle in the future.	F447
Control	PBC3	If I want it, I can definitely buy and use an electric vehicle for my next vehicle purchase.	[44]
(PBC)	PBC4	I have knowledge of how to use electric vehicles.	[32]
	PBC5	In the future, I am pessimistic about being able to buy an electric vehicle. (-)	
	ITU1	I would consider buying and using an electric vehicle.	
Intention To Use	ITU2	I have plans to try buying and using an electric vehicle.	[27]
(ITU)	ITU3 ITU4	I will buy and recommend electric vehicles to colleagues, friends and family. I look forward to the introduction of various electric vehicle brands on the market.	[44] [33]
	ITU5	I imagine that in the future I will buy and use electric vehicles.	[55]
D (PE1	Using an electric vehicle for daily activities may be helpful in my work.	
Performance	PE2	Using electric vehicles for daily activities may be more friendly to the environment.	[27]
Expectancy (PE)	PE3	Using electric vehicles for daily activities may save expenses/costs.	[4/]
(I L)	PE4	Using electric vehicles for daily activities may increase my work productivity.	
T(C + T	EE1	It was easy for me to learn how to use an electric vehicle.	[27]
Effort Expectancy	EE2	I understand and can use electric vehicles.	[27]
(EE)	EE3 EE4	I think it is easy to use electric vehicles. Becoming skilled and proficient in using electric vehicles is not difficult for me.	
	FC1	The Indonesian government is actively setting up facilities for selling electric vehicles.	
	FC2	The Indonesian government is actively setting up public electric refueling facilities.	[27]
Facilitating Condition (FC)	FC3	The Indonesian government is actively offering incentives to increase electric power	
	FC4	for electric vehicle owners.	[32]
	FC5	Advances in technology, make me feel safe using electric vehicles. How to use electric vehicles, not much different from other conventional vehicles.	[02]
	FC6	There is a help center that can be contacted in case of problems with electric vehicles.	
	HM1	Using an electric vehicle appears to be it would be fun.	
	HM2	Using an electric vehicle seems to make me more comfortable.	
Hedonic Motivation	HM3	Using an electric vehicle seems to make me even more proud.	[07]
(HM)	HM4	As long as an electric vehicle can make me comfortable when used, maybe I will buy it even though it is expensive.	[27]
	HM5	Using electric vehicles seems to improve my social status.	
	HM6	I would be proud if I was one of the first people to buy and use an electric vehicle.	
	PV1	The price of electric vehicles today is quite affordable and reasonable.	
Price Value	PV2	The price paid may be in accordance with the electric vehicle that I will get.	[077]
(PV)	PV3	The current price of electric vehicles is the price with the best offer. With the current quality of electric vehicles, it is quite natural that they are	[27]
	PV4	relatively expensive.	
	HB1	Using conventional oil-fueled vehicles has become a habit for me. (-)	
Habit	HB2	It seems it is difficult for me to switch to using electric vehicles. (-) My habit of using conventional oil tuoled vehicles makes it impossible for me to	[27]
(H)	HB3	My habit of using conventional oil-fueled vehicles makes it impossible for me to switch to using electric vehicles. (-)	[4/]
	HB4	It is impossible for me to use an electric vehicle because it is tied to a conventional	
		oil-fueled vehicle. (-)	
	PPR1	The inaudible sound of an electric vehicle's engine can increase the risk of an accident. (-)	[31]
	PPR2	I might have a hard time finding a charging station for an electric vehicle. (-)	[31]
Perceived Physical Risk	PPR3	Electric vehicle batteries have the potential to explode while charging. (-)	
(PPR)	PPR4	I'm afraid it will explode when the electric vehicle battery reaches too high a	[73]
	PPR5	temperature. (-) Electric vehicles may experience a power failure (turn off) during a flood. (-)	
	PFR1	Electric vehicle batteries will experience a decrease in performance (mileage). (-)	
	PFR2	I may find it difficult to maintain an electric vehicle. (-)	
Perceived Functional	PFR3	I may have problems driving an electric vehicle. (-)	[31]
Risk	PFR4	The power indicator sensor on the mains battery may not show the actual capacity. (-) Currently, there may not be many repair shops that can help when problems occur	[01]
(PFR)			

Table A1. Cont.

Construct	Item	Measurement	Sources
	PFIN1	At the moment I am not interested in buying an electric vehicle, because in the future the price of electric vehicles may be cheaper. (-)	
Perceived Financial	PFIN2	I hesitate to buy an electric vehicle, because it might cause an increase in the electrical load at home. (-)	
Risk (PFIN)	PFIN3	Currently, electric vehicle technology may be difficult for the Indonesian market to accept. (-)	[31]
(= = = - 1)	PFIN4	I'm hesitant to buy an electric vehicle, because maybe the selling price will drop drastically in the future. (-)	
	PFIN5	While buying an electric vehicle, the maintenance costs may be very expensive. (-)	
	PFIN6	I'm hesitant to buy an electric vehicle, as I might have to buy a spare battery. (-)	
	PSR1	If I buy an electric vehicle, maybe people around me will judge me as arrogant and showing off. (-)	
Perceived Social Risk	PSR2	My family does not recommend buying an electric vehicle. (-)	[31]
(PSR)	PSR3	People do not like electric vehicles, and I believe in their opinion. (-)	[31]
(= ==+)	PSR4	If the expert reviews about electric vehicles are negative, I will not buy and use electric vehicles. (-)	
D . 17" D. 1	PTR1	Recharging process of electric vehicles for a long time, will interfere with my daily activities. (-)	
Perceived Time Risk	PTR2	The process of ordering an electric vehicle may take a long time. (-)	[31]
(PTR)	PTR3	The process of learning electric vehicles may take quite a long time. (-)	_
	PTR4	It takes more effort to understand how electric vehicles work. (-)	

Note: the sign (-) is a negative question, while others are positive questions.

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Article

Exploring Recreationist-Environment Fit Hospitality Experiences of Green Hotels in China

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Abstract: To develop the hotel industry's competitiveness, research on satisfaction and revisit intentions has always been important. More research has recently focused on guests' pro-environmental behaviors and low-carbon management in the hotel industry. This research creates a recreationist-environmental fit satisfaction-revisit intention model based on the recreationist-environmental fit theory. This study surveyed seven green-standard hotels in Sanya, China, and tested the moderating effect of guests' environmental behavior on their satisfaction and willingness to revisit. Self-administered questionnaires were distributed to respondents who had visited the surveyed green-standard hotels. Two hundred and forty-five valid questionnaires were collected with the hypotheses developed and examined using the SEM and HMR methods. The results indicated that the suitability of a leisure environment could positively impact guest satisfaction, which positively affected their willingness to revisit. In addition, this study proved the moderating effect of guests' pro-environmental behaviors between satisfaction and revisit intentions.

Keywords: recreationist-environment fit; guests' satisfaction; revisit intention; guest' pro-environmental behavior; green-hotel

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1. Introduction

Global warming is a serious global issue that has attracted widespread attention from all sectors of society [1–3]. Scientists have concluded that natural variation or anthropogenic pollution can cause global warming, with humans contributing the most to it [4]. Furthermore, tourism is strongly linked to global warming [5]. On the one hand, global warming affects the tourism industry. For example, global warming is behind the rising sea level, which poses a considerable threat to the tourism industry in island countries [6,7]. On the other hand, greenhouse gas emissions from tourism also seriously affect global warming [8]. For instance, according to a report from the Cambridge Institute for Sustainability Leadership, greenhouse gas emissions from the tourism industry, as a proportion of global emissions, will increase from the current 3.9–6% to about 10% in 2025 [9]. In addition, the World Tourism Organization has predicted that the CO2 emissions from tourism will increase by 25% by 2030 [10].

To cope with the climate crisis, Xi Jinping, the President of China, proposed carbon peaking and carbon neutrality at the 28th Asia-Pacific Economic Cooperation (APEC) Economic Leaders' Meeting. China seeks to peak carbon dioxide emissions before 2030 and achieve carbon neutrality before 2060. Under the requirements of the "carbon peaking and carbon neutrality" goals (goal of 3060), tourism has begun a green transformation, including the hotel industry.

The tourism industry in China began low-carbon tourism in 2011 [11], which refers to a form of sustainable tourism development. Low-carbon tourism is guided by the concept of sustainable and low-carbon development; it adopts low-carbon technology, rationally utilizes resources, realizes energy conservation and emission reduction in the tourism industry, and maximizes the comprehensive benefits of society, ecology, and the economy [12–14].

The low-carbon development of tourism must emphasize the hotel sector's low-carbon practices [15–17]. There are three stages of low-carbon and sustainable development in hotels. Firstly, hotels, especially luxury hotels, emphasize using general low-carbon behaviors, such as waste sorting and energy saving, to reduce carbon emissions and achieve ecological benefits [18,19]. Secondly, some luxury hotels began making low-carbon investments in technological innovation and low-carbon talents [20,21], for example, utilizing new energy (such as solar energy) or designing green buildings to achieve social benefits [22,23]. Thirdly, stakeholders' concepts of hotel development fundamentally changed. Previously, shareholders, managers, operators, and tourists focused on a development concept centered on economic benefits; however, this focus has shifted to maximizing the comprehensive benefits of society, ecology, and economy in developing sustainable hospitality [24–27].

For internal stakeholders, Chan found that shareholders with high awareness of low-carbon behavior would invest more in low-carbon operations to improve environmental and social performance [24]. Furthermore, Qu et al. suggested that managers highly aware of low-carbon behavior would focus more on low-carbon management to prevent carbon emission and promote energy saving [28]. Moreover, employees with high awareness of low-carbon practices can reduce the operational costs and influence customers to become more eco-friendly [29,30].

For external stakeholders (hotel guests), Han and Yoon [31] claimed that low-carbon practices were the responsibility of both hotels and guests; that is, low-carbon and sustainable hospitality management practices require engagement between the hotels and the guests [24,32]. Steg and Vlek [33] defined guests' eco-friendly behaviors as proenvironmental behaviors (GPEB); guests tried to have as little impact on the environment as possible, and some even contributed to environmental health. GPEB means guests' willingness to protect the environment and adhere to green consumption [34–36]. Participation in GPEB can help hotels promote low-carbon development and achieve sustainable environmental and social benefits [37–39]. In addition, the green consumption behavior of guests also helps hotels realize new economic benefits [40–42].

Guests' support is an essential factor in sustainable development for hotels [43], where low-carbon development requires understanding and support from guests [44,45]. This involves a mutually beneficial symbiosis between the guests and hotels regarding supply and demand to achieve a stable balance [46,47]. Specifically, guests are compatible with the hotel and are inherently consistent with the hotel environment, which is termed the Recreationist-Environment Fit (R-E Fit). If the hotels want guests to become active participants in low-carbon activities, guests must satisfy the hotel's low-carbon service requirements while simultaneously having their needs met [48]. Additionally, hotels' low-carbon practices are promoted through hotel managers and guests sharing similar values [35,49]. Additionally, the hotel guests' knowledge and skills must also be consistent with the hotel's low-carbon concept [38,50]. In this way, guests can understand and cooperate when the hotel advocates for low-carbon and implements low-carbon practices [51,52]. However, the extant R-E Fit research mainly discusses the relationship between tourists and tourism destinations, and the studies on R-E Fit and GPEB focus on place attachment; few studies examine R-E Fit in hotels' low-carbon practices.

Sustainable competitiveness is one of the main goals hotels pursue [51,53]. For green hotels, in addition to maintaining low-carbon innovative development, attracting and retaining more customers are primary considerations for development [54]. Thus, many scholars like to study satisfaction and revisit intentions in hospitality management research [55–57]. However, most research only investigates hotel low-carbon management or GPEB [31,35,58,59]. Few studies have combined R-E Fit and GPEB to explore the impact on satisfaction and revisit intention. As such, this study examines R-E Fit in the hotel sector and tests if guests' R-E Fit can promote satisfaction and revisit intention in luxury hotels. This study also tests the moderating effect of GPEB on the relationship between guests' satisfaction and revisit intention.

In response to the sustainable low-carbon transformation, the National Green Hotel Working Committee of China and the China Hotel Association proposed "green restaurants, rest assured consumption" and announced the first batch of 100 model hotels in 2020. Among these 100 model hotels, seven luxury hotels in Sanya, Hainan were selected. This paper took these seven luxury hotels as the research background and used previous guests as respondents to study the relationship between R-E Fit and GPEB on guests' satisfaction and revisit intention.

2. Literature Review and Hypothesis Development

2.1. Green Luxury Hotel

Being a low-carbon producer is a new approach to sustainable economic development [60], and low-carbon has become a new focus in green hospitality management research [61,62]. Hotel carbon emissions, representing large contributions to climate change, have attracted significant attention from society. Therefore, low-carbon research for hotels has become a new focus in hospitality management [12].

The concepts of 'green' and 'low carbon' are different. 'Green' hospitality management focuses on hotels' environmental protection and green resource human management [63]. As part of the green ideology, 'low carbon' focuses on carbon emission reductions [64]. Since the beginning of low-carbon transformation, green hotels have implemented low-carbon behaviors, such as low-carbon technology, low-carbon talent, low-carbon culture, and green marketing [48,65,66]. Fraj et al. [67] concluded that proactive environmental strategies and environmental innovations would assist in developing greener hotel operations and management. As global warming is recognized as one of the most significant global risks, hospitality management must focus on sustainable low-carbon behaviors [68,69].

Luxury hotels have a high potential to engage in high energy consumption and carbon emissions. Yi [70] studied the carbon emission of hotels from the perspective of carbon footprints. He pointed out that the higher the level of the hotels, the greater the carbon footprint. Zhang [71] found that a medium-sized four-star hotel emits at least 4200 tons of carbon dioxide every year. As a result, luxury hotels should be primarily responsible for implementing low-carbon activities [68]; thus, many luxury hotel chains have implemented low-carbon measures in many countries. For example, Malaysia achieved a 33% carbon emission intensity to GDP reduction in 2019, relative to 2005 levels, and is well on its way to its target of cutting 45% of emissions by 2030. Overall, however, significant efforts are still needed to reduce the country's carbon footprint and mitigate global warming. Therefore, leading luxury hotels in Malaysia have begun implementing carbon emissions reduction measures. For instance, in a new partnership with Proof & Company, Four Seasons Malaysia implemented an ecoSPIRITS system at Bar Trigona at the Four Seasons Hotel, Kuala Lumpur and the Rhu Bar at Four Seasons Resort, Langkawi [72]. EcoSPIRITS is an innovative technology that significantly reduces packaging waste across the premium spirits supply chain. By drastically reducing the packaging and transport costs, ecoSPIRITS eliminates up to 80% of the spirit consumption carbon footprint. In 2020, 40 billion glass spirit bottles were produced, generating 22 million tons of carbon emissions; therefore, one bottle emits 550 g as carbon emissions, meaning that each cocktail or spirit poured through the ecoSPIRITS system can reduce emissions by 30 g.

In China, the development of low-carbon hotels is still in the initial stage. Since China's promised goal of 3060, many luxury hotels under green ranking have strengthened low-carbon management. For example, the Shangri-La hotel in Sanya promoted green design, and its green building received a silver award from LEED Green Building in the United States [73]. For another example, the Hainan Guest Hotel promoted low-carbon facilities and recyclable decorations to promote its low-carbon transformation. Moreover, it started green marketing in 2017 and realized four million RMB sales income [74]. This indicates that the low-carbon behavior of green luxury hotels can achieve both environmental and business performance.

As mentioned, the National Green Hotel Working Committee of China and the China Hotel Association proposed the first batch of 100 model hotels with "green restaurants, rest assured consumption". This study chose seven luxury hotels from these 100 model hotels to examine if the low-carbon service of green luxury hotels can promote business performance and green image.

2.2. Recreationist-Environment Fit

People interact with the tourist environment [75]. Specifically, individuals affect and are affected by environments through tourism [76,77]. Therefore, there is an interactive relationship between tourists and the environment [78]. The effect of these two ideas is a relationship that scholars refer to as R-E Fit theory [79,80].

Scholars first started to study the Person-Environment fit (P-E fit) theory in living and work environments before R-E Fit [81,82]. Kristof [83] introduced person-organization fit as "the compatibility between people and organizations that occurs when: (a) at least one entity provides what the other needs or (b) they share similar fundamental characteristics, or (c) both." The study introduced supplementary fit and complementary fit. Supplementary fit emphasizes the consistency between people and the environment. i.e., individuals and other members of the work environment have similar characteristics, and members attract and trust each other, leading to better communication [84]. Complementary fit is the degree of adaptation between individuals and living/work environments, emphasizing the degree of complementarity between them, which is essentially the fit between members and environments [85]. Later, Edwards [86] proposed a needs-supplies fit, which meant that the environment's value could meet individual needs, and the requirements-abilities fit, which advocates that people's skills, knowledge, and other resources could meet the requirements of the environment. P-E fit theory has been widely used in the fields of resource management and organizational behavior, such as person-job fit, person-group fit, and person-organization fit [87–89]. Later, Tsaur et al. [90] attempted to use P-E fit theory on the tourism environment; he also proposed R-E Fit and developed the correspondent R-E Fit Scale (REFS). Six dimensions were identified in this scale: natural resources, recreation functions, interpersonal opportunists, facilities, activity knowledge/skills, and operation/management. Since then, R-E Fit theory has been widely related to tourists' experiences and destination environments [80,91].

Scholars want to use R-E Fit theory in tourism to analyze the relationship between tourists' behaviors and destination environments [92]. According to past studies, there are three types of R-E Fit: needs-supplies, requirements-abilities, and complementary fit [93]. Needs-supplies fit means that the needs of tourists match the environment's supplies, such as natural resources, environmental facilities, environmental functions, and interpersonal opportunities; if their needs are met, then the tourists would be more willing to participate in low-carbon activities and may have high satisfaction [36]. When the tourists' knowledge and abilities meet the environment's requirements, it can also increase revisit intention [94], a process referred to as the requirements-abilities fit. Complementary fit refers to the relationship between tourists and the environment or the environmental managers [95]. In other words, tourists and managers have similar values regarding the maintenance facilities and management [96,97].

Hospitality is an integral part of tourism. As mentioned, the goals of carbon peaking and carbon neutrality prompted the tourism and hotel sectors to begin low-carbon transformation. Under this circumstance, hotels, especially luxury hotels, have started low-carbon hospitality management [19,48,63]. In the early stages, hotels developed low-carbon management through energy saving and renewable energy. For example, Dalton et al. [22] proposed that hotels make reasonable use of conventional energy, adopt energy-saving technology, and improve energy efficiency. They investigated guests' attitudes toward using renewable energy in Australian tourist resort hotels, and more than 50% of guests held positive attitudes toward pleasant accommodation environments and renewable energy. In the middle stage, hotels improved their facilities and innovated green buildings to realize

low-carbon operations. For instance, Hoshinoya hotel in Japan installed a semi-closed window on the roof to become a "wind house" without an air conditioner [98]. Furthermore, the "ceiling" installed at the GAIA hotel in the United States can fully use solar energy and reduce carbon emissions by two thirds. This hotel is the most eco-friendly hotel globally [99]. In the later stage, low-carbon management was combined with green training, low-carbon investment, and green marketing. Employees acted as "windows" of low carbon to promote the hotel's low-carbon culture. Cop et al. [48] mentioned that luxury hotels needed to strengthen employees' low-carbon training to satisfy guests' low-carbon needs. Moreover, Dogru et al. [100] found that the shareholders' low-carbon investment could improve low-carbon technology and the development of low-carbon talent, and Chung [40] found that many luxury hotels carried out green marketing. The study mentioned that hotels knew that growing environmental issues could change consumers' buying preferences. In that case, hotels must provide low-carbon products to attract guests to make green consumption choices. To illustrate, Sheraton provides green rooms, W Hotel recycled Coca-Cola bottle caps to make bedsheets to promote the green movement, and Vienna Hotel provides cotton and linen bedding for sale to guests.

The low-carbon behavior of hotels can bring about carbon efficiency and fit consumers' needs. In recent years, more hotels have adopted eco-friendly practices and implemented innovative technologies to reduce their carbon footprint and create a viable green image [24,101]. Guests have paid attention to the importance of changing lifestyles and engaging in eco-friendly behaviors [102]. Many hotel guests value hotels that offer upto-date technology and demonstrate sustainability efforts through various sustainable programs [103]. Additionally, guests are more willing to join in the low-carbon activities and spread positive experiences via word of mouth [50,104]. In that case, low-carbon lodging experiences can fit their eco-friendly needs [35]. Overall, hotels' low-carbon practices are in accordance with the R-E Fit; however, most R-E Fit studies in tourism management relate to place attachment [79,105], and there are few in hospitality management. Thus, this study examines the R-E Fit in the hospitality sector. Furthermore, according to Tsaur et al. [79,90], regarding the six dimensions of R-E Fit, this study presents facilities, environmental resources, environmental functions, interpersonal opportunities, activity knowledge/skills, and management as the R-E Fit of the hotel industry (see the Appendix A).

2.3. Guests' Satisfaction

Various studies have found that improved guest satisfaction ultimately leads to greater customer loyalty and word-of-mouth recommendations [106,107]. Increasing competition in product marketing has forced companies to implement different strategies to attract and retain guests [27]. Among the different strategies that companies have used is the personalization of products to meet customer needs [108]. Guests' satisfaction is "a person's feelings of pleasure or disappointment that results from comparing a product's perceived performance or outcome with his/her expectations" [109]. A study by Lee et al. [110] indicated that hospitals could improve customer satisfaction and loyalty through efficient operations, employee engagement, and service quality. They also found that this highperformance work system in healthcare organizations stimulated employee reaction and service quality. Therefore, a customer may continue to increase the scope and frequency of their relationship with the service provider or recommend the service provider to other potential customers. Lee [111] suggests that guest satisfaction is linked to loyalty, which, in turn, is linked to the performance of service organizations. In short, a satisfied guest is more likely to return, and a returning customer is more likely to purchase additional items. A customer purchasing additional items with which they are satisfied is more likely to develop brand-loyalty [112–114].

In the hospitality industry, luxury hotels characterize excellent service, symbolizing the wealth and status of its patrons. Recently, many luxury hotels aiming to enhance market competitiveness have been exploring their characteristics, such as green building design, landscape design, and service quality [45]. The development of low carbon provides a

new marketing perspective for green hotels. Many studies have proven that low-carbon promotion could improve both direct financial performance (income, operational cost saving, new business) and non-financial performance (guests' satisfaction and loyalty, turnover rate, green image) [115–117].

Specifically, Williams [118] mentioned four key components for green hotels: ecoservice, eco-accommodation, eco-cuisine, and eco-programming. Aksu et al. [119] explored the components of eco-service quality at hotels and found that the critical determinants for sensitive customers' satisfaction were equipment, staff and food, and practice. Hou and Wu [45] investigated tourists' perceptions of green building design and their intention of staying in a green hotel and found two primary contributors. Firstly, (a) green building design could save operational cost, and high environmental concern from tourists could influence the perceived importance of green building design and their intention of staying in hotels, and secondly, (b) the relationship between tourists' environmental concerns and intention of staying could help the development of green marketing activities. Yusof et al. [39] also confirmed that green and non-green status hoteliers should develop green practices because they significantly affect guests' satisfaction.

With the development of eco-cites in China, hotels started considering the topic of eco-hotels. In addition to traditional low-carbon behaviors, such as refusing disposable items and reusing towels, hotels can pay more attention to advanced behaviors to promote low-carbon services and tourist participation [120,121]. For example, such hotels set up low-carbon publicity walls, present environmentally friendly gifts, provide organic food, and carry out low-carbon activities [122]. These measures can share the hotels' low-carbon concepts and stimulate the guests' low-carbon resonance [50,51,123]. This could enable a hotel to promote unique characteristics and attract more guests [124,125].

Therefore, it is hypothesized that:

Hypothesis 1 (H1). *R-E Fit has a positive effect on guests' satisfaction.*

2.4. Revisit Intention

The existing service sector literature has extensively studied the relationship between satisfaction and guests' intentions to revisit in the past few decades. Fornell [126] suggested that the more the customers were satisfied with the services, the greater their willingness to revisit. At the tourism level, various studies have recognized the importance of satisfaction in predicting tourists' intention to revisit and attempted to investigate the relationship in the context of destination, for example, Mannan et al. [56] argued that customer satisfaction positively influenced revisit intention, and trust mediated the satisfaction—revisit intention relation in restaurants. Seetanah et al. [57] had the same conclusion of satisfaction and revisit intention in airport services. According to past empirical destination research, tourists choose destinations with attributes that they believe can meet their needs [127].

In the context of tourism, service quality, satisfaction, involvement, previous experience, place attachment, and perceived value can influence guests' intentions to revisit [128–130]. Of these, satisfaction is one of the most important determinants, which is widely understood in tourism experiences [56,131]. Several studies have proven that the more the guests express their satisfaction with destinations, the more likely they will be to revisit [132,133]. Tourists' intention to revisit refers to the possibility they plan to return to the same destination, which is a specific factor of good post-consumer behavior and a key component of tourist loyalty [49].

A satisfied hotel guest is not equal to a loyal guest due to the special characteristics of the hotel industry [134]; in other words, unless they have an irreplaceable positive impression of this destination, a guest could feel satisfied with the hotel's services, but not necessarily revisit the same hotel. In that case, it is easy to satisfy a customer but difficult, in the hospitality industry, to obtain a loyal customer [135]. Low-carbon operation is a potential selling point for the hotel sector and has become a new character factor among green hotels [13]. Low-carbon service in hotels has helped the development of the green image [136]. The general feelings of resource use, environmental functions, and facilities

help build overall impressions, becoming different dynamic and irreplaceable green images among guests [137]. An irreplaceable green image means meeting more consumers' needs, which leads to more satisfaction and a stronger willingness to revisit [66,134].

Therefore, it is hypothesized that:

Hypothesis 2 (H2). *Guests' satisfaction positively affects their revisit intention.*

2.5. Guests' Pro-Environmental Behavior

Pro-environmental behavior (PEB) refers to an individual's daily behavior that positively affects the environment and is directly related to the environment [138]. There is a variety of PEB which Moeller et al. [139] called the environmental responsibility behavior of ecotourists. Levinson [140] and Wynes and Nicholas [141] explained that PEB changed consumption patterns to relatively low-impact alternatives in individuals' consumption dimensions. In the tourism and hotel dimension, guests' pro-environmental behaviors (GPEB) are defined as changing their behaviors to do the least harm to the environment [38,142]. For example, Orsato [143] explained that GPEB was choosing eco-friendly transportation, rejecting the disposing of goods, or joining in low-carbon and green travels. Furthermore, Namkung and Jang [144] presented three dimensions of GPEB: guests' willingness to protect the destination environment, awareness of reducing pollution, and intention to participate in low-carbon consumption. In this study, GEPB refers to eco-friendly and green consumption behaviors in hotels and guests' daily lives.

GPEB is a basis for strategic management decisions, particularly in hotels [67]. On the one hand, GPEB is a low-carbon consumption behavior [31,36] where guests appreciate the low-carbon service [145]. Moreover, they are willing to buy low-carbon products and participate in low-carbon activities [146]. On the other hand, Han and Hyun [44] pointed out that GPEB is a low-carbon requirement for hotel service. Dani et al. [2], Han and Hwang [46], and Almomani et al. [66] showed that if a hotel improved its low-carbon service, it could increase tourist satisfaction and loyalty.

That means that as a form of low-carbon behavior commercialization, hotels' low-carbon services impact GPEB. The design of low-carbon services also considers the requirements of GPEB [45,147]. The successful low-carbon management solves the carbon emission issue and satisfies the guest for the service rendered or understanding of the hotel culture [148]. In that case, low-carbon hotels can make long-term profitability. Accordingly, the manager needs to focus on GPEB [16,24]; hotels must know about guests' GPEB demands so that they can provide suitable service and achieve tourist satisfaction and loyalty [43,104,149]. Thus, the study of GPEB needs to be associated with low-carbon service and business performance. Its primary purpose is to help hotels improve their service quality and then realize business performance (customer satisfaction and revisit intention) [124,150].

Trang et al. [38] and Yadav et al. [42] showed that GPEB had connections with guests' satisfaction and revisit intention in the hospitality sector. Additionally, Scheibehenne et al. [151] pointed out that social norms could enhance GPEB. They found that GPEB influenced hotel services, which was reciprocal as hotel services also affected GPEB through the reuse of hotel towels. Moreover, Tsagarakis et al. [152] interviewed 2308 international airport guests in Crete and Greece, and found that most of them would like to visit and revisit low-carbon hotels, and their GPEB could positively impact customer satisfaction. Furthermore, scholars have researched GPEB and hotels' room prices. For instance, Sánchez et al. [27] found that although environmental protection measures increased the operation costs and room prices, some guests with eco-friendly values were willing to pay higher prices. Additionally, they found that guests were willing to revisit lodging that provided low-carbon services. In that case, GPEB has a positive effect on satisfaction and revisit rate. Therefore, the following hypothesis is proposed:

Hypothesis 3 (H3). *GPEB positively moderates the relationship between guests' satisfaction and revisit intention.*

Figure 1 shows the model suggested by the hypothesized relationships between the constructs that was examined in the study. The first route is concerned with the relationships among the R-E Fit, guests' satisfaction, and guests' revisit intention constructs. Understanding the importance of GPTB in low-carbon hospitality management, the second route focuses on the moderating effect of GPEB on the relationship between guests' satisfaction and revisit intention.

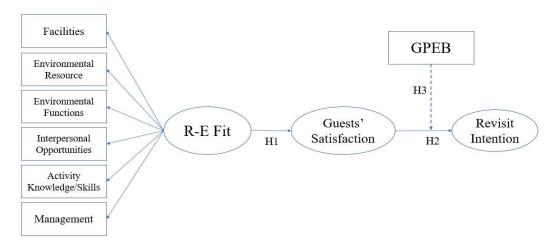


Figure 1. Conceptual model. Note: R-E Fit Recreationist-Environmental Fit, GPEB guests' proenvironmental behavior.

3. Methodology

3.1. Research Setting

This study's respondents were guests who had accommodation experiences in seven green luxury hotels in Sanya, Hainan. The properties were selected based on the National Green Hotel Working Committee of China and the China Hotel Association proposal for the first batch of 100 model hotels, following "green restaurants, rest assured consumption". Each selected hotel provided low-carbon service for its guests.

3.2. Sampling

Since 2009, The State Council of China provided the "Opinions of The State Council on Accelerating the Development of Tourism" to start low-carbon tourism and goals for five-star hotels to reduce water and electricity consumption by 20% in five years. In the past ten years, luxury hotels (four and five-star hotels) began low-carbon management [153,154]. Under the goal of 3060, China encouraged luxury hotels to join in significant low-carbon transformation. However, previous studies were not specific about the types of luxury hotels (green and non-green hotels or four and five-star hotels). This study focuses on the relationship of low-carbon service, guests' satisfaction, and revisit intentions for the seven model hotels, which provide more practical significance.

Data collection had two stages, the first of which was the pre-test. With the cooperation of hotel managers, we used face-to-face interviews and surveyed 57 guests who had accommodation experience in early June of 2021. After proving the questionnaire's reliability and internal validity, the second stage collected 339 questionnaires from August to October of 2021. After excluding inappropriate responses, this study generated a total of 245 usable questionnaires, which were used to test the hypothesized relationships and evaluate the adequacy of the proposed theoretical framework.

Most respondents were females (54.69%), and the main age group was 19–39 (68.98%). A large proportion of the participants (53.88%) were married, while 46.12% were single. Most survey respondents were highly educated, with college and graduate degrees (88.98%).

Additionally, 35.92% of respondents had RMB 5001–8000 (USD 785–1257) monthly income, and 20.41% had more than RMB 8001 (USD 1258). Moreover, 79.59% of participants visited hotels with their families and friends, while 15.92% visited alone. Regarding visit times, most respondents had visited the luxury hotel once (77.96%) and 19.18% had visited twice (Table 1).

Table 1. Descriptive summary of respondents (N = 245).

Category	Number	Percentage (%)
Gender		
Male	111	45.31
Female	234	54.69
Age		
Below 18	10	4.08
19–29	89	36.33
30–39	80	32.65
40–49	40	16.33
50-59	19	7.76
Above 60	7	2.85
Marital status		
Unmarried	113	46.12
Married	132	53.88
Education		
middle school or lower	10	4.08
High school	17	6.94
College degree	147	60.00
Graduate degree	71	28.98
Per capita monthly income		
Below 3000	16	6.53
3001-5000	91	37.14
5001-8000	88	35.92
Above 8001	50	20.41
Travel Companion		
Alone	39	15.92
Families	96	39.18
Friends	99	40.41
Travel clubs	11	4.49
Visit times		
One	191	77.96
Two	47	19.18
More than three	7	2.86

3.3. Measures

The questionnaire asked respondents about their R-E Fit, satisfaction, intentions to revisit, and GPEB. The 17-item REFS, developed from Tsaur et al. [79] and Zou et al. [80], reflected guests' low-carbon accommodation experiences (facilities, environment resources, environment functions, interpersonal opportunities, activity knowledge/skills, and management). Guests' satisfaction was assessed using three items adapted from Yusof et al. [39] and Li et al. [78]; intention to revisit was measured by three items adapted from Li et al. [78] and Moise et al. [155]. GPEB was measured using 12 items adapted from Miao and Wei [35], Trang et al. [38], and Kim and Stepchenkova [58]. All 35 items were assessed on a 5-point Likert scale, from 1=strongly disagree to 5 = strongly agree. As the survey instruments were adapted from Western research, the questionnaire was translated using a back-translation procedure to ensure content validity. Firstly, a faculty member translated the English version into Chinese, which was then translated back into English by a different faculty

member. The content and wording were short, simple, and comprehensible to avoid ambiguities [156].

3.4. Data Analysis

This study utilized SPSS 24.0 and AMOS 23.0 for proposed model fitting and statistical analysis. First, confirmatory factor analysis (CFA) was used to determine the underlying constructs in the 35 items. This was followed by an assessment of the constructs' reliability and validity, after which the model's relationships were estimated using a structural equation modeling (SEM) approach. SEM was used because of its advantages in prediction, which was the prime concern here. It is a multivariate technique incorporating observed and unobserved variables, which is useful when data are unobserved (latent constructs), considered likely in this study [157]. Lastly, the hierarchical multiple regression (HMR) was used to test the moderator effect of GPEB on the relationship of guests' satisfaction and intentions to revisit. HMR is frequently cited and widely used in moderating effect tests, as Baron and Kenny [158] described.

4. Results

4.1. Measurement Model Assessment

This study proposed four variables in the model (Figure 1): R-E Fit, guests' satisfaction, GPEB, and intention to revisit. R-E Fit had six parts: facilities, environmental resources, environmental functions, interpersonal opportunities, activity knowledge/skills, management. The facilities comprise three indicators (F1, F2, F3), named "F factor". The environmental resources are composed of three indicators (ER1, ER2, ER3), named "ER factor". The environmental functions comprise two indicators (EF1, EF2) called "EF factor". Interpersonal opportunities are composed of three indicators (IO1, IO2, IO3), named "IO factor". Activity knowledge/skills are composed of three indicators (AC1, AC2, AC3), called "AC factor". Management is composed of three indicators (M1, M2, M3), named "M factor." The guests' satisfaction comprises three indicators (GS1, GS2, GS3), named "GS factor". The GPEB is composed of 12 indicators (GPEB1, GPEB2, GPEB3, GPEB4, GPEB5, GPEB6, GPEB7, GPEB8, GPEB9, GPEB10, GPEB11, GPEB12), which can be named "GPEB factor". Finally, the revisit intention is "RI factor", consisting of three indicators (RI1, RI2, RI3, RI4, and RI5).

According to factor analysis, the Cronbach α of six items in R-E Fit (F, ER, EF, IO, AS, and M) was 0.830, 0.733, 0.829, 0.810, 0.836, and 0.823, respectively, all greater than 0.7. Regarding the deleted alpha coefficient, the reliability coefficient did not increase significantly after deleting an item, meaning that the item should not be deleted. The CITCs of the analysis items were all greater than 0.4, indicating that they had a good correlation and reliability level. In summary, the reliability coefficient value of the research data was higher than 0.7, which comprehensively showed that the data reliability was high and could be used for further analysis (Table 2).

Furthermore, the reliability coefficients of the REFS, satisfaction scale, revisit intention scale, and GPEB scale were 0.917, 0.818, 0.845, and 0.941, respectively. They were all greater than 0.7, which showed good reliability of the research data. Regarding the deleted alpha coefficient, the reliability coefficient did not increase significantly after deleting an item, meaning that the item should not be deleted. Moreover, the CITCs of the analysis items were all greater than 0.4, indicating that the information concerning the research item can be effectively extracted (Table 3).

Table 2. Reliability test of R-E fit.

Item	CITC	Cronbach's α If Item Deleted	Cronbach's α
F1	0.669	0.785	
F2	0.695	0.758	0.830
F3	0.702	0.751	
ER1	0.578	-	0.722
ER2	0.578	-	0.733
EF1	0.683	0.768	
EF2	0.694	0.757	0.829
EF3	0.685	0.766	
IO1	0.629	0.771	
IO2	0.701	0.697	0.810
IO3	0.655	0.747	
AC1	0.696	0.775	
AC2	0.696	0.775	0.836
AC3	0.702	0.769	
M1	0.687	0.746	
M2	0.680	0.753	0.823
M3	0.665	0.768	

Note: F facilities, ER environmental resources, EF environmental functions, IO interpersonal opportunities, AC activity knowledge/skills, M management.

To complement the verification of this study's convergent validity, Table 4 shows that the standardized estimate of all factors was 0.6 and significant, indicating a good measurement relationship. We also calculated the average variance extracted (AVE) validity before concluding that all the latent variables attained the set criteria. Composite reliability (CR), which also represents an indicator of convergent validity, ensures the magnitude's evaluation by which the items in an instrument correlate with each other. This study performed CFA analysis for eight factors and 23 analysis items. The AVE values were greater than 0.5 and the CR values were greater than 0.7, indicating that the data in this analysis had good convergence validity [159] (Table 4).

Finally, to fulfill the discriminant validity, we compared the square roots of the AVE for each construct with the results returned by their respective correlations, as proposed by Fornell and Larcker [160]. The AVE square root index for each latent variable was higher than that of the other construct, indicating their respective mutual independence. Table 5 illustrates the correlations and quality criteria.

Table 3. Reliability test of factors.

Item	CITC	Cronbach's α If Item Deleted	Cronbach's α
F1	0.672	0.910	
F2	0.585	0.912	
F3	0.642	0.911	
ER1	0.514	0.914	
ER2	0.498	0.915	
EF1	0.620	0.911	
EF2	0.617	0.911	
EF3	0.637	0.911	
IO1	0.580	0.912	0.917
IO2	0.602	0.912	
IO3	0.587	0.912	
AC1	0.635	0.911	
AC2	0.585	0.912	
AC3	0.603	0.912	
M1	0.611	0.912	
M2	0.583	0.912	

Table 3. Cont.

Item	CITC	Cronbach's α If Item Deleted	Cronbach's α
M3	0.604	0.912	
GS1	0.655	0.765	
GS2	0.639	0.781	0.818
GS3	0.720	0.697	
RI1	0.710	0.784	
RI2	0.687	0.806	0.845
RI3	0.736	0.759	
GPEB1	0.728	0.936	
GPEB2	0.699	0.937	
GPEB3	0.713	0.937	
GPEB4	0.713	0.937	
GPEB5	0.739	0.936	
GPEB6	0.711	0.937	0.041
GPEB7	0.772	0.934	0.941
GPEB8	0.726	0.936	
GPEB9	0.751	0.935	
GPEB10	0.752	0.935	
GPEB11	0.754	0.935	
GPEB12	0.716	0.936	

Note: F facilities, ER environmental resources, EF environmental functions, IO interpersonal opportunities, AC activity knowledge/skills, M management, GS guests' satisfaction, RI revisit intention, GPTB guests' proenvironmental behaviors.

Table 4. Validity test of factors.

AVE	C.R.
0.619	0.830
0.578	0.732
0.619	0.829
0.595	0.814
0.630	0.836
0.608	0.823
0.605	0.821
0.646	0.845
	0.619 0.578 0.619 0.595 0.630 0.608 0.605

Note: F facilities, ER environmental resources, EF environmental functions, IO interpersonal opportunities, AC activity knowledge/skills, M management, GS guests' satisfaction, RI revisit intention.

Table 5. Validity test of factors (square roots of AVE).

Constructs	F	ER	EF	IO	AC	M	GS	RI
F	0.787							
ER	0.417	0.760						
EF	0.520	0.573	0.787					
IO	0.571	0.341	0.485	0.772				
AC	0.530	0.377	0.488	0.479	0.794			
M	0.506	0.376	0.493	0.507	0.516	0.780		
GS	0.271	0.398	0.334	0.357	0.271	0.351	0.778	
RI	0.338	0.353	0.348	0.342	0.382	0.350	0.356	0.803

 $Note: F \ facilities, ER \ environmental \ resources, EF \ environmental \ functions, IO \ interpersonal \ opportunities, AC \ activity \ knowledge/skills, M \ management, GS \ guests' \ satisfaction, RI \ revisit \ intention.$

4.2. Model Fit Assessment

SEM can define observed variables data in the hypothesized model. Various factors, such as sample size, model intricacy, normality of distribution, and parameter approximation method, affect every fit index in diverse ways [161]. During this phase, the researcher should assess and interpret results exclusively on the figures from analysis rather than remarking based on the theory and concept, thus forming the study's structure and findings.

From Table 6, all fit indices presented met the threshold value. In this case, the x2/df met the threshold of less than 3.00 (1.061). Including the other fit induced criteria, such as the goodness of fit index (GFI: 0.934), comparative fit index (CFI: 0.995), normed fit index (NFI: 0.926), and non-normed fit index (NNFI: 0.995), shows that the hypothesized model has a good fit to the data. Meanwhile, RMSEA shows that the value for the overall model (0.016) was below the cut-off point of 0.10, thus indicating an excellent fit [161,162].

Table 6. Fit Indices of Overall Measurement Model.

Measures	Measurement Model	Threshold Values
x2	214.392	
df	202	
<i>p</i> -value	0.262	0.05 and above
x2/df	1.061	Less than 3
GFI	0.934	0.900 and above
CFI	0.995	0.900 and above
NFI	0.926	0.900 and above
NNFI	0.995	0.900 and above
RMSEA	0.016	Less than 0.100

4.3. Hypotheses Testing Results

SEM path analysis was undertaken to test first two hypotheses. The standardized estimate, critical ratio, and *p*-value were referred to in accepting or rejecting all hypotheses outlined in this study.

To effectively verify the validity of the hypothesis, the internal fit of the model can be divided into two parts: the internal consistency of each sub-indicator and its corresponding dimension in the questionnaire; and the internal consistency between dimensions.

The first part observes the internal consistency between each sub-indicator and dimension in the questionnaire, as Table 7 illustrates. The results showed the measurement relationship between the factor and the scale question. The first item of the measurement relationship was the control item, so the critical ratio (C.R.) value or p-value was not output. The ideal C.R. is greater than 1.0, implying that the model does well as a sub-indicator and its dimension, while ratios below 1.0 imply poor performance. According to the table, other observation items of the sub-indicator and its dimension had extremely high ratios, p-values were highly significant (p = 0.000), and the standardized factor loading (SFL) of each sub-indicator was greater than 0.7. Therefore, the measurement relationship between the observation items and the factor was good.

Table 7. Internal consistency between sub-indicator and dimensions.

$X{ ightarrow}Y$	SE	C.R.	p	SFL
R-E Fit \rightarrow F	0.130	8.331	***	0.808
R-E Fit \rightarrow ER	0.121	6.995	***	0.709
R-E Fit \rightarrow EF	0.129	8.267	***	0.806
R-E Fit \rightarrow IO	0.131	7.956	***	0.753
R-E Fit \rightarrow AC	0.114	7.860	***	0.771
R-E Fit \rightarrow M				0.771
$F{\rightarrow}F1$	0.083	12.398	***	0.797
$F{\rightarrow}F2$	0.079	11.897	***	0.764
$F{\rightarrow}F3$				0.798

Table 7. Cont.

$X{ ightarrow}Y$	SE	C.R.	p	SFL
ER→ER1	0.123	8.422	***	0.772
$ER \rightarrow ER2$				0.749
$EF \rightarrow EF1$	0.080	12.010	***	0.780
$EF \rightarrow EF2$	0.086	12.168	***	0.791
$EF \rightarrow EF3$				0.789
IO→IO1	0.096	10.721	***	0.733
IO→IO2	0.104	11.621	***	0.812
IO→IO3				0.762
AC→AC1	0.080	12.434	***	0.808
$AC \rightarrow AC2$	0.080	12.060	***	0.780
AC→AC3				0.793
$M{ ightarrow}M1$	0.088	11.741	***	0.797
$M{ ightarrow}M2$	0.088	11.432	***	0.771
$M{\rightarrow}M3$				0.771
GS→GS1				0.766
$GS \rightarrow GS2$	0.096	10.621	***	0.737
GS→GS3	0.101	11.284	***	0.812
$RI\rightarrow RI1$				0.809
$RI \rightarrow RI2$	0.078	11.889	***	0.764
$RI\rightarrow RI3$	0.081	12.546	***	0.835

Note: F facilities, ER environmental resources, EF environmental functions, IO interpersonal opportunities, AC activity knowledge/skills, M management, GS guests' satisfaction, RI revisit intention; *** p < 0.01.

Once the internal consistency between the sub-indicator and dimensions was confirmed, this research verified the hypotheses in the theoretical and structural model study. Table 8 shows the verification results of H1 and H2.

Table 8. Summary of Result for H1 and H2.

Hypothesis	$X{ ightarrow}Y$	SE	C.R.	Path Coefficients	Results	р
1	R-E Fit→GS	0.109	6.166	0.539	Supported	***
2	$GS \rightarrow RI$	1.088	5.928	0.465	Supported	***

Note: GS guests' satisfaction, RI revisit intention; *** p < 0.01.

H1 tested the relationship of R-E Fit to determine if it positively affected GS. The result found that when R-E Fit affected GS, the standardized path coefficient value was 0.539 > 0, which showed a significant level of 0.01 (C.R. = 6.166, p = 0.000 < 0.01), indicating that R-E Fit had a significant positive impact on GS. Therefore, H1 was supported.

H2 suggested that the GS relationship has a positive effect on RI. It was discovered that when GS affected IP, this path showed significance (C.R. = 5.928, p = 0.000 < 0.01), demonstrating that GS affected RI. Hence, H2 was supported.

In summary, the model (Figure 2) showed a good fit, and all the hypothesized paths were verified. Based on the results verification mentioned above, the model's overall fit represented the data adequately.

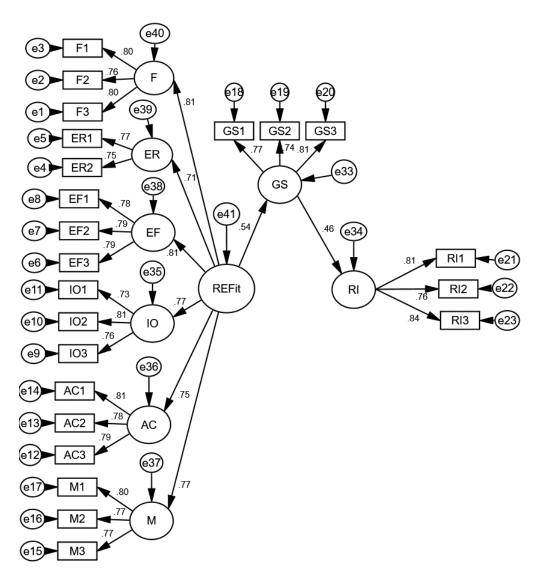


Figure 2. Standardized Estimates for Hypothesized SEM Models (Appendix A).

4.4. Moderating Effect Testing by Hierarchical Multiple Regression

HMR was used to test the proposed hypotheses because it can evaluate complete theoretical models (e.g., path models or factor analytic models), account for sampling covariance between effect sizes, and provide the proposed model sample data's overall fit. This analysis was most appropriate for the current study, as it allows for the assessment of whether the relationship between two variables fluctuates according to some third variable [163].

According to HMR procedures, the three models dealt with the moderating effect of GPEB on GS and RI. To test Model 1, we entered the GS as the independent variable, followed by RI as the dependent variable. Model 2 added the GPEB as a moderator variable based on Model 1; Model 3 added an interaction term (the product term of GS and GPEB) based on Model 2. Table 9 presents the HMR results.

Table 9. The Results of HRM for Model 1–Model 3.

	Model 1				Model 2				Model 3			
	β	Std. Error	t	p	β	Std. Error	t	p	β	Std. Error	t	p
Constant	3.014	0.061	49.657	0.000 **	3.014	0.057	52.472	0.000 **	2.964	0.061	48.201	0.000 **
GS	0.364	0.061	5.936	0.000 **	0.192	0.066	2.894	0.004 **	0.166	0.067	2.482	0.014 *
GPEB					0.412	0.076	5.416	0.000 **	0.397	0.076	5.244	0.000 **
GS*GPEB									0.121	0.056	2.146	0.033 *
R2			0.127			(0.221			(0.236	
Adjusted R2			0.123			(0.215			(0.226	
F			35.235			3	4.337			2	4.768	
р	0.000				0.000			0.000				
$\Delta R2$	0.127				0.094			0.015				
Δ F	35.235				29.332			4.606				
p			0.000			0.000			0.033			

Note: Dependent variable: RI; * p < 0.05 ** p < 0.01; n = 245; GS guests' satisfaction, GPEB guests' pro-environmental behaviors, RI revisit intention.

Model 1 studied the influence of the independent variable (GS) on the dependent variable (RI) without considering the interference of the moderating variable (GPEB). From the above table, we can see the independent variable (GB) was significant (t = 5.936, p = 0.000 < 0.01), indicating GS had a significant influence on RI.

The moderating effect can be viewed in two ways: firstly, by checking the significance of the change in F value from Model 2 to Model 3; secondly, by checking the significance of the interaction term in Model 3. We selected the second way to analyze the adjustment effect.

It can be seen from Table 9 that the interaction term between GS and GPEB was significant (t = 2.146, p = 0.033 < 0.05). This indicates that when GS affected RI, the moderating variable (GPEB) was at different levels; there was a significant difference in the impact's magnitude, which can be observed through the following simple slope plot in Figure 3, from the analysis in Table 10.

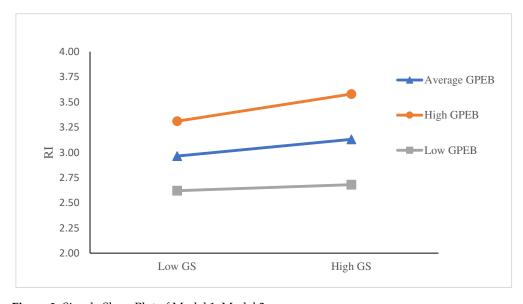


Figure 3. Simple Slope Plot of Model 1–Model 3.

Table 10. Simple Slope Analysis for Model 1–Model 3.

Moderate Variable Level	Regression Coefficients	Standard Error	t	р	95% CI
Average GPEB	0.166	0.067	2.482	0.014	0.035
High GPEB	0.270	0.075	3.591	0.000	0.123
Low GPEB	0.062	0.089	0.689	0.491	-0.114

5. Discussions

This study investigated the relationship of R-E Fit, guests' satisfaction, and guests' intentions to revisit, intending to verify the moderating effect of GPEB on the relationship between guests' satisfaction and revisit intention. The SEM results indicate that R-E Fit positively impacted guests' satisfaction. Furthermore, guests' satisfaction positively influenced their intentions to revisit.

The result of H1 proved that a low-carbon experience could help increase guests' satisfaction, which aligns with the findings of Li et al. [133]. In their study, two experiences, including fun learning and an acting experience, positively influenced ecotourism. Many green luxury hotels have adopted positive low-carbon behaviors to develop low-carbon services, such as low-carbon activity innovation, low-carbon education, and low-carbon consumption. Under this circumstance, guests can enjoy more low-carbon experiences than offered by a traditional luxury experience. In that case, they would more easily feel worthwhile and satisfied with the low-carbon service. Conversely, as mentioned, guests with green and low-carbon knowledge would require hotels' low-carbon services; the higher the service quality, the more satisfaction that guests had. This was similar to studies by Carrascosa-López et al. [164] and Gursoy and McCleary [165]; specifically, perceived destination value and perceived destination knowledge positively affected guests' satisfaction. In addition, the management concept closely relates to corporate image [166]. The hotel's low-carbon management value could help build a green image, and such an image could win customers' trust and promote a willingness to leave a positive comment or spread word-of-mouth.

H2 predicted that guests more satisfied with low-carbon services from luxury hotels would be more likely to revisit, which is in line with previous research [167,168]. According to the survey, most guests (77.96%) were first-time visitors at the hotels. According to previous studies, such as Ezebilo [169], building revisiting decisions depended on positive and satisfactory experiences during a first visit. In that case, leaving a memorable impression is essential, and hotel managers need to provide more featured experiences and activities to retain guests. In this study, R-E Fit related to a hotel's image. Yu et al. [167] and Chen and Tsai [170] mentioned that the destination image also had significant influences on post-trip assessment, such as satisfaction and future behavioral intentions (intentions to revisit and recommendation to others). This theory is similar to the results of H1 and H2, confirming that R-E Fit could increase guests' satisfaction; moreover, it could positively affect guests' revisit intention.

The results of HRM revealed that GPEB provided moderating effects on the relationship between guests' satisfaction and intention to revisit. Since low-carbon transformation started in China, people's environmental awareness has increased, supporting this study's GPEB findings. In the past, people believed staying in a hotel was for enjoyment rather than for protecting the environment [171]. From this perspective, hotels' low-carbon management was based on their social responsibility. However, this study found that guests adopted pro-environmental behaviors at home and outside; regardless of geography, they participated in low-carbon activities during their daily life (low-carbon lifestyle and low-carbon consumption). When they stayed in hotels, they preferred general behaviors, such as reusing linens, rejecting disposable supplies, and reducing waste. Furthermore, they were willing to engage in advanced behaviors, such as low-carbon education and low-carbon consumption [44,50].

In this research, high GPEB meant that guests supported low-carbon behaviors and cared about the low-carbon measures taken by hotels. Thus, hotels need to fit guests' needs by developing and innovating low-carbon services to increase guest satisfaction and attract returning visitors. Understanding that R-E Fit and guests' satisfaction are affected, under the moderating effect of GPEB, by their intent to revisit, can help hotels to achieve sustainable development.

5.1. Theoretical Implications

This study plays a vital role in contributing to the existing low-carbon hospitality management literature. The findings confirmed the new viewpoint of "R-E Fit—guests' satisfaction—GPEB—revisit intention" from the perspectives of both hotels (internal) and guests (external).

This research proved the positive effect of the R-E Fit theory on low-carbon management of luxury green hotels, filling the gap in low-carbon hospitality studies. According to R-E Fit, low-carbon services could be a new selling point in luxury hotels. Although hotels' main purpose is to invite guests to engage in leisure and enjoyment, new attractions are needed to sustain the current business, such as low-carbon service [29,51,172]. On the one hand, R-E Fit could help luxury hotels to improve their environmental and social performances; on the other hand, it can also help to develop business performance.

Furthermore, GPEB research provided a new direction for researching hotel business performance. Hotels' low-carbon services attracted guests to increase their satisfaction; meanwhile, guests with more pro-environmental awareness would be likely to revisit and easily satisfy hotels' low-carbon management, thereby improving their turnover rate. This study confirmed the moderating role of GPEB in guests' satisfaction and intentions to revisit. According to the findings, R-E Fit could positively influence guests' satisfaction, and guests with environmental awareness would have more willingness to return. High-quality service generates customer satisfaction, enhancing the competitiveness of the hotel. Furthermore, the PEB study also provides empirical support for the theoretical framework, as illustrated in Figure 1.

5.2. Practical Implications

In the beginning, green hotels implemented low-carbon management due to the government's call for low-carbon to control global warming. Under the low-carbon tourism transformation, general green hotels started low-carbon management in the past ten years, mainly focusing on general low-carbon behaviors, such as garbage classification, energy-saving, and low-carbon technique [19]. Although Li [173] and Han [174] mentioned some positive low-carbon behaviors, such as management behaviors, investment behaviors, and marketing behaviors, they lack features. It is difficult for a hotel without characteristics to attract loyal guests [175,176]. The sustainable development of green luxury hotels requires low-carbon innovation, which means innovating services, not technology.

Williams [118] presented four key components in green hospitality management: ecoservice, eco-accommodation, eco-cuisine, and eco-programming. As such, green luxury hotels need to innovate their characteristic services, for instance through designing high-quality, low-carbon products (100% recycled note pads, biodegradable soap, cotton, and linen bedding), creating green restaurants (menus that incorporate local, seasonal, and organically grown food), or organizing green promotion activities. A hotel's featured services can impress guests, leading to more satisfaction and willingness to revisit. This study made an interesting discovery that new guests differ from previous guests. Since the beginning of the low-carbon transformation around China, people's pro-environmental awareness has been increasing. Suki [171] found that guests were knowingly concerned about eco-friendliness or acted in low-carbon ways if they were aware of environmental problems and potential threats; however, they preferred to engage in environmental practices at home rather than in hotels and workplaces. This study found that more and more people want to join in low-carbon activities in tourism. This new finding suggests

that managers should design characteristic low-carbon services to satisfy their customers and increase hotel value recognition. Satisfied guests are loyal guests, and they bring new guests. Thus, characteristic services can benefit hotels' performance development and a sustainable green image.

6. Conclusions

This study puts forth two new findings. The first is R-E Fit in hospitality management. R-E Fit reflected low-carbon service; high-quality, low-carbon service could meet and satisfy guests' needs. Additionally, R-E Fit is also related to a hotel's green image. Management values showed the hotel's green culture, which guests knew through low-carbon services and activities. Guests with similar values would have greater intent to return, thus aiding hotels to achieve sustainable financial performance.

The second finding concerns GPEB. In hotels, people have more pro-environmental behaviors, including general and advanced behaviors; they have high requirements for low-carbon services. In other words, general low-carbon behaviors which are no different from other hotels cannot attract guests. Hotels need to promote service innovation to build their unique characteristic services to attract new consumers and retain old consumers: the more distinctive the low-carbon service, the higher the customer satisfaction and the better the hotel's competitiveness.

The findings of this article enhance the theoretical implication of the relationship of low-carbon service and guests' pro-environmental awareness in hospitality management. On the one hand, as a new selling point, low-carbon service can positively influence guests' satisfaction and intention to revisit. On the other hand, guests with high pro-environmental awareness have high needs for low-carbon experiences in their lodging time. The more low-carbon services are provided by hotels, the higher the satisfaction and loyalty they will receive. Due to the importance of low-carbon service in low-carbon management, hotels should consider more measures to develop their low-carbon behaviors, which is the practical implication of this article. As mentioned, general behavior does not easily produce high satisfaction and loyalty. In this case, according to the results of this paper, designing characteristic low-carbon services is a new way to achieve high business performance in hotel management. Guests with high environmental awareness would like to join in low-carbon activities and they will require hotels to provide diverse low-carbon services; meanwhile, diversified hotels' low-carbon activities can also enhance guests' pro-environmental awareness and intentions to help to achieve the goal of 3060 in China.

Although this study's results are crucial in understanding the relationship of R-E Fit, guests' satisfaction, GPEB, and revisit intention, the researcher also encountered some limitations in completing this research.

The first issue regards satisfaction and the intention to revisit, which belong to business performance. However, there are many dimensions in business performance; one of the most important is competitiveness. In the comprehensive performance evaluation, competitiveness has become the key indicator and plays a vital role in considering the success of hotels [177]. R-E Fit is a new finding in low-carbon hospitality management; therefore, a study of R-E Fit and business performance cannot ignore competitiveness evaluation. Future studies can examine the relationship between R-E Fit and competitiveness concerning sustainable hospitality development.

Another limitation concerns GPEB. There are 12 GPEB items in this study. As mentioned, guests' eco-friendly behaviors have general and advanced behavioral dimensions. Future studies need to classify GPEB to test the moderating effect on satisfaction and intention to revisit on low-carbon management in the hotel sector. Furthermore, future research can also examine GPEB's moderating impact on competitiveness.

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Institutional Review Board Statement: All subjects gave their informed consent for inclusion before they participated in the study. The study was conducted in accordance with the Declaration of Helsinki, and the protocol was approved by the Ethics Committee of the Guangdong University of Petrochemical Technology (Ref. No. 702).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: All the data used in this study are public.

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Conflicts of Interest: The author declares no conflict of interest.

Appendix A. Measurement Instrument

Recreationist-Environment Fit (R-E Fit)

Facilities (F)

- F1. The energy-saving facilities provided by this hotel meet my expectations.
- F2. The maintenance behaviors of the energy-saving facilities in this hotel meet my expectations.
 - F3. The low-carbon services provided by this hotel meet my expectations.

Environmental Resource (ER)

- ER1. The green landscape of this hotel fits my needs for living.
- ER2. The environmental resources around this hotel are suitable for my travel activities.

Environmental Functions (EF)

- EF1. This hotel helps me to release pressure.
- EF2. This hotel provides me with a wonderful lodging experience.
- EF3. This hotel fulfills my needs for leisure experience.

Interpersonal Opportunities (IO)

- IO1. When staying at this hotel, I would like to share the experience of participating in the hotel's green activities with other participants.
- IO2. When staying at this hotel, the hotel gives me the opportunity to meet with other participants.
- IO3. When staying at this hotel, the hotel allows me and other participants to learn certain environmental activities.

Activity Knowledge/Skills (AC)

- AC1. My skills fit the low-carbon advocacy of this hotel.
- AC2. My knowledge fits the low-carbon advocacy of this hotel.
- AC3. My post experiences fit the low-carbon advocacy of this hotel.

Management (M)

- M1. I identify with this hotel's concepts regarding the lodging.
- M2. I identify with the hotel's concepts regarding the management of low carbon.
- M3. When experience this green hotel, I feel that I share similar values with the manager.

Guests' Satisfaction (GS)

- GS1. I am satisfied with the service of this hotel.
- GS2. I would love to leave a good review online.
- GS3. I would like to recommend this hotel to my friends.

Revisit Intention (RI)

- RI1. I plan to revisit this hotel.
- RI2. The probability that I would consider revisiting this hotel is high.
- RI3. If I would, I would like to continue visiting this hotel.

Guests' Pro-Environmental Behavior (GPEB)

GPEB1. I am willing to adopt a low-carbon lifestyle in my daily life.

GPEB2. I will refuse to buy products from enterprises with environmentally damaging behaviors.

GPEB3. I am willing to buy products with eco-friendly labels.

GPEB4. I am willing to travel to destinations with beautiful natural surroundings.

GPEB5. I am willing to learn about low carbon.

GPEB6. In the green hotel, I prefer to use my own toiletries rather than disposable supplies.

GPEB7. In the green hotel, I prefer to reuse linens such as bed sheets and towels.

GPEB8. In the green hotel, I prefer to reduce the amount of garbage.

GPEB9. In the green hotel, I am willing to join in low-carbon activities which are organized by the hotels.

GPEB10. In the green hotel, I am willing to learn low-carbon knowledge.

GPEB11. In green hotel, I am willing to purchase low-carbon products.

GPEB12. Even though the hotel pricing has risen by 10% because of the low-carbon service, I am still willing to stay.

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Article

The Market Disruption Path of Green-Oriented Trajectory-Transformed Technology Innovation: A Study of Consumer Lifestyles during the "Chasm" in China's Electric Vehicle Market

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Abstract: Green-oriented trajectory-transformed technology (GTTT) innovation is a strategic path that leads simultaneously to a comprehensive green transformation of national economic and social development and a disruption of corporate competition. However, this type of innovation is nonmarket-oriented and naturally results in a deeper and wider "chasm" more than any marketoriented innovation between the early market and the mass market, which is difficult to bridge; this leads to theoretical and practical difficulties with respect to the formulation of market strategies. To bridge such a "chasm", this paper explores the paths that facilitate a market launch strategy that is capable of bridging the market "chasm". The paper identifies electric vehicles as an example of a GTTT product, based on the hierarchical characteristic model, investigates the impact of lifestyle on consumers' purchase intention, examines the mediating effect of interpersonal influence susceptibilities, uses data collected via consumer questionnaires to test the research model, and thereby identifies the various consumer groups that are present during the "chasm" period and the characteristics they exhibit. The results show that fashion consciousness, leadership consciousness, environmental consciousness, and informational interpersonal influence are the market strategy paths that lead to market disruption, and fashion leaders and price-conscious environmentalists are the key consumer groups during the "chasm" period.

Keywords: GTTT; electric vehicles; fashion consciousness; leadership consciousness; environmental consciousness; price consciousness; interpersonal influence; purchase intention; market disruption

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1. Introduction

The term green-oriented trajectory-transformed technology (GTTT) innovation products refers to new products that offer a new technological trajectory aimed at enhancing social utility more than consumer utility, for example, by encouraging an ecology-minded society and sustainable development [1]. These new products overlap with a technological trajectory transformation from the industry's original technology track to a new technology track that features significantly different core technologies, changes in market trajectory with respect to the industry's market paradigm, mainstream market demand and mainstream consumer behavior, and a product utility-oriented trajectory shift from a focus on the enhancement of consumer utility to an emphasis on the improvement of social utility over consumer utility (often referred to as a social or green orientation) [1]. As a result of this trio of track changes, GTTT can allow multiple strategic goals to be achieved simultaneously. Such goals include the comprehensive green transformation of national economic and social development, high-quality development, industrial transformation, upgrading and green transformation, and the competitive disruption of enterprises. However, compared to new market-dominant products, GTTT products suffer from competitive disadvantages caused by declining consumer utility before they can subvert the competitive position of

new market-dominant products. Accordingly, GTTT products are nonmarket-oriented rather than market-oriented and are thus unpopular with the mainstream market; this leads to conflicts with mainstream marketing theory, which emphasizes a market orientation as its theoretical foundation. As such, GTTT products present theoretical dilemmas and practical difficulties with respect to the formulation of market strategies, and they face tremendous risks in the market [2]. However, few studies have explored the ways in which GTTT products can disrupt the competitive position of market-dominant products.

Moore [3] noted that for discontinuous technology innovation products, a "deep and wide chasm" emerges between early adopters and the early public [4], and many new products are withdrawn from the market because they cannot successfully cross this "chasm". The "chasm" period refers specifically to the transition period during which the early market for a new product diffuses into the mainstream market [5]. This transition period takes a long time to cross because of the significant differences in the motivation of consumers in early and mainstream markets to adopt the innovation [5]. GTTT products are nonmarket-oriented discontinuous products, and the "chasm" is more pronounced and more difficult to cross in this case than in the case of market-oriented discontinuous technology innovations. Therefore, it is necessary to identify the determinants of consumers' purchase intention during the "chasm" period and to reveal the mechanisms by which these determinants influence purchase intention to provide a basis for formulating early-market strategies for GTTT products.

Purchase intention refers to a consumer's motivation to engage in purchase behavior [6]. The literature has shown that purchase intention is the most reliable tool for measuring purchasing behavior and that it can effectively predict consumer demand, serving as the foundation for the development of market strategies [7]. To date, for the study of factors influencing consumers' purchase intention regarding new products, the rational person model, which is based on the economic perspective, and the attitude behavior model, which is based on the social psychology perspective, have been widely influential [8–10]. However, these models involve only individual consumer factors and ignore the key situational fact that people have a social nature; as such, these models rarely consider the influence of other people in society on consumers [11,12]. In contrast, studies from the sociological perspective focus on the influence of other people on consumer behavior during social interactions, in addition to individual factors [13]. Because the complex characteristics of GTTT products technological change of track, market change of track, and nonmarket-oriented—have received insufficient academic attention, the purpose of this paper is to investigate the mechanisms of positive purchase intention formation. Thus, the formation of positive purchase intention may be more influenced by interpersonal interaction processes than other types of new products. Therefore, this paper attempts to investigate the issue of purchase intention with regard to GTTT products from a sociological perspective.

Despite the important influence of lifestyle on consumer purchase decisions from a sociological perspective, and despite the fact that the influence of lifestyle on purchase intentions regarding market-oriented technological innovation products has been frequently studied in academia [14–17], few studies have examined the influence of lifestyle on the nonmarket-oriented influences on purchase intention regarding products related to technological innovation. Lifestyle, which encompasses individual activities, interests, and attitudes, is a multidimensional construct that can provide additional information to help us understand the complex process by which consumers make purchase decisions [14,18,19], and it can explain the heterogeneity among consumers' purchasing motives resulting from different preferences and different self-identities on the part of consumers [20]. Since GTTT is a nonmarket-oriented discontinuous technology innovation product, it leads to a more complex process of decision-making and often inconsistent purchase motives for consumers compared to continuous technology innovation products. GTTT products also offer new performance-related characteristics, resulting in technological track changes that market-dominant new products do not have. Thus, GTTT products have multiple characteristics that are closely related to consumers' self-identities. Therefore, by highlighting the influence of different lifestyle dimensions on purchase intention regarding GTTT products, this study has the potential to reveal the path by which GTTT products subvert the competitive position of new market-dominant products and to provide a theoretical basis for the formulation of market strategies for GTTT products.

Axsen et al. [20] argued that the lifestyles, self-identities, and consumption behaviors of individuals interact via the process of social interaction. Meanwhile, it has been noted in the literature that interpersonal influence is the most prevalent form of social interaction, and it includes the two types of normative and informational interpersonal influences. Consumers' sensitivity to these two types of influence affects their final consumption decision [21–23]. Since lifestyle represents consumers' self-identity—which can be continuously reflected, constructed, and maintained—little research has investigated whether and how different dimensions of consumers' lifestyles can reflect, construct, or maintain consumers' self-identity by influencing both types of interpersonal influence susceptibility and thus new GTTT product purchase intention. Moreover, since GTTT products are novel in the market, and since consumers lack a frame of reference for such products, it is worth exploring target consumer groups and the typical characteristics of GTTT products, based on consumers' performance on different lifestyle dimensions, to provide a basis for decision-making regarding targeted marketing strategies.

Accordingly, this paper examines the influence of different lifestyle dimensions on consumers' purchase intention during the "chasm" period associated with GTTT products as well as the mediating roles of normative and informational interpersonal influence susceptibility in the relationship between different dimensions of consumers' lifestyles and their purchase intentions regarding GTTT products; identifies the target consumers of GTTT products and their typical characteristics; and provides a theoretical basis for formulating a market launch strategy that is not only conducive to market launch but also to bridging the "chasm" and thereby achieving market disruption. The contributions of this paper are mainly in the following five areas.

First, this paper proposes a strategic path to achieve the competitive position of GTTT products disrupting the dominant products in the market from the perspective of consumer lifestyles, which not only facilitates the understanding of the formation of positive purchase intentions for GTTT products from multiple dimensions of consumer lifestyles but also explains that consumers have multiple complex motives in purchasing GTTT products [20]. Second, this paper contributes to the study of consumer lifestyles. Few previous studies have used consumer lifestyles in the study of GTTT products [15,16,18,19,24], and this paper contributes by enriching the understanding of consumer lifestyles in the consumer behavior field. Third, this paper identifies the mechanisms by which different dimensions of consumer lifestyles influence the formation of GTTT new product purchase intention, which helps us to understand how different dimensions of consumer lifestyles influence the formation of new GTTT product purchase intention. Fourth, this paper expands the research context of interpersonal influence susceptibility. The previous studies have mainly used interpersonal influence susceptibility in contexts such as online shopping [25,26] and impulse buying contexts [27], etc. This paper applies the hierarchical characteristics model to investigate the important role of interpersonal influence susceptibility in the new GTTT product context, thereby expanding the application context of interpersonal influence susceptibility. Fifth, this paper contributes to the segmentation of the target market for the GTTT products. Through cluster analysis, this paper finds that fashion leaders and price-conscious environmentalists are the most likely target consumer groups to achieve market launch for the GTTT products.

The remainder of this paper is organized as follows. Section 2 introduces the literature review and the process of developing the hypotheses tested, and it ultimately presents our research model. Section 3 presents the research methodology followed by this paper, including the selection of the case sample, the data collection process, the measurement of variables, and the basic characteristics of the data. Section 4 presents the results of the data

analysis. Section 5 analyzes the characteristics of consumers during the "chasm" period. Section 6 presents our discussion of the study's results. Section 7 presents our conclusion.

2. Literature Review and Hypotheses

2.1. Underpinning Theory (the Hierarchical Trait Model)

According to Joachimsthaler and Lastovicka's [28] explanation of the theoretical content of the hierarchical trait model, the stable traits of individuals first influence the traits of individuals who are prone to change with the context and then further influence the specific behaviors of individuals in some specific contexts. The theory focuses on the fact that the different characteristics of individuals are hierarchical. Many studies have shown that the hierarchical trait model theory can be used to explain the different consumption behaviors of individuals. For example, in the field of consumer behavior, Batra et al. [29] analyzed the influence of different types of individual values on the importance of different attributes of products and concluded that values are more stable individual characteristics of individuals, that consumers' susceptibility to normative interpersonal influences is a characteristic that tends to change with context, and that values will first influence individuals' susceptibility to normative interpersonal influences and then influence individuals' perceptions of the importance of different attributes of products. In the field of investment transactions, Hoffmann and Broekhuizen [22] analyzed the effects of individuals' level of knowledge in the investment field, the level of psychosocial risk, and the degree of social need on the frequency of investment transactions, and they concluded that when individuals lack relevant investment knowledge, when they perceive investment as a risky activity, and when they have a strong social need, they increase their knowledge of information access and thus increase the frequency of transactions.

From the above studies, it is clear that there is a hierarchy of different consumer characteristics. According to existing studies, consumers' lifestyles are more stable characteristics [17,18], and consumers' susceptibility to normative interpersonal influences and susceptibility to informational interpersonal influences are characteristics that easily change with context [30–32]. Therefore, based on the hierarchical trait theory model, this paper attempts to analyze the relationship between consumers' lifestyles and GTTT product purchase intention, and the mediating role of consumers' susceptibility to two types of interpersonal influences.

2.2. Different Lifestyle Dimensions

Due to the rich connotations of the notion of lifestyle, scholars believe that, in conducting research, appropriate lifestyle dimensions must be selected in different contexts. Given that academics have not yet been able to propose lifestyle dimensions that are suitable for the new GTTT product scenario, academic research concerning novel green products and new technology-based products [14,15,19,20] can provide clues that allow us to propose lifestyle dimensions that are suitable for the GTTT products referenced by this study, since GTTT products are nonmarket-oriented discontinuous technological innovation products. In the research concerning novel green products and new technology-based products, scholars have researched and proposed dimensions, such as fashion consciousness, entertainment and leisure consciousness, network preference, leadership consciousness, technology orientation, price consciousness, nostalgia consciousness, and environmental consciousness (as shown in Table 1). Since GTTT products are novelties in the market, and they exhibit the characteristics of being significantly green—contrary to mainstream demand—and high in cost, the factors that are likely to be the explanatory lifestyle dimensions in the GTTT scenario should be fashion consciousness, leadership consciousness, price consciousness, and environmental consciousness. Entertainment and leisure consciousness and network preference are not connected to GTTT innovation, and they cannot be instrumental dimensions of GTTT innovation management; therefore, these notions should be excluded from this study. Nostalgia and fashion consciousness are contradictory dimensions, so nostalgia should not be chosen if fashion consciousness is chosen. Although technology orientation may also seem to be an explanatory dimension, such an orientation

does not play such a role in the GTTT scenario because the strategic orientation of GTTT products does not pertain to technological novelty and sophistication but rather focuses on changing consumer behavior and enhancing social utility. Thus, this paper identifies fashion consciousness, leadership consciousness, price consciousness, and environmental consciousness as explanatory dimensions of the lifestyle paradigm to explore the mechanisms and paths leading to a competitive position in which GTTT products subvert the dominant products in the market from the lifestyle perspective.

Table 1. Literature related to different lifestyle dimensions.

Author & Year	Products	Dimension Content
Leung (1998) [33]	Technology new products	2: fashion consciousness, entertainment consciousness 6: fashion consciousness, adventure consciousness,
Kaynak & Kara (2001) [34]	General new products	perfectionism, family orientation, collectivism orientation, price consciousness
Haanpää (2007) [35]	General new products	1: environmental awareness
Kucukemiroglu et al. (2007) [36]	General new products	4: pragmatism, fashion consciousness, self-awareness, collectivism
Lee et al. (2009) [14]	Electronic high-tech products	4: fashion consciousness, entertainment orientation, internet involvement, and e-shopping preference
Chen (2011) [15]	New electronic products	4: fashion consciousness, leadership consciousness, price consciousness, and nostalgia consciousness
Chen & Dong (2014) [24]	Home appliances	6: leadership and challenge, health and leisure, family orientation, face and being recognized, conservative negativity and price concern
Sheng & Gao (2016) [16]	Energy-efficient refrigerators	4: fashion consciousness, leadership consciousness, price consciousness and development consciousness
Axsen et al. (2018) [20]	Electric vehicles	2: technology orientation, environmental orientation
Kropfeld et al. (2018) [37]	New green products	2: frugal consciousness, environmental consciousness
Li et al. (2019) [17]	New green products	1: frugal consciousness
Lee (2021) [18]	New green products	1: anti-consumption lifestyle
Caggiano et al. (2021) [19]	New green products	1: environmental awareness

2.3. Hypotheses and Research Framework Development

2.3.1. The Influence of Different Lifestyle Dimensions on Purchase Intentions Regarding GTTT Products

Fashion consciousness refers to the extent to which individuals are fashion-conscious [38]. It is an important factor in consumers' lifestyles that influences their consumption decisions with respect to new products [24]. Consumers who are more fashion-conscious are likely to be more innovative, more willing to take risks, and more interested in being noticed by others [14]. Studies have shown that highly fashion-conscious consumers tend to purchase sustainable products to allow them to express themselves [39]. Highly fashion-conscious consumers have a positive purchase intention with respect to high-technology products due to their perceived usefulness and ease of use [14]. GTTT products employ a core technology that is fundamentally different from the current dominant core technology in the industry, thereby changing key performance features that are generally accepted in the market for dominant products, while providing market performance-related features that the dominant new product does not offer, thus potentially meeting the needs of more fashion-conscious consumers. Therefore, consumers with high fashion consciousness are more likely to be the target consumer group for GTTT products.

Leadership consciousness refers to an individual's sense of independence and sense of influencing others' purchasing decisions [15]. Consumers with a strong sense of leadership usually exhibit high levels of self-confidence and the personal ability to make decisions independently. They seek to influence others' purchase decisions via communication and tend to engage in purchase behavior that differs from the mainstream consumer group. Studies have shown that a stronger sense of leadership is conducive to consumers' development of positive purchase intentions regarding new green products [16]. GTTT

products face an imperfect consumer environment during the early stages of market entry and thus require a major shift in consumer behavior and entail higher consumption risks. Such products therefore require consumers to have a high level of self-confidence and the ability to make appropriate consumption decisions. Therefore, consumers with a strong sense of leadership are more likely to purchase GTTT products.

Price consciousness refers to the extent to which consumers are concerned about low prices [40,41]. Consumers with higher levels of price consciousness are more concerned about low prices and are thus more reluctant to purchase expensive products [42]. The research has shown that high prices are a significant influencing factor that discourages consumers from purchasing new green products [43,44]. Laroche et al. [45] found that consumers are reluctant to pay higher prices for new green products. Tran et al. [46] found that the excessive price of electric vehicles compared to fuel-based vehicles reduces early consumer purchase intentions regarding electric vehicles. GTTT products use core technologies that are fundamentally different from the currently dominant core technologies in the industry and are more expensive. Thus, these products tend to face price disadvantages early in their lifespan, thereby making price-sensitive consumers less willing to purchase GTTT products, which are more expensive.

Environmental consciousness refers to the degree to which individuals are concerned with environmental issues. It is an important antecedent variable with respect to proenvironmental behavior [47,48]. More environmentally conscious consumers usually have a stronger sense of environmentalist identity and are more likely to purchase new environmentally friendly products to demonstrate their environmentalist identity to others [49]. Research has shown that the importance of electric vehicles as a symbol of environmentalist self-identity is stronger among consumers who are concerned about climate change, thereby increasing the intention of these consumers to purchase electric vehicles [50]. GTTT products are typically novel green products that are designed to increase external environmental utility [51] more significantly than consumer utility. Therefore, environmentally conscious consumers tend to exhibit positive purchase intentions regarding GTTT products. Thus, the following hypotheses are proposed.

Hypothesis 1 (H1). Fashion consciousness positively influences purchase intention regarding GTTT products.

Hypothesis 2 (H2). *Leadership consciousness positively influences purchase intention regarding GTTT products.*

Hypothesis 3 (H3). *Price consciousness negatively influences purchase intention regarding GTTT products.*

Hypothesis 4 (H4). *Environmental consciousness positively influences purchase intention regarding GTTT products.*

2.3.2. The Mediating Role of Susceptibility to Interpersonal Influence

Interpersonal influence refers to the process by which others influence individuals' attitudes, behaviors, etc., in a social manner; this category includes both normative interpersonal influence and informational interpersonal influence [21]. Both types of interpersonal influence exhibit differences in terms of the degree to which individuals are influenced across different consumers, i.e., individuals' susceptibility to normative interpersonal influence (SNI) and their susceptibility to informational interpersonal influence (SII). SII differs and changes depending on the scenario [22]. Consumers' susceptibility to normative interpersonal influence refers to their need to identify or to enhance their image in front of noteworthy others by acquiring and using various products and brands (value expression function) as well as their willingness to conform to others' expectations with respect to their purchase decisions (utilitarian function) [21,52,53]. Consumers' susceptibility to informational interpersonal influences refers to their tendency to learn about products and

services by observing others and/or seeking information from others, thereby reflecting individuals' tendency to accept information from others as factual evidence [21,30].

As mentioned above, lifestyles represent consumers' self-identities, and consumers' self-identities can be continuously reflected, constructed, or maintained [20]; thus, processes of interpersonal influence may be an important way by which consumers reflect, construct, and maintain their individual self-identities. According to the core logic of the hierarchical trait model, in the context of consumption of GTTT products, individual fashion consciousness, leadership consciousness, price consciousness, and environmental consciousness represent different self-identities adopted by consumers who purchase GTTT products, and these characteristics reflect different motivations of those consumers, which are generally more stable [17,18]. In the process of interacting with others, consumers reflect, construct, or maintain these self-identities by influencing changeable normative and informational interpersonal influence susceptibility, which further affects individuals' purchase intention regarding GTTT products.

Specifically, consumers who are more fashion-conscious, leadership-conscious, and environmentally conscious imply a higher need to reflect, construct, or maintain a fashionable image, thereby influencing others' decisions, and projecting an environmentally friendly self-image [50,54], which helps to increase individuals' susceptibility to normative interpersonal influence, thereby enhancing individuals' identification with the purchase of new products [55] and the construction of a good self-image [23], which in turn leads to positive new product purchase intentions. Although price-sensitive consumers are more concerned with the price of products, they also desire to fit in with the collective and to gain recognition from others [56]. Such consumers also have a motivational need to enhance their personal status; thus, they also contribute to individuals' susceptibility to normative interpersonal influences, which leads to positive new product purchase intentions. GTTT products produce social utility via technological track changes and are typically novel green products on the market [51]. Thus, such products represent an orientation toward technological and product-related utility; and, as they are highly fashionable, novel, and environmentally efficacious, they can enhance the personal image and status of consumers. Therefore, in the context of the consumption of GTTT products, consumers who are more fashion-conscious, leadership-conscious, price-conscious, and environmentally conscious can form positive purchase intentions for GTTT products by increasing their susceptibility to normative interpersonal influence.

Consumers with a stronger sense of fashion, leadership, and environmental awareness have a higher desire to make correct consumption decisions to shape individual's self-image [57], which helps to increase 'those individuals' susceptibility to informational interpersonal influences and helps them obtain more information about new products to reduce the risk of decision failure [58], which in turn leads to a positive new product purchase intention. Consumers who are more price conscious have a stronger search intention to pay an appropriate price [59], which also contributes to enhancing individuals' susceptibility to informational interpersonal influence, which leads to positive new product purchase intentions. GTTT products offer performance-functional features that new market-dominant products do not have, requiring consumers to expend more effort and time to better understand their features; to ensure correct and appropriate consumption decisions, consumers want more information about GTTT products to help in decision making [56,60]. Therefore, in new GTTT product consumption contexts, consumers who are more fashion conscious, leadership conscious, price conscious, and environmentally conscious can develop positive new GTTT product purchase intentions by increasing individual susceptibility to informational interpersonal influences. Thus, the following hypotheses are proposed.

Hypothesis 5 (H5). *Individuals' normative interpersonal influence susceptibility (H5a) and informational interpersonal influence susceptibility (H5b) mediate the relationship between fashion consciousness and purchase intention with respect to GTTT products.*

Hypothesis 6 (H6). *Individuals' normative interpersonal influence susceptibility (H6a) and informational interpersonal influence susceptibility (H6b) mediate the relationship between leadership consciousness and purchase intention with respect to GTTT products.*

Hypothesis 7 (H7). *Individuals' normative interpersonal influence susceptibility (H7a) and informational interpersonal influence susceptibility (H7b) mediate the relationship between price consciousness and purchase intention with respect to GTTT products.*

Hypothesis 8 (H8). *Individuals' normative interpersonal influence susceptibility (H8a) and informational interpersonal influence susceptibility (H8b) mediate the relationship between environmental consciousness and purchase intention with respect to GTTT products.*

The research framework of this study is shown below (Figure 1).

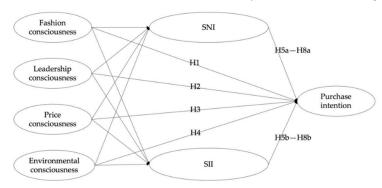


Figure 1. A proposed research framework (SNI refers to susceptibility to normative interpersonal influence, SII refers to susceptibility to informational interpersonal influence).

3. Research Method

3.1. Sample

The paper identifies electric vehicles as an example of a GTTT product. Our first reason for choosing electric vehicles as a case study is that electric vehicles were typical GTTT products prior to their emergence as the dominant product in the automotive market, and electric vehicles replaced fuel power drive technology with "three electric" technology (battery, motor, and electric control), thereby changing the core technology of the automotive industry—power drive technology. Electric vehicles require consumers to charge the vehicles frequently and for prolonged periods of time, which is a significantly different consumer behavior from that associated with fuel vehicles; in addition, "mileage anxiety" leads to changes in patterns of vehicle usage. These developments in technology and consumer behavior have changed the market trajectory of the entire vehicle industry.

Second, the electric vehicle market in China from 2015 to the present provides a window of opportunity to study the GTTT "chasm" crossing strategy and the GTTT market launch strategy from the perspective of the demand for "chasm" crossing. The market for electric vehicles in China was extremely limited for many years prior to 2014, and all electric vehicle manufacturers struggled to enter the market; however, the tremendous effect of Tesla's introduction to the Chinese market in 2014 alongside the concurrent increase in new energy vehicle subsidies led to a "blowout" with respect to electric vehicle sales in China in 2015. Since that time, sales have been increasing rapidly each year, and the market launch of electric vehicles has been achieved According to Wind database statistics, the sales of electric vehicles in China from 2011-2015 were 0.56, 1.14, 1.46, 4.50, and 247,500 units, respectively. However, in 2018, when China reduced subsidies for new electric vehicle sales, sales of such vehicles in China immediately underwent a shift from high growth to negative growth, and China was forced to increase policy support in 2020. At the end of 2016, China's Ministry of Finance, Ministry of Industry and Information Technology, Ministry of Science and Technology, and Development and Reform Commission jointly issued an announcement that central and local subsidies for all types of models would

be capped at 20% of the current standard in 2019 and 2020. In fact, the subsidy decline policy was implemented in 2018. Then, in April 2020, four Chinese ministries jointly issued an announcement that the subsidy decline would be smoothed out and the subsidy withdrawal time would be extended to the end of 2022. Additionally, according to Wind database statistics, the growth rate of China's electric vehicles from 2016–2019 was 65.25%, 59.41%, 50.87% and -1.22%, respectively). Thus, from 2015 to the present, electric vehicles in China have been unable to achieve market development through the power of the market itself, which highlights the "chasm" phenomenon.

In addition, according to data released by the China Passenger Association, China's new energy vehicle penetration rate of 14.8% in 2021 has not yet reached 16%, and it remains removed from the mainstream market. Moore divided innovation adoption groups into early market, mainstream, and laggard markets, with early market adoption consisting of innovators and early adopters at 16%, mainstream adoption consisting of early mass and late mass at 68%, and laggard adoption at 16%. Therefore, taking the end of 2015 as a reference point, the previous period of electric vehicle development in China can be regarded as the market launch period, while the post-2015 period should be regarded as the "chasm" period of China's electric vehicle market. Electric vehicles remain in the "chasm" crossing stage. While electric vehicles have progressed through the market launch and "chasm" crossing stages, fuel vehicles have been in the stage of mass production, and they represent new market-driven products and continuous technical innovation products. Therefore, market launch and "chasm" crossing in the context of electric vehicles represents a typical scenario for market launch and "chasm" crossing with respect to GTTT products, and the post-2015 stage of the development of China's EV market provides a window of opportunity to study the "chasm" crossing strategy and the market launch strategies used in the context of GTTT from the perspective of demand for "chasm" crossing.

3.2. Participants and Procedure

This paper selects consumers from Guangdong, Beijing, Shanghai, Zhejiang, Henan, and Jiangsu provinces in China as the survey respondents based on the criteria of geographical representativeness and sales representativeness. According to the sales of new energy vehicles in China's provinces and cities in the first half of 2020 announced by the China Passenger Association, the provinces or cities represented by the top sales ranking in the first and second tier cities are, Beijing in the north; Guangdong in the south; Shanghai, Jiangsu, and Zhejiang in the southeast coastal region; and Henan in the central and western cities. The data are collected from the Credamo online platform using random sampling and data collection procedures of preresearch and formal research. Credamo is a data collection company in China dedicated to providing one-stop solutions for research, data collection, modeling and analysis, and commercial applications for research and education data for teachers and students in over 1800 universities worldwide.

To ensure the quality of the questionnaire, subjects who have answered more than 10 times, with credit scores greater than 70, and a historical adoption rate of 70% and above were selected for this study on the Credamo platform. The Credamo platform set 60 points or more for participants with better credit ratings, the higher the credit rating, the higher the quality of the questionnaire. A specified question was also added to the questionnaire to allow the platform to automatically reject participants who did not answer seriously and to ensure the validity of the responses [61]. This study provided a reward of 6 (CNY) per participant to motivate participants [62].

Prior to the distribution of the formal questionnaire, the researchers conducted a survey using the Credamo platform in June 2020 to ensure the reasonability of the questionnaire design and the applicability of the scale items. A total of 255 questionnaires were distributed in the prestudy, 150 valid questionnaires were collected, and an exploratory factor analysis was conducted on the prestudy data using SPSS 24.0. Items with factor loadings of less than 0.45 were removed according to the criteria suggested by [63]. Ultimately, 7 items were excluded to form a formal questionnaire featuring 28 items.

Prior to the formal research, the sample size was at least ten times the number of measurement entries, as recommended by Suki and Suki [64]. Given that there were 28 measurement entries in this study, the minimum sample size for this study was 280. Additionally, according to the formula for the minimum sample size in statistics, the minimum sample size required at a confidence level of 95%, and a sampling error of 5% was 384. Combining these two approaches, a sample size of 600 was planned for this study to ensure the quality of the study, which was conducted on the Credamo platform in July 2020. The questionnaire was formally researched. After removing the questionnaires with missing answers, improperly filled answers, and other obviously invalid questionnaires [61], the final valid sample size was 420, with a valid recall rate of 70%. The distribution of the sample characteristics of the formal research is shown in Table 2. The data at the overall Chinese level are also provided.

Table 2. Distribution of sample characteristics (n = 420).

Variable	Type	Frequency	Proportion	Chinese (2020)	
Condon	Male	210	50.00%	51.24%	
Gender	Female	210	50.00%	48.76%	
	<20	14	3.33%	0–14 (17.95%)	
Age	20–40	374	89.05%	15–64 (68.55%)	
	>40	32	7.62%	≥65 (13.50%)	
	Undergraduate or lower	73	17.38%	89.04%	
T	Undergraduate	287	68.33%		
Education	Master's degree or higher	59	14.05%	10.96%	
	other	1	0.24%		
	≤2	111	26.43%	32.22%	
TT 1 11 ·	3	164	39.05%	20.99%	
Household size	4	96	22.86%	13.17%	
	<u>≥</u> 5	49	11.67%	33.62%	
	<1	188	44.76%	36.9%	
No. of Children	1	176	41.90%	63.1%	
	≥2	56	13.33%	03.1 /6	
	≤100 K	79	18.81%	58.8%	
	100 K-200 K	179	42.62%	<i>30.0</i> /0	
Household	200 K-300 K	92	21.90%		
disposable income (CNY)	300 K-500 K	47	11.19%	41.2%	
meonie (CIVI)	500 K-800 K	18	4.29%		
	>800 K	5	1.19%		

The data on gender, age, education, and household size in the last column of Table 2 were obtained from the National Bureau of Statistics (NBS) website in China (http://www.stats.gov.cn/tjsj/ndsj/2021/indexch.htm accessed on 5 June 2022). The number of children and annual household disposable income were not available on the website of China's National Bureau of Statistics; thus, this paper obtained data on consumers of new energy vehicles from a special consulting firm to compare with the sample in this paper (https://www.iimedia.cn/c400/84019.html accessed on 5 June 2022). As shown in Table 2,

the distribution of the sample in this paper is not always consistent with the data for China as a whole, as this paper was conducted in a specific region for consumers of new energy vehicles and therefore does not affect the study.

3.3. Survey Design and Measurement

The questionnaire design consists of three parts. The first part comprises all the measured entries in this study, including the four dimensions of consumer lifestyle, interpersonal influence susceptibility, and purchase intention. The second part includes other factors related to consumption decisions, such as the degree of influence of policies. The third part covers consumers' personal information, such as age, gender, income, and education level. In the questionnaire, consumers were asked when they purchased their electric vehicles, and those who had already purchased such vehicles prior to 2014 were removed to allow us to obtain data concerning consumers during the "chasm" period.

The scales used were based on established scales that have been used by previous studies, and scales in English were translated into Chinese using a standard "translation-back translation" procedure. After the initial scales were developed, members of the group and experts were invited to review the scales. Each scale was scored on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree, interval data). The specific measurement questions are shown in Table 3.

Table 3. Measurement items.

Items	Questions	Source		
	When I consider choosing a new product, design is one of the most important factors			
Fashion consciousness	When I have to choose between two new products, I usually choose the one with the unique style over the one with the simple design	[14]		
	I like to buy the latest new products			
	I think that I have more confidence than most people			
Leadership consciousness	I am more independent than most people	[15]		
	I think I have pretty strong personal skills			
	When shopping, I focus on buying bargains			
	When shopping, I like to haggle			
Price consciousness	I often pay attention to advertisements for new products at reduced prices	[15,34,36]		
	Even if I buy something in a small store, I ask and check the price carefully	-		
	The ecological balance is fragile and easily broken			
	When humans interfere with nature, the consequences are often catastrophic	-		
Environmental consciousness	Humans are seriously destroying the environment	[47]		
	Plants and animals have as much right to live as humans do			
	If things go on as they are, we will face a serious ecological disaster			

Table 3. Cont.

Items	Questions	Source	
	It is important that people like the products and brands I buy When I buy a product, I usually buy the brand that I think others will approve of		
	If someone sees me using a product, I usually buy the brand they want me to buy		
Susceptibility to normative interpersonal influence	I want to know what brands and products will make a good impression on others		
	By buying the same products and brands as others, I gain a sense of belonging	[21]	
	If I want to be like someone, I often try to buy the brands they buy		
	I often empathize with others by buying products and brands they buy		
	If I am inexperienced with a product, I will often ask my friends about the product		
Susceptibility to informational interpersonal influence	I often consult others to help me choose the best alternative from a product category		
and personal annual co	I will gather information about a new product from friends or family before I buy it		
	When I buy my first car or another car, I plan to buy an electric car		
Purchase intention	When I want to buy my first car or buy another car, I would like to buy an electric car		
	When others are planning to buy a car, I am willing to recommend that they buy an electric car		

Fashion consciousness: The 3-item scale developed by [14] was used, which has a reliability coefficient of 0.645.

Leadership consciousness: The 3-item scale developed by [15] was referenced, which has a reliability coefficient of 0.820.

Price consciousness: A combination of [15,34,36] was used to develop 4 items, and the reliability coefficient of this scale was 0.705.

Environmental consciousness: The 5-item scale developed by [47] was referenced, and the reliability coefficient of this scale was 0.734.

Interpersonal influence susceptibility: The 10-item scale developed by [21] was referenced to investigate normative interpersonal influence susceptibility (value expression and utilitarianism) and informational interpersonal influence susceptibility, which exhibited reliability coefficients of 0.851 and 0.713, respectively.

Purchase intention: The 3-entry scale developed by [65] was used, and the reliability coefficient of this scale was 0.848.

Control variables: In accordance with related studies [66,67], we controlled for variables such as gender, age, level of education, household size, number of children, level of income, and occupation. In addition, the presence or absence of local licensing policies, the presence or absence of local subsidy policies [68], and the sizes of the individual influence of licensing subsidies can also impact the decision of consumers in China to purchase electric vehicles [9,69]; therefore, these variables were also included as control variables in this paper.

3.4. Data Analysis

SPSS 24.0 data analysis software was used to conduct exploratory factor analysis, a common method bias test, descriptive statistical analysis, hypothesis testing, and consumer characteristics analysis; and, Mplus 8.3 data analysis software was used to conduct confirmatory factor analysis and mediation effect analysis. The hypothesis testing methods used

were hierarchical regression analysis and bootstrapping mediated effects analysis, and the consumer characteristics analysis method used was cluster analysis.

4. Results

4.1. Exploratory Factor Analysis

Following the prestudy, some adjustments were made to the questionnaire, and it was necessary to conduct exploratory factor analysis on the formal questionnaire to test its suitability for use in this study. In this paper, exploratory factor analysis was conducted using principal component analysis and maximum variance rotation, and SPSS 24.0 software was used to conduct this analysis. The results showed that KMO = 0.786, approximate chi-square value = 4075.999, significance p = 0.000, which explained 64.732% of the total variance, and the data of all indicators met the relevant criteria (KMO > 0.6, p value < 0.05) [63] and were thus suitable for factor analysis. The results of the exploratory factor analysis are shown in Table 4, which highlights that the measured question items for the same variable were clustered together after factor rotation, thus indicating that the scale has good structural validity.

Table 4. Results of exploratory factor analysis.

	Components ¹								
Indicator	EC	SNI ^a	SNI ^b	PI	LC	PC	SII	FC	
fc1	0.205	0.070	-0.003	0.057	0.168	0.046	0.005	0.659	
fc2	-0.038	0.202	-0.074	0.048	0.002	-0.070	-0.048	0.797	
fc3	-0.011	-0.005	0.179	0.135	0.259	-0.054	0.051	0.722	
lc1	0.003	0.053	0.050	0.133	0.817	0.018	-0.044	0.264	
lc2	0.080	0.002	0.030	0.113	0.817	-0.106	0.040	0.063	
lc3	0.024	0.047	0.042	0.053	0.856	0.010	-0.003	0.082	
pc1	0.028	0.086	0.082	-0.184	-0.220	0.643	-0.008	-0.042	
pc2	0.029	0.073	0.016	-0.037	0.067	0.716	0.002	-0.044	
pc3	0.030	0.009	0.072	0.004	-0.038	0.744	0.249	0.023	
pc4	0.066	0.097	0.013	0.012	0.045	0.739	0.070	-0.004	
ec1	0.575	0.127	-0.045	0.159	0.081	0.129	0.059	-0.187	
ec2	0.741	0.011	0.056	0.092	0.003	0.138	-0.056	0.126	
ec3	0.793	-0.090	0.078	-0.003	-0.024	0.063	-0.054	0.116	
ec4	0.585	-0.007	-0.118	0.096	0.090	-0.019	0.290	0.106	
ec5	0.745	0.080	-0.016	0.021	-0.002	-0.115	0.051	-0.016	
norm1	0.006	0.773	0.092	0.085	-0.018	0.099	0.046	0.148	
norm2	0.040	0.746	0.307	-0.027	-0.017	0.079	0.078	0.104	
norm3	-0.040	0.601	0.506	0.009	0.022	0.166	0.037	0.128	
norm4	0.137	0.671	0.155	0.078	0.158	0.028	0.293	-0.024	
norm5	-0.054	0.465	0.632	0.032	0.040	0.115	0.125	-0.006	
norm6	0.041	0.147	0.838	0.021	0.025	0.015	0.047	0.059	
norm7	-0.023	0.230	0.854	0.065	0.078	0.051	0.087	-0.022	
infor1	0.063	0.074	0.110	0.047	-0.004	0.066	0.823	0.002	
infor2	0.102	0.059	0.218	0.050	-0.080	0.250	0.683	0.026	
infor3	-0.002	0.210	-0.071	0.101	0.057	0.027	0.774	-0.034	
pi1	0.122	0.035	0.018	0.838	0.127	-0.131	0.066	0.112	
pi2	0.111	0.024	-0.031	0.878	0.082	-0.056	0.011	0.015	
pi3	0.082	0.078	0.127	0.833	0.098	0.001	0.140	0.111	
Explained variance (%)	9.066	8.652	8.489	8.345	8.258	8.029	7.353	6.539	
Total explained variance (%)				64	.732				

¹ EC refers to environmental consciousness; SNI ^a refers to the utilitarian function of normative interpersonal influence susceptibility; SNI ^b refers to the value expression function of normative interpersonal influence susceptibility; PI refers to purchase intention; LC refers to leadership consciousness; PC refers to price consciousness; SII refers to informational interpersonal influence susceptibility and FC refers to leadership consciousness.

4.2. Confirmatory Factor Analysis

This paper first conducted validated factor analysis on the study variables using Mplus 8.3 software to test the discriminant validity among the variables, and the results of this analysis are shown in Table 5. Compared with other models, the seven-factor model outperformed other comparative models in all fit indices ($\chi^2/df = 1.94$, CFI = 0.921, TLI = 0.907, RMSEA = 0.047, SRMR = 0.050) and met the data fit criteria ($\chi^2/df < 3$, CFI > 0.9, TLI > 0.9, RMSEA < 0.05) [63], thus indicating good discriminant validity among these variables.

Table 5. Results of	f confirmatory	factor ana	lysis.
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Measurement Models ¹	χ^2	df	χ^2/df	CFI	TLI	RMSEA	SRMR
Seven-factor: FC, LC, PC, EC, SNI, SII, PI	625.815	323	1.94	0.921	0.907	0.047	0.050
Six-factor: FC, LC, PC, EC, SNI + SII, PI	1041.626	335	3.11	0.815	0.791	0.071	0.067
Five-factor: FC, LC, PC, EC, SNI + SII + PI	1613.513	340	4.75	0.666	0.628	0.094	0.094
Four-factor: FC, LC, PC, EC + SNI + SII + PI	2029.731	344	5.90	0.557	0.514	0.108	0.109
Three-factor: FC + LC + PC + EC + SNI, SII, PI	2210.371	347	6.37	0.511	0.467	0.113	0.120
Two-factor: FC + LC + PC + EC + SNI + SII, PI	2406.463	349	6.90	0.460	0.415	0.118	0.123
One-factor: FC + LC + PC + EC + SNI + SII + PI	2915.904	350	8.33	0.326	0.273	0.132	0.132

¹ FC refers to leadership consciousness; LC refers to leadership consciousness; PC refers to price consciousness; EC refers to environmental consciousness; SNI refers to normative interpersonal influence susceptibility; SII refers to informational interpersonal influence susceptibility; and PI refers to purchase intention, same below; "+" refers to the construction of different factors as a new virtual factor.

The discriminant validity between the variables was then determined by examining the magnitude of the arithmetic square root of the average variance extracted (AVE) values of each variable and the correlation coefficients among the other variables; the results are shown in Table 6. This table indicates that the arithmetic square root of the AVE values of all the variables under study (along the diagonal) is greater than the correlation coefficients with the other variables, once again indicating good discriminant validity with respect to the variables under study

Table 6. Correlation coefficients ¹.

Variables	Mean	Standard Deviation	FC	LC	PC	EC	SNI	SII	PI
FC	5.404	0.906	0.731						
LC	5.248	0.934	0.336 ***	0.776					
PC	4.114	1.010	-0.056	-0.078	0.615				
EC	5.869	0.780	0.105 **	0.091 *	0.111 **	0.594			
SNI	4.072	1.040	0.196 ***	0.125 **	0.220 ***	0.065	0.655		
SII	5.112	0.939	0.020	0.015	0.254 ***	0.152 ***	0.317 ***	0.645	
PI	5.394	1.034	0.220 ***	0.259 ***	-0.115 **	0.221 ***	0.134 ***	0.170 ***	0.808

¹ Numbers on the diagonal in the table indicate the arithmetic square root of the AVE value of the corresponding variable; * p < 0.1, *** p < 0.05, **** p < 0.01, two-tailed test.

4.3. Common Method Bias Test

The same data sources and other factors can contribute to systematic errors in the results of the study [70]. In addition to reducing the effects of common method bias by employing procedural control methods (e.g., by reducing subjects' number of guesses on questions and anonymous responses), the effects of common method bias were examined via Harman's one-factor method and latent variable control methods. The unrestricted

factor analysis of all measured entries was first conducted using SPSS 24.0 software, and the explained variance in the maximum factor was 17.258%, which did not exceed 40%. Subsequently, validated factor analysis of the model was conducted by adding a latent variable using Mplus 8.3 software, and the results showed that the number of iterations exceeded the limit, thus indicating that the data did not fit the model. Combining the results of these two methods, the problem of common method bias was mitigated.

4.4. Descriptive Statistical Analysis

The means and standard deviations of the study variables and the correlation coefficients between the variables were analyzed, and the results are shown in Table 6. Fashion consciousness, leadership consciousness, and environmental consciousness were all significantly positively correlated with new GTTT product purchase intention, with correlation coefficients of 0.220 (p < 0.01), 0.259 (p < 0.01) and 0.221 (p < 0.01), respectively, and price consciousness was significantly negatively correlated with new GTTT product purchase intention (r = -0.115, p < 0.05). Fashion consciousness, leadership consciousness, and price awareness were significantly positively correlated with normative interpersonal influence susceptibility, with correlation coefficients of 0.196 (p < 0.01), 0.125 (p < 0.05), and 0.220 (p < 0.01), respectively; environmental consciousness was not significantly correlated with normative interpersonal influence susceptibility (r = 0.065, p > 0.05). Price consciousness and environmental consciousness were significantly positively correlated with informational interpersonal influence, with correlation coefficients of 0.254 (p < 0.01) and 0.152 (p < 0.01), respectively; fashion consciousness and leadership consciousness were not significantly correlated with informational interpersonal influence susceptibility, with correlation coefficients of 0.020 (p > 0.1) and 0.015 (p > 0.1), respectively. Normative interpersonal influence susceptibility and informational interpersonal influence susceptibility were significantly and positively associated with new GTTT product purchase intention, with correlation coefficients of 0.134 (p < 0.01) and 0.170 (p < 0.01), respectively. These results provide preliminary evidence for hypothesis testing.

4.5. Hypothesis Test

4.5.1. Main Effects Test

To examine the influence of four dimensions of individual consumer lifestyle on purchase intention regarding GTTT products, this paper first used SPSS (24.0, IBM, Armonk, NY, USA) to conduct hierarchical regression analysis and then path analysis was performed using Mplus (8.3, Muthen & Muthen, Los Angeles, CA, USA). The results of this analysis are shown in Table 7. The control variables (gender, age, level of education, family size, number of children, level of income, career, licensing policy, subsidy policy, licensing impact, and subsidy impact) and independent variables (fashion consciousness, leadership consciousness, price consciousness, and environmental consciousness) were added to Model 6 sequentially using new GTTT product purchase intention as the dependent variable, and the results showed that fashion consciousness, leadership consciousness, and environmental consciousness had significant positive effects on new GTTT product purchases. The positive effects of intention were all significant, with regression coefficients of 0.130 (p < 0.05), 0.183 (p < 0.01), and 0.241 (p < 0.01), respectively, and the negative effect of price consciousness on new GTTT product purchase intention was significant ($\beta = -0.092$, p < 0.1). The results of the path analysis are shown in Figure 2; therefore, hypotheses H1, H2, H3, and H4 can be supported from the results of the hierarchical regression analysis and the path analysis.

Table 7.	Regression	analysis	results 1	L
Table 7.	Regression	ariarysis	resums	٠

			De	ependent Varia	bles		
Variables	SNI		S	II			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Constant	3.362 ***	1.091	4.660 ***	2.364 ***	3.598 ***	0.888	0.400 **
Control variables:							
Gender	-0.354 ***	-0.292***	0.044	0.099	-0.032	0.145	0.137
Age	-0.218 **	-0.180 **	0.007	0.027	0.090	0.103	0.105
Education	0.179 **	0.186 **	0.112	0.108	0.062	0.071	0.044
Household size	0.088	0.069	-0.010	-0.010	-0.008	0.026	0.026
No. of children	0.221 **	0.200 **	-0.003	-0.039	0.318 ***	0.217 **	0.217 **
Income	0.042	0.066	-0.057	-0.021	0.139 ***	0.094 **	0.096 **
Career	-0.025	-0.006	-0.012	-0.007	0.004	0.005	0.006
Licensing policy	0.190	0.236 **	0.099	0.111	-0.088	-0.107	-0.136
Subsidy policy	0.091	0.101	0.043	0.055	0.206	0.252 *	0.238 *
Licensing impact	-0.031	-0.026	0.014	0.017	-0.064*	-0.065*	-0.067 *
Subsidy impact	0.097 **	0.088 **	0.002	-0.017	0.151 ***	0.122 ***	0.122 ***
Independent variables:							
FC		0.178 ***		0.035		0.130 **	0.117 **
LC		0.018		0.031		0.183 ***	0.176 ***
PC		0.250 ***		0.225 ***		-0.092*	-0.143***
EC		-0.020		0.154 **		0.241 ***	0.212 ***
Mediator:							
SNI							0.036
SII							0.189 ***
\mathbb{R}^2	0.099	0.174	0.012	0.093	0.120	0.205	0.236
Adjusted R ²	0.075	0.144	-0.014	0.059	0.097	0.175	0.204
ΔR^2	0.099	0.075	0.012	0.080	0.120	0.084	0.031
$\Delta \mathrm{F}$	4.070 ***	9.215 ***	0.469	8.963 ***	5.077 ***	10.721 ***	8.171 ***

 $^{^{1} *} p < 0.1$, ** p < 0.05, *** p < 0.01, two-tailed test.

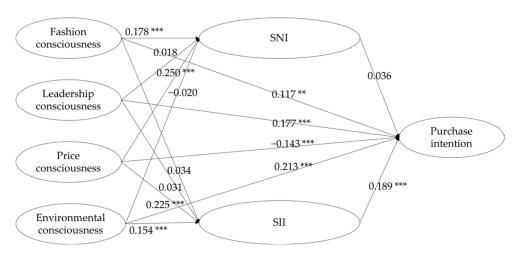


Figure 2. Path analysis (** p < 0.05, *** p < 0.01).

4.5.2. Mediation Effects Test

To test the mediating role of interpersonal influence susceptibility in the effects of different dimensions of consumers' individual lifestyles on purchase intention regarding GTTT products, this paper initially used hierarchical regression analysis to test the results shown in Table 7.

In Model 2, which features normative interpersonal influence susceptibility as the dependent variable, control variables and independent variables were added in sequence, and the results showed that the positive effects of fashion consciousness and price con-

sciousness on normative interpersonal influence susceptibility were significant, with regression coefficients of 0.178 (p < 0.01) and 0.250 (p < 0.01), respectively, while the effects of leadership consciousness and environmental consciousness on normative interpersonal influence susceptibility were not significant, with regression coefficients of 0.018 (p > 0.1) and -0.020 (p > 0.1), respectively.

In Model 4, which features informational interpersonal influence susceptibility as the dependent variable, the control variables and the independent variables are added in sequence, and the results show that price consciousness and environmental consciousness have significant positive effects on informational interpersonal influence susceptibility, exhibiting regression coefficients of 0.225 (p < 0.01) and 0.154 (p < 0.01), respectively, while fashion consciousness and leadership consciousness have nonsignificant effects on informational interpersonal influence susceptibility, exhibiting regression coefficients of 0.035 (p > 0.1) and 0.031 (p > 0.1), respectively.

Adding control, independent and mediating variables in sequence to Model 7, which features new GTTT product purchase intention as the dependent variable, demonstrated that the effect of normative interpersonal influence susceptibility on new GTTT product purchase intention was not significant (β = 0.036, p > 0.1) and that the positive effect of informational interpersonal influence susceptibility on new GTTT product purchase intention was significant (β = 0.189, p < 0.01). Combining the regression results of Models 2, 4, and 7, it can be concluded that normative interpersonal influence susceptibility does not play a mediating role between fashion consciousness or leadership consciousness or price consciousness and environmental consciousness and purchase intention regarding GTTT products and that informational interpersonal influence susceptibility does play a partially mediating role in the relationship between price consciousness or environmental consciousness and purchase intention regarding GTTT products; therefore, H7b and H8b were supported, and H5, H6, H7a, and H8a were not supported. These results provide preliminary support for the verification of the mediating role played by informational interpersonal influence susceptibility.

To further test the mediating role of interpersonal influence susceptibility, this study also used the bootstrapping mediating effect analysis proposed by Wen and Ye [71] to test the mediating role played by interpersonal influence susceptibility, and the results of this analysis are shown in Table 8.

Table 8. Resul	ts of bootstra	pping me	diating eff	fect analysis.
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Indirect Effect	Coefficient	Confidence Intervals
FC total indirect effect	0.009	[-0.018, 0.042]
$FC \rightarrow SNI \rightarrow PI$	0.007	[-0.014, 0.034]
$FC \rightarrow SII \rightarrow PI$	0.002	[-0.013, 0.025]
LC total indirect effect	0.006	[-0.016, 0.033]
$LC \rightarrow SNI \rightarrow PI$	0.003	[-0.004, 0.023]
$LC \rightarrow SII \rightarrow PI$	0.003	[-0.016, 0.026]
PC total indirect effect	0.050	[0.020, 0.091]
$PC \rightarrow SNI \rightarrow PI$	0.009	[-0.016, 0.036]
$PC \rightarrow SII \rightarrow PI$	0.042	[0.024, 0.081]
EC total indirect effect	0.021	[0.007, 0.061]
$EC \rightarrow SNI \rightarrow PI$	0.000	[-0.005, 0.013]
$EC \rightarrow SII \rightarrow PI$	0.021	[0.008, 0.062]

The indirect effect values of fashion consciousness on new GTTT product purchase intention via normative interpersonal influence susceptibility and informational interpersonal influence susceptibility were 0.007 and 0.002, and they had 95% confidence intervals of [-0.014, 0.034] and [-0.013, 0.025], respectively, both of which included 0. The indirect effect was not significant. Therefore, H5 was not supported.

The indirect effect values of leadership consciousness on new GTTT product purchase intention via normative interpersonal influence susceptibility and informational interper-

sonal influence susceptibility were 0.003 and 0.003, and they had 95% confidence intervals of [-0.004, 0.023] and [-0.016, 0.026], respectively, both of which included 0. This indirect effect was also not significant. Therefore, H6 was not supported.

The indirect effect value of price consciousness on new GTTT product purchase intention via normative interpersonal influence susceptibility was 0.009, with a 95% confidence interval of [-0.016, 0.036], which included 0. This indirect effect was not significant. The indirect effect value of price consciousness on new GTTT product purchase intention via informational interpersonal influence susceptibility was 0.042, with a 95% confidence interval [0.024, 0.081], which did not include 0. This indirect effect was significant. Thus, informational interpersonal influence susceptibility plays a partially mediating role in the relationship between price consciousness and new GTTT product purchase intention; H7a was not supported, and H7b was supported.

The indirect effect value of environmental consciousness on new GTTT product purchase intention via normative interpersonal influence susceptibility was 0.000, with a 95% confidence interval of [-0.015, 0.013], which included 0. This indirect effect was not significant. The indirect effect value of environmental consciousness on new GTTT product purchase intention via informational interpersonal influence susceptibility was 0.021, with a 95% confidence interval [0.008, 0.062], which did not include 0. This indirect effect was significant. Therefore, informational interpersonal influence susceptibility played a partially mediating role in the relationship between environmental consciousness and new GTTT product purchase intention; H8a was not supported, and H8b was supported.

5. Market Segmentation

According to the results of the tests discussed above, different dimensions of individual consumers' lifestyles have different effects on purchase intention regarding GTTT products. What is the distribution of consumer characteristics across different dimensions of the "chasm" period? It is necessary to conduct a market segmentation of consumers during the "chasm" period and to identify the target consumers during the "chasm" period as well as their consumer characteristics that can be influenced by the market launch strategy to cause them to develop positive purchase intentions, ultimately with the aim of providing a foundation for the development of a market strategy for GTTT products.

The results are shown in Table 9, which highlights the fact that fashion consciousness, leadership consciousness, price consciousness, and environmental consciousness all exhibit significant differences across the three clusters, thus indicating that these four variables can divide the sample into three significant categories and that the number of observations does not differ significantly across the three categories; accordingly, the clustering effect is good. Comparing the mean scores of different lifestyle dimensions and combining the information concerning the genders, ages, levels of income, and number of children of individual consumers (Table 10), three major categories of the characteristics of "chasm" consumers related to GTTT products can be identified.

Table 9.	Results	of	lifestyle	cluster	analysis.

No.	Segment 1	Segment 2	Segment 3	- F Value -	p Value
Number of People (Percentage)	146 (34.76%)	140 (33.33%)	134 (31.90%)		
Name	Fashion Leaders	Price-Conscious Environmentalists	Conservatives		
FC	5.84	5.69	4.64	108.002	0.000
LC	5.80	5.54	4.34	175.101	0.000
PC	3.29	5.09	4.00	251.842	0.000
EC	5.88	6.04	5.68	7.27	0.001

Tab	le 10.	Other	inf	formation	ı about	the segments.
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Segments	Fashion Leaders (146)	Price-Conscious Environmentalists (140)	Conservatives (134)
Gender	Male (89)	Male (78)	Male (43)
	Female (57)	Female (62)	Female (91)
Age	≤30 (74)	≤30 (82)	≤30 (81)
	>30 (72)	>30 (58)	>30 (53)
Household disposable income (CNY)	≤200 K (63)	≤200 K (100)	≤200 K (95)
	>200 K (83)	>200 K (40)	>200 K (39)
No. of children	<1 (48)	<1 (65)	<1 (75)
	≥1 (98)	≥1 (75)	≥1 (59)

Segment 1: Fashion leaders. These consumers exhibit the highest mean scores for fashion consciousness and leadership consciousness, moderate mean scores for environmental consciousness, and the lowest scores for price consciousness, which indicates that these consumers pursue fashion, have a strong sense of independence and environmental consciousness, and do not value price. Therefore, the consumers included in this segment are referred to as fashion leaders. This group has the highest number of male consumers, the oldest age, the highest level of income, and the largest number of children.

Segment 2: Price-conscious environmentalists. Consumers included in this segment have moderate mean scores for fashion consciousness and leadership consciousness and the highest mean scores for price consciousness and environmental consciousness. Accordingly, those included in this segment of consumers are referred to as price-oriented environmentalists. This group includes more male consumers than female consumers and is in the middle of the three categories in terms of age, income, and number of children.

Segment 3: Conservatives. Consumers included in this segment have the lowest mean scores for fashion consciousness, leadership consciousness, and environmental consciousness, moderate mean scores for price consciousness, and a generally conservative consumer consciousness. Accordingly, members of this segment of consumers are referred to as conservatives. This group mostly includes female consumers, who are more numerous than male consumers in all three groups; in addition, members of this segment are the youngest, have the lowest levels of income, and have the fewest children.

6. Discussion

For Hypothesis 1, the empirical results show that the positive effect of fashion consciousness on the purchase intention of GTTT products is significant (Table 7), and Hypothesis 1 is supported, which indicates that consumers with stronger fashion consciousness are more likely to purchase GTTT products. Fashion consciousness is one of the important factors influencing consumers to purchase new products in technology [16,24,39], and Lee et al. [14] found that fashion consciousness significantly and positively influenced purchase intention regarding new high-tech products. Thus, fashion consciousness is an important path to market disruption for GTTT products.

Further analysis of the mediating effect of normative and informational interpersonal influence susceptibility found that normative and informational interpersonal influence susceptibility did not play a mediating role in the effect of fashion consciousness on GTTT new product purchase intention, and Hypothesis 5 was not supported (Table 8), which suggests that fashion consciousness cannot influence GTTT new product purchase through normative and informational interpersonal influence susceptibility. The reason may be that for the more fashion conscious consumers, even if their normative and informational interpersonal influence susceptibility is high, the formation of their behavioral intention may also depend on some contextual factors, such as the effect of some of the already purchased consumers, which can have a greater influence on the purchase decision of others and can effectively drive the purchase decision of others. Social learning theory

suggests that it is possible that the modeling effect of the observed person is too small, thus the observer cannot effectively acquire certain behaviors [72]. Therefore, when the driving effect is small, the purchased person cannot effectively influence the purchase decision of consumers in the "chasm" period, and even if consumers' normative and informational interpersonal influence susceptibility is high, it may not lead to positive GTTT purchase intentions, thus making fashion consciousness ineffective by influencing normative, and informational interpersonal influence susceptibility has an indirect effect on GTTT new product purchase intention.

For Hypothesis 2, the empirical results show that the positive effect of leadership consciousness on the purchase intention regarding GTTT products is significant (Table 7), and Hypothesis 2 is supported, which indicates that consumers with a stronger sense of leadership are more likely to purchase GTTT products. Leadership consciousness is one of the important factors influencing consumers' purchase of new products [16,24], and Chen [15] found that leadership consciousness significantly and positively influenced the purchase intention regarding new green products. Thus, leadership consciousness is an important path to market disruption for GTTT products.

Further analysis of the mediating effect of normative and informational interpersonal influence susceptibility found that normative and informational interpersonal influence susceptibility did not play a mediating role in the influence of leadership consciousness on GTTT new product purchase intention, and Hypothesis 6 was not supported (Table 8), which indicates that leadership consciousness cannot influence GTTT new product purchase intention through normative and informational interpersonal influence susceptibility intention, probably because for consumers with a stronger sense of leadership, they usually rely more on their own level of knowledge [73], are less dependent on information provided by others, are more confident and judgmental about their purchase decisions [15,16], and therefore do not influence GTTT new product purchase intention through normative and informational interpersonal influence susceptibility on GTTT new product purchase intention.

For Hypothesis 3, the empirical results show that the negative effect of price consciousness on the purchase intention of GTTT products is significant (Table 7), and Hypothesis 3 is supported, which indicates that consumers with higher price consciousness are less willing to purchase GTTT products. High prices are one of the important reasons that prevent price-sensitive consumers from purchasing new green products [42,43]. Tran et al. [46] found that price consciousness significantly and negatively affects electric vehicle purchase intention.

Further analysis of the mediating effect of normative and informational interpersonal influence susceptibility showed that normative interpersonal influence susceptibility did not play a mediating role in the effect of price consciousness on GTTT new product purchase intention, and informational interpersonal influence susceptibility played a mediating role in the effect of price consciousness on GTTT new product purchase intention. Additionally, Hypothesis 7b was supported (Table 8), which suggests that more price-conscious consumers tend to search for relevant information to make decisions in order to pursue low prices and reduce purchase risk [59]. Therefore, it is possible to influence the purchase intention regarding GTTT products through informational interpersonal influence susceptibility. This also suggests that informational interpersonal influence susceptibility is an important way to reverse the formation regarding positive purchase intentions for GTTT products among price-conscious consumers, and it is thus a strategic path to cross the "chasm" in the market as a whole. These results are similar to those of Machová et al. [74], who found that before specific product information was provided to consumers, consumers indicated that price was the most important factor compared to the brand, ingredients, and packaging of the product. However, after specific information about the product was provided, 58.7% of consumers indicated that they were willing to pay a higher price for green products. In summary, price consciousness and information-based interpersonal influence susceptibility are important paths for GTTT products to achieve market disruption.

For Hypothesis 4, the empirical results show that the positive effect of environmental consciousness on the purchase intention of GTTT products is significant (Table 7), and Hypothesis 4 is supported, which indicates that consumers with a stronger environmental consciousness are more likely to purchase GTTT products. Environmental consciousness is one of the important factors influencing consumers to purchase new green products [47–49], and Zhang et al. [9] found that environmental consciousness significantly and positively influenced the purchase intention of electric vehicles.

Further analysis of the mediating effect of normative and informational interpersonal influence susceptibility found that normative interpersonal influence susceptibility did not mediate the effect of environmental awareness on GTTT new product purchase intention, and informational interpersonal influence susceptibility mediated the effect of environmental consciousness on GTTT new product purchase intention. Hypothesis 8b was supported (Table 8), which suggests that more environmentally conscious consumers, to maintain their environmentalist identity, will value informational interpersonal influence to ensure that they purchase new products that are consistent with their identity [49] and can therefore influence the purchase intention of GTTT products through informational interpersonal influence susceptibility. This also suggests that informational interpersonal influence susceptibility is an important way for environmentally conscious consumers to form positive purchase intentions for GTTT products, and it is thus a strategic path to cross the "chasm" in the marketplace as a whole. Thus, environmental consciousness and informational interpersonal influence susceptibility are important pathways to market disruption for GTTT products.

6.1. Theoretical Implications

This study deepens our understanding of the important mechanisms of positive purchase intention formation for GTTT products from a lifestyle perspective, thereby contributing to the fields of sustainability and consumer behavior. From a theoretical point of view, the following contributions are specified.

First, this paper proposes a strategic path to achieve a competitive position that allows GTTT products to subvert dominant products in the market from a consumer lifestyle perspective. This is a significant departure from existing studies, which emphasize social psychological variables such as attitudes [75–77], normative [78,79], and perceived behavioral control [80] on new product purchase intention. Furthermore, consumer lifestyle and interpersonal influence studies based on sociological perspectives have not been fully applied in the field of new green products [20].

Second, this paper contributes to the study of consumer lifestyles. The previous studies have mainly applied consumer lifestyles to new green products in mature markets [15,16,18,19,24], and some other technology-based new product areas [14] have not yet applied lifestyle to early market studies of GTTT products.

Third, this paper identifies the mechanisms by which different dimensions of consumers' lifestyles influence the formation of new product purchase intention regarding GTTT. Existing studies have not sufficiently explored the mechanisms by which consumers' lifestyles affect the formation of new product purchase intention, nor have they explored the direct influence of lifestyles on consumption behavior. In terms of indirect effects, they have explored consumers' perceptions of new product value [18,81], perceptions of social issues [17], consumer innovativeness [16], and other mediating effect mechanisms; however, there is a paucity of research based on other perspectives. In this paper, we introduce the mediating variable of interpersonal influence susceptibility to tap into the mechanism of consumer lifestyle influencing the formation of purchase intention regarding GTTT products.

Fourth, this paper expands the research context of interpersonal influence susceptibility. While previous studies have mainly used interpersonal influence susceptibility in areas such as online shopping contexts [25,26], and impulse buying contexts [27], etc., this paper applies hierarchical feature model theory to investigate interpersonal influence

susceptibility in the GTTT new product context, which both expands the application context of interpersonal influence susceptibility and enriches the application scope of hierarchical trait model theory.

Fifth, this paper contributes to the segmentation of the target market of GTTT products. Through cluster analysis, this paper finds that fashion leaders and price-oriented environmentalists are most likely to be the target consumers for achieving market launch for GTTT products, while conservatives are less likely to be the target consumers for GTTT products in the early stage.

6.2. Practical Implications

Lifestyle is a more stable psychological characteristic of consumers, and the consumer market is also more stable when segmented in accordance with different lifestyle dimensions, which can help companies select target consumer groups and develop product strategies, price strategies, and promotion strategies. The following managerial insights can be obtained from the findings of this paper.

First, the market launch strategy for GTTT products should be conducive to positive purchase intentions among fashion leaders during the "chasm" period. The findings of this paper show that high fashion consciousness, leadership consciousness, and environmental consciousness as well as low price consciousness have favorable effects on purchase intention regarding GTTT products, thus, fashion leaders are consumers with strong fashion consciousness, leadership consciousness, and environmental consciousness as well as low price consciousness.

With respect to this group, enterprises should focus on the following aspects when formulating market launch strategies and "chasm" crossing strategies for GTTT products.

In the context of product development and appearance design, innovative enterprises should incorporate elements suggesting fashion, trendiness and individuality that differ from those offered by the dominant products in the market, focus on developing high-end products, effectively integrate advanced technologies from other fields, and design unique brand logos alongside other measures that can allow them to satisfy the demand for fashion, design, and individuality exhibited by this group in the context of product development and appearance design.

In terms of price strategy, this consumer group is not price-sensitive, and it has a relatively established income, so higher prices can be stipulated. In terms of the promotion strategy, the characteristics of GTTT products, such as products that are fashionable, trendy, individual, and protective of the environment, should be emphasized to establish a correlation between GTTT products and self-identity, such as that of a trendy, independent, autonomous, and environmentally aware fashion leader, to prompt consumers to buy GTTT products.

Second, for the price-conscious environmentalist group, companies should develop targeted marketing strategies that take into account the important role played by informational interpersonal influence.

According to the findings of this paper, although price-sensitive consumers are reluctant to buy expensive GTTT products, after being influenced by informational interpersonal influence, price-sensitive consumers tend to reverse their perceptions and become willing to buy GTTT products. Additionally, informational interpersonal influence is an important way for environmentally conscious consumers to develop positive purchase intentions regarding GTTT products.

Therefore, for the price-conscious environmentalist group, companies should focus on the following aspects when formulating market launch strategies and "chasm" crossing strategies for GTTT products.

In terms of product development strategy, since this segment of consumers is sensitive to the price of GTTT products and since their fashion sense and leadership awareness are at moderate levels, the development of low-end products to meet the needs of this segment can be emphasized.

In terms of price strategy, innovative companies should set appropriate prices so that this segment of consumers can afford GTTT products. In terms of promotion strategy, on the one hand, companies should focus on the promotion of the functional and the environmental attributes of GTTT products to attract this segment of consumers to buy those products in light of their functional quality and environmental attributes; on the other hand, a variety of promotional incentives can be implemented to reduce the prices of new products to prompt this segment of consumers to develop positive purchase intentions. In addition, companies should also adopt a variety of approaches to create favorable conditions to encourage the important factor of information-based interpersonal influence to enhance this segment of consumers' level of knowledge and understanding regarding GTTT products.

Third, conservatives are unlikely to be the target consumer group for GTTT products; companies should remain cautious when developing marketing strategies and avoid targeting this group.

The findings of this paper indicate that individual consumers with low fashion consciousness, leadership consciousness, and environmental consciousness have a negative impact on purchase intention regarding GTTT products and that consumers with low fashion consciousness, leadership consciousness, and environmental consciousness are conservatives.

Since being green is an inherent attribute of GTTT products that distinguishes them from market-leading products and since GTTT products are novel products, the cost structure of novel products usually causes difficulties with respect to such products reaching the level of market-leading products, and since this group of consumers exhibits low fashion consciousness, leadership consciousness, and environmental consciousness and moderate price consciousness, the characteristic of being green does not influence the purchase decisions of this group of consumers. Simultaneously, market-leading products include various products that target different combinations of fashion consciousness, leadership consciousness and price consciousness and are therefore more likely to be encountered by the consumer group that exhibits higher price consciousness. Therefore, GTTT products that target this segment are difficult to create, and market launch strategies and strategies aimed at bridging the "chasm" should not target this segment of consumers.

6.3. Limitations and Future Research

This study faces certain limitations that must be analyzed and explored in further detail in the future.

First, this study employs a cross-sectional research design, which does not allow us to make a more rigorous judgment concerning the causal relationships among variables; future experimental design procedures can be used to test the causal relationships among variables.

Second, this paper investigates the mediating role played by interpersonal influence susceptibility and finds that normative interpersonal influence susceptibility does not positively affect new GTTT product purchase intention; however, the relationship between normative interpersonal influence susceptibility and new GTTT product purchase intention may change under specific situational conditions. For example, consumers who play the role of leader with respect to those who have already purchased GTTT products may play a moderating role in the relationship between normative interpersonal influence susceptibility and new GTTT product purchase intention. It is thus necessary to study the impact of leading consumers in greater depth in the future.

Finally, this study investigates the mechanism by which lifestyle influences new GTTT product purchase intention from the perspective of interpersonal influence, and other possible mechanisms for this influence can be explored in further detail in the future to enrich and to improve our understanding of the influence of lifestyle influence on new GTTT product purchase intention.

7. Conclusions

The existing research has not studied the strategic path of GTTT products to disrupt the competitive position of dominant products in the market from the perspective of consumers' lifestyles, nor has it analyzed the target consumer market of GTTT products. This paper provides a new perspective for the relevant research field through empirical testing and mainly obtains the following findings. First, consumers' fashion consciousness, leadership consciousness, and environmental consciousness have a significant positive effect on GTTT products' purchase intention, and price consciousness has a significant negative effect on the purchase intention of GTTT products. Second, normative interpersonal influence susceptibility does not play a mediating role in the influence of different dimensions of consumers' lifestyles on the purchase intention of GTTT products, and informational interpersonal influence susceptibility plays a mediating role in the influence of price consciousness and environmental consciousness on GTTT products. Third, fashion leaders and price-conscious environmentalists are most likely to be the target consumer groups for achieving market initiation for GTTT products.

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Article

The Importance of Community Perspectives on Hotel Community-Related CSR: A Position Paper

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Abstract: The purpose of this position paper is to present an opinion on the importance of understanding host community perspectives in any community-based corporate social responsibility initiative. A host community is essentially the consumer of any community-based CSR, yet they each have unique cultures, features, needs, and expectations, which may or may not fit a business's CSR initiative, unless the community perspectives are accounted for prior to the implementation of the CSR project. Focusing on the hotel sector context, the paper develops its position by reviewing supporting literature and highlighting the outcomes of a qualitative case study that involved face-to face semistructured interviews with 15 local opinion leaders who represented several local communities. The paper concludes with a firmer opinion on its position, and it offers some of the implications of its findings.

Keywords: corporate social responsibility; community-based CSR; community perspectives; hotel; legitimacy theory

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1. Introduction

Community development is a necessary component for every community's long-term survival since it entails the enhancement of a community's values, structure, and lifestyle to allow for better living within the community [1]. There are three dimensions of community development: economy, education, and health. The living standard dimension refers to a CSR program that promotes economic benefits, income, employment, water, and electricity, as well as the building of the dwelling. The health dimension refers to the nutrition program and the availability of health care for the community members. Meanwhile, the education dimension includes issues such as student enrolment, schooling costs, scholarships, school attendance, reading literacy, and educational quality [2–4].

To develop a community in meaningful ways, it is important to recognize that each community is unique, and that different communities may require different types of developmental assistance. Depending on the location, culture, level of education, etc., each community faces a different set of challenges [5]. Consequently, although the essential concepts of CSR are universal, the situation in each region necessitates varied emphasis in terms of CSR implementation. In other words, CSR practices can have contextual aspects [6]. For example, CSR initiatives in undeveloped countries can differ significantly from those in rich nations. In affluent countries, most states bear the main responsibility for the community's social welfare, while in poor countries, the citizens' basic requirements are not provided [6–8]. As a result, the suitability of CSR activities or initiatives in both rich

and developing nations depends heavily on the distinct patterns and criteria of the target host community.

To determine the suitability of a community-based CSR activity, community involvement at the planning level is a must. In fact, community development is one of the three critical aspects of CSR [9]. The idea that community involvement is a crucial component of CSR has been mooted since the early 1980s [9]. However, the term, "community", in the literature often refers to the employees and their participation in CSR activities, such as by donating and volunteering [10]. Not much work has focused on involving the host community that surrounds a business operation, which represents a gap in the knowledge on the role of the host community in the planning of the community-based CSR of business corporations. Consequently, most community-based CSR activities in host communities remained immeasurable [9,11]. In addition, a business that is not ready to listen to its host community may experience the disruption of its operation [11] from community protest or backlash [12,13]. Bjorn Stigson, the Chairman of the World Business Council for Sustainable Development (WBCSD), has emphasized that business success is impossible if the surrounding society fails [14].

The abovementioned knowledge gaps are what drove this paper to focus on the importance of understanding the host community that surrounds a business operation. The aim of this position paper is to narrow the gap in the knowledge mentioned above by highlighting the importance of accounting for community perspectives in the planning and execution of any community-based CSR of a business. It is an important issue to explore because, even though excellent corporate governance and community-based CSR are ingrained in many company cultures, as well as in their short- and long-term strategies, the advantages of these activities to the community, on the other hand, are rarely measured. There is not much research on the outcome(s) of the community-based initiatives of hotels [11] in terms of how much they benefit the community. Because of the amount of time it takes for the effects to become obvious, or the multiplicity of other possible compounding factors that must be taken into account when quantifying impacts, there is not much literature that focuses on the outcome(s) of hotel community-based CSR. Hence, it is proposed that understanding the community perspectives is a good start to the greater success of CSR initiatives. Community perspectives should matter because the community is the intended beneficiary of any community-based CSR initiatives. Hence, the members know best about their own community and can help plan, execute, and measure any community-based CSR activity.

The hotel sector was chosen as the context because it is a sector that has actively benefitted local people with employment [15,16], particularly prior to the onset of the COVID-19 pandemic. Hotels also contribute to community development through other means, such as philanthropy and education [11]. Because of the rapid growth of the industry prior to the COVID-19 pandemic, the hotel industry is often a part of a wider solution to international development and poverty reduction by providing people the opportunity to work, offering plenty of new careers, and creating prosperous societies.

The sections below are organized as follows: First, the paper provides the supporting literature for its position. Then, it presents empirical data based on a qualitative case study of a community in Phuket, Thailand. Drawing from both the literature support and the empirical findings, it establishes its position on the importance of understanding community perspectives in community-based CSR, before offering some of the implications and the conclusion.

2. State of the Art

CSR is the commitment by companies to act ethically and to contribute to economic development while improving the quality of life of employees, families, and the local community at large [17,18]. It denotes that big businesses have the responsibility to not only make their own profits, but also to help the environment and the socioeconomic development of the communities in which they operate [19]. Community-based CSR is a type of CSR that is intended to help improve the livelihood of the community, such as the

business employees and the host community. It may take many forms, which include the delivery of goods and services, financial assistance, and volunteering, in order to address the needs of the intended recipients.

A persistent shortage of government capabilities in many underdeveloped and developing countries to deal with social concerns, such as poverty and unemployment, has led community-based CSR to become an important component of community development in these countries. A business, and particularly a multinational enterprise (MNE), that operates in such countries plays an increasingly important role in the society and community in which it operates, as it is often expected to engage in charitable activities and community-based CSR projects [2,4,20,21], and to generate jobs, and to improve the quality of life of the local community [22]. However, in developed countries, MNEs are expected to engage in environmental protection, to ensure high labor standards, as well as to become involved in political governance [8]. Despite the different expectations, a visionary company would understand that engaging in good CSR behaviors could help MNEs create strategic value so that their companies could stay competitive and prosperous [23] in both contexts.

Specific to the hotel sector, the pressure for CSR started because of the increased concerns about the rapid expansion of the tourism and hospitality industry and its negative environmental and social consequences. According to research conducted by the International Hotels Environment Initiative, 90% of UK citizens, 70% of Australians, and 30% of Americans believe that the tourism and hotel business has a detrimental impact on the environment and on society in general [24]. The industry is also perceived to have a wide range of negative effects on the natural environment, including water pollution, biodiversity loss, and trash generation from its everyday consumption of large amounts of water, energy, food, paper, linen, laundry, cleaning materials, and chemicals, [25] which ultimately affect the quality of life of the locals. In addition, it can negatively impact local communities through the utilization of space and communal resources [26,27]. As a result, hotel businesses all around the world have been facing increased pressure to implement more socially and environmentally responsible initiatives [28].

From the theoretical point of view, two theories are pertinent: the legitimacy theory and the stakeholder theory. The legitimacy theory is founded on the premise that, in order to continue to operate successfully, businesses must stay within the confines of what society views to be socially acceptable behavior. The legitimacy theory revolves around the concept of a social contract between organizations and society. The survival of an organization is jeopardized if society believes that it has breached its portion of the social contract. As a result, legitimacy is viewed as a resource that is essential to an organization's survival [29]. According to [30], legitimacy is a wide view, or presupposition, that an entity's activities are acceptable, legitimate, or suitable within some socially established system of norms, values, beliefs, and definitions. The institutional and organizational levels are the two tiers of legitimacy theory. The institutional level is also referred to as the "macro-theory" of legitimation, and it deals with how organizational structures interact with government, religion, society, and capitalism. Establishment, maintenance, extension, and defense are all part of the organizational level. The layers of the legitimacy theory are depicted in Figure 1.

Organizations try to align the social values that are connected with or implied by their operations with the accepted norms of behavior in the larger social context in which they operate. If these two value systems are compatible, it implies organizational legitimacy. If there is a genuine or perceived discrepancy between the two value systems, however, the organizational legitimacy will be questioned. As a result, a lack of legitimacy can have devastating consequences for an organization, including the loss of its ability to function [31]. In conclusion, the legitimacy theory can be seen as a process that helps groups to start and grow voluntary social programs. The ability of businesses to thrive and survive, as well as their ability to fail, is determined by their legal practices.

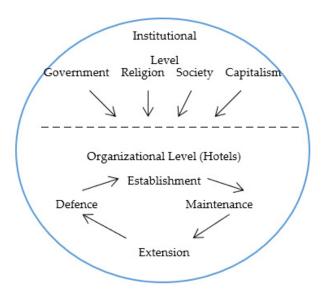


Figure 1. Layers of legitimacy theory. Adapted from: Agrawal (2013).

The stakeholder theory, which is a useful tool for figuring out how stakeholders impact CSR programs, and how CSR projects affect stakeholders, can also lend support to the position of this paper. Stakeholder theory is tied to CSR; if organizations want to use CSR as a source of competitive advantage that will help to them survive in the long run, they must examine all aspects of their business, including their connections with all of the stakeholders [32,33]. In the past, a company's primary purpose was to make money and to maximize profits for its shareholders, which is known as the "shareholder perspective" [34]. After Freeman's introduction of stakeholder theory in 1984, the business sector changed from a narrow economic focus on creating shareholder wealth, to a broader stakeholder focus on increasing societal benefits [35]. According to Freeman, stakeholders are individuals or organizations who benefit from or are hurt by company activities, and whose rights are exploited or respected. Stakeholders can also include individuals who have a stake in or claim to the corporation [32]. Therefore, they can influence or be affected by the organization's activities, goals, and policies. Freeman's theory has helped to reconceptualize the nature of the firm to encourage the consideration of all stakeholders [36]. Figure 2 below depicts a stakeholder model of corporations.

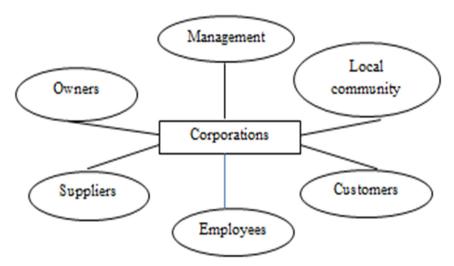


Figure 2. A stakeholder model of corporations. Adapted from: Freeman (1984).

The stakeholder concept is recognized as a core concept of CSR since it is seen as an important idea that serves to strengthen the link with corporate stakeholders and other

associated parties [37]. Stakeholders act as a conduit between the organization's goals and ambitions and the expectations of society [38]. However, despite the importance of meeting the stakeholders' needs, meeting all of their expectations is challenging because of the company's limited resources, and it is time consuming [39]. This is why Freeman suggests that businesses should consider CSR from the perspective of their stakeholders, and then identify and prioritize their stakeholders in order to determine what expectations to meet for the most important stakeholders, and what expectations will benefit the organizations the most [32,39].

The term, "stakeholders", can, however, be defined further. As there are diverse categories of corporate stakeholders, many scholars have used terminology such as "narrow and wide" stakeholders, "internal and external" stakeholders, "primary and secondary" stakeholders, "active and passive" stakeholders, and so on [32,40-42]. Internal stakeholders, as opposed to external stakeholders, are those who are already active in operational companies as owners, board members, or employees. External stakeholders, on the other hand, are persons who can be affected by an organization's activities, such as clients, shareholders, suppliers, and creditors, as well as the government, society, and community [40]. Stakeholders are classified into two types by [41], depending on their worth to the company: primary and secondary stakeholders. The primary stakeholders are those who are directly involved in achieving the company's objectives. This group frequently includes shareholders, employees, customers, suppliers, and the host community. The corporation will be seriously affected or unable to operate if any important stakeholder group becomes dissatisfied and withdraws from the corporate structure, in whole or in part, which is a perennial worry. As a result, maintaining positive relationships with a company's key stakeholders can help it to avoid difficulties, increase employee morale, and achieve business success. Secondary stakeholders, on the other hand, are those who have an impact on a firm, or who have been impacted by it, but who do not have direct contact with it.

Community is one of the most significant types of external stakeholders in the business sector. In social science, community is commonly related to terms such as "group", "body", "set", "circle", "clique", "faction", "gang", "lot", and so on. A community is defined as a group of individuals who live in the same place [43], who have the same geographical location, as well as who share a common culture and/or ethnicity, and possibly other shared relational characteristics [44]. In other cases, such as in the virtual world, the notion of community must extend beyond the geographical limit. The authors of [45,46] describe community in business as being inclusive of employees, suppliers, distributors, nonprofit and public-sector partners, as well as members of the public. As a result, a community can be considered a primary external stakeholder that is directly involved in the organizational success, and without whom the organization will perish. Any activities or decisions that have direct or indirect impacts on the community must be carefully considered. Otherwise, what businesses believe the community requires may not be accurate, and businesses may waste resources on ineffective CSR projects.

Additionally, how CSR is implemented must also fit the cultures and perspectives of the target community [5,6]. There has been empirical work that highlights the negative consequences of ignoring the community concerns when implementing CSR. In [47], for example, the authors investigated community opinions on CSR activities across Zimbabwean hotel enterprises and they found that, although many of the hotels had engaged in community-based CSR with their surrounding communities by donating food products, problems arose when the products that the hotels offered were of inferior quality or were not really what the community needed. This problem could be due to the failure to account for community perspectives, which could lead to misunderstandings and problems. Had the hotels researched the community opinions before embarking on their CSR projects, the project's failure would have been less likely. A good example to illustrate this is the "WeCan" project that was developed by the Wharf hotels to assist less privileged students in Hong Kong [48]. The hotels actively collaborated with schools and students in

designing the program, which aimed to provide financial and volunteering support for the benefit of those in need. The program began in 2011 with eleven secondary schools. Currently, fourteen schools have been matched with fourteen business sponsors through the program [48].

3. Methodology

The findings of our qualitative research in Phuket, Thailand, below, further confirm the need to understand community perspectives prior to the implementation of community-based notions. The qualitative study, which was conducted by the first and second authors on what the host community received versus what they truly needed in relation to community-based CSR initiatives, used face-to-face semistructured interviews with the local opinion leaders of several local communities. A qualitative approach was chosen because it is useful for studies at the individual level to find out, in depth, the ways in which people think or feel [49]. In addition, it is vital to recognize that each community has individual features, as different locations have different social, cultural, geographic, environmental, economic, and historical factors that may influence their requirements and expectations [50].

To ensure representativeness in the sample of community leaders, the qualitative study utilized the stratified sampling technique to collect data from all three districts in Phuket, which are further segmented into 104 communities [51]. As it was difficult to obtain information from community leaders because the researchers had never met them before, the procedure also included the use of a purposive sampling technique to choose only the target communities that used to receive the hotel community-based CSR. In addition, the snowball sampling approach was used to obtain information from difficult-to-reach populations [52]. After interviewing the first community leader, the researchers requested assistance in making recommendations to other community leaders, and they then asked those leaders to do the same. These steps were repeated until the needed sample size was found.

Finally, five community leaders were chosen from each district, giving the study 15 community leaders from the three districts to provide information on the hotel community-based CSR that they received, the type of the hotel community-based CSR that they required, and their perspectives on the hotel CSFs for community-based CSR. Because saturation frequently occurs in samples between 12 and 15 people, 15 is considered the smallest acceptable sample size for a given group [53]. The number of settlements in each district, as well as the sample size, are shown in Table 1.

Table 1. The number of communities in each district and the sample	e size.
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Districts	Number of Communities	Sample Size
1. Mueang Phuket district	44	5
2. Kathu district	14	5
Thalang district	46	5
3 Districts	104 Communities	15 Samples

To collect qualitative data from the community leaders, the face-to-face semistructured interview was adopted as the study method. An interview protocol was created in accordance with the study's aims and problems. The interview protocol was divided into Section A: Informant Information, and Section B: Community Leaders' Perspectives. To ensure construct validity, all of the questions were adapted from past studies (such as [54–61]) that explored the issue, but in other contexts. Four main procedures that have been proposed by qualitative experts (such as [62,63]) were adopted to analyze the data thematically: transcriptions of audio recordings; the coding of all transcripts in the margins; the tabulation of all codes, key categories, and subcategories; a reexamination of all the codes; breaking down the subcategories into more specific variables; and reorganizing the quotes and refining the codes into possible themes. Rigor was maintained by a continuous

discussion of the coding among the researchers, and between the researchers and the informants, to help attain a broader picture of the research findings. The content validity was established by using probes, or by asking more detailed questions, in order to obtain the depth and breadth of the issue, and the validity was established by continuously checking the accuracy of the interviewers' understanding and interpretation of the answers with that of the informants.

Validity was also established by using the triangulation approach, which is a data validation process that involves cross-checking data from two or more sources—in this case, the informants and secondary sources—in order to further understand the data. Triangulation is a good way to establish validity, as it allows the use and combination of different research approaches in the investigation of a single topic, the usage of diverse data and the s mixing of the various approaches and theories, as well as the perspectives of various investigators [62,63], in order to see the big picture.

4. Result Analysis and Discussion

From the interview data with the community leaders (please see Table A1 in Appendix A), the hotel community-based CSR that the communities received were categorized into five types on the basis of their frequency of mentions:

- (1) Donations—Most of the informants mentioned donations, such as donated money, foods, drinks, clothes, supplies, and in-kind for the disabled people and elderly in nursing homes, disadvantaged children in orphanages, and the residents in the disaster-affected areas. Most of the sponsored activities were arranged on special occasions, such as the anniversary of the hotel's foundation day, Children's Day, Father's Day, the International Day of People with Disabilities, the New Year festival, the Songkran festival, etc. There were activities that hotels arranged on their own, and those that were supported through CSR projects of the government sector. A member of the municipal council of the Ratsada subdistrict said, "The hotel sector supported community activities by sending prizes and supporting foods for community events, and also supported foods and drinking water for the police and volunteers at the police checkpoints during the festivals". One community leader of the Vichit subdistrict said, "Hotels always donate food and supplies for elderly, children, and residents on special occasions".
- (2) Education—The hotels provided scholarships, learning equipment, and money for the development of school buildings and facilities. There were activities that hotels arranged on their own, and those that were supported through CSR projects of the government sector. The director of the Ban Kho En school said, "Schools in Thalang district received help from many hotels such as scholarships, school facilities, and drinking water dispensers". Moreover, some hotels cooperated with schools to create special courses. The director of the Yaowawit school said, "Marriott hotels in Phuket have supported the schools for a long time by being a partner in teaching knowledge and skills in kitchen, housekeeping, food, and beverage service departments. Moreover, hotels have also cooperated in creating pre-vocational education degrees in hospitality management and students of Yaowawit school who have been given a chance to have an internship in Marriott hotels".
- (3) Environment—Most of the informants mentioned beach cleaning as the environmental activity that hotels organized in partnership with the government sector. In addition, there were many environmental campaigns to promote the use of waste separation tanks, recycled materials, and the protection, restoration, and conservation of ecosystems and natural resources. After floods and natural disasters, all of the sectors helped with the cleaning and restoration activities, such as cleaning the canals, cleaning the residents' houses, creating portable toilets, and providing temporary houses. The director of public health and the environment division of the Patong municipality office said, "Patong is the most famous beach in Phuket. It is the center of Phuket's nightlife which includes restaurants, cafes, bars, dance clubs, massage places, discotheques, night clubs, and cabaret shows. Many tourists and shops can cause a lot of

- garbage. Two tons of marine trash was collected on Patong beach in just two hours, and most of the garbage was glass bottles and plastic bags. Patong municipality received cooperation from many hotels every time it arranged a beach cleaning campaign".
- (4) Health and life care—In terms of health care, hotels donated money and bought sports facilities for public parks, which motivated people to exercise. Many hotels created marathons for charity and to raise funds for special purposes, and there were many times that communities received benefits from the marathon activities. For example, a community leader of the Rawai subdistrict said, "Hotels used to donate money from marathon charity to hospitals in the communities. The residents helped to prepare the event and provide convenience for hotels. This created a better relationship between hotels and communities". In terms of life care, the director of the public health and environment division of the Patong municipality office said that, "Hotels cooperated with the government sector and communities to create and practice the evacuation plans for the tsunami disaster. Hotels also donated money for making tsunami warning signs".
- (5) Job and labor skills development—In terms of job placement, hotels were involved in hiring residents and supporting labor skills development. A community leader of the Chalong subdistrict said, "Hotel industry has contributed income and generated employment in the communities. Many years ago, some young people decided to abandon their homes to find jobs in the capital city. Since tourism has begun and become one of the main factors in economic development, creating jobs for people and generating more income in the communities, then these young people in the communities could find jobs and have a better quality of life". In terms of the labor skills development, hotels were involved in developing their knowledge and skills for residents. A village health volunteer of the Bang Tao community said, "Many hotels came to teach the residents and children in the community about English language, flower arrangement, and European cooking".

The interview data also shed light on what the community actually needed, which are categorized below on the basis of the frequency of mentions:

- (1) Jobs and quality of life—Instead of donations, the community, including disabled individuals, preferred opportunities to work in hotels. They also preferred better quality of life, as some communities are still lacking adequate infrastructure and public utilities. A member of the municipal council of the Ratsada subdistrict, a community leader of the Vichit subdistrict, and the head of accounting and finance at the Phuket Sunshine Village said, "Some areas still need support of water supplies, electricity supplies, roads, and street light poles. People in some areas still have to buy water for household use".
- (2) Education—In terms of the education dimension, the informants mentioned that hotels should provide more long-term support via scholarships, learning facilities, sports equipment, and Thai instruments for students and disadvantaged children. The secretary of the Patong Development Foundation said, "Youth football teams in Patong were created for children to motivate them to play sports and keep away from drugs. Patong development foundation still needs support for footballs and other equipment because there are a lot of youth participating in this activity, so there is not enough equipment". The director of the Baan Kalim school and the director of the Yaowawit school said, "Apart from the scholarships and learning facilities, schools also need help for renovating school buildings and long-term support for school expenses".
- (3) Environment—Informants mentioned that hotels should make more effort in waste management and disposal. A member of the municipal council of the Ratsada subdistrict, a community leader of the Vichit subdistrict, a village health volunteer of the Bang Tao community, and the secretary of the Patong Development Foundation said, "Waste is one of Phuket's main problems. There is a lot of waste from hotels. Hotels should have policies and strategies for waste management, wastewater treatment system, and energy consumption".
- (4) Society improvement—The community leader of the Karon subdistrict, a community leader of the Rawai subdistrict, the director of the public health and environment

- division of the Patong municipality office, the secretary of the Patong Development Foundation, and the director of the Ban Kho En school said, "Drug abuse is a major problem of tourist city. Hotels should have campaigns to promote and prevent drug addiction among youth and hotels' staff".
- (5) Health—Some communities have a lot of elderly people; therefore, health care centers are needed. The Ketho community leader said, "During daytime, elderly people were left alone at home. Therefore, communities need health care centers where elderly people can be taken care of for the entire day. Hence, hotels should cooperate with the government sector to establish health care centers in the communities".

As can be seen in Figure 3, only one type of community-based CSR initiative education support—fits into what the community both needed and received. Even so, further probing reveals that the hope for such an initiative is that it is long-term in nature, rather than a one-off. Hence, we can say that there is a clear divide between what the hotels think the community needed, and what the community truly needed. Donations, beach/community cleaning, and energy/environmental conservation were evidently three activities that all three districts received. This is in line with Bowman et al. (2003), as cited in [64] (p. 396), who contend that corporate philanthropy, such as gifts and community involvement, were the most common CSR activities in Thailand, which shows that hotels tend to go for normal/standard activities when performing CSR instead of tailoring their activities according to community needs. The authors of [64] confirm that most of the CSR activities in Thailand still primarily involved charity and donations a decade later. According to [65], the reason Thailand's CSR concept is based on philanthropic ideas could be because giving is an important component in Thai culture and in the Buddhist tradition of merit making, which is typically accomplished through philanthropy, charity, sponsorship, volunteering, and sharing. Hence, this could be one plausible explanation for such an observation in Thailand. The interview results also reveal that the environmental dimension of the community-based CSR activities of hotels typically focus on beach cleaning and energy saving. Hotel CSR operations tend to focus on such activities because, according to [39,66,67], doing so benefits the business efficiency. Merlin Beach, the training operation manager at the Phuket Marriott Resort and Spa, stated that, "Every hotel has energy and environmental conservation activities because environmental protection and community development must be developed together. Communities will not be difficult to develop if located in a good environment, and when communities have a good environment, it can attract tourists to come, and residents are able to generate more revenue".

The data also show that, in terms of the environment dimension, all three districts needed a more meaningful type of community-based CSR. Specifically, they needed community-based CSR in the form of better waste disposal management by hotels, instead of just simple beach cleaning and environmental campaigns, in order to better preserve the local environment. This is an interesting finding because, conventionally, people in poor/developing nations, such as Thailand, expect corporations to focus on philanthropic activities, to create jobs, and to improve the quality of life, rather than to safeguard the environment [11]. These findings also contradict the CSR pyramid in [68], which offers relative weightings for economic, legal, ethical, and philanthropic duties. Furthermore, the findings contradict Visser's theory, which states that economic duties come first, followed by philanthropic, ethical, and legal responsibilities. As a result, it is reasonable to say that, despite being a province in a developing country, the inhabitants of Phuket are more concerned with environmental protection than with their own personal needs, such as donations.

Apart from the environmental aspect, the communities and residents in each of the three districts have distinct demands. This is not surprising because, according to [69] and [70], CSR implies different things to different people, based on the circumstances in each area. This further highlights the need to treat each community as unique, and it may require a distinct emphasis in CSR implementation. A Ratsada subdistrict member of the Mueang Phuket district municipal council stated that, "Some areas of Ratsada sub-district still

lack adequate infrastructure and public utility such as water supplies, electricity supplies, street light poles, disposal of garbage, and roads". For the Kathu district, the secretary of the Patong Development Foundation said that, "There is a drug epidemic in Patong because this area is the centre of Phuket's nightlife and there are a growing number of tourists who are drug users. Thus, Patong needs to campaign against drugs". For the Thalang district, a village health volunteer of the Bang Tao community said that, "There are many areas in Thalang district that local communities create unique community products such as batik cloth, pearls, crispy dried shrimp salad. The government and business sectors should help local communities by supporting and distributing community products". The specific and unique nature of the community needs in each location shows that hotel CSR should not ignore the different needs. In fact, it is critical for hotels to identify and tackle the real issues. Although past studies have pointed out the difficulty of choosing appropriate CSR activities for the unique societies in which businesses operate [7,30,70-72], we stand by our position that it is critical to listen to the community itself so that community-based CSR can be tailored to the needs and the context of each place. Companies must interact with residents before constructing projects in order to provide the best benefits to both communities and businesses [73] so that there will be no clash of values, and so that their organizational legitimacy will not be questioned.

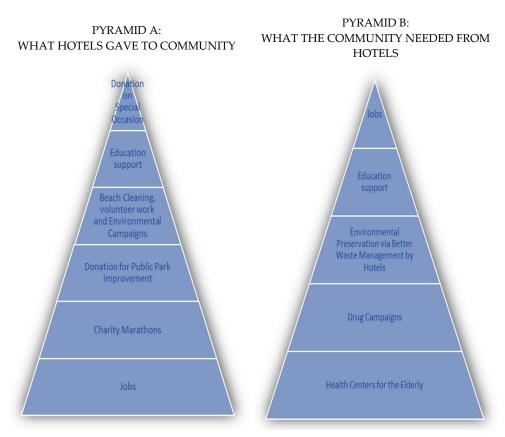


Figure 3. Graphical representation of the findings. (**A**) What hotels give to community, (**B**) What community needed from hotels. Top of pyramid represents the most common type of hotel community-based CSR initiative.

5. Conclusions

From the reviewed literature and qualitative data presented above, the paper reaffirms its position that understanding the host community perspectives prior to any community-based CSR activities is important. To achieve positive synergy between hotels and communities, hotels should emphasize consistency between the hotel CSR strategies and the needs of local communities, as it is one of the most important determinants of the long-term partnership between communities and businesses [23]. Hotels, therefore, should contact local communities before embarking on community-related projects, as community con-

sultation is a vital procedure for hotels to learn about and respond to community issues appropriately.

The findings also accentuate [71] the contention that organizations should analyze and understand the local context, needs, requirements, opinions, perceptions, expectations, and preferences before embarking on CSR programs or developing business strategies. Incorporating society and community perspectives into the planning process, as well as community involvement efforts, company philanthropy activities, corporate volunteering, and sustainable approaches, are all sensible ways to reduce conflict [74]. It would also help to strategically improve a business's integrated reporting (IR) of its nonfinancial capital [75], particularly from an honest point of view, since it is prepared on the basis of the perspectives of the beneficiary, rather than the benefactor. This is in line with both the legitimacy theory and the stakeholder theory discussed earlier, as it indicates good relationships between the businesses and their stakeholders.

In conclusion, this paper reiterates its position that community-based CSR initiatives are best designed by understanding community perspectives first, as this will ease the collaboration with the key stakeholders in the host communities. In doing so, this will narrow the existing gap in the knowledge on the role of the host community in any community-based CSR initiative. As the data have clearly shown, what hotels think the community needs may not be what the community truly needs at all. Hence, hotels that perform CSR should be aware that community perspectives are important in understanding the local context so that effective community-based CSR strategies can be created [76,77]. Hotels should continuously consult the host communities because the latter could supply reliable information that could assist them in developing suitable community-based CSR projects. Furthermore, continuous engagement with the host community can make it easier for hotels to examine their CSR performance, and to measure the impacts of their CSR activities on the target recipients, and especially on the communities with whom they are engaged [78-80]. In short, community-based CSR must be designed with consideration to the local reality and by continuous consultation with the host community. By doing so, hotels, or any other business corporations for that matter, will be able to measure the suitability and effectiveness of their current initiatives, and improve the appropriateness and success of their future community-based CSR.

We humbly acknowledge two limitations of this paper: (1) It provides only contextual empirical evidence from Phuket, Thailand; and (2) It may benefit from a wider range of literature support. Future researchers are advised to obtain empirical evidence from a wider context and/or review a wider range of literature in order to provide a more comprehensive outlook on the issue.

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Appendix A

Table A1. The interview results of hotel community-based CSR that the communities received and what the communities needed.

Informant's Position/Community's Name	Hotel Community-Based CSR That Residents Received	Hotel Community-Based CSR That Residents Needed
Mı	ueang Phuket District: 5 Community Leader	s
Informant 1 Member of the Municipal Council, Ratsada Subdistrict	 Donated foods and supplies for elderly, children, and residents on special occasions (i.e., Children's Day, New Year festival, Songkran) Cleaned beaches and communities 	 Water supplies Electricity supplies Street light poles Disposal of garbage Roads Supporting disadvantaged children
Informant 2 Community Leader of Chalong Subdistrict	 Donated foods, drinks, snacks, clothes Created jobs Created activities for special occasions (such as making merit on Father's Day, or pouring water on the hands of elders during the Songkran festival) 	Supporting Thai instruments for children in communitySupporting employmentSupporting community facilities
Informant 3 Community Leader of Karon Subdistrict	MarathonCleaned beaches	Preventing drug addiction among youth and hotel staffSupporting employment
Informant 4 Community Leader of Vichit Subdistrict	 Donated food and supplies for elderly, children, and residents on special occasions (i.e., Children's Day, New Year festival, Songkran) Cleaned beaches and communities 	Water suppliesElectricity suppliesStreet light polesDisposal of garbageRoads
Informant 5 Community Leader of Rawai Subdistrict	 Marathon Donated food, drinks, snacks, clothes Created activities for special occasions (such as making merit on Father's Day, or pouring water on the hands of elders during the Songkran festival) Cleaned beaches 	 Preventing drug addiction among youth and hotel staff Supporting employment
	Kathu District: 5 Community Leaders	
Informant 6 Director of Public Health and Environment Division, Patong Municipality Office	 Created and practiced the evacuation plans for the tsunami disaster Participated in Thai and community culture and traditional ceremony Supported CSR projects of the government sections Created "Bike week campaign" Cleaned beaches and communities Supported sports facilities Promoted the protection, restoration, and conservation of ecosystems and natural resources Donated learning facilities Created activities for special occasions (such as making merit on Father's Day, or pouring water on the hands of elders during the Songkran festival) 	Preventing drug addiction among youth and hotel staff

Table A1. Cont.

Informant's Position/Community's Name	Hotel Community-Based CSR That Residents Received	Hotel Community-Based CSR That Residents Needed
Informant 7 Community Leader of Ketho Community	 Hotel community-based CSR activities are fewer now than before Created Children's Day party Supported scholarships and learning equipment Donated food 	- Health care center for elderly
Informant 8 Secretary of Patong Development Foundation	 Donated money, clothes, and supplies for children Cleaned canals Cleaned beaches and communities 	 Preventing drug addiction among youth and hotel staff Waste management and control in hotels Scholarships for children Sports equipment for children to create youth football teams
Informant 9 Deputy Municipal Clerk, Patong Municipality Office	- Marathon	Hiring disabled peopleSupporting educationImproving the scenic quality in the community
Informant 10 Director of Baan Kalim School	 Donated food, clothes, and supplies for students Supported scholarships and learning equipment Arranged garden in front of the school Supported money for employees' salaries and wages Donated computers and air conditioners 	 Renovating school buildings Supporting learning facilities
	Thalang district: 5 community leaders	
Informant 11 Director of Ban Kho En School	 Built canteen Donated drinking water dispenser Created hero helmet project for schools Painted school crosswalks Created Children's Day party Supported scholarships and learning equipment 	- Preventing drug addiction among youth and hotel staff
Informant 12 Director of Phuket Children and Families Foundation		Supporting expenses of underprivileged familiesDonating food, water, clothes, milk powder
Informant 13 Head of Accounting and Finance, Phuket Sunshine Village	 Donated money, clothes, and supplies, such as for disadvantaged children Donated computers Created Children's Day party 	 There is no public water plumbing (the residents have to buy water) Long-term scholarship Supporting expenses
Informant 14 Village Health Volunteer, Bang Tao Community	 Labor skill development Donated money for people who were affected by tsunami disaster Donated food and supplies Cleaned beaches and communities Cleaned canals Created charity activities 	 Wastewater treatment system Disposal of garbage Control energy consumption Supporting community products

Table A1. Cont.

Informant's Position/Community's Name		
Informant 15 Director of Yaowawit School	 Supported education by being a partner of the Yaowawit school in teaching knowledge and skills in kitchen, housekeeping, and food and beverage service departments Cooperated with the school to create prevocational education degree in hospitality management Students have the chance to have an internship in Marriott hotels Donated learning facilities for underprivileged children Created hero helmet project for schools Painted school crosswalks Created Children's Day party 	Long-term support for school expenses

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Article

Analysis of Online Customer Complaint Behavior in Vietnam's Hotel Industry

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Abstract: Vietnam's hospitality industry has developed significantly over the past 20 years. Therefore, it is very important to investigate customers' complaints based on their experience in Vietnamese hotels. This study aimed to examine online complaining behavior focusing on five hotel attributes (Service, Value, Room, Sleep Quality, and Cleanliness) to discover any behavioral pattern differences displayed by (i) Vietnamese and non-Vietnamese guests and (ii) guests experiencing different classes of hotels. A total of 1357 samples, which were representative of guests from 70 countries among five continents coming from 467 hotels in six famous tourist cities, were selected for data analysis. Then, descriptive statistics, t-test, and one-way analysis of variance were conducted to identify whether there was a difference in the behavioral pattern. Service and Value complaints were more evident in Vietnamese customers, while non-Vietnamese customers were more inclined to complain about Room. Furthermore, guests were more likely to complain about hotels in the economy class with respect to Service, Cleanliness, Room, and Sleep Quality attributes than those in the upscale class and luxury class. The research findings can aid hotel managers in making targeted proactive retention actions by categorizing regular customers into groups and also being able to meet the expectations of customers from different cultures and hotel classes. Moreover, they expand insights into the online complaining behaviors of tourists providing valuable practical information for the hotel industry and extending hospitality literature in Vietnam.

Keywords: customer satisfaction; online consumer complaining behavior; hospitality; cultural differences; TripAdvisor; Vietnam

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1. Introduction

Vietnam's increasing popularity as a tourist destination [1,2] influences the rapid development of its hospitality and tourism industry [3]. In 2019, Vietnam experienced an increase of about 16.2% in its international tourist arrivals [4]. Total revenue from international and domestic tourists was valued at VND 755 trillion (USD 32.6 billion) in 2019, which played an important contribution to the GDP, accounting for 9.2%. In response to such growth, there has also been a growth in the Vietnamese hospitality and tourism services, especially hotels [5]. In 2019, out of a total of 30,000 tourist accommodation establishments, only 171 were 5-star hotels and 295 were 4-star hotels [4]. Consequently, a remarkable investment has been put forward by domestic and government-owned hotels as well as many top international chains such as Marriott International, InterContinental Hotels Group, and Accor Hotels to keep up with such demand.

With the heterogeneous nature of service encounters, customer complaint behavior is naturally expected when the service provided is dissatisfying [6,7]. Post-dissatisfaction

behaviors, especially negative word of mouth (WOM) and complaints, are an organization's nightmare [8,9]. When handled incorrectly, customers' complaints could create considerable harm to a company's reputation by increasing frustration and dissatisfaction and reinforcing negative customer reactions [10–12]. It has been suggested that the complaining behaviors of customers vary depending on demographic characteristics (e.g., age, gender, and education) [13–15] and cultural backgrounds [16–18]. This difference in complaining behavior exhibited by guests from distinct cultural backgrounds complicates matters for hoteliers operating in ever-diversifying marketplaces. As such, hotel managers would do well to equip themselves with more nuanced understandings of the ways in which cultural differences may result in different forms of complaining behavior [19] so that they can design more effective marketing strategies [20] and bring service delivery behavior more in line with the cultural values of their diverse clientele [21]. Understanding the probability of customer churn at a given time assists managers in developing appropriate strategies to take effective customer retention actions [22].

Online reviews are useful to measure hotel quality based on customers' experiences. Such information is also very useful for travelers when looking for hotels [23,24] and helpful for hotel managers to improve their service quality [25,26]. Hotel managers could quickly access a wealth of data that reflect the customer's perceptions of the service in terms of satisfaction and dissatisfaction [27]. In the recent decade, human consumption behavior has changed so fast due to the rapid development of artificial intelligence, information technology, and travel community websites (e.g., Facebook, TripAdvisor) [28]. Moreover, 80% of visitors found hotels on the internet, and more than 50% of them made a reservation through online applications and websites [29]. According to Blomberg-Nygard and Anderson (2016) [25], 80% of guests booked rooms via smartphones, tablets, and websites suggesting hotel businesses must keep up with today's ever-changing technology era in order to survive. TripAdvisor is an essential platform in which tourists express their personal opinions on the quality of travel and services as well as sharing accommodation experiences [30]. It is one of the most popular and powerful travel community websites in the US as well as in other countries around the world [31].

It is evident that a gap exists in understanding the relationships among customer online complaints, the different elements of hotel attributes, and the cultural background of the guests when experiencing hotels, especially in Vietnam's hotel industry. Previously, a study in Vietnam mainly analyzed visitors' hotel satisfaction or dissatisfaction [32]. Similarly, Minh et al. (2015) [33] analyzed the effect of service quality on customer satisfaction in Vietnamese hotels. Other research focused on only luxury hotels [34], or the studies were only conducted in one city with a small number of hotels [33,35,36]. So far, there have been no studies on online complaint behavior in Vietnam's hotel industry. Hence, this study analyzed complaints regarding important attributes of the hotel experience in Vietnam. After considering the limitations of the previous studies, this study included two main goals:

- i. To investigate the differences in online complaints of Vietnamese and non-Vietnamese guests concerning the following attributes (a) *Service*, (b) *Value*, (c) *Room*, (d) *Sleep Quality*, and (e) *Cleanliness* after experiencing a Vietnamese hotel;
- ii. To investigate the differences in online complaints among customers experiencing different hotel classes in Vietnam for the five attributes mentioned above.

The main contribution of this paper lies in the study's novelty of relevant differences in online complaints of Vietnamese and non-Vietnamese guests when staying at different hotel classes. This research first reviews the literature with respect to electronic word of mouth and differences in complaint behavior based on cultural background and hotel classes, then explores and further proposes respective hypotheses. The research proceeds by targeting different online complaining behavior concerning five hotel attributes. Finally, the research provides recommendations for its application in the hotel industry, especially in management.

2. Literature Review

2.1. The Influences of Social Networks (WOM and eWOM)

Vietnamese hotels have adapted to this era of technology whereby internet access and smart devices are indispensable. Rapid response to societal events and instantaneous evaluation of events by a group of users are the specific features of social services of internet communication [37]. This in turn makes social media marketing a priority in order to engage with the increase in guests' usage of numerous social networks. As mentioned by Grant Thornton (2019) [38], almost all participants made use of this effective channel for a better apprehension of social network users. Moreover, hotel and customer data collection through online assessments provided managers with an accurate psychological analysis of customers' experiences from which to make sound business decisions [39-41]. These reviews or comments shared online are now referred to in related literature as electronic word of mouth or eWOM [42]. eWOM is different from WOM in several ways. One of the main dissimilarities is that it is not limited by the size of a social network [43]. According to Litvin et al. (2008) [44], eWOM reaches far past WOM's conventional readers and producers due to its influence in virtual relationships and communities. Fast response rate and a wide reach of many people without requiring face-to-face contact, are the main advantages of eWOM [45]. However, its negative word-of-mouth information seriously affects the hotel's reputation as the hotel service provider receives complaints from customers from a variety of backgrounds [46,47].

2.2. Influence of Cultural Background on Consumer Complaint Behavior

Customer complaint behavior is heavily influenced by their own culture. It is known that culture influences the formation of preferences and customer satisfaction with products and services [48,49]. A study by Hsieh and Tsai, 2009 [20], showed that American customers are less concerned with overall service quality than Taiwanese visitors. Liu et al. (2000) [50] argued that the difference in customers' culture has a direct correlation with the values they assign to the services they experience. For instance, Japanese tourists are more concerned about personalized services (such as butlers) and security than American tourists [51]. In addition, it has been suggested that Western travelers are more concerned with the physical environment when judging service quality [49]. In addition, culture may affect how some customers may react to the manner or ability in which services are provided. For example, Indonesians believe that services can be provided at a given pace and rush is a sign of impatience; while punctuality according to South Koreans and Australians is a sign of professionalism [52]. Consequently, customers from particular cultures may be easily disappointed when experiencing services from hotels with such flaws.

2.3. Influence of Hotel Class on Consumer Complaint Behavior

The hotel rating system is a useful tool for hotels to evaluate themselves and a way of communicating quality standards to their customers [53]. However, countries often build their hotel rating systems with a total of more than 100 global rating systems [54]. Studies have established refined scale measures for website evaluation based on similarities and differences across hotel classes (e.g., economy, upscale, and luxury) for generalizability [7]. According to the concept of Ren et al. (2016) [55] and Peng et al. (2015) [56], economy hotels are modestly priced, ranging from "0 to 3-star" and with a minimum of 50 rooms. In contrast, upscale (4-star) and luxury (5-star) hotels are known to include elaborate decor and high value with personalized service as well as exercise facilities, swimming pools, restaurants, and gift shops [56–60].

2.4. Research Hypothesis

Hofstede (2009) [61] indicated that cultural differences are comprised of four prominent dimensions, namely power distance, individualism versus collectivism, masculinity versus femininity, and uncertainty avoidance. Among these, "individualism versus collectivism" was particularly related to the primary distinctions in consumer behaviors from

Eastern and Western cultures [62,63]. Power distance is also prominent in Vietnam as evident in Vietnamese families, organizations, and society due to strong influence from Chinese Confucian values [64–67]. Similarly, collectivism, a major principle of Confucianism, is also still evident in present-day Vietnamese culture [64,67–69]. Ngai et al. (2007) [17] claimed that Asian guests are afraid of disgrace and "loss of face" if they complain and are therefore unfamiliar with the means of making complaints. The concept of "losing face" is deeply embedded in Vietnam's collectivist culture and even described as unbearable [65]. Thus, Vietnamese customers are less likely to complain despite receiving inferior service. Hence, with consideration given to the way in which distinct cultural backgrounds of Vietnamese and non-Vietnamese can lead to differences in customer attitudes and complaining behaviors, the following hypotheses were suggested:

Hypothesis 1 (H1): *Vietnamese and non-Vietnamese guests will demonstrate significantly different online complaining behavior toward hotel attributes of (a) Service, (b) Value, (c) Room, (d) Sleep Quality, and (e) Cleanliness.*

According to the official report of Vietnam's Ministry of Culture, Sports and Tourism (MOCST) [70], TCVN 4391:2015 is a national standard for hotel classification using star ranking that is similar to the French standard. These two standards make reference to Accor standard classification, which is divided into general requirements and specific requirements. TCVN 4391:2015 classification is based on five general requirements: location and architecture, facilities, service quality, manager and staff, and environmental friendliness, health, and safety. According to the Vietnamese hotel classification system in 2015 TCVN 4391:2015 [70], economy hotels (1- to 3-star) have an architectural design in accordance with business requirements in which service areas are arranged reasonably and conveniently. The interior and exterior are designed and decorated to ensure accessibility for disabled people and a soundproof sleeping area. In addition, the number of rooms is usually less than 50. The requirements for upscale (4-star) and luxury hotels (5-star) include a beautiful unique interior and exterior architectural design with luxurious decoration, covering the front of the reception hall, good-quality building materials, and a luxurious hotel front view with a beautifully designed small landscape, access road, and sidewalk, and the number of rooms should surpass 50.

Studies have shown that the different classes of hotels could create differences in perceptions and expectations among hotel guests. For instance, guests of an economy-class hotel are more concerned about the hotel website's user-friendliness in order to ensure the best deal possible [71]. Conversely, guests of a luxury-class hotel care more about user security and privacy when using their websites. In this respect, linguistic and/or cultural backgrounds also play a role. Schuckert et al. (2015) [72] illustrated that English-speaking travelers preferred luxury-class hotels with bigger rooms, while non-English-speaking guests had a preference for economy-class hotels and demanded higher service quality. In terms of expectations and evaluations of the service quality among economy-, upscale-, and luxury-class hotels, patrons from different cultures have been shown to exhibit some significant differences. For instance, Chinese guests are less likely to complain and are more accommodating to pricing issues than non-Chinese guests in top luxury hotels, suggesting that the traditional face culture also exists in the online Chinese community [62].

Hypothesis 2 (H2): There will be significant differences in the online complaining behavior of guests among economy-class (2-star and 3-star), upscale-class (4-star), and luxury-class hotels (5-star) regarding the hotel attributes of (a) Service, (b) Value, (c) Room, (d) Sleep Quality, and (e) Cleanliness.

This study focused on examining online complaint behavior based on five hotel properties on TripAdvisor between Vietnamese and non-Vietnamese guests as well as among guests experiencing different hotel classes in Vietnam. The research model constructed based on the aforementioned argument is depicted in Figure 1.

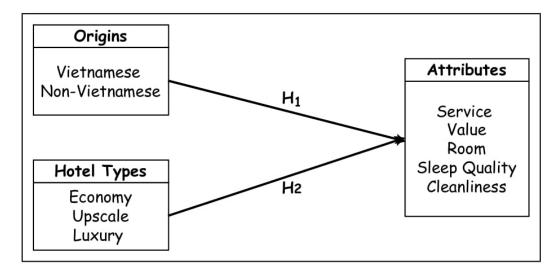


Figure 1. Research conceptual model.

3. Methodology

3.1. Sample and Data Source

In line with prior study by Sann et al. [73], data from this study were collected from TripAdvisor—a platform with the advantage of providing a large sample without prejudice and a high level of external validity [74]. It is also coupled with an integrated multilanguage interface and provides the assessor's nationality [75]. The TripAdvisor assessors' reviews range from "Terrible" (1 point) to "Excellent" (5 points) [73,76]. According to Ho (2018) [77], an overall rating of 1 or 2 points means that the customers are not satisfied with the hotel. Moreover, customers are able to express their comments through the evaluation system regarding hotel attributes, including "Service", "Value", "Room", "Cleanliness", and "Sleep Quality".

3.2. Data Collection and Sample Characteristics

This study targeted customer reviews of TripAdvisor-listed Vietnamese hotels between 2015 and 2020 [78] (TripAdvisor, 2020). The selected hotels ranged from 2 to 5 stars according to the Vietnam hotel classification system (TCVN 4391:2015). A total of 467 hotels that met the above-mentioned requirements were randomly selected from among thousands of hotels located in six famous tourist cities that attract and welcome a large number of international and domestic tourists every year. The six cities were from the three main regions of Vietnam: Northern Region (Hanoi City, N = 105), Central Region (Da Nang City, N = 118; Da Lat City, N = 40; Nha Trang City, N = 18), and Southern Region (Ho Chi Minh City, N = 174; Phu Quoc City, N = 12). Therefore, the sampling method applied in this study provides more elaborate and comprehensive results compared to previous studies in which data collection was conducted in only one city.

The sample collection was performed manually for each sample and encoded subjectively. Samples were taken only for unsatisfied guests with a negative rating equivalent to an overall score of 1 and 2 with details of the complaint in writing [54]. As a result, 33 hotels were excluded from the 500 selected hotels due to the insufficiency of information provided. Finally, 1357 unsatisfied guest samples from 467 hotels between 2015 and 2020 were obtained.

The 1357 online complaint samples were representative of guests from 70 countries in 5 continents. Overall, Vietnamese tourists accounted for the highest percentage of 31.39% (N = 426), followed by the United States of America (N = 106, 7.81%) and Australia (N = 93, 6.85%). Among Asian countries, Vietnam was at the top with 31.39% (N = 426), followed by Japan (N = 64, 4.72%), Singapore (N = 54, 3.98%), South Korea (N = 51, 3.76%), China (N = 37, 2.73%), and Thailand (N = 30, 2.21%). In addition, countries from Europe with a large number of samples included United Kingdom (N = 72, 5.31%), France (N = 57, 4.20%),

Germany (N = 45, 3.32%), and Spain (N = 32, 2.36%). Africa was the continent with the lowest number of samples with only 1.18% (N = 16). Other countries accounted for 17.76% (N = 41). More supplementary details of the dataset are described in Table 1.

Table 1. Respondents' characteristics.

Category	Respondents ($N = 1357$)	Percentage (%)
Guest Origins		
Vietnamese	426	31.4
Non-Vietnamese	931	68.6
Types of Hotels		
Economy	892	65.7
Upscale	275	20.3
Luxury	190	14
Regions		
Africa	16	1.7
America	144	10.6
Asia	757	55.4
Australia	104	7.6
Europe	336	24.7
Types of Travel		
Business	204	15.0
Couples	413	30.4
Families	273	20.1
Friends	204	15.1
Solo	137	10.1
N/A	126	9.3
Star Classification		
2-Star	101	7.4
3-Star	791	58.3
4-Star	275	20.3
5-Star	190	14
Size of Hotels		
Small (<99 rooms)	811	59.8
Medium (100–299 rooms)	431	31.7
Large (>300 rooms)	115	8.5

3.3. Measurements and Data Analysis

The study adopted 5 measurement variables from Sann et al. [79] and measured all variables according to a single item scale. To evaluate the relationship between the guest experience and the quality of the hotel, this study conducted five-point Likert scale evaluations [80] of the variables of *Service, Value, Room, Cleanliness*, and *Sleep Quality*. The scale ranged from 1 point for strong dissatisfaction to 5 points for strong satisfaction. Cronbach's alpha was used to evaluate the reliability of the scale. The alpha values of all the attributes were of recommended value of 0.65; thus, all the attributes met the criteria as recommended by Melián-González and Bulchand-Gidumal [81]. The variables are presented and categorized in Table 2.

Table 2. Descriptive statistics of hotel attributes.

Attribute	N	Period	Mean	Std. Dev.	Skewness	Kurtosis
Service	1.341	2015–2020	1.91	1.02	0.91	0.11
Value	575	2015-2020	1.92	0.91	0.83	0.29
Room	584	2015-2020	2.09	1.05	0.65	-0.33
Sleep Quality	573	2015-2020	2.33	1.17	0.37	-0.90
Cleanliness	607	2015-2020	2.52	1.21	0.25	-0.90

SPSS 24.0 software was used to test hypotheses through the analysis of mean and standard deviations. The mean value of the comparison of 5 hotel attributes influenced by Vietnamese and non-Vietnamese guests, along with differences in hotel class and star ranking, was determined according to the Vietnamese rating system; this study applied the accompanying Scheffe's test to analyze the different hotel classes. The study framework for obtaining online complaint reviews from TripAdvisor is shown in Figure 2.

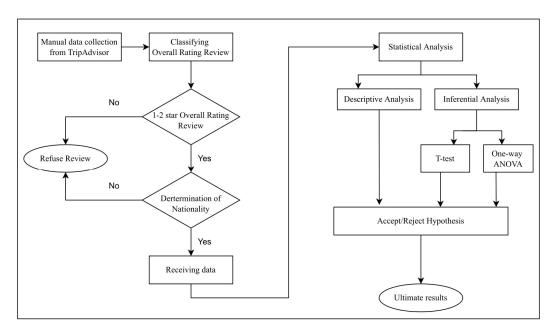


Figure 2. Collection and analysis framework for online complaint reviews from TripAdvisor.

4. Findings and Discussion

4.1. Hotel Frequency Distributions

This study only selected samples of customers who were considered as naturally complaining, that is, with overall ratings that were 1-point and 2-point. The majority of these were 2-point ratings that accounted for 57.92% (N = 786) while the remaining (42.08%; N = 571) were 1-point ratings. Service was the attribute that received the highest number of 1-point ratings (N = 614) followed by *Value* (N = 220), *Room* (N = 211), *Sleep Quality* (N = 188), and *Cleanliness* (N = 165).

4.2. Descriptive Statistics

The mean value of the hotel size was 104.09, meaning that most travelers wrote complaints about medium-sized hotels (100–299 rooms). The results also suggest that customers that traveled as couples (N=413 samples, 30.43%) were most likely to make online complaints about their hotels, which is consistent with those of Sann and Lai's (2019) [82] study in which complaints were mostly from couples. Table 2 provides details of the descriptive values of the hotel attributes. The ratings of Cleanliness (M=2.52), Sleep Quality (M=2.33), and Room (M=2.09) were indicative of medium-low-level complaints, implying that these three attributes carried similar importance to hotel guests [83]. On the contrary, the lowest mean ratings of 1.91 and 1.92 were evident in *Service* and *Value* attributes, respectively. This suggests that customers were not satisfied with what they paid for [79]. According to Chang et al. (2019) [84], despite results indicative of negative overall ratings, it is vital to note the changes in complaining patterns when dealing with various hotel attributes.

4.3. Effect of Cultural Background on Hotel Attributes

An independent-sample *t*-test was applied to evaluate whether a statistical difference exists between hotel attributes and differences in the culture of origin. Based on the results,

hypotheses $H_{1(a)}$, $H_{1(b)}$, and $H_{1(c)}$ (which assumed that "Vietnamese visitors and non-Vietnamese visitors will demonstrate significantly different online complaint behavior toward *Service*, *Value*, and *Room*") were valid, with p < 0.01. Similarly, Truc (2019) [85] found that service, staff, and value are the three most important factors affecting customer satisfaction in Vietnamese hotels.

The significantly lower mean value of Vietnamese guest reviews on the *Service* attribute compared to non-Vietnamese guests ($M_{Vietnamese} = 1.74 < M_{non-Vietnamese} = 1.99$) indicates that Vietnamese visitors are more likely to complain about the *Service* they received than non-Vietnamese visitors. Such difference could be explained by two reasons. Firstly, Vietnamese cultivate higher expectations with respect to service, characterized by high-context communication and large power distances (extent to which status differences are expected and accepted within a culture) [21,86] due to the strong influence of Chinese Confucian values [87]. The establishment of Confucian hierarchical structures within their societies to maintain order and stability is still deeply embedded in Vietnamese families, organizations, and society [64–67,88]. Schmitt and Pan (1994) [89] also proposed that Asian consumers paying for low-cost services expect a relatively high level of service. Therefore, the gap between Vietnamese guest expectations and hotel service performance leads to negative disconfirmation.

Secondly, differences in staff attitudes toward customers, particularly discriminatory attitudes, are the cause of the difference in the Service rating between Vietnamese and non-Vietnamese guests. Major et al. (2002) [90] defined discrimination as "an unjustified negative or harmful action toward the members of a group, simply because of their membership in that group". Smith and Bolton (2002) [91] concluded that discrimination in service leads to the customer's negative emotions and feedback. This study found that hotel employees tend to treat non-Vietnamese guests better than Vietnamese guests probably due to two reasons. First, non-Vietnamese customers' complaints would lead to a huge loss in hotel revenue [92]. For instance, 17.48% of international visitors in 2019 contributed to 55.7% of Vietnam's tourism industry revenue [4]. Unlike Vietnamese guests, non-Vietnamese guests often do not neglect service failures, are more likely to complain to hotel management to resolve problems, and are not reluctant to share experiences or warnings on international travel forums and with family or friends [16,18]. In contrast, Vietnamese guests are concerned about their collectivist-derived "face loss" concept if they complain to the hotel management; hence they are less willing to complain [17,65,87]. The second reason is Westerners' "tipping etiquette", especially toward service staff as a cultural feature; however, only a few Vietnamese customers do that. Therefore, it is not surprising that service staff have a warmer attitude toward non-Vietnamese guests [92]. This could be illustrated by the following online complaints: "Impolite with Vietnamese guests"; "Receptionists are not friendly to Vietnamese customers. Receptionists had bad attitudes and didn't smile once when we checked in"; "They show very bad attitude to local people who pay them the same rate as foreigners".

The results also show that Vietnamese visitors were more likely to complain about the *Value* attribute than non-Vietnamese visitors ($M_{Vietnamese} = 1.77 < M_{non-Vietnamese} = 1.99$). The differences in income and price sensitivity of those two groups could be the possible reasons. It is known that income is positively related to the decision to travel [93–96], and income elasticity is an influencer of tourism expenditures [97]. The difference in the currency exchange rates and income between Vietnamese and most non-Vietnamese guests makes the latter feel that hotel prices in Vietnam are cheap compared with developed countries. Travelers can experience luxury hotels for an average cost in Asia of USD 416 per night and 5-star hotels in Europe for an average of USD 716 [98] while in Vietnam they only spend an average cost of USD 83.4 [38]. The average annual income of Vietnamese people is still low with the GDP per capita around USD 2715.3 per year in 2019 [99]. Moreover, over 80% of customers in Vietnam notice when a product's price changes and the price elasticity of demand is -2 percent, making it one of the most price-sensitive marketplaces in Southeast Asia [100]. Vietnamese customers are easily disappointed when the hotels

do not live up to their expectations. This is evident from complaints such as: "Not worth the price. I paid more than VND 3 million per night, expecting at least five-star standard, but realized it is a four-star hotel. I think a more reasonable rate should be near to VND 2 million"; "This hotel is vastly over-hyped and over-priced"; "I don't pay USD 60 for 5 cocktails to be treated in the way they did".

Interestingly, Vietnamese visitors were less likely to complain about the Room attribute than non-Vietnamese visitors ($M_{Vietnamese} = 2.30 > M_{non-Vietnamese} = 2.01$). Studies suggest that ethnicity is related to preferred room amenities [58], and environment familiarity makes customers more compliant with their stay and understanding of issues encountered [62]. As a result, Vietnamese guests would easily be satisfied with the *Room* attribute due to being familiar with the room's decoration and amenities. In contrast, non-Vietnamese customers come with room expectation standards familiar to them in their own country such as room decorations, toilet equipment, or other devices in the room. Moreover, culture shock while staying in a new environment might also play a role [101,102].

With respect to the *Cleanliness* and *Sleep Quality* attributes, Vietnamese guests exhibited no significant difference in online complaining behavior when compared to non-Vietnamese guests; therefore hypotheses $H_{1(d)}$ and $H_{1(e)}$ were invalid, with p values of 0.198 (p > 0.05) and 0.930 (p > 0.05), respectively (Table 3).

Variables —	Vietna	Vietnamese (1) Non-Vietnamese (2) Mean Std. Dev. Mean Std. Dev.		Non-Vietnamese (2)		v-Value	Comparative
variables —	Mean			Std. Dev.	<i>t-</i> Value	p varae	Comparative
Service	1.74	0.97	1.99	1.03	-4.14	0.000	(1) < (2)
Value	1.77	0.91	1.99	0.91	-2.74	0.006	(1) < (2)
Room	2.30	1.16	2.01	0.98	2.95	0.003	(1) > (2)
Sleep Quality	2.43	1.23	2.29	1.14	1.29	0.198	None
Cleanliness	2 51	1 22	2 52	1 20	-0.09	0.930	None

Table 3. Vietnamese and non-Vietnamese guests' reviews of 5 hotel attributes.

4.4. Effect of Hotel Class Experience on Hotel Attributes

Findings from one-way analysis of variance (ANOVA) tests revealed that guests of the economy class (2 and 3 stars) exhibit significant differences in online complaining behavior when compared to guests of the upscale class (4-star) and luxury class (5-star) concerning four out of five hotel attributes: hypothesis 2 was supported regarding *Service*, *Cleanliness, Room*, and *Sleep Quality* at p < 0.01 (Table 4). Hypothesis $H_{2(b)}$ (which assumed that there would be significant differences in the online complaining behavior of guests among economy class (2-star and 3-star), upscale class (4-star) and luxury class (5-star) regarding the hotel *Value* attribute) was invalid, with a p value of 0.763 (p > 0.05).

Variables -	Economy (1)		Upscale (2)		Luxury (3)		F-Value	<i>p</i> -Value	Scheffe's
variables	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	1 value	,	Schene 3
Service	1.86	0.96	2.10	1.12	1.87	1.06	6.34	0.002	(1) < (2)
Value	1.90	0.91	1.94	0.92	1.98	0.93	0.27	0.763	None
Room	1.87	0.91	2.33	1.11	2.78	1.16	30.63	0.000	(1) < (2) < (3)
Sleep Quality	2.09	1.06	2.76	1.24	2.59	1.19	20.48	0.000	(1) < (2), (3)
Cleanliness	2.34	1.15	2.78	1.23	2.88	1.26	11.67	0.000	(1) < (2), (3)

Table 4. Guests' reviews of 5 hotel attributes according to hotel classification.

Scheffe's multiple-comparison analysis showed that guests experiencing economy-class (2-star and 3-star) hotels were more likely to complain about *Service*, *Cleanliness*, *Room*, and *Sleep Quality* than those in upscale-class (4-star) and luxury-class (5-star) (Table 4). Sann et al. (2020) [79] also concluded that guests of low-class hotels are more likely to complain about *Cleanliness*, *Room*, and *Sleep Quality* compared to guests of high-class hotels.

The reasons for such findings are directly related to Vietnam's hotel registration system, management level, and re-evaluation of different hotel classes in Vietnam. According to Article 50 of Law No. 09/2017/QH14 [103], often known as Vietnam's Tourism Law, dated 19 June 2017, tourist accommodation service providers may willingly register their establishments' rating with competent state agencies. For economy-class (1-star, 2-star, and 3-star) hotels, the application only needs the appraisal of the Department of Culture, Sports and Tourism at provincial level, which is very flexible. In addition, economy-class hotels in Vietnam are often established by individuals or families without professional training. According to Tuan and Dang (2020) [104], only 43% of Vietnam's tourism and hotel industry workforce was well trained. Therefore, the quality standards and requirements may not be balanced between provinces and may not meet the needs of guests. The other issue of concern is the lack of inspection in the Vietnamese system, which influences hotel innovation in regard to detecting the advantages and disadvantages of a hotel [3,105]. TCVN 4391:2009 [106] and other TCVN standard documents follow the pre-inspection system, and establishments that already have a business license do not need to be reinspected unless they want to change their hotel classification. As a result, hoteliers are not proactive regarding innovation or even refurbishing of their establishments while retaining their license for decades despite degradation [107]. In contrast, upscale- and luxury-class hotels (4-star and 5-star hotels) must be approved by the Vietnam National Administration of Tourism which is stricter and transparent. Moreover, upscale and luxury hotel investors involve large corporations and international companies that hire well-trained employees and keep their facilities well maintained. The hypotheses of the investigation are summarized in Table 5.

Table 5. Summary of the research hypotheses.

Hypotheses	(a) Service	(b) Value	(c) Room	(d) Sleep Quality	(e) Cleanliness
H_1 H_2	Supported	Supported	Supported	Rejected	Rejected
	Supported	Rejected	Supported	Supported	Supported

5. Conclusions and Implication

This study aimed to extend hospitality literature in Vietnam by analyzing the differences in online complaints between Vietnamese and non-Vietnamese guests as well as among hotel classes. The results show that there are differences between Vietnamese and non-Vietnamese customers in relation to *Service, Value,* and *Room* attributes in online complaints. Moreover, guests were more likely to complain about hotels in the economy class (2-star and 3-star) with respect to *Service, Room, Sleep Quality,* and *Cleanliness* than in the upscale class (4-star) and luxury class (5-star).

It is important for hotel managers to have a better understanding of the impacts of cultural differences on guest complaint behavior [19]. With that in mind, hotel managers need to provide professional training for staff so that discrimination between Vietnamese and non-Vietnamese customers can be eliminated and also to be able to meet the expectations of customers from different cultures and languages. It is also vital to take into consideration the customers' language differences when training staff, especially on English, and impression management, covering non-verbal aspects such as body language, posture, and behavior so that customers may feel that their concerns are being adequately addressed [17,21,108]. Furthermore, cultural training should be conducted for staff that have one-on-one contact with customers such as frontline staff.

The literature demonstrates that the customer's revisit intentions are influenced by the "Value" attribute. Hence hotel managers may add value through the enhancement of perceived quality or the lowering of perceived price [109]. Consumers have also been found to perceive comparable value over a range of price levels in hotels, which indicates that guests may adjust their expectations of service quality as the price fluctuates [110]; however, this adjustment in expectations does not eliminate service quality from the perceived value

equation. Consequently, hotel managers could offer promotional packages suitable for Vietnamese customers' income as well as value-added service strategies. Hotel managers could provide free shuttle services from hotels to areas of interest to Vietnamese guests in hopes of reducing the likelihood of them choosing to speak out of grievances through online channels.

The "Room" attribute is also a key influencer in customer dissatisfaction [111]. Thus, hotel managers should ensure that the quality of rooms is continuously maintained and/or improved. Hoteliers should also distinguish travelers' cultural backgrounds when understanding customers' preferences and satisfaction in order to make necessary room adjustments based on tourism trends such as wellness tourism and healthy hotels. Nowadays, travelers always want to stay healthy leading to their higher requirements for the *Room* attribute, especially, travelers from developed countries [58].

Finally, the root cause of customer complaints among different hotel classes is the lack of a strict Vietnam hotel rating system. Many hoteliers of the economy class are concerned about the rating more for legal purposes than for attracting customers [3]. The Vietnamese hotel ranking system must be improved, especially for economy-class hotels through regular and stricter inspections on behalf of the government. This would allow customers to regain confidence in the system. In turn, it would motivate the hoteliers to regularly maintain and upgrade facilities to meet customer expectations. Another alternative would be the adaptation of successful private-sector models of a hotel rating system in order to save resources. However, such a suggestion would require further research.

6. Limitation and Future Research

The limitations encountered in this study could be the basis for future research. Firstly, the online reviews in this study were collected from a single platform, TripAdvisor. For further studies, Agoda and Booking—two other most popular hotel booking platforms in Vietnam—should be considered. Second, further research needs to be conducted to compare customer complaint behavior in different countries with similar Asian cultural backgrounds and Confucian values to Vietnam such as China, Japan, and Korea. Moreover, possible generation gaps among customers through specific age group data analysis could be included in future studies but would require the use of other data collection methods.

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Article

The Moderating Roles of Destination Regeneration and Place Attachment in How Destination Image Affects Revisit Intention: A Case Study of Incheon Metropolitan City

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Abstract: We aimed to elucidate both the relationship between destination image and revisit intention and the importance of destination regeneration and place attachment in that relationship. Data were collected from a consumer who visited the destination, after which a total of 200 usable surveys were analyzed. In order to examine the data, we employed structural analysis using AMOS. Based on the results, first, there is a positive relationship between destination image and revisit intention. In addition, there are significant moderating effects of destination regeneration and place attachment between destination image and revisit intention. Those significant findings could contribute to destination development from destination regeneration and place attachment.

Keywords: destination image; revisit intention; destination regeneration; consumer

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1. Introduction

With the development of the tourism market, the destination industry has become essential for economic revitalization [1]. When choosing destinations, tourists typically consider the total of all the factors influencing the appeal of the destinations [2,3]. In turn, those factors affect tourist satisfaction, which, consequently, has a positive effect on tourists' intention to recommend and revisit certain destinations [4,5]. Tourist satisfaction with their destinations is, thus, a critical goal of tourism activities [6,7] and has proven to be vital in operating tourist destinations [8–10].

However, little research has been conducted to identify factors that link destination image to revisit intention [11–14]. Moreover, the majority of such research has examined the effects of tourist satisfaction, loyalty, and revisit intention on consumer perception [15–17] or the role of moderating factors, including destination regeneration and place attachment, in the relationship between destination image and revisit intention [10,18–22].

Therefore, the purpose of our study was to explore-investigate between destination image and revisit intention, specifically whether the former influences the latter and whether destination regeneration and place attachment moderate that relationship. In order to investigate the research objectives, we focused on the tourist destination of the Incheon Metropolitan City, or Incheon for short, the third-most populous city in Korea and the part of the Seoul Capital Area that includes the Incheon International Airport, the Port of Incheon, and the Incheon Free Economic Zone—although Incheon already has many tourist resources and historical attractions, regenerating it as a destination stands to attract more tourists.

2. Hypotheses Development

2.1. Destination Image

Destination image refers to a visual and mental impression of a place or experience formed by an individual [9]. Destination image is the overall perception that tourists form

and hold about a destination based on all of the information that the destination presents to tourists [1]. As such, destination image greatly influences tourists' selection of their destinations [23], and for the destinations whose primary purpose is to attract tourists, it can be a pivotal element in their marketing strategies [24].

Given the destination image's multifaceted and growing influence on whether tourists visit a destination [25], the concept has been studied in various fields and shown to influence tourists' decision-making processes [26]. In particular, as tourists recall their experiences at destinations and reinterpret their meaning of the destinations, a destination image forms [27]. Because tourism products are intangible products whose value is difficult to evaluate without experiencing them firsthand, and because destination image is formed based on personal experiences instead of tangible products, the image formed plays a major role in cultivating other images and in the revisiting intention [28–30]. In considering that dynamic, destinations could encourage tourists to develop positive destination images and induce them to visit in the future. Thus, Hypothesis 1 (H1) expected that:

Hypothesis 1 (H1). *The destination image has a significant positive effect on the revisit intention.*

Hypothesis 1a (H1a). The destination image of "Naturalness" has a significant positive effect on the revisit intention.

Hypothesis 1b (H1b). The destination image of "Attractiveness" has a significant positive effect on the revisit intention.

Hypothesis 1c (H1c). *The destination image of "Diversity" has a significant positive effect on the revisit intention.*

2.2. The Role of Destination Regeneration and Place Attachment

Destination regeneration is defined as the strengthening of the destination capacity, the introduction of new functions, and the utilization of resources to revitalize aging tourist destinations, including cities, due to population decline, changes in industrial structure, and the aging of the residential environment [18,20,31]. Destination regeneration also involves recreating physically outdated or functionally obsolete destinations in order to make them sustainable, attractive places to live in and visit [32–34], as well as revitalizing the destinations by improving their facilities and service programs and, thereby, increasing their use [35]. In that light, destination regeneration can be understood as a comprehensive strategy to respond to the declining industrial structure of tourist destinations, including cities such as Incheon [31,36,37]. Thus, Hypothesis 2 (H2) expected that:

Hypothesis 2 (H2). *The destination regeneration significantly moderates the relationship between the destination image and revisit intention.*

Meanwhile, place attachment is a comprehensive concept regarding how residents and tourists interact with a place [38,39] and is one able to justify the residents' attitudes toward the development of the destinations where they live. Place attachment reflects the characteristics of the region of the destination and captures the psychological solidarity formed by living there [40,41]. Given past findings that the greater the place attachment, the more positive the attitude toward tourism development [32,42], place attachment likely has an effect on the development of tourist destinations. Thus, Hypothesis 3 (H3) last hypothesized that:

Hypothesis 3 (H3). *The place attachment significantly moderates the relationship between the destination image and revisit intention.*

3. Method

In order to investigate the relationship between destination image, revisit intention, destination regeneration, and place attachment (Figure 1), we developed a questionnaire containing items based on the mentioned operational definitions of those four aspects and previous studies. First, the destination image was measured using seventeen items [2,17], the destination regeneration using nine items [32,34], and the place attachment was measured with five items [25,42]. Participants responded to all of the items on a 7-point Likert scale ranging from 1 (very strongly disagree) to 7 (very strongly agree). Lastly, our questionnaire collected data about the participants' sociodemographic variables.

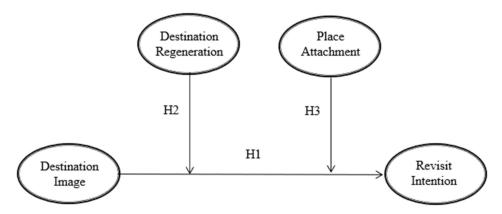


Figure 1. The proposed model.

For the data collection, our survey was conducted in August 2020 through an online survey. More specifically, we administered the questionnaire among tourists who had visited Incheon and whose participation was incentivized by souvenirs. Due to the difficulty of obtaining permission from every tourist, we employed convenience sampling to collect the data by using random sampling techniques. Altogether, the completed questionnaires of 200 such tourists were subjected to analysis. In terms of gender, 100 respondents (50.0%) were women, whereas 100 (50.0%) were men and, in terms of age, 43 (21.0%) were in their 50s, 64 (32%) in their 40s, 53 (26.5%) in their 30s, and 40 (20.0%) in their 20s. Among these, 75.5 of the respondents were national tourists, and 24.5% were international tourists. In regard to marital status, 110 respondents (55.0%) were married, whereas 89 (44.5%) were single, while in terms of occupation, 105 (52.5%) were office or technical workers, 17 (8.5%) were homemakers, 20 (10%) were self-employed, and 16 (8.0%) were professionals or public servants. Lastly, by average monthly income, 86 respondents (43.0%) earned 4.0-4.9 million won, while 37 (18.5%) earned 3.0-4.9 million won. In terms of reasons for traveling, 45.8% of respondents said that it was for leisure purposes. Regarding the determinants of visiting the destination, natural environment and historical culture were the largest response (58.2%).

In order to test our hypotheses, we employed the SPSS and structural equation modeling in Amos 25 and the Statistical Package for the Social Sciences. First, we used descriptive statistics to define a demographic profile. Second, confirmatory factor analysis (CFA) was then used to examine the suitability of the measurement model and to check the indicator variables. Lastly, we employed path analysis and multiple group analysis in structural equation modeling (SEM) in order to investigate the hypothesized relationships among the variables.

4. Results

4.1. Measurement Models

We confirmed the convergent validity by checking the factor loadings to determine whether the different variables used to measure the same factor were correlated [43]. All

factor loadings (0.561–0.715) were statistically significant and thus indicated that the results demonstrated convergent validity. Table 1 provides results of factor analysis.

Table 1.	Results	of factor	analysis	(n = 200)).
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Item	Standardized Loading	AVE	Composite Reliability
Naturalness			
The environment in this place is safe.	0.667	0.721	0.829
This place is comfortable.	0.613		
The atmosphere is quiet and comfortable.	0.566		
The environment is neat.	0.643		
Attractiveness		0.715	0.687
The scenery is nice.	0.642		
There is a scenic road here.	0.598		
There is a picturesque park.	0.561		
Diversity		0.687	0.654
There are various shows/exhibitions.	0.715		
The cultural events and festivals are alluring.	0.708		
There are various programs that you can enjoy at night.	0.688		
Various recreational activities are available.	0.655		

Note. Standardized factor loadings were all significant at p < 0.001. AVE = average variance extracted.

4.2. Structural Model

We employed structural equation modeling with a maximum likelihood estimation in order to investigate the hypothesized relationships in the overall model. Figure 2 shows structural model results. Based on the results, the fit indices of the overall model indicated its representation of the hypothesized constructs ($\chi^2 = 2.598$, df = 135, p < 0.001, RMSEA = 0.045; CFI = 0.909; and TLI = 0.904). The results revealed that the destination image was positively influenced on the revisit intention: naturalness (H1a: $\beta = 0.311$, p < 0.05), attractiveness (H1b: $\beta = 0.302$, p < 0.05), and diversity (H1c: $\beta = 0.267$, p < 0.05). Therefore, Hypotheses 1 was supported.

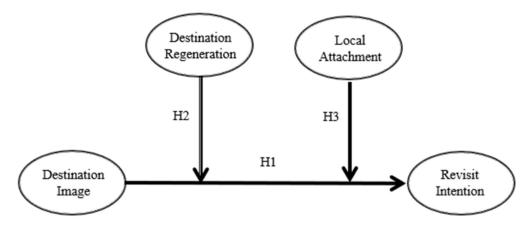


Figure 2. Structural model result.

4.3. Relationships between Groups in Structural Equation Modeling

In order to investigate the moderating effects of destination regeneration and place attachment, we conducted a multigroup analysis to adapt the proposed structural model to two groups (Byrne, 2001). A chi-squared (χ^2) test, used to categorize differences in individual paths, showed that destination regeneration was a significant moderator in the relationship between the destination image and revisit intention (H2: $\Delta\chi^2(12) = 22.5$, p < 0.05). Therefore, the results supported H2.

In terms of place attachment, a chi-squared (χ^2) test, used to categorize the differences in the individual paths, revealed that the place attachment significantly moderated the relationship between the destination image and revisit intention (H3: $\Delta\chi^2$ (14) = 25.5, p < 0.05). Therefore, the results supported H3 as well.

5. Discussion

In our study, we examined the relationship between destination image and revisit intention, as well as the influence of destination regeneration and place attachment as moderating variables in that relationship. Among the results, we first found that the destination image, indeed, significantly affected the revisit intention, which relates to the positive influence of a destination image's naturalness, diversity, and attractiveness [2]. That result suggests that revisit intention can be increased by continuously engaging in activities to build the destination image by enhancing those factors.

We also found that destination regeneration had a significant moderating effect on the relationship between the destination image and revisit intention. That finding indicates the need to develop the value of destinations by engaging in destination regeneration and revitalization in order to increase the number of potential tourists. Moreover, place attachment had a significant moderating effect on the relationship between the destination image and revisit intention, meaning that it is necessary to attract potential tourists by providing various experience-based opportunities that can activate an emotional response [1]. Beyond that, destination regeneration exerted a significant moderating effect on the relationship between the destination image and revisit intention and, thus, seems to play a key role in revisit intention [35]. Given that finding, destination marketers should consider engaging in destination regeneration as a marketing strategy [5], for it could contribute to the economic and cultural revitalization of destinations.

Lastly, the degree of the place attachment between the destination image and revisit intention had a significant effect on the destination image. Place attachment has several definitions, including one focusing on the interests of tourists and one focusing on the interests of destination residents [41]. Our finding can guide the revitalization of destinations and has the potential for the application of an interactive method that can increase the degree of the place attachment, from the tourist's perspective and for the community of the place, via destination regeneration. In addition to that, destination marketers could consider consumers' characteristics as a way to engage in market segmentation.

As for our study's limitations, our findings are difficult to generalize to tourists as a whole because our study was conducted as a panel survey. In future studies, researchers should consider forming larger samples of tourists who have actually visited the destination being examined. Another limitation is that we used moderating effects (i.e., destination regeneration and place attachments), whereas researchers in the future should consider testing a variety of variables for their potential moderating roles in the relationship between destination image and revisit intention.

6. Conclusions

In order to test our hypotheses, we formed a sample of 200 tourists who completed a questionnaire about tourism in Incheon, South Korea. Among our results, we found that the destination image positively impacted the revisit intention. In turn, we propose that destination regeneration and place attachment play moderating roles in destination image and revisit intention. The findings encourage destination marketers and players to prioritize destination regeneration and place attachment as a means of destination revitalization.

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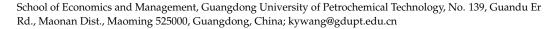




Article

Sustainable Tourism Development Based upon Visitors' Brand Trust: A Case of "100 Religious Attractions"

Kuo-Yan Wang



Abstract: This study examines tourist trust in a government-initiated tourism brand from the perspective of the economic sustainability of the tourism industry. Its antecedents comprise traveler visit motivation, visitor experience perception, and willingness to visit/revisit, and the study assesses the moderating role of believers/nonbelievers in developing a tourism brand. The data were obtained from 20 notable religious-themed attractions listed among the "100 Religious Attractions" in Taiwan. Self-administered questionnaires were distributed to respondents who had visited, or were planning to visit, the listed attractions. Three hundred and eighty-five valid questionnaires were collected with the hypotheses developed and examined using the SEM method. This study analyzes the motivational and experiential differences between religious-oriented and ordinary visitors to the "100 Religious Attractions" and its brand effect concerning peripheral industry consumption behavior (e.g., food and beverage, religious items, and surrounding sightseeing sites). Last, this study discloses that the willingness to visit/revisit determinants, service value perception, and spiritual experience significantly affect tourism brand trust. These results offer a better understanding for both scholars and practitioners of religious-themed attractions regarding how tourists' visit/revisit intentions and their willingness to consume affect the creation of tourism destination brand trust that is sustainable.

Keywords: religious tourism; 100 religious attractions; destination marketing; consumer behavior

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1. Introduction

Religious-themed tourism is growing in popularity, providing considerable value for in-depth discussion of tourism participants. Given the increasing socioeconomic significance of this vibrant field of the world's leisure industry, religious-themed travel also contributes toward developing a sustainable tourism environment and affects the development of subsequent related policies. For sustainable tourism development, UNWTO provides a clear definition, as follows: "Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, and the environment and host communities."

In addition to being integrated with people and the natural environment, tourism also contributes to the Sustainable Development Goals (SDGs) of the United Nations 2030 Agenda for Sustainable Development, the purpose of which is to "eliminate poverty, protect the planet, and ensure prosperity for all" by 2030. Thus, gaining knowledge of religious-themed scene attendees and their psychological views is essential for academicians and tour group organizers [1–4]. Religious and secular spheres of tourism are quickly emerging, as religious tourism assumes a more prominent market niche in international tourism [5–7]. Moreover, several reasons exist for the global revival of religious pilgrimage and tourism. These include culture learning, the rise of spirituality, a growing share of older people, media coverage regarding sacred sites and events, globalization of the local through mass media, seeking peace and solace in an increasingly turbulent world, and the availability of affordable flights to important religious tourism destinations [8–11].

Previous religious-themed tourism studies have featured such aspects as visiting religious ceremonies and conferences; visiting local, regional, national, and international religious centers; and social or group tours, which occur as extended family tourism or as club tourism through the integration of tourists into the travel group [12–14]. However, the essence of religious-themed tourism still cannot be separated from "pilgrimage", which has been defined as "a journey resulting from religious causes, externally to a holy site, and internally for spiritual purposes and internal understanding" [15]. Smith deems that the term "pilgrimage" connotes a religious journey or a pilgrim's journey, especially to shrines or sacred places [16]. Mosques, churches, cathedrals, pilgrimage paths, sacred architecture, and the lure of the metaphysical are used prominently in tourism literature, as evidenced in advertising efforts with religious connotations [17,18]. Because of marketing and an increased general interest in cultural tourism, religious sites are being frequented more by curious tourists than by spiritual pilgrims and are thus commodified and packaged for a tourism audience [19-24]. The same can be said of mass gathering memorial events, such as Great and Holy Friday in Christianity, Eid al-Fitr in Muslim, or Vesak Day in Buddhism. Many people travel to a widening variety of sacred sites for religious or spiritual purposes or to experience the sacrosanct in traditional ways. Such sites are marked and marketed as heritage or cultural attractions for consumption [23].

Today, most researchers do not distinguish between pilgrims and tourists or pilgrimage and tourism. Instead, a pilgrimage is typically accepted as a form of tourism [25–28], exhibiting many similar characteristics regarding travel patterns and transportation, services, and infrastructure. Tourism promotion is becoming critical in changing religious sites into tourist places because the symbolic meaning of the place can be transformed from a space of worship and contemplation into a scenic spot worthy of attention.

The challenges, constraints, and opportunities of the external and internal environments inherent in marketing a tourism destination differ from individual tourism service businesses. Destination marketers must create and manage a compelling and focused market position for their multi-attributed location, across multiple geographic markets, in a dynamic macro environment [29]. Therefore, destinations and destination marketing have emerged as a central element of tourism research [30–33], perhaps even "the fundamental unit of analysis in tourism" [34], because most tourism activity occurs at destinations [35–37].

Many package tours and regional attractions emphasize historical heritage characteristics as the selling point. Amid these sightseeing spots, religious or cultural themes are indispensable to connotation, such as the São Paulo Cathedral in Brazil, Angkor Wat in Cambodia, the Great Pyramids in Egypt, Notre-Dame de Paris in France, the Parthenon temple in Greece, Duomo di Milano in Italy, or the Hajj in Mecca, Saudi Arabia. At the same time, these spots also play a role in their inherent culture and precious cultural heritage in the world. Furthermore, tourism development has gradually transformed their vast economic potential into a solid industry due to the fascinating features of these remarkable scenic areas. In short, these notable religious sites or events have become a significant brand in global destination tourism. However, given that the viewpoints involved in this study are mainly economic, the following discussion explores how tourism brands can establish and maintain their tourists' trust from the perspective of sustainable economic development.

Customizing the features of a destination to appeal to individual customer's preferences presents greater challenges than for other manufactured products or services. Consequently, branding destinations have become more critical in the tourism industry [38,39]. Religious heritage or ceremonies require a period to accumulate brand awareness; however, research is limited regarding visitors' attitudes toward public tourism sector-initiated new religious-themed brands. This paper tries to fill this gap in the literature by exploring tourists' experiences with a government-initialed tourism brand project of religious attractions, their effect on their motivation, perception, intention to visit/revisit, and consumer willingness and purpose. This research investigates the association between the perception of the area with a tourist's heritage and behavior to understand individual attitudes

toward destination tour sites' perceived image, brand awareness, and revisit intention. The above research gap led to the definition of four primary objectives from the perspective of sustainable economic development, as follows:

- (1) Explore the link between tourists' post-trip perception and their pre-tour motivations;
- (2) Observe whether visit motivation and passenger perception are related to willingness to visit/revisit;
- (3) Examine whether the visitor's willingness to visit/revisit can be transformed into trust in the new tourism brand initiated by the public tourism sector;
- (4) Verify whether the tourists visiting religious attractions have religious beliefs that exert a specific influence and difference in terms of forming trust in the tourism brand.

The remainder of this paper is organized as follows. First, we introduce the research object—a newly launched government-initialed religious-themed tourism brand, "100 Religious Attractions"—and review the literature on the relationship between visit motivation, visitor perception, and tourists' willingness to visit/revisit. More importantly, this article observes tourists' perceptions and willingness to spend on the commercial atmosphere in religious attractions and expounds on whether this perception and willingness can be translated into trust in tourism brands. Second, we describe the research method and present the main results of the tested model. Finally, we discuss the theoretical and managerial implications of the study, its limitations, and possible directions for future research.

2. Conceptual Background and Hypotheses

2.1. Study Object

Although Taiwan is a relatively small island located in the western Pacific Rim, it has various and energetic religious-cultural gatherings because of the close geographical distance and historical development with mainland China. Religions in Taiwan belong to the identical cultural circle and philosophical thought, and they are syncretized and pantheistic [40,41]. The island has persevered with the essentials of Chinese traditional folklore belief, providing good conditions for developing religious tourism.

Given the development of a local cultural tourism brand, the Taiwan Authority of Internal Affairs focused on the "100 Religious Attractions" selection campaign in 2013, which promoted island-wide religious-themed sites on the world stage. Meanwhile, the "Temple Stay in Taiwan" activity was launched for driving the development of other industries, such as local characteristics products/services, accommodation, exhibition, event, festival, public transportation, and theme tourism providers. The list of 100 attractions was selected according to three primary judgment criteria of "historical and cultural values", "artistic and creative performance", and "leisure and tour features." Twenty-one experts and more than 1.5 million netizens voted on a preliminary list of 417 sites [42]. The list covered all significant religious belief institutes and events across the region, including folklore belief (Buddhism, Confucianism, and Taoism), Christianity, Islamic, and Indigenous inherent festivals. Table 1 illustrates the 100 religious sightseeing heritage and events in Taiwan.

Nonetheless, this study does not involve discussions on "historical and cultural values", "artistic and creative performance", "leisure and tour features", or other environmental development viewpoints. Rather, the economics of brand development is taken as a starting point because the existing research in the context of this religious-themed tourism promotion follow-up brand effect remains scarce. Therefore, understanding such phenomena is critical given the popularity of religious tourism and the fierce competition among destinations to attract potential visitors. Consequently, this study conducted a survey investigating potential travelers' visit motivation and experienced visitor perception on the "100 Religious Attractions." Additionally, to understand tourists' willingness to visit or revisit, exploring whether such a desire to travel can help the "100 Religious Attractions" become a solid tourism brand. It is essential to understand whether believers and nonbelievers have different views on establishing the tourism brand.

Table 1. Category of the list of the 100 religious' attractions in Taiwan.

Classification	Numbers	
Religious category		
Folklore belief	85	
Christianity	12	
Islam	1	
Indigenous inherent consuetude	2	
Geographic distribution		
Northern Taiwan	31	
Middle Taiwan	23	
Southern Taiwan	32	
Eastern Taiwan	6	
Outlying islands	8	
Attraction's category		
Historical religious heritage	77	
Festival or event	23	
(Include the worshipped item patrolling)	23	

2.2. Travel Motives in Religious Tourism

The literature review shows that different motivation elements determine satisfaction after the experience [43–45]. Specific purposes determine tourists' choices of destinations and activities, and one key factor is tourists' desires, which largely drive their perceived travel necessity [46,47]. Tourist motivation reflects a tourists' internal dynamic needs, referred to as a push factor. Conversely, a pull factor influences tourists' enjoyment of attraction in a specific tourism destination [48]. Motivation is a complex construct that controls customers' attitudes, beliefs, and emotions [49], and it is essential to re-examine visitors' travel motivation to improve the marketing of tourist attractions driven by religion [50]. For example, Rainisto [51] provides an integral four-step framework for maintaining the brand trust and suggests that the tourism sector build a strong relationship marketing to any stakeholder parties at religious tourism, as follows:

- The fundamental services must be well-prepared and offered, and infrastructure maintained to satisfy citizens, businesses, and visitors.
- A place may need new attractions to sustain current business and public support and bring in new investment, corporations, or people.
- A place needs to communicate its features and benefits through an impressive image and communication program.
- A place must generate support from citizens, leaders, and institutions to attract new investments.

In addition, to analyze the characteristics of religious tourism and its stakeholders regarding the customer's features, Cohen [52] investigated the religious tourism market and its characteristics and classified four kinds of tourists to religious travel destinations, e.g., (1) seekers who aim to visit religious and secular tourist sites; (2) lotus-eaters who intend to visit only secular tourist sites; (3) pilgrims who intend to visit only spiritual tourist sites; and (4) accidental tourists who aim at visiting neither type of tour spot.

Therefore, this research clarifies the tourists' motivations for visiting religious-themed attractions regarding attraction/event awareness, public sector promotion, and spiritual experience.

2.2.1. Attraction/Event Awareness

In terms of destination branding, awareness means the brand's presence in the mind of the target tourists. The image represents the perceptions attached to the destination, quality that is concerned with perceptions of the quality of a destination's attributes, and value, which is the tourists' holistic evaluation of the benefit of a product in tourist destinations. Finally, loyalty represents the level of attachment to the tour destination,

visit/revisit intention, positive word-of-mouth, and recommendation to others [53]. Yang and Lau verified children's experiential educational benefits through engagement at world heritage site locations [54]. They found that a site's reputation significantly stimulated children's travel motivation and improved their learning. In addition, tourist destinations' characteristics are essential in attracting tourists. For example, San Martín Island has become a great tourist attraction in Bangladesh, and it has recently become a site of economic growth due to tourism. However, the natural environment and ecosystem are deteriorating at an alarming rate. The local government lacks comprehensive planning to maintain the carrying capacity and restrict tourism activities, reducing tourists' motivation to visit [55].

Kucukergin and Gürlek suggest that visiting disappearing attractions before they are gone has motivated some tourists [56]. For instance, Fo Guang Shan, a representative Buddhism pilgrimage site in Taiwan, was briefly closed between 1997 and 2000 to achieve quietness as a place for religious practice. Tens of thousands of believers from all walks of life poured into Fo Guang Shan early in the morning, hoping to personally participate in the final moments of the site's closure [57]. Thus, the site itself can be important to consider concerning the perceived expressive and instrumental attributes and their influence on visitor satisfaction [58].

2.2.2. Public Sector Promotion

Destination marketing is a fundamental tool in promoting places; it must be present in local government strategies, helping and promoting the regions' sustainable economic and social development [59]. The public sector has gradually relaxed previous restrictions and allowed local government departments to develop local tourism to improve the regional tourism industry. At the same time, through outsourcing and other methods, some private enterprises with sufficient qualifications were allowed to operate local tourist attractions [60]. In addition, the public sector also plays a leading role in comprehensively advertising tourist attractions; for example, the Malaysian government has introduced many Muslim-friendly tourism initiatives to attract Muslim tourists [61,62]. Samori, Salleh, and Khalid pointed out that Halal tourism is a new phenomenon that emerged from the Halal industry's growth [63]. As Halal matters advance the tourism industry, many Muslim countries are set to capture the Muslim tourist market by providing tourism products, facilities, and infrastructure. Furthermore, the Russian government has started promoting new domestic destinations and actively supporting the industry. Still, the government needs to implement more effective organizational, legal, and tax-accounting measures [64]. On the official regional website for tourists, many tourist value propositions are available for different target audiences interested in religious, gastronomic, cultural and historical, business, family, active, wellness, agricultural, and eco-tours. There are also multimedia thematic maps that help potential visitors plan and raise awareness about local tourist objects.

The public sector has also begun to realize the importance of using the Internet and social software, which have become essential tools for publicizing and communicating tourist destinations and brands. Tsimonis and Dimitriadis deem that organizations can forge relationships with customers and form communities that interactively collaborate to identify problems and develop solutions by utilizing social media [65]. In this respect, social media can establish relations with users, understand their images and necessities, allow comments and participation/interaction, and communicate destination brands effectively. A large part of the global population is connected through online social networks, where they share experiences and stories and influence each other's perceptions and buying behavior. This poses a distinct challenge for public sector-initiated destination management organizations, who must cope with a new reality: destination brands and storytelling in social networks are increasingly products of people's shared tourism experiences rather than marketing strategies [66].

2.2.3. Spiritual Experiencing

Experience is arguably the reason for the popularity of spiritual tourism among novices and those who wish to develop and deepen transcendent engagement through and during travel. If spirituality is the goal, traveling seems like an ideal setting for searching and, sometimes, even discovering. The religious motivation of spiritual tourism mainly reflects connections with religion. At the same time, it centers on specific driving factors emphasized by religious rituals, ritualized practices, identity, and cultural expressions. [67]. Jiang, Ryan, and Zhang researched "meditation" in Buddhism and found that many non-Buddhists visit Buddhist attractions [68]. If the itinerary arranges the meditation, many visitors also enjoy it and feel a unique spiritual experience. In other words, the tourist context of separation from daily life, the landscape values of the locations, the temple atmosphere, the sharing of experiences with like-minded individuals, and contact with monks and mentors all contribute to the participant's sense of personal wellness.

Religious-themed tourism mostly covers tourist trips to perform, visit, or practice religious heritages, ceremonies, or subsidiary activities. Travelers tend to visit the spiritual site and try to find meaning in a religious-themed tour [69–71]. For instance, a non-Catholic visitor may light a white candle and pray to the Father, the Son (Jesus Christ), and the Holy Spirit (as "one God in three Divine Persons") in a cathedral. A non-Chinese folklore attendee may place their hands together or grip a burning incense stick to worship the Buddha or the Deity in a temple. This kind of performance as an orthodox prayer behavior is an integral part of the journey, and a respectful performance of the beliefs of different cultures will not lose or detract from the morality and solemnity of the faith itself. For instance, interactive visual media play a dominant role within religious scripts/doctrines, similar to theatrical scenarios. Determining the nature of performances or encounters in spiritual tourism can establish meanings related to sacred places and routines. This religious ceremony can also be the primary motivation for attracting visitors [72].

While studies debate the differences between "tourist" and "pilgrim", and their motivations for visiting sacred destinations [73,74], they exhibit many of the same characteristics, behaviors, and expectations [75]. Cordina, Gannon, and Croall found that some like-minded groups, typically people with similar interests in religion, sports, or music, have a sense of belonging through interactions [76]. Therefore, the motivation for some tourists is that the trip itself provides the opportunity to meet new people. Pilgrimage is a setting that brings travelers of similar beliefs together for the same purpose: the motivation to undertake shared experiences and get to know fellow travelers [77].

2.3. Destination Perceptions in Religious Tourism

Tourists' perceptions of a destination are built on associations in their memories [78]. Furthermore, people can obtain information from friends and acquaintances or post-trip blogs written by other visitors. Recent studies indicate that many tourists enjoy sharing knowledge, emotions, and experiential moments in online communities [79,80]. Some studies suggest that word-of-mouth is a meaningful way to shape destination image [81]. Visitors' experiences can be affected by many factors in religious places, and these influencing factors further impact visitors' perceptions of sacred tourism sites [82].

Poria, Reichel, and Cohen found that respondents believe that once religious scenic spots are listed in more prestigious rankings, they will potentially trigger tourism growth; however, such growth is unlikely to be converted to higher tourism demand. The appearance, design, circulation planning of the scenic spots (including the surrounding environment), and the magnitude of the follow-up advertising are key factors [83]. Palau-Somer et al. based on a multi-group analysis of visitors to the Sagrada Familia in Barcelona, found that the emotions expressed by the service staff and the flow configuration of the cathedral building visit affected the mood of the visitors, which in turn affected their satisfaction and behavioral intention [84].

2.3.1. Acceptance of Commercial Activity

Religious tourism attractions integrate spiritual and secular characteristics. This paragraph will discuss three aspects from the visitor's perspective: the acceptance of commercial activities, the received satisfaction, and service value perception.

While tourism is seen in many circles to contribute to preserving heritage and religious sites and bolstering sagging economies, it can be a destructive force in cultural unity and degradation of the natural and built environment. Some scholars are ambivalent about the negative impacts of tourism on religious sites because of the economic benefits [85]. There have been discussions about how Buddhist monks allow their religious festivals to be interrupted by tourists because of the potential revenue [86,87]. These examples parallel a comment by Fleischer and Felsenstein, who argue that the economic impacts of religious tourism are more significant than other market segments because pilgrims and other spiritual travelers avidly buy religious souvenirs [25]. Huang and Pearce researched China's two primary sacred religious sites, Mount Wutai and Mount Jiuhua, with many traditional buildings, statues, and historical stories. They found that tourists believed that Taihuai Town in Wutai Mountain had more convenient modern infrastructure conditions, with many shops, restaurants, and hotels. However, the same tourists felt it was overcommercialized, which detracted from the spiritual nature [8].

In light of the dual motivations of leisure and religious tourists, the lack of a valid instrument to measure participants' motivation will undermine the effectiveness of business operations and potentially disenfranchise guests. Furthermore, to some degree, the commercialization of religious sites driven by economic growth can potentially influence tourist behavior [2]. In short, commercializing religion could affect tourist satisfaction and their perceived value of a sacred journey [88–90]; excessive commercial behavior will harm the sustainable development of religious tourism. Therefore, further study is needed to establish whether emerging commercial activities at religious sites affect tourist motivations. When travelers are aware of over-commercialization and if religious attractions feel "more businesslike", the perceived service values will be undermined.

The regional tourism sector and religious organizers are usually open to such a phenomenon; however, we intend to verify whether the common trend of religious commercialization will harm holy sites or travelers' perceptions.

2.3.2. Received Satisfaction

Past studies have mainly examined consumer behavior and adopted managerial perspectives, emphasizing the outcomes of negative tourists' emotions toward suppliers. Particular attention has been paid to the impact of negative emotions on tourists' satisfaction and intentional behavior, indicating the unfavorable consequences of negative emotions. Prayag et al. found that feeling disappointment, unhappiness, regret, and negative perceptions could decrease overall satisfaction [91,92]. Such tourists would be disinclined to recommend and provide positive word-of-mouth for other world heritage sites. Breitsohl and Garrod found that those who develop hostile emotions (such as anger, satisfaction, and disgust) for specific events are more likely to spread negative word-of-mouth and be less likely to revisit the destination [93].

Satisfaction also varies according to the travelers' characteristics. Medeiros et al. surveyed tourists visiting the Azores and found that the conditions for accommodation varied by gender. Visitors of different ages had different satisfaction with flight times, housing, medical, and operational requirements. Additionally, language difficulty, cultural differences, medical care, travel prices, and mobility conditions varied according to passengers. The perception of one's health status also changes during the stay, depending on the destination's safety, the comfort level of accommodation, food tastes, cultural differences, mobility conditions, and hospitality. Fulfillment with travel varies according to satisfaction with life and perception of health [94]. Medina-Viruel et al. analyzed the motivation and satisfaction of tourists who visited the monumental ensembles of the World Heritage cities of Spain's Úbeda and Baeza. The results highlight a shared cultural identity among nearby

tourists—the identity of the Andalusian Renaissance—and suggest a high level of tourist satisfaction with a primarily artistic motivation for visiting the destination. Whether the purpose of the visit is achieved will affect tourist satisfaction [95].

2.3.3. Service Value Perception

Satisfaction is a sensed condition; one evaluates perceptions formed from an outcome against prior expectations [96]. More specifically, satisfaction is a judgment regarding one's contentment with a service value perception. Service quality, value, and customer satisfaction have previously been identified as essential consumer behavior precursors [97–100]. Lovelock indicated that perceived value is a trade-off among customers' perceived outlays and gains [101]. As such, value is intrinsic to the customer; it is an overall perception of a good or service in meeting requirements relative to what is provided. In Lai's study on restaurant hospitality, the service value perceptions were impacted positively by improved service quality [100].

Similarly, in tourism research on the quality-value-satisfaction-loyalty paradigm in beach tourism, Hasan et al. showed that service quality and perceived value are related to the destination image, tourist attitudes, and satisfaction degree has a direct impact. In addition, destination image and satisfaction significantly affect the mood and loyalty of tourists [102].

Therefore, it is hypothesized that:

Hypothesis 1. Tourists' visit motivation has a significant and positive influence on visitors' perception of the "100 Religious Attractions".

2.4. Willingness to Visit/Revisit

Willingness to visit/revisit is generated from positive destination images [103]; people usually decide to visit a destination because they have exciting and pleasant images of the place. Middleton and Clarke believe that potential tourists consider travel comprehensively, including tangible and intangible components and the question of whether they have sufficient travel funds. The research also listed five important aspects for analyzing how tourists consider potential destinations: attractions and environment, facilities and services, convenience, image, and price [104].

Amid numerous efforts to explore religious tourists' willingness to visit/revisit a site or event, some scholars attempted to determine whether most pilgrims travel to spiritual places due to sufficient attractions. The level of tourists' loyalty is often measured by their willingness to visit or intention to revisit and their supportive behavior for a destination [105]. Achieving high customer loyalty is a primary goal for most businesses, including tourism destinations. Nyaupane et al. found that three groups of tourists visiting holy places had mixed expectations of the educational, religious, recreational [106], and social benefits [107]. For scaling the motivations, previous studies have provided some support for a factor-based structure delineating the motivations of religious tourists [108-111]. Overall satisfaction is viewed as an evaluative judgment of the last purchase occasion. Based on all encounters with the service provider, transaction-specific satisfaction is likely to vary between experiences. In contrast, overall satisfaction is a moving average that is relatively stable and most like a general attitude toward purchasing a brand [112-116]. Therefore, this study views consumer satisfaction as a consumer's overall emotional response (visit motivation and visitor perception) to the entire trip expectation and experience for a single transaction before and after purchasing.

Therefore, it is hypothesized that:

Hypothesis 2. Tourists' visit motivation has a significant and positive influence on the willingness to visit "100 Religious Attractions".

Hypothesis 3. Tourists' experience perception has a significant and positive influence on the willingness to revisit "100 Religious Attractions".

2.5. Tourism Brand Trust

Religious attractions play a role in location branding, and obtaining the benefits of religious-based tourism will be more accessible from a marketing perspective [117,118]. A brand needs time to build from initial establishment to comprehensive visibility. Thus, integrating marketing communications involve mixing and matching different communication options to establish the desired awareness and image in consumers' minds [119]. Some efforts leading to consensus on measurement include shortening the distance between the tourism site brand from the owner's side and the customer, based on Aaker [120] and Keller's [121] categorization [122]. For instance, Yang et al. integrate the aforementioned concepts—destination brand awareness, destination image, destination brand quality, and destination brand loyalty—as tourism marketing indicators [123]. This is vital because different customers have different perceptions about the same destination. Hence, it is imperative to understand, at an integrated level, how the visitors' experience, through direct or indirect contact with the destination, affects tourism marketing practices.

Many tourism researchers regard destination image as a multidimensional construct of destination brand equity. Among these discussions, the significant indicators are awareness, appearance, quality, and loyalty [124–126]. The attributes that could persuade tourists to visit a destination include the natural and historical background, rich heritage, lodging facility, and climate [127]. The more awareness a tourist has of the location's positive features, the more reliable their cognitive evaluation [128].

Previous studies have defined brand awareness as reflecting the tourist's knowledge of a particular destination or the presence of a destination in the tourist's mind when considering a given travel context [129]. Brand image, often interchangeably referred to as brand associations, represents the associations attached to the destination, composed of various individual perceptions relating to multiple attributes that may or may not reflect the destination's objective reality [130]. Brand quality is a holistic judgment based on excellence or overall superiority [131]. Satisfaction is a tourist's cognitive-affective state derived from their experience at the destination [132]. Finally, loyalty represents the core dimension of brand equity [119]. In tourism, loyalty is usually considered the intention to revisit the destination and word-of-mouth intentions [133,134].

Among these significant indicators, brand awareness plays a crucial role in consumers' buying decision-making process. In tourism marketing, brand awareness is the extent to which consumers are familiar with the distinctive qualities or image of a particular brand of goods or services [119]; it includes individual recognition, knowledge dominance, and recall of brands [17]. Brand awareness is how individuals become informed and accustomed to a brand name and recognize the brand [135–137]. Awareness is distinguished in two dimensions: intensity and extent. The intensity of brand awareness indicates how effortlessly consumers recall a particular brand in tourism marketing. The extent of brand awareness refers to the possibility of acquiring and consuming brand services and products in a sightseeing spot [138], especially when the brand emerges in consumers' minds [139]. Travel brands need to retain the dimensions of brand awareness in tourism spot marketing [140].

Brand image is the critical driver of brand equity, which refers to consumers' general perception and feeling about a brand and influences consumer behavior. Marketers strive to influence consumers' perception and attitude toward a brand, establish the brand image in consumers' minds, and stimulate consumers' actual purchasing behavior, increasing sales, maximizing the market share, and developing brand equity. Brand image is essential in building brand equity and, as such, has been studied extensively since the 20th century. In the increasingly competitive world marketplace, companies require deeper insights into consumer behavior and need to educate consumers about the brand to develop effective

marketing strategies. According to Keller [119,121], a positive brand image is established through marketing campaigns connecting the brand's unique and strong brand association with consumers' memories. In this regard, brand knowledge should be built and understood before consumers respond positively to the branding campaign. If consumers know a brand, the company could spend less on brand extension while achieving higher sales [141]. Visitors' motives before visiting scenic spots and their feelings after a visit will be communicated via word-of-mouth. This will gradually form a socially universal evaluation of the destination brand [142] and shape the concept of brand identity, which covers the dual nature of attracting consumers' (rational appeals) and hearts (emotional appeals) [143].

Religious tourism marketing requires a spiritual asset to better suit travelers' needs, like a pilgrimage or moral satisfaction, at a reasonable cost and convenience. Sightseeing participants also require information about the merits of traveling, observing, and experiencing a religious heritage or celebration. Haq argues that in contrast to the traditional marketing mix, relationship marketing can be viable for religious tourism, as it has been preferred for tourism marketing for some time [144].

Visitors with a common faith could increase the visit motivation; however, the brand's reputation and trust require significant resources and time to ferment before growing steadily. Among the many highly homogenized religious attractions, this study investigates if tourists have a strong desire to visit or revisit the "100 Religious Attractions" in Taiwan, whether they can become deeply ingrained in the minds of tourists, and become a reputable travel brand. Therefore, the following hypothesis is proposed:

Hypothesis 4. Tourists have a strong desire to visit/revisit other similar religious places or events listed in the "100 Religious Attractions". They also believe that the "100 Religious Attractions" is a strong tourism brand.

2.6. Visitors' Self-Claimed Identity in Religious Tourism

Some scholars believe that the culture transforms specific natural and geographical landscapes into sacred landscapes under the general trend of tourism development. In this change process, visitors' behaviors, habits, and mindsets, driven by regional differences, are also changed [145–147]. Kaszowski [145] defined a pilgrim at the theoretical level as an individual who:

- Can accurately identify a real pilgrimage.
- Knows which steps to perform in the pilgrimage.
- Understands at what time (major festival) to participate in the pilgrimage.

At the practical level, a pilgrim is defined as an individual who: (1) has a comprehensive plan for the overall pilgrimage; (2) through the pilgrimage, raises one's spiritual level or develops beliefs. In reality, the original motivation has no connection with religion; tourists may also pilgrimage. Similar to traditional tourism, the motivation can be pure entertainment. Therefore, the line between tourism and pilgrimage is blurred [16,148]. Huang and Pearce found that tourists' Buddhist beliefs are related to their classification and evaluation of Buddhist Mountain tours [82]. Nonbelievers pay more attention to the natural characteristics of the local area and are perhaps less interested in Buddhist culture; they visit primarily for sightseeing or entertainment. Neutral visitors' opinions include various responses, but most regard the Buddhist Mountain tours as sacred cultural sites. Finally, an unexpected result is that the more loyal believers think that the Buddhist Mountain tours are cultural or beautiful, but their interest in the sacredness is not as high as anticipated. In addition, some faithful believers said that the Buddhist venues are too commercial.

Religion and tourism have been closely related for a long time [149]. Therefore, pilgrimage routes can drive sustainable development, especially in rural and marginal areas, where "slow" tourism has increased [150]. In the form of identity, the internal adjustment is mainly based on the general spiritual cognition and, in particular, on comprehending

spiritual tourism. Identity explains how tourists participate in spiritual tourism and why this experience is a kind of coercion, obligation, and guilt; how the space of fear participates in this experience catalyzes happiness and motivation. The recognition process enables people to show a constant sense of happiness, desire, and interest in activities [151,152]. Due to the high similarity between pilgrimage and tourism behavior, this study allows the interviewees to self-identify as pilgrims or general tourists. This is a moderator to analyze if and how the subjects' self-identity affects their willingness to visit/revisit.

Therefore, it is hypothesized that:

Hypothesis 5. Visitors from religious believers versus non-believer travelers moderate the relationship between willingness to visit/revisit and "100 Religious Attractions" brand trust.

2.7. Proposed Model

This model's design portrays visitors' attitudes toward "100 Religious Attractions" as a tourism brand. The first route establishes the relationship between the three elements of attraction/event awareness, public sector promotion, and spiritual experiences, and traveler's motivation as the primary relationship. It determines how "to visit" motivation forms in an individual's mind and how it may lead to a desire to visit the "100 Religious Attractions." Therefore, this research focuses on tourists' motivation in religious tourism and their motivations, activities, ritual performances, and experiences [6,153].

In addition to understanding the major factors (acceptance of commercial activity, received satisfaction, and service value perception) influencing religious attraction visitors' perceptions [6,153,154], it becomes necessary to verify which aspects shape and influence potential visitors' motivation and experienced visitor's perceptions. It is also essential to determine whether such perception can be successfully converted into revisiting willingness [155]. Therefore, the second and third routes construct the relationship between traveler motivation and willingness to visit and experienced travelers' perceptions and willingness to revisit. Furthermore, this research examines whether such a desire to visit/revisit is strong enough to establish the "100 Religious Attractions" as a solid tourism brand, encouraging visitors to visit/revisit and actively recommend it to others [82]. Therefore, the fourth route observes the relationship between willingness to visit/revisit and tourism brand trust.

The traveler's self-proclaimed religious identity (believer or non-believer) is used as a moderating variable to observe whether their satisfaction will affect the "100 Religious Attractions" becoming a solid tourism brand. The testing of these relationships is necessary for the evaluation of comparative hypotheses.

In summary, the first part of this section sought to verify how a traveler's sense of motivation and perception forms, as per the model in Figure 1. Based on the results, the second part observes the relationship among visit motivation, perception, and willingness to visit/revisit. We tested the hypotheses, adapted the questionnaire for travelers, and measured their opinions regarding willingness to visit/revisit and tourism brand trust under their self-proclaimed religious belief identity.

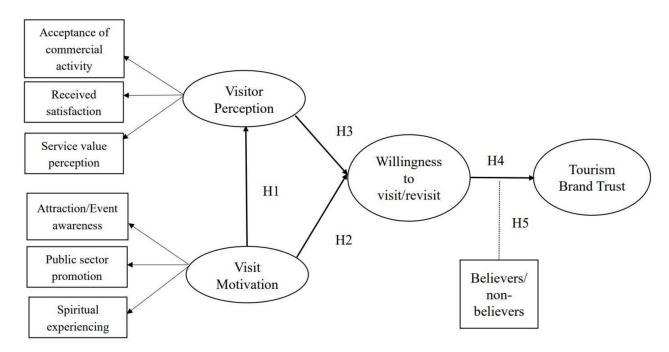


Figure 1. Conceptual model.

3. Methodology

In July 2021, researchers conducted in-depth interviews with 30 tourists who had visited more than 30 attraction sites on the "100 Religious Attractions" list. The interviews were analyzed to identify the four aspects of travel motivation, experience perception, revisit intention, and overall attitude toward the attractions visited. The resultant information was incorporated into the survey questionnaire for use in the large-scale study.

The questionnaire included three sections. The first part aimed to classify visitor motivation (including attraction/event awareness, public sector promotional efforts, and spiritual experiencing) for potential and experienced tourists and visitor perceptions, covering commercial activity acceptance, received satisfaction, and service value perception. The second process is related to the willingness to visit or revisit and the question of whether such willingness can be successfully transformed into a trustworthy travel brand. Finally, the third section questioned socio-demographic information regarding gender, personal beliefs, age, marriage, education background, occupation, number of listed-attraction visits, and personal monthly income. The data were collected from twenty representative attractions and folklore belief ceremonies listed in "100 Religious Attractions" (four each in five geographic parts of Taiwan, for 20 total attractions; Figure 2). The data included when tourists visited the spot for every covered religious belief, e.g., Aboriginal, Buddhism, Catholic, Christianity, Folklore, and Muslim. Convenience sampling was used, and data were gathered from August 23 to September 22, 2021, one month before the Chinese Mid-Autumn Festival. A total of 500 questionnaires were issued to religious visitors. After excluding missing and invalid data, 385 valid responses (approximately 77.0%) were applied in further analysis. The sample size was in line with the literature for structural equation models with similar complexity [156–159].



Figure 2. The surveyed attractions of this study.

This study conducted in-person interviews. We asked respondents to indicate the attraction or events listed in "100 Religious Attractions" that they had most recently been interested in or visited. We used a 5-point Likert scale (from 1 = extremely disagree to 5 = strongly agree) to acquire responses regarding "to see" motivation, sightseeing spot perception, revisit intention, and brand trust items. The wording was slightly modified to reflect the context of this study. The survey instrument was compiled using measurement items generated from the extant literature. The use of existing scales ensured the reliability and validity of the survey instrument.

The respondents included more female tourists; 173 (44.9%) were male, and 212 (55.1%) were female. Most interviewees (81.3%) had religious beliefs, and 18.7% had no specific faith. Most respondents were 36–65 years old (57.8%), and 21.3% were more than 65 years old. A large proportion of the respondents (66.7%) were married, while 33.3% were single. Most participants had high school (37.9%) and tertiary level (39.8%) education; only 11.5% had master's or above. In terms of occupation, enterprise employees (31.9%) and self-employed (25.9%) represented a large proportion of respondents, while retirees made up 17.6%. Visit times were more balanced, and 20.6% of interviewees had never visited the "100 Religious Attractions", 19.8% said they visited 50–69 attractions, and 26.3% had been to more than 70 attractions. Regarding the willingness to spend during the journey, nearly half of the interviewees (49.1%) spent NTD 200–499 (approximately USD 3.62–18.0). Lastly, the respondents were asked to select from three options to determine their intent to purchase. The most popular items were worship supplies (e.g., prayer stick, joss paper, worship offerings) (67.0%), followed by amulets sold by the attraction, at 59.6%. Only 12.2% of interviewees indicated no intent to purchase (Table 2).

To analyze the data and test our hypotheses, we used AMOS 23.0 to apply a multivariate analysis through structural equation modeling. We opted for this technique because of its robustness in evaluating concomitant associations among endogenous and exogenous variables. This study obtained the validity of the structural model using confirmatory factor analysis, verifying both the convergent validity and the discriminant validity. We subsequently tested our hypotheses.

In addition to testing the hypotheses, any differences in the variables' path coefficients were ascertained, following Hult et al. [160]. Hair et al. mentioned that this was necessary because it is impossible to affirm that parallel path coefficients in the same model are distinct based only on their significance and indicators [161]. We chose this method because it is a structural equation modeling technique that can test models with unobserved variables or constructs [162] and solve various forms of construct operability [163].

Table 2. Socio-demographic information (N = 385).

Category	Number	Percentage (%)
Gender		
Male	173	44.9
Female	212	55.1
Religious belief		
Yes	313	81.3
No specific	72	18.7
Age Below 19	26	6.7
20–35	55	14.2
36–50	117	30.5
50–65	105	27.3
Above 65	82	21.3
		21.0
Marital status	255	-
Married	257	66.7
Single	128	33.3
Education background		
Primary or middle school	42	10.8
Secondary school	146	37.9
College or university	153	39.8
Post-graduate	44	11.5
Occupation		
Enterprises	123	31.9
Self-employed	100	25.9
Academic	22	5.8
Public sector	57	14.9
Retired	68	17.6
Others	15	3.9
Number of listed-attraction		
visits		
1–9	79	20.6
10–19	55	14.4
20–49	73	18.9
50-69	76	19.8
70–89	64	16.5
The amount willing to spend		
during the visit		
Below \$3.61	46	11.9
3.62–18.00	189	49.1
18.01–36.04	81	21.1
36.05–180.34	41	10.6
Above 180.35	28	7.3
Items willing to buy *	357	44.6
Food and beverage Accommodation	477	59.6
Worship supplies	536	59.6 67.0
Amulet or mascot	378	47.3
Do not plan to buy	22	2.8
* Pagnandants can change up to 2 itams; ro		2.0

^{*} Respondents can choose up to 3 items; received 800 in total.

4. Results

4.1. Measurement Model Assessment

To evaluate the model constructs and validate the appropriateness of the collected data, we carried out a confirmatory factor analysis to ascertain the convergent and discriminant

validity. We calculated the factorial weightings for the confirmatory factor matrix study for the research assertions about their constructs.

The convergent validity refers to the extent to which the construct indicators measure the construct, thus indicating how these variables correlate with each other [160]. Discriminant validity refers to the capacity of a construct to be genuinely distinctive [160]. Using the factorial matrix, we observe how the factorial weightings identify this study's various factors. No cross weightings were reported among the constructs, confirming the discriminant validity. As Table 3 (the factor loading results) shows, there is no obvious variable across the model's two latent variable factors. The originally constructed explicit variables all fall within the expected latent variable factor framework, and the factor loadings are all greater than 0.5, indicating that the model has good discriminative validity [164]. Furthermore, Table 4 reveals that the cumulative variance explanation rate after rotation was 78.917%, meaning that the information embedded in the research item can be extracted effectively [165,166].

Table 3. Factor loadings *.

Variables	ACA	RSA	SVP	AEA	PSP	SPE	VMT	VPC	WVR	TBT
ACA1	0.766									
ACA2	0.778									
ACA3	0.721									
ACA4	0.766									
RSA1		0.776								
RSA2		0.786								
RSA3		0.820								
SVP1			0.695							
SVP2			0.741							
SVP3			0.782							
SVP4			0.746							
AEA1				0.771						
AEA2				0.774						
AEA3				0.792						
PSP1					0.695					
PSP2					0.715					
PSP3					0.744					
PSP4					0.755					
SPE1						0.744				
SPE2						0.777				
SPE3						0.765				
VMT1							0.777			
VMT2							0.774			
VMT3							0.724			
VMT4							0.774			
VPC1								0.734		
VPC2								0.701		
VPC3								0.770		
VPC4								0.751		
WVR1									0.735	
WVR2									0.739	
WVR3									0.745	
WVR4									0.749	
TBT1										0.763
TBT2										0.750
TBT3										0.786
TBT4										0.737

^{*} ACA acceptance of commercial activity, RSA received satisfaction, SVP service value perception, VPC visitors' perception, AEA attraction/event awareness, PSP public sector promotion, SPE spiritual experiencing, VMT visit motivation, WVR willingness to visit/revisit, TBT tourism brand trust.

Table 4. Total variance explained *.

	Extraction	Sums of Squa	re Loadings	Rotation	Sums of Squar	e Loadings
Variables	Total	% Variance	% Cumu- lative	Total	% Variance	% Cumu- lative
ACA	16.681	45.084	45.084	3.217	8.694	8.694
RSA	2.004	5.416	50.500	3.212	8.680	17.374
SVP	1.688	4.562	55.062	3.187	8.614	25.988
AEA	1.517	4.100	59.163	3.105	8.391	34.379
PSP	1.502	4.060	63.223	3.085	8.337	42.716
SPE	1.329	3.592	66.815	3.027	8.181	50.897
VMT	1.304	3.525	70.340	2.981	8.056	58.953
VPC	1.108	2.995	73.335	2.563	6.927	65.880
WVR	1.044	2.822	76.157	2.463	6.656	72.536
TBT	1.021	2.760	78.917	2.361	6.381	78.917

^{*} ACA acceptance of commercial activity, RSA received satisfaction, SVP service value perception, VPC visitors' perception, AEA attraction/event awareness, PSP public sector promotion, SPE spiritual experiencing, VMT visit motivation, WVR willingness to visit/revisit, TBT tourism brand trust.

Table 5 shows that the KMO is 0.956, which is greater than 0.6 and passes the Bartlett sphericity test (p < 0.05), indicating that the data can be used for factor analysis research. From the screen plot of factor analysis in Figure 3, the graphical judgment method proposed by Cattell [167] clearly shows that the eigenvalue is greater than 1 and the corresponding component number is 11. Thus, the 10 main factors selected in this study are reasonable and meet the statistical analysis needs. We calculated the average variance extracted (AVE) validity before concluding that all the latent variables attained the set criteria. Composite reliability (CR), which also represents an indicator of convergent validity, ensures the evaluation of the magnitude by which the items in an instrument correlate with each other. A confirmatory factor analysis (CFA) was performed in the present study for ten factors and 37 analysis items. The AVE values corresponding to a total of 10 factors are all greater than 0.5, and the CR values are all greater than 0.7, meaning that the data in this analysis have good convergence validity [160,168].

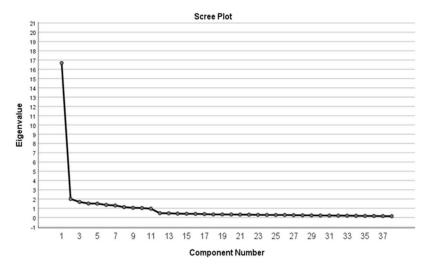


Figure 3. Scree plot.

Finally, to fulfill the discriminant validity, we compared the square roots of the AVE for each construct with the results returned by their respective correlations, as proposed by Fornell and Larcker [169]. The AVE square root index for each latent variable was higher than that of the other construct, indicating their respective mutual independence. Table 5 illustrates the correlations and quality criteria.

Constructs	ACA	RSA	SVP	AEA	PSP	SPE	VMT	VPC	WVR	TBT
ACA	0.837									
RSA	0.524	0.873								
SVP	0.513	0.537	0.855							
AEA	0.517	0.474	0.557	0.862						
PSP	0.569	0.555	0.583	0.514	0.810					
SPE	0.480	0.463	0.493	0.478	0.477	0.818				
VMT	0.532	0.428	0.498	0.530	0.544	0.497	0.818			
VPC	0.597	0.528	0.607	0.539	0.596	0.548	0.546	0.867		
WVR	0.484	0.455	0.571	0.422	0.507	0.520	0.490	0.556	0.800	
TBT	0.530	0.521	0.614	0.531	0.488	0.533	0.461	0.535	0.595	0.858
AVE	0.701	0.762	0.731	0.744	0.657	0.669	0.669	0.752	0.640	0.735
CR	0.903	0.906	0.916	0.897	0.884	0.858	0.890	0.924	0.876	0.917
KMO					0.956	5				
Bartlett's										
test										
χ^2					10,885.5	505				
df					666					
Significant					0.000)				

Table 5. Correlations and quality criteria *.

4.2. Structural Model Assessment Results

A structural model may represent the dependent relations between constructs [159,170]. Therefore, this study presents the structural model and path coefficients in the combined layout, including several correlates of factors reported in previous research: acceptance of commercial activity, received satisfaction, and service value perception linked with visit motivation and willingness to visit or revisit; attraction/event awareness, public sector promotion, and spiritual experience in taking part of willingness to visit or revisit. Next, whether the path between the willingness to visit or revisit establishes the visitor's tourism brand trust is examined. All of these factors were simultaneously analyzed to determine the likelihood of a new religious-based tourism brand trust. Figure 4 reveals the theoretical SEM model with arrows and coefficients, no dotted lines between each factor, and the path coefficients are all positive. That is to say, the relationship of each factor is well-established. Once the initial determination is achieved, the research hypotheses can be tested.

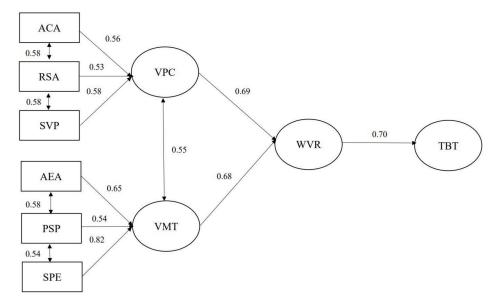


Figure 4. Structural model. ACA acceptance of commercial activity, RSA received satisfaction, SVP service value perception, VPC visitors' perception, AEA attraction/event awareness, PSP public sector promotion, SPE spiritual experiencing, VMT visit motivation, WVR willingness to visit/revisit, TBT tourism brand trust.

^{*} ACA acceptance of commercial activity, RSA received satisfaction, SVP service value perception, VPC visitors' perception, AEA attraction/event awareness, PSP public sector promotion, SPE spiritual experiencing, VMT visit motivation, WVR willingness to visit/revisit, TBT tourism brand trust.

4.2.1. Hypotheses Testing

This phase analyzes the extent to which visit motivation and perception affect tourists' willingness to visit and revisit the "100 Religious Attractions". Results for the research hypotheses are summarized in Table 6. Consistent with the SEM result, the study model indicates a good fit for the data: $x^2 = 820.949$, df = 604, $x^2/df = 1.359$ (Goodness of Fit Index (GFI) = 0.902; Comparative Fit Index (CFI) = 0.980; Root Mean Square Error of Approximation (RMSEA) = 0.016). In the study hypotheses, the estimation of the standardized coefficients indicates that the path between each dimension was positive and significant. In other words, visit motivation (including attraction/event awareness, public sector promotion, and spiritual experiencing) affects tourists' perceptions (including acceptance of commercial activity, received satisfaction, and service value perception). Simultaneously, the visitor perception factors affect their willingness to visit/revisit. Similarly, the willingness to visit/revisit has a certain impact on tourists' trust in the "100 Religious Attractions" tourism brand. Therefore, H1 to H4 are supported (Table 6).

Hypothesis	$X \rightarrow Y$	SE	C.R.	Path Coefficients	р	Results
1	$AEA \rightarrow VMT$	0.060	4.513	0.271	0.000	Supported
	$PSP \rightarrow VMT$	0.067	5.441	0.365	0.000	Supported
	$SPE \rightarrow VMT$	0.069	4.327	0.300	0.000	Supported
2	$ACA \rightarrow VPC$	0.058	5.391	0.311	0.000	Supported
	$RSA \rightarrow VPC$	0.053	2.507	0.132	0.012	Supported
	$SVP \rightarrow VPC$	0.060	5.850	0.352	0.000	Supported
3	$VMT \rightarrow WVR$	0.055	3.897	0.214	0.000	Supported
	$VPC \rightarrow WVR$	0.052	8.038	0.420	0.000	Supported
4	WVR \rightarrow TBT	0.055	4.978	0.274	0.000	Supported

Table 6. Path coefficients and hypothesis results *.

Tourists' trust in destination brands arises primarily from subjective feelings [171,172], and religious-themed tourist destinations are no exception [173,174]. Important branding tourist destination factors include the source accessibility of the scenic spot's information, the spiritual experience, and the unique commercial activity [175]; all of these factors indicate that visit motivation and perception depend on several uncontrollable factors [49, 176]. As encapsulated in Hypotheses 1–3, and in keeping with other related studies, visitor motivation and perception positively influence tourists' willingness to visit/revisit. Additionally, Hypothesis 4's result echoed the conclusions of Cheng, Wei, and Zhang [142] and Alvarado-Karste and Guzmán [143]; namely, the willingness to visit/revisit shapes the awareness and identity of the destination brand through word-of-mouth, and perceived satisfaction mediated the effects of the trust in the brand.

The present findings broaden the knowledge regarding the formation of trust by showing the influence of visit motivation and visitor perceptions of a newly developing tourist destination brand. The conclusion is that the subjective attitudes of tourists influence their willingness to visit or revisit and further enhance the destination brand trust. The development of a brand requires accumulated goodwill, especially for the tourism industry that provides software and hardware services. This study reflects the increasing importance of tourists' motivation to visit and subjective perceptions of receiving services in building trust in tourism brands, strengthening the theoretical connection between constructs. Therefore, tourism operators must determine and respect visitors' views on service delivery and related experiences. The tourism sector must realize that effectively strengthening the overall feelings of tourists regarding attractions can not only increase their willingness to visit, but also their confidence in the entire tourism brand. Meanwhile,

^{*} Bias-corrected and accelerated bootstrap with 385 samples; ACA acceptance of commercial activity, RSA received satisfaction, SVP service value perception, VPC visitors' perception, AEA attraction/event awareness, PSP public sector promotion, SPE spiritual experiencing, VMT visit motivation, WVR willingness to visit/revisit, TBT tourism brand trust

such enhancement is also helpful for the establishment and long-term development of sustainable tourism brands.

4.2.2. Moderation Effect Testing

To test Hypothesis 5, we examined the moderating effect of a tourist's personal religious belief on the relationship between their willingness to visit/revisit and attitude toward religious-themed destination brand trust, following Iliev [148] and Huang and Pearce [82]. The moderating effect is divided into three models: Model 1 includes independent variables (willingness to visit/revisit); Model 2 adds the moderating variable (religious identity) based on Model 1; and Model 3 adds an interaction term (religious identity and tourist brand trust) based on Model 2.

Model 1's purpose is to study the influence of the independent variable (willingness to visit/revisit) on the dependent variable (tourist brand trust) without considering the interference of a tourist's religious identity. Table 7 shows that satisfaction is significant (t = 14.505, p = 0.000 < 0.05). This means that tourists' willingness to visit/revisit will significantly influence tourist brand trust.

The moderation effect can be checked in two ways. The first is to check the significance of the change in the F value from Model 2 to Model 3. The second is to check the significance of the interaction term in Model 3. This study used the second method to analyze the moderation effect to verify whether visitors' religious identity strengthens willingness to visit/revisit the destination brand trust.

Table 7 shows that the interaction term between visitors' willingness to visit or revisit and their religious identity is not significant (t = -1.297, p = 0.195 > 0.05). In other words, Hypothesis 5 is not supported; although a visitor's willingness to visit or revisit influences their destination brand trust in terms of Model 1, for different levels of the moderating variable (tourist's religious identity), the impact range remains the same.

		Mo	del 1			Mo	del 2			Mod	lel 3	
Variables	В	SE	t	р	В	SE	t	р	В	SE	t	р
Constant	3.267	0.043	75.399	0.000	3.267	0.043	75.303	0.000	3.266	0.043	75.339	0.000
WVR	0.672	0.046	14.505	0.000	0.671	0.046	14.482	0.000	0.672	0.046	14.511	0.000
BVR					-0.015	0.087	-0.172	0.864	-0.015	0.087	-0.172	0.863
WVR * BVR									-0.120	0.093	-1.297	0.195
\mathbb{R}^2		0.	.355			0	355			0.3	57	
Adjusted R ²		0.353				0.351			0.352			
F		2	10.4			104.948			70.651			

Table 7. Result of moderating test.

5. Discussion

This study has several important theoretical and managerial insights for creating a sustainable tourism brand, visiting religious sites, and willingness to consume. Consistent with Wang et al. [176], Gupta and Basak [177], and Bond et al. [178], there is no evident difference in influence between a believer and non-believer visitor. Although the motives for visiting may differ, believers and nonbelievers have surprisingly consistent perceptions of whether the willingness to stay can be transformed into brand trust. In other words, the degree of trust that tourists have in tourism brands must return to the essence of tourism reception services, from the optimization of hardware and software facilities, the etiquette of reception staff, the sightseeing location of tourist attractions, promotion, publicity, and the religious atmosphere. The spiritual experience is all spontaneously felt deep in the visitors' hearts.

According to the actual observation and the mean score of each variable item in the Appendices A and B, we find some interesting results from this study. Regarding influence-

^{*} WVR willingness to visit/revisit; BVR Believer or Non-believer; TBT tourism brand trust. Dependent variable: TBT; n = 385.

ing visiting motivation, the spiritual experience among the "100 Religious Attractions" is the most significant factor. Due to the drastic changes in internal and external social and economic environments in recent years, many people's lives have been affected. As far as Taiwanese society is concerned, the "retirement annuity pension reform" has affected many retirees' economic situation in recent years. When it is not easy to increase income, they can only reduce their expenses and seek lower satisfaction levels. Coupled with the impact of the Coronavirus (COVID-19) pandemic, many working-class people have had unstable incomes, and many people have lost their jobs and faced difficulties. For this reason, "seeking inner peace" has become the primary motivation for tourists to visit the scenic spots among the "100 Religious Attractions".

Similarly, based on the identity analysis of the interviewees, in terms of gender, there were more female interviewees. This result is the same as the extant literature [2,86,111], which suggests that women are more likely to visit religious sites for worship or spiritual experiences. This phenomenon may be because, compared with men, women are more likely to seek out metaphysical, spiritual needs, such as fortune-telling [179,180]. Some women have more free time to find relatives and friends to pray for family members in the temple, primarily because families depend more on male members for support. We also found more retirement groups, which is also due to the previous motivation. Conversely, wage earners seek smooth careers, and self-employed people hope for business stability; these are general demand motives. Many of the interviewees who filled in "other" occupations were unemployed, dismissed, involved in civil service examinations, professional qualifications, or seeking higher education opportunities. There was also motivation to pray for the deities to bless these individuals, realizing their wishes that "everything is going well".

Many interviewees said they learned about a specific event because they participated in the Internet voting for Taiwan's "100 Religious Attractions". They also used the Internet to support religious sites in their hometowns or familiar sacred sites. This group phenomenon also stimulated the motivation and willingness of the interviewees to visit, which coincides with the findings of Zhou et al. [181]. Tourists hoped their supported attractions would be voted into the "100 Religious Attractions". Some participants actively shared and promoted the environmental advantages, beautiful scenery, and other "selling points" of their preferred scenic spots to increase the chances of winning, resulting in word-of-mouth communication. In addition, the role of media advertising also reminded the interviewees of the scenic areas, stimulating their motivation to see or visit again.

The travel journals, notes, blogs, and comments that tourists generate online can be called electronic word-of-mouth (eWOM) [182–185]. For tourists, there are many types of eWOM platforms, including blogs (e.g., travel blog) and microblogs (e.g., Weibo, Twitter), social networking sites (e.g., WeChat, Line, Facebook), media-sharing sites (e.g., YouTube, Tik Tok), review sites (e.g., C-trip, TripAdvisor), and voting sites (e.g., Digg) [181,185–188]. The public sector mainly initiated the "100 Religious Attractions" voting activities. At the same time, a large amount of publicity on social media attracted the active participation of people from all walks of life and also had an excellent effect on eWOM. The attention paid to the scenic spots had no significant impact on the motivation to visit because most of the "100 Religious Attractions" had long histories and specific influences in the region. Although the attraction/event can trigger tourists' motivation to visit, the effect is not obvious.

Regarding visitors' perception, most respondents agreed that "service value perception" was the critical influencing factor. The attractions provided adequate basic infrastructures, such as sufficient parking, barrier-free facilities, and safety protection measures, essential points for tourists. The convenience of transportation around sightseeing spots also affected tourists' perceptions of service value. Moreover, well-arranged sightseeing planning can also make visitors feel that the value of their services is truly reflected.

It is worth mentioning that tourists' acceptance of commercial activities inside and outside the scenic spots is not as harmful as previous scholars believed it to be. This surprising result can be observed by combining the surveyed "amount willing to buy" and

"the item willing to buy." Only a few respondents were unwilling to buy various products and services inside and outside the scenic area. Most interviewees had a purchase budget of USD 3.62–18. They purchased sacrificial supplies, like incense sticks, joss paper, bouquets in Chinese folk beliefs, or white candles in Catholic churches. In addition, the demand for accommodation was the focus of consumption, which is usually expensive compared with the surrounding goods and services of other scenic spots. In some attractions with inconvenient transportation, the demand and price of accommodation increased significantly. Other purchase items included amulets and mascots. In Taiwan, religious institutions sell small commodities related to spiritual prayers because most religious attractions do not charge entry. In addition to receiving donations, income comes from sesame oil, other religious services (e.g., religious blessing ceremony) [41], and cultural and creative products or other related investments (such as leasing industry, providing accommodation).

Furthermore, most well-known religious attractions are in towns with relatively long histories, providing many renowned gourmet and gift shops or vendors. These can add a deep impression to tourists' tourism perception, enhancing their willingness to visit/revisit. Still, this positive reaction is based on satisfying some conditions (e.g., fair and reasonable prices, products, and services) that can fully meet the consumers' needs.

The tourists' feelings are also primarily related to the received service satisfaction. Their perceived value is the crucial antecedent of patronage, re-patronage intention, satisfaction, and loyalty [189]. Perceptions significantly impact customers repurchase intentions [190–193]. The survey results also showed positive feedback from the respondents. For example, positive interactions with service providers made the whole trip worthwhile. In the research process, after excluding factors that might be due to the location of the nearby scenic spot, numerous interviewees said that they visited certain scenic areas several times a year, primarily because of the scenic locations, a local gourmet, or some specialty shops.

This empirical study verifies the willingness of tourists to visit/revisit is closely related to the pre-visit motivation and the perception after the trip. In addition, the research results verified that such a willingness could be smoothly transformed into trust in the "100 Religious Attractions" tourism brand. The feedback from the interviewees indicated that the "100 Religious Attractions" had a certain degree of brand trust. Nevertheless, establishing a tourism brand's image and assets takes time to accumulate, and it simultaneously requires cooperation between many aspects and sectors to create a sustainable tourism brand. Rainisto [51] and Cohen's [52] categorization may help the tourism sector develop strategies for the effective marketing of religious tourism by explaining each type of traveler and providing guidelines for attracting them.

For example, the "Temple Stay in Taiwan" official website under the "100 Religious Attractions" offers numerous vacation packages. A viewer can search through "experiencing periods", "experiential patterns", and "religious attributes" to seek their favorite trip [42]. Whether a devout believer or an ordinary traveler, the website provides the appropriate schedule and program details. Notably, this study reveals that package tours commonly organize religious tourists. Their travel mates mainly influence an individual's desire to attend a religious-themed journey. Relationship marketing has echoed Haq's arguments [144]; therefore, all stakeholders in the tourism industry should eliminate self-ish departmentalism, completely cooperate in planning, and launch appropriate package programs that meet the needs of tourists. Making tourists fully experience the convenience and cultural significance during the journey is even more important in establishing a solid tourism brand.

All stakeholders must coordinate the tourism sector to satisfy the diverse needs of tourists. Therefore, the purpose of branding the tourism destination should be to establish relationships that create opportunities to further business interests and contribute positively to the destination's competitiveness. After all, the success of individual tourism businesses will ultimately rely on their destination's competitiveness [29,129,134]. In this way, it is possible to create a sustainable tourism brand that can be trusted by tourists and

comprehensively considers environmental protection, social recognition, and corporate development.

6. Conclusions

The present study contrasts with the extant literature and found that when tourists travel to religious sites, they are not subjectively repelled by nearby commercial activities; however, they must feel valuable and satisfied during the consumption process, and the prices should be reasonable. The most critical factor influencing tourists' motivation to visit is the spiritual experience, and blessings play a significant role. As such, advertising campaigns, funded by the public sector, launched on social media can also stimulate tourists to visit. Furthermore, visitors' perceptions of the commercial activities, received service value, and satisfaction during visits to religious attractions profoundly impact their travel experience. In addition to enhancing visitors' willingness to visit/revisit, such factors also strengthened their trust in travel brands.

This empirical study provides management insights that developing a sustainable tourism brand requires the cooperation of various stakeholders in the tourism sector. In addition to launching new tourism activities promptly and stimulating motivation to visit, it is necessary to pay attention to tourists' diverse needs and create the experience value of the passengers to attract more tourists and further develop an irreplaceable tourism brand.

This study has several limitations. First, it is limited to tourists' visit motivation and experiencing perception in a newly created tourism brand within a specific region; as such, the findings may not fully reflect the numerous problems while developing tourism brands. Second, this study only describes whether the research path between visit motivation, visitor perception, and tourists' willingness to visit/revisit produce trust in the tourism brand. Still, the motivation and experience of religious site visitors are full of dynamics [174]. For instance, many interviewees decided to visit a particularly scenic spot, mainly based on their past experiences. Simply speaking, they visited with a feeling of nostalgia. Future research can examine the relationships between the sense of homesickness and willingness to visit/revisit tourism brand development issues.

Future research can explore the relationship between religious site visits in promoting the sustainability of tourism brand development and the cultural and spiritual lives of tourists, which can enrich the knowledge in this field. Moreover, the sample of selected demographic variables. More than 99% of the respondents were in Taiwan. They have high cultural homogeneity, so it does not reflect the apparent differences in willingness to revisit and a sustainable tourism brand development. Future research should focus on samples in regions with substantial social and cultural heterogeneity. Various cultures have a different impact on tourists' motivation, service perception, and assessment. Therefore, a cross-country sample should compare the overall willingness to visit/revisit, consumption habits, and brand identification among religious scenic spot guests of different cultures.

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Appendix A. Measurement Instrument

Acceptance of Commercial Activity (ACA) [88-90]

- ACA1. Commercial atmosphere is not too strong
- ACA2. Shopping store and vendors fit my needs
- ACA3. Shopping store and vendors has good reputation
- ACA4. Sale items is fair and reasonable price

Received Satisfaction (RSA) [66]

- RSA1. Service providers cared about my needs
- RSA2. I feel the enthusiasm of the service staff.
- RSA3. Overall, my vacation trip at here is a good buy

Service Value Perception (SVP) [102]

- SVP1. This attraction/event have completed and appropriate infrastructure (e.g., parking space, accessible facility, safety measures)
- SVP2. The sightseeing line is properly arranged
- SVP3. Transportation is very convenience
- SVP4. This attraction/event facilitate formal and informal educational opportunities Attraction/Event Awareness (AEA) [58]
- AEA1. This attraction/event has strong significant representative of this religious belief.
- AEA2. I knew this attraction/event in long time ago.
- AEA3. My intention to visit this attraction/event since a long time ago.

Public Sector Promotion (PSP) [66]

- PSP1. The voting activity of "Taiwan 100 Religious Attractions" did cause a boom in the social network services.
- PSP2. I have participated the voting activity, and showed my support to my favored attraction/events.
- PSP3. The advertisement of "Taiwan 100 Religious Attractions" brought memories to my mind.
- PSP4. I found myself thinking of images of "Taiwan 100 Religious Attractions" when I read the advertisement.

Spiritual Experiencing (SPE) [77]

- SPE1. When I come to visit or worship here, I feel inner peace in my mind.
- SPE2. When I come to visit or worship here, I feel that everything is going well.
- SPE3. When I come to visit or worship here, I feel that bringing me closer to the practice of doctrine.
- SPE4. When I come to visit or worship here, I feel the Deity I trusted is listening what I say.

Visit Motivation (VMT) [51,52]

- VMT1. Seeing and learning a new attraction and experiences.
- VMT2. Worth to accompany family/friends.
- VMT3. Fulfill my leisure and spiritual life.
- VMT4. The advertising method is very attractive to me.

Visitor Perception (VPC) [84]

- VPC1. This attraction makes me full of relaxation.
- VPC2. This attraction meets my expectation.
- VPC3. This attraction improved my feeling experience.
- VPC4. I am happy to spend more here.

Willingness to Visit/Revisit (WVR) [112–116]

- WVR1. The probability that I will visit "Taiwan 100 Religious Attractions" list spot again is high.
- WVR2. I consider myself a loyal patron of the list of "Taiwan 100 Religious Attractions".
- WVR3. I would like to stay more days in destination of "Taiwan 100 Religious Attractions".
- WVR4. I would like to recommend others to visit "Taiwan 100 Religious Attractions".
 Tourism Brand Trust (TBT) [144]
- TBT1. The destinations of "Taiwan 100 Religious Attractions" are congruent to its behavior.
- TBT2. The destinations of "Taiwan 100 Religious Attractions" are very competent regarding of their promote items.
- TBT3. The destinations of "Taiwan 100 Religious Attractions" performs consistently.
- TBT4. I feel comfortable depending on the destinations of "Taiwan 100 Religious Attractions".

Appendix B

Table A1. Mean (M), std., deviation, kurtosis, and skewness values.

Items	Mean	Std. Deviation	Excess Kurtosis	Skewness
ACA1	3.40	1.137	-1.023	-0.132
ACA2	3.28	1.141	-0.944	-0.069
ACA3	3.31	1.171	-0.986	-0.166
ACA4	3.25	1.099	-0.769	-0.028
RSA1	3.30	1.194	-0.943	-0.124
RSA2	3.27	1.151	-0.792	-0.218
RSA3	3.24	1.150	-0.865	-0.131
SVP1	3.30	1.123	-0.888	-0.137
SVP2	3.25	1.179	-0.988	-0.101
SVP3	3.19	1.100	-0.660	-0.026
SVP4	3.35	1.158	-0.851	-0.263
AEA1	3.40	1.090	-0.579	-0.409
AEA2	3.39	1.124	-0.704	-0.314
AEA3	3.29	1.116	-0.821	-0.119
PSP1	3.24	1.098	-0.821	-0.081
PSP2	3.25	1.133	-0.773	-0.124
PSP3	3.25	1.149	-0.818	-0.038
PSP4	3.28	1.125	-0.880	-0.133
SPE1	3.25	1.031	-0.673	-0.041
SPE2	3.21	1.124	-0.682	-0.057
SPE3	3.21	1.112	-0.727	-0.143
SPE4	3.25	1.099	-0.674	-0.060
VMT1	3.26	1.134	-0.737	-0.130
VMT2	3.24	1.106	-0.750	-0.083
VMT3	3.20	1.115	-0.757	-0.084
VMT4	3.26	1.106	-0.683	-0.151
VPC1	3.19	1.177	-0.902	-0.075
VPC2	3.17	1.149	-0.872	-0.070
VPC3	3.12	1.143	-0.797	-0.041
VPC4	3.22	1.159	-0.753	-0.181
WVR1	3.30	1.100	-0.783	-0.153
WVR2	3.25	1.091	-0.733	-0.096
WVR3	3.28	1.078	-0.719	-0.118
WVR4	3.17	1.122	-0.786	-0.025
TBT1	3.30	1.104	-0.825	-0.117
TBT2	3.32	1.155	-0.939	-0.122
TBT3	3.19	1.225	-0.878	-0.197
TBT4	3.25	1.243	-1.047	-0.231

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Article

Understanding the Consumers of Entrepreneurial Education: Self-Efficacy and Entrepreneurial Attitude Orientation among Youths

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Abstract: Sustaining youths interest in entrepreneurial education is important to cultivating future entrepreneurs. This study examines factors influencing entrepreneurial attitudes among youth using 334 respondents within the context of Indonesian institutes of higher learning. The findings show that in entrepreneurial education, both perceived educator competency and perceived social support are important drivers for the creation of self-efficacy in youth. However, only perceived social support is directly related to increased entrepreneurial attitude orientation. On the other hand, when self-efficacy is introduced as a mediating variable, both perceived educator competency and perceived social support show influence on youths entrepreneurial attitude orientation. From these findings, the research proposed both its theoretical and managerial implications.

Keywords: entrepreneurial self-efficacy; perceived lecturers' entrepreneurial competency; perceived social support; entrepreneurial attitude orientation

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1. Introduction

As consumers of the education business, the perceptions of youths is crucial in measuring the quality of education products and services offered. In this paper, the terms youth and students are used interchangeably since the study focuses on entrepreneurship education, which is one product that has gained enhanced popularity and investment in many countries [1]. This is especially true in Indonesia, where the number of Indonesian educational institutions focusing on entrepreneurial education has increased [2] due to its potential as an economic development tool [3]. Entrepreneurship education encourages colleges to build entrepreneurial abilities, skills, and intentions [4]. Past studies have emphasized that an effective entrepreneurial education program can help youth to increase entrepreneurial attitude, entrepreneurial mindset [5], entrepreneurial intentions [6], entrepreneurial activity [1], entrepreneurial skill and motivation [7], and even to improve business performance built by youth [2]. Therefore, universities are expected to be able to offer well-prepared entrepreneurship modules [8].

Entrepreneurial attitude orientation (EAO), which is a way to predict entrepreneurship based on attitude or the tendency to respond in a way that is generally liked or disliked [9], has been important in the development of entrepreneurship on campus. Curriculum requirements, convenience factors, practical considerations, experience, academic factors [10], and achievement [11] are important factors in increasing entrepreneurial attitude. Entrepreneurial attitude orientation encourages creativity [12], innovation [13], entrepreneurial behavior [14], individual entrepreneurial movement in the future, and

entrepreneurial intention [15]. Previous studies have shown that entrepreneurs have a higher EAO scale than non-entrepreneurs [16].

Bandura [17], however, emphasized that entrepreneurial self-efficacy (ESE) also plays an important part in the field of entrepreneurship, especially in entrepreneurial activities [18], because starting a business comes with a lot of ambiguities and uncertainties, including rejections, fluctuations in market conditions, and changes in business policies. Someone with high self-efficacy will be able to overcome all uncertainties and problems that can negatively affect the performance of his/her business [19] because self-efficacy is strongly linked with creative behavior, creative ideas and novel activities [20] that are important to overcoming uncertain and diverse conditions of the market. In short, entrepreneurial self-efficacy gives strength and perseverance to someone to make the effort to overcome ambiguous conditions [21]. In past studies, entrepreneurial self-efficacy has been found to influence entrepreneurial attitudes [5], entrepreneurial intention [22,23], entrepreneurial emotion, career choices, and entrepreneurial performance [24]. Entrepreneurial self-efficacy is developed through learning, experience [24], instrumental readiness, risk propensity, and entrepreneurial knowledge [25]. High intrinsic motivation in entrepreneurial activity depends on entrepreneurial self-efficacy [26].

What motivated this study is the existing lack of literature on the mediating role of entrepreneurial self-efficacy in understanding entrepreneurial attitude orientation. Although several previous studies explained the important role of entrepreneurial self-efficacy as a mediating variable [for example research conducted by van Caloen de Basseghem [27], Naushad and Malik [28], Ciuchta and Finch [29], Cho, Choi [30], most of them did so to understand entrepreneurial intention rather than entrepreneurial attitude orientation. van Caloen de Basseghem [27] for instance, examined the effect of entrepreneurial self-efficacy mediation on academic grade and entrepreneurial intention. Naushad and Malik [28], showed the important role of entrepreneurial self-efficacy as mediator for propensity to risk, self-confidence, internal locus of control and entrepreneurial intention, while Cho, Choi [30] looked at the mediating effect of entrepreneurial self-efficacy on entrepreneurial mentoring and entrepreneurial intention. There is scarce literature, if any, that focuses on using entrepreneurial self-efficacy as a mediating variable between perceived social support and perceived lecturers' entrepreneurial competency on entrepreneurial attitude orientation. This is the research gap that we found. Hence this study may help reduce the gap by providing empirical findings on the important role of entrepreneurial self-efficacy on entrepreneurial attitude orientation.

This study focused on entrepreneurial attitude orientation as the dependent variable because the attitude scale allows for the prediction of entrepreneurial activity [31], it makes it easier for us to understand what entrepreneurial activities are preferred by students so that recommendations on how universities could develop suitable entrepreneurship programs may be possible. In addition, attitudes have a tendency to change over time according to situations or the environment [32]. If universities could map the entrepreneurial attitude orientation of their students, they could follow the changing trends in student attitudes and predict students' future actions. Moreover, entrepreneurial attitude orientation is a combination of affect, cognitive, and conative. Understanding entrepreneurial attitude orientation allows researchers to understand the students' beliefs, thoughts, feelings, and desires. Hence, this study aims to understand entrepreneurial attitude orientation by examining antecedents such as entrepreneurial competency and perceived social support as well as by looking at entrepreneurial self-efficacy as a mediator. In the section below, the paper reviews the relevant literature before proceeding with explaining its hypothesis development. This is followed by a description of the methodology it used to test all eight hypotheses, and the presentation of the analysis and findings. A discussion of the findings is then provided before concluding with the study implications and suggestions for future research.

2. Literature Review and Hypothesis Development

2.1. Entrepreneurial Self-Efficacy

The theory of self-efficacy was originally introduced by Bandura [33]. Self-efficacy can be seen as a person's ability to manage the actions needed [17] and the personal competencies that can control certain situations [34]. Self-efficacy affects what is thought, felt and done by a person [35]. Self-efficacy is closely related to work-related performance [36]. It can also serve as a driving force to face obstacles and limitations [23]. Self-efficacy will increase if someone manages to achieve what they want, and will decrease if there is a failure [37]. It will also increase with exposure to entrepreneurial education.

The construct of entrepreneurial self-efficacy was proposed by De Noble, Jung [38]. This construct refers to an individual's belief in his/her own abilities to perform various skills that are needed for starting up a new business [35]. According to De Noble, Jung [38], ESE is related to a "can do" attitude in starting up a business venture. ESE focuses on a person's belief that he/she is able to produce an entrepreneurial outcome [39], such as with building new businesses, first-time venture creators and completing entrepreneurial tasks.

2.2. Perceived Social Support

Perceived social support is defined as an exchange of resources between two individuals that is perceived by either the provider or the recipient as improving the well-being of the recipient [40]. Perceived social support brings positive emotions that can enhance physiological and affective states, and it is a source of self-efficacy. Social support can also help individuals gain mastery and experience. In the context of an institute of higher learning, students or consumers of entrepreneurial education require support from their social surroundings, because a supportive social environment can help self-efficacy to flourish [17]. Perceived social support, which refers to social support that an individual receives when s/he is carrying out entrepreneurial/business activities [41], may play an important role in developing entrepreneurial self-efficacy. Social support is a person's support and motivation for others to become an entrepreneur [42] because it gives them a sense of security and comfort to make good decisions [43] and it helps them to deal with stress [44] and failure during entrepreneurial activities [45]. Social support comes in the form of suggestions, advice [46], care and help given by someone to another party [47]. That "someone" can be partners, community organizations, friends or family [48]. However, in the context of a university, the "someone" that students need for social support includes their family, friends, and university entrepreneurship lecturers.

There were inconsistent results about the role of perceived social support in entrepreneurial self-efficacy. Lu, Song [49] found that university entrepreneurship support positively affects students' entrepreneurial self-efficacy. Another study found a relationship between family factors and youth's entrepreneurial self-efficacy [50]. The family provides support in the form of moral and financial assistance to help their children in conducting entrepreneurial activities. Family support motivates and gives confidence for youth to carry out entrepreneurial activities. Perceived social support from parents can also help youth to become proud as entrepreneurs. A study by Cho, Choi [30] also confirmed that social support has a significant effect on entrepreneurial self-efficacy. However, Kazumi and Kawai [51] found that formal institutional support has no correlation with entrepreneurial self-efficacy. These inconsistent results led the researchers to further study whether perceived social support from family, lecturers, and significant others will lead to students' entrepreneurial self-efficacy. Hence, the hypothesis regarding the relationship between perceived social support and entrepreneurial self-efficacy is formulated as follows:

Hypothesis 1 (H1). Perceived social support is positively related to entrepreneurial self-efficacy.

Langford, Bowsher [43] described several attributes of social support, including emotional support, instrument support, informational support, and appraisal support. In the context of social support in the development of entrepreneurship on campus, social

support can be in the form of emotional support (love, caring, trust and empathy provided by lecturers and mentors), instrumental support (facilities provided by the campus to support entrepreneurship activities), informational support (from lecturers and mentors in the form of providing various solutions when students experience difficulties in developing their business), and appraisal support (when lecturers and mentors give appreciation to students). Perceived social support can have an impact on entrepreneurial success [52,53] because regardless of the form, perceived social support can improve one's attitude in entrepreneurship [54], improve one's performance in entrepreneurial tasks, pursuing business innovation and controlling business results [2]. Jadmiko [54] stated that perceived social support can influence the attitude of becoming social entrepreneurs. Perceived social support in the form of university entrepreneurship support can increase entrepreneurial attitude [49]. Based on this, the hypothesis regarding the relationship between perceived social support and entrepreneurial attitude orientation is formulated as follows:

Hypothesis 2 (H2). *Perceived social support is positively related to entrepreneurial attitude orientation.*

2.3. Perceived Lecturers' Entrepreneurial Competency

How youths perceive the competency of their lecturers is also important to understand because one of the determinants of the quality of university graduates is the quality of the lecturers [55]. In this study, perceived lecturers' entrepreneurial competency refers to the youths' perception of lecturers' collective abilities (attitude, skills, and knowledge) to do entrepreneurial activities and complete entrepreneurial tasks. Since lecturers, who provide mentoring for students' businesses, are often viewed as role models for students, perceived lecturers' entrepreneurial competencies can enhance youths' confidence in their learning experience, which then lead to better self-efficacy among students [17]. Newman, Obschonka [24] found that the exposure to entrepreneurial role models and mentors is one of the key antecedents of entrepreneurial self-efficacy. In addition, a study conducted by BarNir, Watson [56] found that undergraduate students' exposure to entrepreneurial role models affects their belief in the ability to successfully carry out entrepreneurial tasks. In other words, youths will feel more confident and capable of completing entrepreneurial tasks when led by their role model. On the contrary, when students view their lecturers as having low entrepreneurial competency, their self-confidence may also decline, leading to lower self-efficacy and more failures.

Previous studies showed that successful role models, meaning role models that are also successful in completing entrepreneurial tasks, generate entrepreneurial self-efficacy in students [57]. However, a study by Malebana [58] found that entrepreneurial role models only have a very small impact on entrepreneurial self-efficacy. From four kinds of entrepreneurial role models that the author studied, only one of them was significantly related to entrepreneurial self-efficacy, but with p < 0.10. These inconsistent results led the researchers to further examine whether perceived lecturers' entrepreneurial competencies will predict students' entrepreneurial self-efficacy. It is proposed that students who perceive their lecturers as having entrepreneurial competencies are more likely to experience that the guidance from their lecturers are useful for their entrepreneurial projects, which will lead them to be more confident in conducting their entrepreneurial work. Therefore, the hypothesis regarding the relationship between lecturers' entrepreneurial competency and entrepreneurial self-efficacy is formulated as follows:

Hypothesis 3 (H3). Perceived Lecturers' entrepreneurial competency is positively related to entrepreneurial self-efficacy.

The quality of learning and teaching is greatly influenced by the lecturer's entrepreneurial competency [59]. Lecturers will not be able to teach various competencies to students if the lecturers do not have entrepreneurial competencies. Entrepreneurial competencies needed include identifying opportunities, resource acquisition, championing competen-

cies [60,61], relationship, organizing, commitment [62], human relation [63], innovating, sponsoring [64], etc. Lecturers with entrepreneurial competency will be role models for their students. Lecturers who become role models will influence entrepreneurial attitudes and interests [65–67]. However, there are also research results that explained that role models are not able to increase entrepreneurial attitude [68] because role models are only seen as one more factor in choosing an entrepreneur's career path. Therefore, we propose that perceived lecturers' entrepreneurial competency could influence students entrepreneurial attitudes, which could help them focus more on improving entrepreneurial attitude orientation. The hypothesis regarding the relationship between perceived lecturer entrepreneurial competency and entrepreneurial attitude orientation is formulated as follows:

Hypothesis 4 (H4). *Perceived lecturers' entrepreneurial competency is positively related to entrepreneurial attitude orientation.*

Ardyan and Wijaya [2] proposed that entrepreneurial competency is the attitude, knowledge and skills possessed by a person related to entrepreneurial activity. The term entrepreneurial competency describes the trainee teacher's behavior [63], particularly those of lecturers who teach entrepreneurship. The competencies can be in terms of oral presentation skills, interpersonal skills, the ability to prepare and present a business plan [69], openness, accommodate new ideas, and critical thinking [70]. There were inconsistent results about the effect of perceived lecturers' competency on perceived social support. A study from St-Jean and Audet [71] found that the expertise and experience of mentors did not increase mentees' satisfaction. This result suggests that perceived lecturers' competency does not always lead to the feeling of being supported by the lecturers. However, on the other hand, Dolan and Brady [72] suggest that the expertise of a mentor is very important for helping students, as this will make students feel supported by the mentors. These inconsistent results show that further studies are needed to ensure whether perceived lecturers' entrepreneurial competency will have an effect on perceived social support. It can be argued that lecturers who are not competent cannot optimally help students in coping with their entrepreneurial tasks. This makes students feel unsupported. Lecturers who have expertise in the subject areas are more likely to be able to guide and help students in their entrepreneurial tasks, and to provide better mentoring, so that students can feel supported [72]. Hence, the hypothesis regarding the relationship between perceived lecturers' entrepreneurial competency and perceived social support is formulated as follows:

Hypothesis 5 (H5). *Perceived lecturers' entrepreneurial competency is positively related to perceived social support.*

2.4. Entrepreneurial Attitude Orientation

Attitude theory and entrepreneurship theory are the basis of an entrepreneurial attitude orientation. Attitude is a response towards the object attitude, whether the object attitude is considered beneficial or not [73], and is a driving factor of interest in behavior [74]. In the context of entrepreneurship, the entrepreneurial attitude orientation (EAO) approach was first proposed by Robinson [75]. Using the Theory of Planned Behavior, [75] proposed a measurement scale related to entrepreneurial attitude orientation called the EAO Scale, which measures the characteristics of entrepreneurial attitude and to distinguish between entrepreneurs and non-entrepreneurs [76]. Previous research found that male students have more positive entrepreneurial attitudes compared to female students [77]. Harris and Gibson [78] argued that men have innovation, personal control, and experience; thus, their entrepreneurial attitude is also high.

The relationship between entrepreneurial self-efficacy and entrepreneurial attitude orientation cannot be concluded yet because there are still inconsistencies in research results. Several studies explained that entrepreneurial self-efficacy is able to significantly increase entrepreneurial attitude orientation [79–82], while other studies did not find a

significant relationship [83]. In this research, we propose that entrepreneurial self-efficacy has a positive and significant effect on entrepreneurial attitude orientation. Bandura [84] posited that an individual's behavior is influenced by the belief that an individual holds about his or her abilities to complete the tasks. Bandura [17] even argued that self-efficacy influences the way people think, feel, and act. Furthermore, Bandura [17] also mentioned that self-efficacy will influence the choice of goal challenge, the effort to achieve the goal, and also the duration of perseverance in facing difficulties. Therefore, it can be argued that an individual with strong confidence in business can influence his/her attitude in business achievement, business innovation, and personal control. Students who have confidence in business, both in terms of knowledge and skills, can be reflected in their entrepreneurial attitude. They can pour their creative ideas into the products they produce, so that they can be useful. [79]. Hence, the hypothesis regarding the relationship between perceived social support and entrepreneurial self-efficacy is formulated as follows:

Hypothesis 6 (H6). Entrepreneurial self-efficacy is positively related to entrepreneurial attitude orientation.

2.5. Entrepreneurial Self-Efficacy as Mediating Variable

Kickul and D'Intino [85] explained that entrepreneurial self-efficacy has an important role in the entrepreneurial life cycle, because entrepreneurial self-efficacy can identify each task and role in the entrepreneurial lifecycle. Some studies are likely to use entrepreneurial self-efficacy as a mediating variable [28] due to its ability to bridge various factors that influence entrepreneurial intention. There has never been a previous researcher that has examined entrepreneurial self-efficacy as a mediator between perceived social support and entrepreneurial attitude orientation; and entrepreneurial self-efficacy as a mediator between perceived lecturers' entrepreneurial competency and entrepreneurial attitude orientation. In this research, we try to relate these variables.

In entrepreneurial research, self-efficacy plays an important role as a mediator between perceived social support and entrepreneurial attitude orientation. Based on socio-cognitive theory, self-efficacy shows that individual behavior is designed by several activities, such as intrapersonal interactions [86]. One form of interaction is the existence of social support. The interaction between these can form individual beliefs in including the ability to perform certain behaviors [87]. Some research explained that social support can have a positive effect on self-confidence [88]. In the socio-cognitive approach, the impact of knowledge and social interaction (social support) in the form of attitudes towards entrepreneurship can be explained [5]. The higher the social support, the more it will have an impact on increasing self-confidence and will also have an impact on increasing the orientation of entrepreneurial attitudes. Based on the discussions, the hypotheses regarding the mediating role of entrepreneurial self-efficacy is formulated as follows:

Hypothesis 7 (H7). *Entrepreneurial self-efficacy has a mediating effect on the relationship between perceived social support and entrepreneurial attitude orientation.*

Entrepreneurial self-efficacy also plays an important role as a mediator between perceived lecturers' entrepreneurial competency and entrepreneurial attitude orientation. Some literature related to person-environment fit theory shows that an individual's evaluation of the surrounding environment will greatly affect the attitudinal outcome [89–91]. In this study, the evaluation conducted by students related to the entrepreneurial ability of the lecturer group will have an impact on the attitudinal outcome (in this research it is entrepreneurial attitude orientation). The quality of lecturers can be seen from their competence. Competence is the ability of a person (lecturer) to carry out their duties well [92], such as being able to develop new products and market opportunities, building an innovative environment, initiating investor relationships, defining core purpose, coping with unexpected challenges, and developing critical human resources. We argue

that entrepreneurial self-efficacy is central to mediating the effect of perceived lecturers' entrepreneurial competency on entrepreneurial attitude orientation. One of the reasons why people pursue entrepreneurship lies in the entrepreneurial self-efficacy or belief in a person (student) in his or her ability to become an entrepreneur [39]. Students have high self-confidence for entrepreneurship because they feel congruence with their lecturers. Lecturers can motivate students to be confident. This will have an impact on students' entrepreneurial attitude orientation. Based on the discussions, the hypothesis regarding the mediating role of Entrepreneurial Self-Efficacy is formulated as follows:

Hypothesis 8 (H8). Entrepreneurial self-efficacy has a mediating effect on the relationship between perceived lecturers' entrepreneurial competency and entrepreneurial attitude orientation.

The research model that includes all hypotheses of this study is shown in Figure 1 as follows.

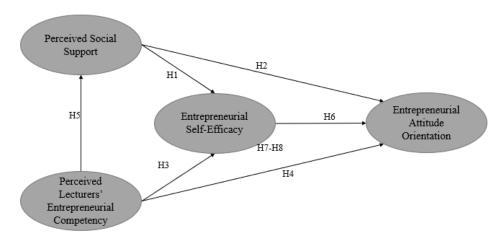


Figure 1. Research Model.

3. Research Method

3.1. Instrument and Analysis

This study adopted a quantitative method to address the research questions. A self-administered questionnaire is chosen as the data collection tool. Each respondent received a set of questionnaires to be completed. The questionnaire consisted of several sections which were designed to collect information regarding the demographic profile of respondents, entrepreneurial self-efficacy, perceived social support, entrepreneurial attitude orientation, and perceived lecturers' entrepreneurial competency.

Entrepreneurial self-efficacy was measured using the entrepreneurial self-efficacy scale developed by De Noble, Jung [38]. The scale consisted of 23 items measuring six dimensions. The dimensions are: developing new products and market opportunities, building an innovative environment, initiating investor relationship, defining core purpose, coping with unexpected challenges, and developing critical human resources. Respondents were asked to rate from 1 (=strongly disagree) to 10 (=strongly agree) based on their agreement to the statement of the item. The Cronbach's alpha for this construct is 0.931.

Items measuring perceived social support are modified from the Multidimensional Scale of Perceived Social Support (MSPSS) [93,94]. The MSPSS was originally designed to measure the social support among undergraduates from three major sources, including family, friends and significant others [95]. In this study, the items are modified to measure the supports received by respondents when they are doing entrepreneurial/business activities. The total of items in this section is 16. The sources of support measured were family, friends, significant others, and entrepreneurship lecturers. Students were also asked to rate from 1 (=strongly disagree) to 10 (=strongly agree) based on their agreement to the statement of the item. The Cronbach's alpha for this scale is 0.797.

To measure entrepreneurial attitude orientation, this study modified the instrument developed by [30]. The instrument consisted of 75 items evaluating four subscales, including achieving attitude, innovative attitude, personal control, and business self-esteem. However, as the concept of business self-esteem overlaps with entrepreneurial self-efficacy, data analysis only included achieving attitude, innovative attitude, personal control, and excluded business self-esteem. The Cronbach's alpha for this scale is 0.901.

The final section was measuring perceived lecturers' entrepreneurial competency. In this section, students were asked to rate the entrepreneurial competency of their entrepreneurship course lecturers in general. The entrepreneurial competency includes the six dimensions used in the entrepreneurial self-efficacy instruments developed by De Noble, Jung [38]. The total number of items in this section is 23. The appraisal is conducted by reflecting back on lectures, interaction, and mentoring processes that had been delivered during six semesters. Respondents were asked to rate them on a scale of 1 to 10 to show the degree of entrepreneurial competency they perceived. The higher the score indicates a higher level of competency perceived. On the contrary, a lower score suggests lower level of competency perceived. Respondents were given opportunities to choose the box of 'no idea' if they were unsure about the competence of their entrepreneurship lecturers. The Cronbach's alpha for this scale is 0.949.

To avoid the possibility of the emergence of central tendency bias and social desirability bias [96], we used a 10-point scale, eliminating the middle point. The decision to use a scale of 1–10, which did not use the midpoint, was made by considering the cultural characteristics of the sample. According to Hofstede [96] research, Indonesia is characterized by a highly collectivist society. People in collectivist societies develop their identities within the social networks to which they belong, incorporate themselves as part of the 'us' rather than the 'me', and strive for the maintenance of harmony and avoidance of confrontation [97]. This cultural characteristic raises concern for the researchers that respondents in this study might avoid extreme positions in giving their opinion and tend to choose the middle category if such a category is given. In addition, the decision to eliminate the middle category was also made to prevent respondents from the risk of a non-committed response [97]. The use of a scale of 1–10 was also carried out in the previous studies such as in [82,98–100].

3.2. Respondents

This study was conducted among students in a private university in Indonesia that emphasized entrepreneurship education in the curriculum in its branches located in two main cities of Indonesia—Surabaya and Makassar. College students were the focus because they are more ready to manage business ventures or run a cohesive business project [3] and do so due to intrinsic factors as opposed to extrinsic factors such as the influence of family and friends.

The total number of respondents is 334 students. The total number of samples taken in this study followed the recommendation of the Krejcie and Morgan Sample Size Table [98]. The respondents were sixth semester students that were taking the sixth entrepreneurship course. The reason for including only the sixth semester students in this study is because at this stage, they have completed all six semesters of entrepreneurship courses in the university and can be considered as having adequate entrepreneurship education. The participation was voluntary and was not associated with an evaluation. To test for heterogeneity of the sample, we used the Glejser test. The results showed that there is no heteroscedasticity in the regression model. Based on the scatterplot, the data did not show a patterned distribution, but was spread out. The regression coefficient using Abs-RES as a dependent variable showed that the value of sig X1 = 0.903; X2 = 0.048; X3 = 0.587. Two of the three independent variables have a coefficient value of ≥ 0.05 . So, the data from this research is homogeneous, there is no heterogeneity of the sample.

The final sample consists of 50.3% males and 49.7% females. Their ages range from 19 to 25 years old, with the average age of 21.14. In reference to ethnic background, most

of the respondents (88.5%) are Chinese Indonesian, while the rest are native Indonesians (7.9%), Arabic Indonesians (1.5%), and others (2.1%). With regards to the mode of living, more than half of the respondents live with their parents (58.3%) and the rest live in a boarding house, or are renting a house with friends or relatives.

4. Results

Table 1 shows the descriptive results, containing means, standard deviations for each variable, and inter-correlations.

Table 1. Descriptive statistics and inter-correlations of the total sample.

	M	SD	1	2	3	4
1. Perceived social support	7.02	1.34	(0.797)			
Perceived lecturers' entrepreneurial competency	7.17	1.29	0.483 **	(0.949)		
3. Entrepreneurial self-efficacy	7.24	1.01	0.497 **	0.373 **	(0.931)	
4. Entrepreneurial attitude orientation	7.44	0.94	0.563 **	0.392 **	0.685 **	(0.901)

^{**} p < 0.01; internal reliabilities are in parentheses

The interrelationship model testing result using path analyses is shown in Figure 2 as follows.

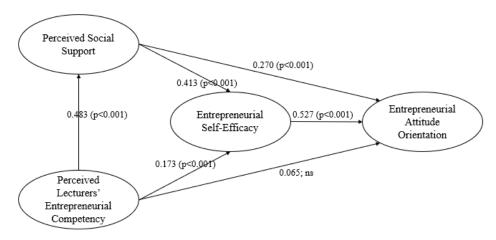


Figure 2. Tested interrelationships model.

The regression equation is:

X1 = 0.483 X2 (significant)

X3 = 0.413 X1(significant) + 0.173 X2 (significant)

Y = 0.270 X1(significant) + 0.065 X2 (non-significant) + 0.527 X3

X1= Perceived Social Support

X2 = Perceived Lecturers' Entrepreneurial Competency

X3 = Entrepreneurial Self-Efficacy

Y = Entrepreneurial Attitude Orientation

To investigate the interrelationships among perceived social support, perceived lecturers' entrepreneurial competency, entrepreneurial self-efficacy, and entrepreneurial attitude orientation, path analyses were performed. As stated in Hypothesis 1 (H1), perceived social support is positively related to entrepreneurial self-efficacy. Figure 2 shows that perceived social support is positively related to entrepreneurial self-efficacy. The direct effect of perceived social support on entrepreneurial self-efficacy is $0.413 \ (p < 0.001)$. This result supports Hypothesis 1 (H1). Meanwhile, Hypothesis 2 (H2) proposed that perceived social support is positively related to entrepreneurial attitude orientation. The results indicate

that perceived social support has a significant direct effect on entrepreneurial attitude orientation. The direct effect of perceived social support on entrepreneurial attitude orientation is 0.270 (p < 0.001). This result supports Hypothesis 2 (H2).

H3 postulated that perceived lecturers' entrepreneurial competency is positively related to entrepreneurial self-efficacy. Figure 2 shows that lecturers' entrepreneurial competency is positively related to entrepreneurial self-efficacy. This result supports Hypothesis 3 (H3). However, the direct effect of perceived lecturers' entrepreneurial competency on entrepreneurial self-efficacy is only 0.173 (p < 0.001). Perceived lecturers' entrepreneurial competency also has an indirect effect on entrepreneurial self-efficacy through perceived social support, but the effect is also very weak. Meanwhile, H4 put forward that perceived lecturers' entrepreneurial competency is positively related to entrepreneurial attitude orientation. The results show that the direct effect of perceived lecturers' entrepreneurial competency on entrepreneurial attitude orientation is not statistically significant (0.065; p > 0.05). This result does not support Hypothesis 4 (H4). Further analysis shows that there is indirect effect of perceived lecturers' entrepreneurial competency on entrepreneurial attitude orientation, but it is very weak or negligible.

According to Hypothesis 5 (H5), perceived lecturers' entrepreneurial competency is positively related to perceived social support. The direct effect of perceived lecturers' entrepreneurial competency on perceived social support is 0.483 (p < 0.001). This result supports Hypothesis 5 (H5). Similarly, Hypothesis 6 (H6) assumed that entrepreneurial self-efficacy is positively related to entrepreneurial attitude orientation. The results show that entrepreneurial self-efficacy has a significant effect on entrepreneurial attitude orientation. The direct effect of entrepreneurial self-efficacy on entrepreneurial attitude orientation is 0.527 (p < 0.001).

Hypothesis 7 (H7) assumed that entrepreneurial self-efficacy has a mediating effect on the relationship between perceived social support and entrepreneurial attitude orientation. The results of this study indicate that self-efficacy can be a partial mediator between the influence of perceived social support on entrepreneurial attitude orientation. Meanwhile, Hypothesis 8 (H8) assumed that entrepreneurial self-efficacy has a mediating effect on the relationship between perceived lecturers' entrepreneurial competency and entrepreneurial attitude orientation. The results of this study indicate that self-efficacy can be a full mediator between the influence of lecturers' entrepreneurial competency on entrepreneurial attitude orientation.

Table 2 shows the direct and indirect effects of variables. It is worth noting that perceived social support has a positive effect on entrepreneurial attitude orientation, both directly and indirectly via entrepreneurial self-efficacy. Perceived lecturers' competency has no direct effect on entrepreneurial attitude orientation, but still has an indirect effect via entrepreneurial self-efficacy. However, perceived lectures' entrepreneurial competency has a positive effect on perceived social support.

The total effect of perceived social support on entrepreneurial attitude orientation: $0.270 + (0.413 \times 0.527) = 0.487651$

The total effect of perceived lecturers' entrepreneurial competency on entrepreneurial attitude orientation:

 $(0.173 \times 0.527) + (0.483 \times 0.270) = 0.221581$

The total effect of entrepreneurial self-efficacy on entrepreneurial attitude orientation: 0.527

To summarize, the proportion of variance in perceived social support that is explained by lecturers' entrepreneurial competency is 23.1%. The proportion of variance in entrepreneurial self-efficacy that is explained by perceived lecturers' entrepreneurial competency and perceived social support is 26.6%. Finally, the proportion of variance in entrepreneurial attitude orientation that is explained by perceived lecturers' entrepreneurial competency, perceived social support, and entrepreneurial self-efficacy is 53.4%. The remaining 46.6% proportion of variance in entrepreneurial attitude orientation was explained by other variables not included in the current study.

T-1-1-0	Ct	1:	indirect effects
Table 2	Standardized	direct and	indirect effects

Outcome						
	Entrepreneurial Attitude Orientation		Perceived Social Support		Entrepreneurial Self-Efficacy	
Predictor	Direct	Indirect	Direct	Indirect	Direct	Indirect
Perceived social support (ESS)	0.270 ***	0.218 **	-	-	0.413 ***	-
Perceived lecturers' entrepreneurial competency (LEC)	0.065 ns	0.09 **	0.483 ***	-	0.173 ***	0.199 ***
Entrepreneurial self-efficacy (ESE)	0.527 ***					

^{ns} non-significant, ** p < 0.01, *** p < 0.001.

5. Discussion

Self-efficacy is an important construct in the development of entrepreneurship in universities in Indonesia. Entrepreneurial self-efficacy is a form of self-confidence [99] and reflects a person's strong belief in successfully performing entrepreneurial tasks and roles [100]. This study found that entrepreneurial self-efficacy has a positive and significant effect on entrepreneurial attitude orientation. The results of this research are supported by the results of previous research [79]. Individuals with high entrepreneurial self-efficacy have a strong belief that they could complete entrepreneurial tasks. Belief in one's self is closely related to one's self-awareness to behave according to their abilities [82].

Perceived social support can increase entrepreneurial self-efficacy. Albrecht and Adelman [101] state that social supports can reduce uncertainty. Often students are still confused about choosing whether to become an entrepreneur or not. There was distrust of students. Social supports will make students more confident about their choice. Individuals who receive higher support in carrying out their entrepreneurial/business activities show higher confidence in completing entrepreneurial tasks. Support will help someone to cope with stress. Pihie and Bagheri [102] mentioned that teachers play critical roles to develop interactive social environments to develop students' entrepreneurial self-efficacy through mastery experience, vicarious learning, verbal persuasion, and social support. It can be argued that this interactive social environment can only be developed by building positive interpersonal relationships with students. Social support will decrease anxiety and develop positive affect and enhance the self-worth of the receiving parties. The positive effect on self-worth is very influential in developing self-efficacy. In parallel with this, Bratkovič, Antončič [103] posited that entrepreneurs whose social ties provide various support necessary for starting up a business will have higher confidence to start up their business.

Having stressed the importance of building interpersonal relationships with students, does it mean that lecturers' entrepreneurial competency is not important in the entrepreneurship education system? Boyd and Vozikis [99] argued that "a trusted and successful role model" is important to influence the development of entrepreneurial self-efficacy, as these characteristics will influence the impact of their verbal persuasion to students. Lecturers who are not competent can be perceived negatively by students. This situation may also lead to lack of trust among students. Moreover, competency is also necessary to enable them to provide the specific support needed by students. The competency will also be required for lecturers to structure activities and guidance for students that will lead to success.

The results of this study indicate that perceived social support has a positive effect on entrepreneurial attitude orientation. The results of this study are the same as the results of previous studies [54]. The higher the level of social support received, the more someone will participate in solving problems by establishing a business that is business oriented. The higher the perceived level of social support, the more it shows their concern for business creation. Perceived social support also plays a role in fostering a positive attitude towards entrepreneurship.

Perceived lecturers' entrepreneurial competency has a positive effect on entrepreneurial self-efficacy. This shows that the positive perception of students about entrepreneurial competency from lecturers will make students more confident. Lecturers have an important impact in the teaching and learning process. Competent lecturers have the following abilities: developing new products and market opportunities, building an innovative environment, initiating investor relationships, defining core purposes, coping with unexpected challenges, and developing critical human resources. Students are more confident when their lecturers have entrepreneurial abilities. Lecturers must use their competence to provide inspirational messages and provide appropriate guidance. Lecturers are expected not only to give empty and unconstructive criticism. This negative persuasion has strong debilitating effects on students and students will lose their confidence and give up [21].

The results of this research show that the perceived lecturers' entrepreneurial competency is not able to directly influence the entrepreneurial attitude orientation. Perceived lecturers' new entrepreneurial competency can affect entrepreneurial attitude orientation if there is entrepreneurial self-efficacy as a mediator. So entrepreneurial self-efficacy plays an important role in mediating the influence of perceived lecturers' entrepreneurial competency and entrepreneurial attitude orientation. This is where entrepreneurial self-efficacy plays a central role. Therefore, the selection of competent lecturers and systematic efforts to develop lecturer competencies are very important. In addition, educational institutions must also equip lecturers to be able to develop good interpersonal relationships with students and use their competencies to build students' self-confidence, not to put students down. This self-confidence ultimately forms an entrepreneurial attitude orientation.

The results of this study showed that entrepreneurial self-efficacy was only a partial mediator between the influence of perceived entrepreneurial social support on entrepreneurial attitude orientation. The direct effect of perceived entrepreneurial social support on entrepreneurial attitude orientation was stronger than the indirect effect of perceived entrepreneurial social support on entrepreneurial attitude orientation via entrepreneurial self-efficacy. Entrepreneurial self-efficacy did not enhance the impact of perceived social support on entrepreneurial attitude orientation. This showed that perceived social support itself can influence entrepreneurial attitude orientation without the presence of entrepreneurial self-efficacy. These results supported the results of H2. This study supports the study from Lu, Song [49] that social support can increase entrepreneurial attitudes.

6. Conclusions

This study aimed to narrow the gap of knowledge on the mediating effect of entrepreneurial self-efficacy on entrepreneurial attitude orientation by examining the antecedent and outcomes of entrepreneurial self-efficacy and the role of entrepreneurial self-efficacy as a mediator. These findings show that perceived social support and perceived lecturers' entrepreneurial competency are effective driving factors to increase entrepreneurial self-efficacy, and that entrepreneurial self-efficacy can increase student entrepreneurial attitude orientation. Our findings add to knowledge, especially self-efficacy theory in two ways. First, entrepreneurial self-efficacy can improve entrepreneurial attitude orientation. Youths' confidence will increase their positive assessment of their entrepreneurial activities, which may greatly affect their future choices in entrepreneurship. As [10] postulated, entrepreneurial attitude orientation consists of beliefs, feelings, and behavioral intentions and predispositions to behave in a certain way towards achievement in business, innovation in business, perceived personal control of business outcomes, and perceived self-esteem in business. In this study, entrepreneurial self-efficacy has been proven to support the flourish of positive beliefs, feelings, and intentions to entrepreneurial actions.

The impact of entrepreneurial self-efficacy on entrepreneurial attitude orientation in this study has confirmed previous studies on the impact of entrepreneurial self-efficacy on entrepreneurial intention and entrepreneurial behavior [104–106]. This means that entrepreneurial self-efficacy is important not only in the individualist culture (western countries), but also in the collectivist culture such as Indonesia. Hence, the concept of

entrepreneurial self-efficacy should get more emphasis and attention in entrepreneurship research and entrepreneurship education [106].

Second, this research shows the important role of self-efficacy as a variable that can mediate the influence of perceived lecturers' competencies and perceived social support on entrepreneurial attitude orientation. Specifically, self-efficacy fully mediates the relationship between perceived lecturers' competency and entrepreneurial attitude orientation. However, it only partially mediates the relationship between perceived social support and entrepreneurial attitude orientation. These results are consistent with the study by Lu, Song [49], which showed that entrepreneurial self-efficacy plays a mediating role in the relationship between university entrepreneurship support and entrepreneurial intention. The importance of entrepreneurial self-efficacy as a mediating variable has also been shown in previous studies [107,108].

The study has also showed that perceived lecturers' entrepreneurial competency has no direct effect on entrepreneurial attitude orientation. Entrepreneurial self-efficacy became an important variable that turned perceived lecturers' entrepreneurial competency into a more positive entrepreneurial attitude orientation, including entrepreneurial intention. This result is similar to the study by St-Jean and Mathieu [108], which showed that mentoring only does not positively affect entrepreneurial intention without entrepreneurial self-efficacy as a mediating variable. The current study also supports the study from Kisubi and Korir [107], which showed that entrepreneurial self-efficacy is an important mediating variable for the relationship between entrepreneurial training and entrepreneurial intention, and for the association between entrepreneurial training and entrepreneurial attitude.

The findings of this study confirm the importance of entrepreneurial self-efficacy in entrepreneurship education. Perceived lecturers' entrepreneurial competency helps students to be more confident of their ability to conduct entrepreneurial activities, as their lecturers are their role models. Similarly, social support from family, friends, significant others, and entrepreneurship lecturers when students are doing entrepreneurial/business activities will lead to students having a higher level of confidence in their entrepreneurial tasks. As a result, they have a higher entrepreneurial self-efficacy, leading to the development of entrepreneurial attitude orientation. When students perceive that their lecturers have entrepreneurial competency, they will perceive entrepreneurship more positively and have a better feeling towards entrepreneurship. Consequently, they have a more positive and favorable attitude towards entrepreneurship, and higher intentions and predisposition to conduct entrepreneurial efforts.

The findings of this study may have two managerial implications. Firstly, they highlight the fact that universities must pay attention to the competencies of lecturers. Competent lecturers will have many resources, such as information, extensive networks, good capabilities, and experience, so that they can provide advice and guidance for students. Resources can come from previous entrepreneurial experience, such as running their own business. Having direct experience related to entrepreneurship enables lecturers to extract best practices and learning lessons for students who, in turn, gradually develop their self-efficacy. This is supported by Abaho, Olomi [109], who found that lecturer business experience is positively related to student entrepreneurial self-efficacy. Not only that, lecturers with experience in entrepreneurship are able to more effectively inspire students than non-entrepreneurial lecturers, because students feel that they can believe in what the lecturer teaches [110].

Secondly, an institute of higher learning should build an ecosystem in the form of a community that supports the implementation of entrepreneurial activities on campus. Community can consist of parents, entrepreneurial experts, entrepreneurs, and others. The aim is to encourage the creation of self-efficacy among students. In running a business, students face many unexpected challenges, which include stress, pressure, and conflict. The community will help by supporting, providing solutions, and helping solve various problems faced by students.

This study is limited in that the respondents are not evenly distributed. This occurs due to the difficulty of obtaining respondents in the central and eastern parts of Indonesia. Therefore, the possibility of bias due to the origin or location of the respondents participating in this study must be acknowledged. For future research, we recommend that a bigger number of universities that offer entrepreneurship across the country is included, so that the results can be generalized. In addition, our study did not segment lecturers into groups of the competent and not competent, which can limit the meanings of our findings. Future researchers are advised to provide a more robust analysis by segmenting the lecturers based on competencies. Finally, this research used a cross-sectional study, which cannot provide strong evidence about a causal relationship. Future studies are urged to use the longitudinal study approach to provide empirical evidence about perceived social support and perceived lecturers' entrepreneurial competency as an independent variable.

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Article

Explanatory or Dispositional Optimism: Which Trait Predicts Eco-Friendly Tourist Behavior?

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Abstract: Recently, researchers have been drawn to the literature surrounding positive psychology. The role of explanatory and dispositional optimism in eco-friendly tourism has been largely ignored by researchers, even though positive psychology, or optimism, has been studied in the sustainability domain. The purpose of this study is to determine which trait predicts eco-friendly tourist behavior. In the study, the data were collected online using Amazon Mechanical Turk from 400 respondents, and the model was assessed using partial least squares structural equation modeling. Findings revealed that in terms of predicting eco-friendly tourism behavior, dispositional optimism outperformed explanatory optimism. Furthermore, this study found that environmental concern positively moderates the association between optimism (dispositional and explanatory) and eco-friendly tourism behavior. This study has wide-ranging implications for tourism managers, practitioners, and academics.

Keywords: dispositional optimism; explanatory optimism; eco-friendly tourist behavior; positive psychology; green consumer behavior

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1. Introduction

According to the United Nations World Tourism Organization [1], approximately one billion tourists travel abroad each year, contributing 10% and 6% to global GDP and total exports, respectively. Despite being a leader in the service sector, tourism generates a large amount of greenhouse gases [2]. As a result, the tourism industry is among the most unsustainably affected industries. Hence, studying eco-friendly behavior within the ambit of tourism is critical as this industry exhibits negative spillover effect over the environment, the society, and the economy.

Environmental degradation has resulted in the development of the "sustainable development concept" that encourages individuals to practice eco-friendly behavior in order to conserve the environment [3]. A large number of visitors expressed their willingness to behave ethically when they are at home or on vacation [4,5]. Paradoxically, a reduction in ethical behavior among tourists at the destination has been documented in the extant literature [6–8]. It is possible to attribute the lack of consensus in the literature to individual and situational factors that can influence individuals' ethical behavior, for instance—personal values, attitude, perceived behavioral control, social norms, personality traits, knowledge, moral obligations, and infrastructure availability [9–14]. In fact, studies in the area of tourism consumption accentuated environmental behavior, specifically performed by eco-tourists [15].

In an attempt to identify more stable factors, previous researchers have linked life satisfaction or subjective cognition to personality traits [7,15]. While, there has been an escalating interest in positive aspects of human behavior and personality [15,16], optimism has become the focus of a lot of research and theory in recent years [17,18]. Despite this, little is known about the influence of optimism on an individual's behavior in social

situations [19]. The two main scientific conceptions of optimism are dispositional optimism and explanatory optimism [19–22]. Sadiq [19] argued that even though there is a lack of empirical research to support whether dispositional optimism and explanatory optimism are conceptually related or not, previous researchers [2,5] agree that the concurrent effect of dispositional and explanatory optimism on individual's attitude and behavior is not well-studied empirically. As we know, people with different personality traits behave differently toward the safety of the environment [16–18], and scholars such as Kaida and Kaida [18] and Sadiq [19] have recommended examining two types of optimism, namely dispositional and explanatory optimism in relation to ethical behavior. Hence, this research aims to determine which type of optimism best predicts tourists' eco-friendly behavior.

Additionally, prior scholars such as Amatulli, Angelis, and Stoppani [23] and Kim, Kim, Han, and Holland [24] suggested that environmental concern is an important factor in driving tourists' eco-friendly decision-making process. Meanwhile scholars such as Verma, Chandra, and Kumar [25] have emphasized the importance of examining the role of environmental concerns in tourism. We further noted that the use of environmental concern as a moderator between personality traits and tourists' actual behavior may lend a newer dimension and essentially reduce the much debated attitude—behavior gap, which surprisingly has not yet been considered in tourism domain. Therefore, this study responds to the call by examining the role of environmental concern as a moderator between personality traits and actual behavior.

In terms of environmental consciousness, Indians are among the most conscientious [20] and environment concerned [22]. Additionally, the hospitality and tourism industry contributed approximately 6.5% to the total GDP of India in 2019 [21]; thus, it stimulates the growth of its economy. In this backdrop, this research contributes to the developing nation by focusing on India and Indian tourists.

Based on this, the current study proposes two research questions: (RQ1) Do personality traits (dispositional and explanatory optimism) influence tourists to display eco-friendly behavior? (RQ2) Does environmental concern actually moderates tourists' personality traits and eco-friendly behavior link? To address these research questions, this study aims to fill the gap in the literature in the following ways: First, based on the primary data, this study investigates the relationship between dispositional optimism, explanatory optimism, and eco-friendly tourist behavior. Second, to assess the relationship between tourists' personality traits and their eco-friendly behavior, we examined the moderating effect of environmental concern. Therefore, the primary objective of this research is to examine the influence of dispositional and explanatory optimism on tourists' eco-friendly behavior and also assess the moderating role of environmental concern on the link tourists' personality traits-eco-friendly behavior in the context of India.

Following the introduction section, the rest of the article is structured as follows: Section 2 discusses recent literature around optimism and its two school of thoughts, research hypotheses and conceptualization of the research model. Section 3 presents the development of the survey instrument, the determination of sample size, and data collection. Section 4 covers preliminary analysis, hypotheses testing and results. Section 5 presents discussions and implications, followed by limitations and future research directions.

2. Materials

2.1. Two Schools of Thought of Optimism

Researchers and social scientists have advanced two different schools of thought. The first school of thought proposes optimism as an explanatory concept [26]; the second proposes "generalized outcome expectations" [27].

This first school of thought is founded on the learned helplessness theory (LHT), which has its roots in Maier's and Seligman's seminal works [28]. According to this theory, the uncontrollability of events leads to a low motivation level, a low level of cognition, and a low level of emotion. Therefore, if an individual fails to control the event, he/she loses motivation, loses the ability to judge the outcome, and becomes emotionally disturbed.

Seligman, Abramson, Semmel, and Von Baeyer [29] used a reformulated LHT to define the attribution on the basis of past positive and negative events. Furthermore, on the basis of reformulated LHT, Peterson and Seligman [26] showed that future expectancies can be derived from a past bad event explanation. The above cited studies of Peterson and Seligman [26] and Seligman et al. [29] indicate that an individual's future expectancies of the outcome, i.e., optimism, depend heavily upon past negative experiences.

Peterson and Seligman [26] used the causal explanation method to determine future expectancies based on the given attributions—"internal vs. external, stable vs. unstable, and global vs. specific" (p. 348). In other words, an individual with an optimistic explanatory style uses unstable (low stability), external (low internality), and specific (low globality) factors to explain mishappenings, while on the other hand, an individual with a pessimistic explanatory style uses stable (low instability), global (low specificity), and internal (low externality) factors to explain past failures.

Founded in the seminal work of Carver and Scheier [30], the second school of thought is based on the control theory. This theory posits that individuals have a tendency to reduce "the comparison value that arises, due to the difference in his/her perception and reference value, which in turn, leads to the behavior" ([22], p. 2). According to the control theory [27], consumer actions influence the environment, resulting in a certain perception. After they develop perceptions, consumers close the loops, resulting in the so-called "negative feedback loop" ([31], p. 946).

According to the second school, optimism is a general outcome expectation. For instance, in Scheier and Carver ([27], p. 220), optimism was considered as "outcome expectancies based on the closed loop negative feedback system". As a result, self-focused consumers determine the existing conditions and predict the future. Following this, consumers tend to compare both existing and future conditions, which can result in discrepancies. When consumers attempt to reduce "these discrepancies", they may succeed or fail to do so. As a result, consumers who successfully reduce their discrepancies are referred to as optimistic, whereas those who fail to reduce their discrepancies are referred to as pessimistic.

Although both approaches, explanatory and generalized expectation, show similar results, they are not identical. There is a difference between how these two distinct schools of thought view future expectations. When we use the explanatory style, we apply the criteria of external, unstable, and specificity to explain what bad events happened in the past, whereas generalized outcome expectancy emphasizes what will happen in the future. This is in line with the observations of Tomakowsky, Lumely, Markowitz, and Frank [32] and Zhang et al. [33].

2.2. Eco-Friendly Tourist Behavior

Based on the literature, tourists' eco-friendly behavior is primarily determined by their concern for others and the environment. For example, Sadiq et al. [8] posited that tourists' eco-friendly behavior could be reflected through pro-environmental behavior, i.e., preferring eco-friendly hotels to "conventional ones". Gossling et al. [34] found that tourists in Tanzania are unaware of the impacts of their actions on the natural environment. In fact, higher humidity, more rain, and storms negatively influenced their travel decisions. In a similar study, Shamdub and Lebel [35] found that eco-friendly behavior of tourists in Thailand usually depends on a number of factors, such as the demographic background of the tourist, income level, traveling individually or in a group, duration of their stay, etc. Similar observations were also made by Eslaminosratabadi [36] where researchers observed that the level of intention to pay more for green hotels differs significantly across tourists' educational level, monthly income, and age.

2.3. Hypotheses and Model Development

2.3.1. Optimism and Eco-Friendly Tourist Behavior

Eco-friendly tourist behavior is referred to as "an individual's aim to minimize his/her detrimental impacts on the natural environment and otherwise contribute to environmental protection" ([37], p. 111). Existing literature found dispositional optimism to be a motivator to engage in pro-environmental behavior (see [20,21]). Dispositional optimism encourages individuals to take risk [38,39] and is also considered as one of the best coping strategies [40]. Pro-environmental behavior requires financial risk [41]; therefore-, we may interpret that tourist high on dispositional optimism is more likely to display eco-friendly behavior.

Likewise, explanatory optimism predicts pro-environmental behavior based on individuals' past experiences. Although we could not find a single study focusing on examining the role of explanatory optimism in motivating consumers to adopt pro-environmental behavior/pro-social behavior/eco-friendly behavior, it may be interpreted from the study of Tomakowsky et al. [32] and Zhang et al. [33] that explanatory optimism and dispositional optimism exhibit almost similar results. Thus, we hypothesized the following.

Hypothesis 1 (H1). *Dispositional optimism positively influences eco-friendly tourist behavior.*

Hypothesis 2 (H2). *Explanatory style optimism positively influences eco-friendly tourist behavior.*

2.3.2. Moderating Effect of Environmental Concern

Environmental concern refers to "the degree to which people are aware of problems regarding the environment and support efforts to solve them or indicate the willingness to contribute personally to their solution" ([42], p. 482). Environmentalists and scholars suggest gauging environmental concern as an important step toward understanding environmental activism in the nation [21]. The literature indicates that environmental concern is a significant driver of eco-friendly tourist behavior [8], which possibly impact tourists' decision-making choices [43]. There is, therefore, a high likelihood that tourists with a high concern for the environment will exhibit eco-friendly tourist behavior [23]. According to this study, tourists with optimistic views have a high level of environmental concern, which, in turn, motivates them to exhibit environmentally friendly behavior such as avoiding throwing garbage into the sea. Therefore, it is hypothesized that environmental concern might moderate the association between optimism (dispositional and explanatory) and eco-friendly tourist behavior.

Hypothesis 3a,b (H3a,b). Environmental concern significantly moderates the relationship of eco-friendly tourist behavior with (a) dispositional optimism and (b) explanatory optimism.

2.4. Control Variable

According to the extant literature on environmentally friendly behavior [43,44], this study considers personal factors such as age, gender, and income as control variables to avoid these factors interfering with the prediction of eco-friendly behaviors. Cheung and To [45] suggested that age and gender significantly influence consumers' choice of environmentally friendly behavior. Similarly, Connell [46] highlighted that the income of consumers significantly influences them in selecting products, such as those belonging to the high income group being more likely to engage in eco-friendly behavior. Hence, following Sadiq et al. [44], our study considers age, gender, and household income as control variables in order to avoid their interference in predicting eco-friendly behavior. The above discussion results in the conceptualization of a research model (see Figure 1).

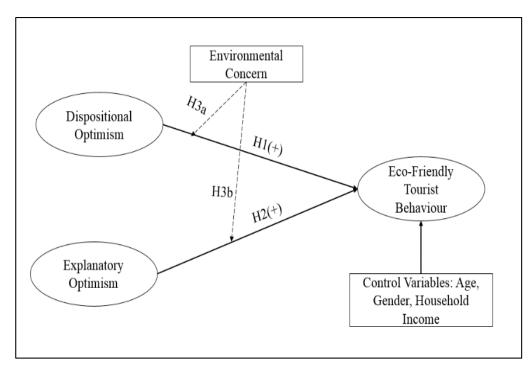


Figure 1. Conceptual model.

3. Methods

The present study aims at examining which form of optimism is a better predictor of eco-friendly behavior amongst tourists. The questionnaire consists of 26 items adapted from a number of sources. Dispositional optimism was measured by 6 items drawn from Revised Life Orientation Test scale [47]. The sample items are as follows: "In uncertain time, I usually expect the best" and "I'm always optimistic about my future", among others (see Table 1). Similarly, explanatory style optimism was measured by an 8-item scale adopted from the multidimensional-multiattributional causality (MMC) scale [48]. Following Yuan and Wang [49], we chose achievement and affiliation from the MMC scale, as both are closely linked to daily life activities [50]. The sample items are as follows: "Often chance events can play a large part in causing rifts between friends", "Getting along with people is a skill", among others. Eco-friendly tourist behavior was measured by 8-item of tourist behavior scale of Kvasova [37], and the sample items are as follows: "During my visit to foreign countries as a tourist, I talk with friends about problems related to the environment" and "When I visit foreign countries as a tourist, I avoid buying goods with unnecessary packaging material", among others. Lastly, a 4-item scale was adapted from Sadiq et al. [21] to measure environmental concern. All adapted items were based on a 5-point Likert Scale where 1 and 5 were anchored as "strongly disagree" and "strongly agree", respectively.

Table 1. Measurement items.

Variable	Item Code	Item
	DO1	In uncertain time, I usually expect the best
	DO2	I'm always optimistic about my future
Dispositional	DO3	Overall, I expect more good things happen to me than bad
Optimism	DO4	If something can go wrong for me, it will
DO5		I hardly ever expect things to go my way
	DO6	I rarely count on good things happening to me

Table 1. Cont.

Variable	Item Code	Item			
	EC1	The balance of nature is very delicate and can be easily upset			
	EC2	Human beings are severely abusing the environment			
Environmental Concern	EC3	Humans must maintain the balance with nature in order to survive			
	EC4	Human interferences with nature often produce disastrous consequences			
	EFTB1	During my visit to foreign countries as a tourist, I talk with friends about problems related to the environment			
Eco-friendly tourist behavior	EFTB2	During my visit to foreign countries as a tourist, I buy/read magazines and listen/watch news which focus on environmental issues			
	EFTB3	When I visit foreign countries as a tourist, I avoid buying goods with unnecessary packaging material			
	EFTB4	During my visit to foreign countries as a tourist, I buy environmentally friendly products, whenever possible			
	EFTB5	I reduce and recycle waste, whenever possible, during my visits to foreign countries as a tourist			
	EFTB6	As a tourist, I always like to visit environmentally friendly countries			
	EFTB7	When I visit foreign countries as a tourist, I try to minimize my consumption of water and energy			
	EFTB8	When I visit foreign countries as a tourist, I choose means of transportation with the least ecological footprint			
	EO1	I find that the absence of friendships is often a matter of not being lucky enough to meet the right people			
	EO2	It seems to me that getting along with people is a skill			
	EO3	I feel that people who are often lonely are lacking in social competence			
Explanatory Optimism	EO4	In my experience, there is a direct connection between the absence of friendship and being socially inept			
	EO5	I find that the absence of friendships is often a matter of not being lucky enough to meet the right people			
	EO6	Difficulties with my friends often start with chance remarks			
	EO7	Poor grades inform me that I haven't worked hard enough			
	EO8	Sometimes my success on exams depends on some luck			

To run multivariate analysis techniques such as structural equation modeling, researchers require a sample size of 10 to 15 times of the items considered under the survey to measure relationships amongst the variables [38,51]. Since the current study has 26 items in the questionnaire, therefore, the minimum responses required would be 26*15 = 390. In addition, earlier studies conducted in India by researchers such as Khare [12], Khan, and Kirmani [52] and Sadiq and Adil [53] covered 200–500 participants. Therefore, we approached 400 Indian respondents (who have been on vacation in the last three years) through Amazon Mechanical Turk (MTurk). The survey was administered on 8 August 2021 and ended on 12 August 2021. Of these 400 respondents, 246 (approximately 61.5%) were male and 154 (approximately 38.5%) were female (Table 2). The average age (31.6 in years) and average household income (25,001–30,000 INR) of respondents were noted. In spite of the fact that MTurk is becoming increasingly popular among social scientists [54],

it is not always reliable and, at times, the quality of the data is also contentious [8,55]. However, Bentley, Daskalova, and White [56] noted that MTurk helps generate accurate data relatively faster and at a lower cost. Hence, it is evident that researchers can rely on this platform. Furthermore, as a means of overcoming the challenges that MTurk offers, the authors followed the suggestions of Sadiq et al. [8,20] for setting the inclusion criteria. To increase the accuracy rate, we set the following inclusion criteria for the current research. The respondents who were eligible to participate in the survey met the following criteria: (a) completed more than 100 surveys in the past; (b) possess an acceptance rate of 98% or more.

Table 2. Demographic details.

Factor		Numbers (Frequency)
Gender	Male	246 (61.5%)
	Female	154 (38.5%)
Occupation	Student	83 (20.7%)
•	Service worker	271 (67.8%)
	Business owner	37 (9.2%)
	Retired	9 (2.3%)
Education	Undergraduate	318 (79.5%)
	Post-graduate	63 (15.75%)
	Ph.D.	19 (4.75%)

4. Results

4.1. Descriptive and Common Method Bias Testing

Following the suggestions of Khan and Adil [57], this research first tests descriptive analysis followed by multivariate analysis. To check for missing values, this study conducted a frequency test. The result indicates that no missing values are in the data. Furthermore, following Stevens [58], Cook's distance was used to test the outlier. The result indicates that all values were less than 1, which means that there is no outlier. Another reason for data being free from missing values and outliers was the result of sincere checks and monitoring by the researchers during the data collection phase. In addition, in order to test the association between the employed variables—dispositional optimism, explanatory optimism, and eco-friendly tourist behavior (Table 3)—we conducted Pearson's correlation analysis for weak (r = 0.145 **) association between dispositional optimism and explanatory optimism, indicating that both optimisms are similar yet largely different [32]. Previous studies [59,60] also found a weak correlation between the two.

Table 3. Results of descriptive and correlation.

	Mean	SD ¹	DO ²	EO ³	EC ⁴	EFTB ⁵
DO	4.10	0.563	1			
EO	3.65	0.779	0.145 **	1		
EC	4.18	0.704	0.438 **	0.294 **	1	
EFTB	4.09	0.570	0.522 **	0.187 **	0.237 **	1

Notes: 1 = standard deviation; 2 = dispositional optimism; 3 = explanatory optimism; 4 = environmental concern; 5 = eco-friendly tourist behavior; ** p < 0.01.

Common method bias (CMB) is a major issue in social science research [19]. To assure that our data are free from CMB, we followed two steps: (1) Negatively worded questions were asked to ensure that respondents did not divert from the survey [43]. (2) Harman's single factor test was conducted using exploratory factor analysis (SPSS). The obtained value (27.3%) is less than the threshold value (50%) [61]; therefore, CMB is absent in the collected data.

4.2. Hypotheses Testing

To test the proposed hypotheses, this study used partial least squares structural equation modelling in ADANCO 2.0. Following Dhir, Sadiq, Talwar, Sakashita, and Kaur [62], we adopted a two-step research model test.

First, we test the fitness, reliability, and validity of the research model. Henseler [63] suggests that criteria such as "unweighted least squares discrepancy (dULS)"; "geodesic discrepancy (dG)"; and "standardized root mean square residual (SRMR)" (pp. 22, 23) are required to examine the research model's fitness. The values of dULS, dG, and SRMR should be less than the values at HI99 [63]. The result (see Table 4) indicates that the values of dULS (0.674), dG (0.371), and SRMR (0.048) are less than threshold values. Therefore, the research model exhibits a good model fit.

Table 4. Model fit.

	SRMR	dULS	dG
Obtained values	0.048	0.674	0.371
HI95	0.059	0.718	0.417
HI99	0.067	0.983	0.596

Furthermore, we test the reliability and validity of the research model by assessing McDonald's Omega (ω), average variance extracted (AVE), Joreskog's rho (ρ), factor loadings (λ) (see Table 3), and Heterotrait–Monotrait Ratio of Correlation (HTMT) (see Table 4). The results indicate that factor loadings of DO3 (0.48), DO5 (0.39), EO2 (0.57), and EO6 (0.49) are less than the recommended values, i.e., 0.60 [38]. Therefore, these five items were dropped from further analysis. From Table 5, this study interprets the values of ρ that are above the recommended value, i.e., 0.7; therefore, the model's reliability is established. Furthermore, the value of each variable's AVE is greater than the recommended value, i.e., 0.50; therefore, convergent validity is established. Table 6 indicates that the values of each variable are less than the threshold, i.e., 0.85 [38]; therefore, discriminant validity is established.

Table 5. Reliability and validity of the model.

Variable	Item Code	λ	AVE	ρ	w
	DO1	0.72			
Dispositional Optimism	DO2	0.77	0.61	0.06	0.05
	DO4	0.84	0.61	0.86	0.85
	DO6	0.79			
	EO1	0.75			
	EO3	0.72			
Evalanatory Ontimism	EO4	0.81	0.57	0.06	0.02
Explanatory Optimism	EO5	0.77		0.96	0.82
	EO7	0.78			
	EO8	0.71			
	EFTB1	0.77			
	EFTB2	0.77			
	EFTB3	0.89			
Eco-Friendly Tourist	EFTB4	0.85	0.66	0.02	0.07
Behavior	EFTB5	0.77	0.66	0.93	0.87
	EFTB6	0.83			
	EFTB7	0.85			
	EFTB8	0.74			

 $Key: \ \lambda = factor\ loadings;\ AVE = average\ variance\ extracted; \ \rho = Joreskog's\ rho;\ \omega = McDonald's\ omega.$

Table 6. HTMT analysis.

Construct	DO ¹	EO ²	EFTB ³
DO	1		
EO	0.15	1	
EFTB	0.58	0.18	1

Key: ¹ = dispositional optimism; ² = explanatory optimism; ³ = eco-friendly tourist behavior.

In addition, to test the significance of the proposed hypotheses, we examine the p value along with the beta value (see Table 7). It was found that dispositional optimism was positively associated with eco-friendly tourist behavior ($\beta = 0.622$, p < 0.001), therefore supporting hypothesis H1. Similarly, the influence of explanatory optimism on eco-friendly tourist behavior was found to be significant ($\beta = 0.114$, p < 0.05). Hence, H2 was also supported. Furthermore, the effect of control variables (Age: $\beta = 0.04$, p > 0.05; Gender: $\beta = 0.07$, p > 0.05; Household income: $\beta = 0.01$, p > 0.05) on eco-friendly tourist behavior was insignificant. Lastly, the variance explained in eco-friendly tourist behavior was also found to be 53.7%.

Table 7. Hypotheses testing.

Relationship	β	f^2
(H1) DO \rightarrow Eco-Friendly Tourist Behavior	0.622 ***	0.372
(H2) EO \rightarrow Eco-Friendly Tourist Behavior	0.19 **	0.127

Key: ** = p < 0.05, *** = p < 0.001.

The Cohen f^2 value was also calculated to determine the strength of the relationship between dependent and independent variables. The association between dispositional optimism and eco-friendly tourist behavior was strong, as the f^2 (0.372) value was above the suggested value (0.35). Similarly, the relationship between explanatory optimism and eco-friendly tourist behavior f^2 (0.127) was weak.

4.3. Moderation Analysis

To test the moderation effect of environmental concern, this study adopted Model 1 of Process Macro. The results in Table 8 indicate that environmental concern significantly moderates the relationship between dispositional optimism and eco-friendly tourist behavior (see Figure 2). Similarly, it also explains that when environmental concerns are high, explanatory optimism is translated into eco-friendly tourist behavior (see Figure 3). Therefore, H3a and H3b are supported.

Table 8. Moderation analysis.

Environmental Concern							
β T P LLCI ULCI Mode						Moderation?	
НЗа	$\mathrm{DO} ightarrow \mathrm{EFTB}$	0.15	3.84	0.002	0.079	0.186	Yes
H3b	$EO \rightarrow EFTB$	0.11	2.97	0.038	0.041	0.135	Yes

Key: DO = dispositional optimism; EO = explanatory optimism; EFTB = eco-friendly tourist behavior; LLCI = lower level of confidence interval; ULCI = upper level of confidence interval.

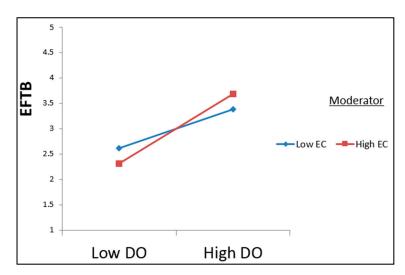


Figure 2. Interaction effect of EC on the link DO and EFTB.

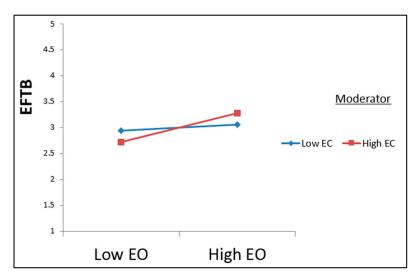


Figure 3. Interaction effect of EC on the link EO and EFTB.

5. Discussion

The purpose of our study was to fulfill two research objectives: (a) to explain how tourists make eco-friendly decisions based on dispositional and explanatory optimism; (b) to produce a research model that explains how environmental concerns moderate links between the attributional style of optimism and eco-friendly tourist behavior. Hence, in this section, we discuss the findings of the four tested hypotheses (H1, H2, H3a, and H3b).

The current study aimed to determine which form of optimism is a better predictor of eco-friendly tourist behavior. Since there is a paucity of literature on the subject, this study may provide a guide towards determining which optimism is a better predictor of eco-friendly tourist behavior. Based on the literature, we used dispositional and explanatory optimism as predictors of eco-friendly tourist behavior. Using primary data collected from 400 respondents in India, first, we tested the influence of dispositional optimism on eco-friendly tourist behavior (H1). The study's result illustrates that dispositional optimism significantly influences eco-friendly tourist behavior, implying that it acts as an important guiding force for tourists. Hence, this is in line with the findings of Kaida and Kaida [18] and Sadiq [19], wherein the researchers observed a strong influence of dispositional optimism on pro-environmental behavior. The findings show that tourists who are high on dispositional optimism are more likely to exhibit eco-friendly behavior due to their improved coping skills [40]. Under challenging/risky conditions [20,21], they are less likely to be stressed, and they tend to enjoy life more [64]. One of the plausible interpretations of the result could

be that dispositional optimist uses adaptive coping strategies, e.g., for acknowledging and trying to change uncontrollable situations, facing challenges directly, persevering during adversity, and attempting to overcome obstacles. Furthermore, tourists with an optimistic tendency tend to be more pro-environmental because they can focus on a positive future [20]. For instance, exhibiting eco-friendly behavior is considered as a costly affair, which at times discourage tourists from participating in pro-environment activities. As a result, tourists needed coping strategies to deal with the additional financial burden. In the same vein, Sadiq et al. [8] suggests that booking eco-friendly hotels may involve financial burden because of greenwashing practices, which affect consumer's trust and future behavior. Furthermore, drawing support from Sadiq [20], it is likely that H1 findings are due to the fact that consumer dispositional optimism is generally regarded as one of the best coping strategies that enables consumers to develop risk-taking capabilities and pro-social behaviors.

In the same manner, H2 examined the influence of explanatory optimism on eco-friendly tourist behavior. Findings indicate that explanatory optimism is a predictor of eco-friendly behavior; however, it has a weak association. The present study is the first to examine the influence of explanatory optimism in tourism contexts. As such, we assume that respondents might have had negative experiences in their past, which are affecting their future course of actions. For instance, visitors experiencing bad service at green hotel property (negative experience) would show resistance towards pro-environment behavior. Accordingly, Sadiq [19] argued that people who tend to be high on explanatory optimism do not always engage in pro-environmental behavior. Similar observations were also made by Sandra et al. [65], where they found that "not all tourists show pro-environmental behavior". Therefore, based on the empirical results in the current study, we can argue that dispositional optimism is a better predictor of eco-friendly behavior of tourists than explanatory optimism. This concurs with the findings of Scheier and Carver [27] where they found that dispositional optimism is a better predictor of behavior as it does not carry the past negative experiences of an individual and influences his/her decisions.

In order to examine the moderating role of environmental concern, this study tested two hypotheses (H3a,b). First, this research supports H3a, which states that influences of dispositional optimism on eco-friendly tourist behavior would increase in the presence of high environmental concern. This finding is in line with Sadiq et al. [22], wherein authors discuss the importance of environmental concerns in motivating consumers to adopt ecofriendly behavior. As a possible explanation for this finding, optimistic visitors tend to focus on positive things such as improving the quality of the environment, which can be mitigated through the efforts of individuals as well as society, but sometimes there is hesitation, which can be addressed by introducing the concept of environmental concern to further motivate them to exhibit eco-friendly behavior. Furthermore, this study also supports H3b, which states that explanatory optimism has a significant influence on eco-friendly tourism when tourist's environmental concern is high. To the best of our knowledge, no study has been grounded on explanatory optimism in eco-friendly consumer behavior; hence, this study shows that tourists have good or bad experiences with respect to saving the environment, such as booking eco-friendly hotels, which is likely to influence their future eco-friendly behavior. As a result, tourists who are concerned with the environment are more likely to engage in eco-friendly behavior at the destination.

5.1. Implications

By conducting this study, we made three key contributions to the existing body of knowledge. Firstly, we proposed better predictors (explanatory or dispositional optimism) of eco-friendly tourist behavior. There are only a few studies in the literature that use both types of optimism (see [32,33,59,60]), but no study has employed both types of optimism in the literature related to pro-environmental behavior. Secondly, in response to the calls of previous scholars such as Kaida and Kaida [18] and Sadiq [19] to examine the complex relationship between dispositional optimism, explanatory optimism, and eco-friendly

behavior, this study is a first step towards this examination. Third, it is also one of the first studies to examine environmental concern as a moderator between personality traits and actual behavior.

This study's findings will assist marketers'/hotel managers' understanding of how explanatory and dispositional optimism influence and shape tourists' eco-friendly behaviors. Furthermore, hotel management can draft marketing strategies by considering two different types of optimisms as both are very important psychological factors. Hotel management can use promotional strategies that have a psychological effect on tourist's mind, for instance, booking an eco-friendly hotel would have a positive effect on climate. By doing so, hotel management can increase its footfall and also mitigate negative impacts on the climate. Furthermore, the inclusion of environmental concern illustrates how different segments of optimistic tourists behave in the given context. Study findings indicate that enhancing the concern for the environment among optimistic travellers results in the adoption of eco-friendly behaviors at the destination. Therefore, destination management can design marketing strategies that will show that by visiting eco-friendly destination, visitors will help the environment. Additionally, travel planners, practitioners, and hotel managers should be cautious when promoting their properties as eco-friendly. People with explanatory optimism are more likely to carry negative experiences from the past, which in turn largely determines their future environmental behavior. To promote eco-friendly tourist behavior through explanatory and dispositional optimism, management should provide accurate information to tourists and not use unethical practices. This will foster trust and confidence among tourists, allowing them to engage in eco-friendly behavior.

5.2. Limitations and Future Research Directions

Similar to any other studies, this one has some limitations. First of all, since the study was conducted in a developing nation, its findings cannot be generalized to developed nations due to cultural differences [19]; therefore, researchers are encouraged to test the current research model in developed nation contexts in future. Secondly, self-reported data can lead to the common method bias [61]; hence, future researchers should be cautious about issues related to the common method bias. Thirdly, the study has not accounted for factors such as socioeconomic background, religion, region, mode of transportation, duration of stay at a destination, etc., into the model that might affect tourists' optimism and pessimism. Fourth, in the present study, demographic variables were not considered as moderating factors on the link between optimism(s) and eco-friendly tourist behavior. Researchers should, therefore, extend the current model by including demographic variables in order to gain a better understanding of tourists' pro-environmental behavior.

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Article

Emotion or Information: What Makes Consumers Communicate about Sustainable Apparel Products on Social Media?

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Abstract: This study investigated how sustainability-related messages of cotton textile and apparel products influence consumers' attitudes toward the message and interaction with other consumers in social media. Three hundred and eighty-eight online survey data of US consumers investigated the effects of perceived information and emotion toward sustainability practice messages on attitude toward and social interaction with other consumers and the effects of attitude on social interaction in social media. The results confirm that emotion is an influential variable, and, specific, positive emotion is an influential variable for attitude, and attitude influences social interaction with other consumers of sustainability practice messages. Negative emotions influence both attitude and social interaction. The information does not influence attitude but directly impacts social interaction, which may bring the purchase intention of sustainable fashion products. Thus, apparel marketers should consider emotionally sustainable promotion messages when tailoring their brand communications on social media. This study helps clarify the relationships between emotion and social interaction for sustainable fashion products. It also contributes to the theoretical foundation and has implications for sustainable fashion marketing and management in social media.

Keywords: emotion; information; social media; sustainability practices; cotton apparel; sustainable fashion

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1. Introduction

Over the past decade, social media has played an important role in communicating the sustainability aspects of apparel brand products (e.g., educating, sharing brand stories). Social media provides customers with opportunities to interact with other consumers and share sustainable product consumption practices [1,2]. In turn, customers generate word-of-mouth behaviors that can positively impact apparel product communication and consumption, as most consumers tend to trust other consumer's opinions over business messages they view as advertisements [3]. Indeed, information retrieval through social interaction with trusted individuals on online channels has enabled consumers to clarify their purchasing decisions and mitigate risks associated with online apparel purchases [4]. Increased attention to marketing sustainability practices has stimulated interest in research addressing the relationship between sustainability promotion and consumption in social media. Furthermore, retailers deliver sustainability-related messages to consumers and encourage them to share the information with other consumers. However, the average US consumer receives an estimated 10,000 brand messages a day. Of those recipients, 60% regard the messages as "fake news," and 82% think online ads are destructive [5]. As a result, excessive or unfocused promotional messages in social media can negatively impact consumers' attention, trust, brand loyalty, and can lead to negative viral effects.

Findings from previous research [6] confirm that communicating sustainability with consumers through social media effectively changes consumers' sustainable attitudes and behaviors. Further, to increase the impact of social media marketing, it is critical for consumers to interact (e.g., liking, sharing, commenting, repining) with other members on the social media platform. Such consumer social media interactions have been shown to create numerous viral contents much more influential than direct promotion by retailers [7]. However, little research has been conducted to examine consumers' motivation to communicate about sustainable apparel and textile products with other consumers via social media. While a few apparel retailers and researchers have engaged with consumers to increase interactions on their social media accounts [8], few empirical studies have been conducted to examine the influence of promotional appeal (emotional vs. rational themes) of social media messages on consumer attitudes toward and intention to interact with other consumers on social media regarding sustainable apparel products.

Emotions are natural instinctive mental states; thus, they are in the same class as sensations, beliefs, and desires [9]. Emotions are generally elicited by stimulus events (internal and external) deriving from one's circumstances, moods, and relationships with others or feeling toward objects [10]. Emotions also have a large role in organizing memories and making important decisions [11]. Brosch et al. found that decisions and their consequences are thought to result in emotions, while many of the choices people make are "guided by the experience of these emotions or the anticipation of the emotions that may be elicited" (p. 5). It is difficult to determine the emotions people will feel in the future, but they serve as a rational means to make decisions in the first place [11].

By determining if sustainable promotional messages should focus on reasonable claims or emphasize emotional appeal, marketers can communicate appropriate sustainable messages with consumers, and thus, encourage sustainable apparel consumption in social media. From a scholarly perspective, understanding why people share particular messages on social media can also help predict conative components of virality and find ways to elicit public opinion on social issues such as sustainability [12]. Hence, more empirical research is needed to understand how rational and emotional messages impact attitude and behavior. Thus, this study aims to empirically explore the influence of rational and emotional messages on positive attitudes toward sustainable apparel products, which in turn affect behavioral intentions to interact with other consumers in social media about sustainability-related information.

2. Theoretical Framework

2.1. Feeling as Information

According to cognitive reasoning-based models, findings from previous studies reveal that product quality information, such as performance, durability, and convenience, dominates rational decision-making processes, although those making the decisions already have a positive attitude toward sustainable products [13-15]. However, psychologists also argue that many decisions are made by automatic, unconscious processes based on conscious and rational thinking information [16]. In addition, emotions can affect attitudes and judgment differently, leading to behavioral consequences that depend on whether they are positively or negatively perceived [17]. For example, positive emotions can lead to a more optimistic evaluation of sustainable behaviors than negative emotions [18]. Schwarz's Feeling-As-Information Theory can explain this argument: that emotion, as a source of information and subjective experience, follows the same principles as when other information is used [19]. Other studies show negative emotions such as fear and guilt toward sustainable issues (e.g., climate change), impact positive environmentally sustainable behaviors (e.g., traveler's perceptions and intentions toward sustainable accommodation, restaurant, and eco-friendly apparel) [20-24]. Therefore, types of messages (positive or negative) influence communication effectiveness related to both emotional and rational appeal [25]. Thus, it is meaningful to test the impact of positive and negative emotions as they relate to sustainable information related to apparel products on consumers' attitudes

and engagement in group behaviors such as sharing information. By sharing information when information about an event is shared on social media, individuals consider their options and form attitudes and beliefs that determine how they will respond and participate in collective behaviors [12]. Informative or creative firm advertising are more likely to generate empathy measured by "likes" on Facebook, while posted ads using emotional appeal do not. Brands' marketing messages posted on social media are more likely to be shared among peers when using an informative cognitive approach or an emotional approach [26].

2.2. Perceived Information

There is an exponential growth in the use of social media and user-generated content to search for product information [2,27], enabling consumers to interact more easily with brands and other consumers. Interactions can be defined as two-way communications between brands and consumers using social media platforms (e.g., Twitter, Instagram, Pinterest). In addition, user-generated content through social interactions form the basis for consumers to connect with brands, seek information about products, and influence purchase behaviors through electronic word-of-mouth (eWOM) that other consumers use [28,29]. The trends in social media indicate that specialized social media platforms (i.e., Instagram and Pinterest) successfully integrate consumer's purchase journey, especially "the research stage" in which consumers seek more information related to brands, products, and events, and then satisfy through merchandising [30–32].

Seeking information related to functional aspects of products along with entertainment (e.g., hedonism, enjoyment, fun, feeling cool) and social status have been found to be some of the most important motivations for consumers to interact with brands on social media [31,33]. Findings from Kanter and Fine's study show that interactions on social media play an important role in promoting environmental awareness and encouraging sustainable lifestyles [34]. Ballews et al. [35] proposed a conceptual framework: Technologies for Proenvironmental Action Model (TPAM). The model explains how social media's various functions (i.e., informational, relational, and experiential) and newer digital platforms encourage individuals to engage in environmentally responsible behaviors (ERBs) when matched with individuals' personal, social and contextual pathways.

Social media has also enabled consumer advocacy efforts and forced brands to take actions by disseminating information about various petitions and social causes [35,36]. Some examples specific to the fashion industry include social media campaigns by Fashion Revolution (an NGO focused on social and environmental issues in the fashion industry) like #whomademyclothes which began in response to the Bangladesh clothing factory collapse that killed 1138 workers. The campaign has garnered over 3.8 million posts on Instagram, spreading information about the fashion industry and demanding that brands share their business practices. This was followed by a second viral social media campaign, #Imadeyourclothes, that introduces workers to fashion consumers across the globe. Workers share information related to their work and workplace conditions (Fashion Revolution, 2020) [37]. Such campaign support is possible only when consumers find information personally relevant and they choose to interact (sharing, liking, and repining) with other like-minded individuals through social media. This example shows the pivotal role of social media and its influence in promoting sustainable clothing consumption. Social media functions help consumers find basic product information and empower them to be responsible advocates that hold brands accountable for their business practices. Informational messages support functional needs and help consumers build a positive attitude and share information with others. Based on the literature cited, this study hypothesizes the following relationship:

Hypothesis 1 (H1) . Perceived information significantly influences (a) attitude and (b) social interaction.

2.3. Perceived Emotion

Emotions can be categorized as positive (e.g., pleasing or arousing) or negative (anger or fear). From a business perspective, emotions play a strategic role in relationship building with customers and driving business decisions [38]. Consumers share their opinions and ideas publicly through social media, and businesses have the opportunity to understand consumer emotions about various topics, issues, and concerns [39]. Emotions expressed on social media are increasingly vital in developing sales agendas. With this information, businesses devise well-targeted marketing strategies to promote products and services to like-minded consumers as well as analyze user-generated data to gain market intelligence for future business directions [40]. Previous research has shown that sustainability practice messages/posts effectively activate descriptive and injunctive norms [41].

Research indicating the influential role of emotions in consumers' purchase and patronage behaviors is well documented. Studies with luxury brand consumers have found that consumer involvement and associated feelings positively correlate with consumer-brand interaction and purchase intention [42]. Brand social media messages should also emphasize emotional aspects; emotion motivates consumers to interact with the brand community on social media. In the same vein, Chan et al. found that luxury consumers' positive emotional responses elicited during product usage positively influence repurchase intentions [43]. They also found that hedonic consumers who experience positive emotions are more likely to interact on social media. Fashion brands have used social media to entice consumers with limited editions or created demand. For example, Everlane, a fashion brand, created a viral social media frenzy by inviting consumers to try out their first pair of pants. Consumer social interactions went viral with over 12,000 consumers on the waitlist to provide feedback, generating consumer interest and garnering new Everlane followers.

Previous research has found that negative emotions have varying results on individuals' decisions. In their experimental study, Harth, Leach, and Kessler found that individuals who experience guilt are more likely to repair environmental damage [21]. Individuals who feel angry are more likely to punish wrongdoers, and finally, individuals who feel proud have a positive relationship with environmental protection. Consumer perceptions and attitudes toward social interactions are influenced by their emotional disposition to a topic or post. Social media messages focused on sustainable consumption encourage consumers to interact with brands and their communities in an effort to promote sustainable lifestyles. For example, REI promoted #OptOutside, which became viral, and the hashtag discouraged consumers from mindlessly shopping during Black Friday to instead spend time with their family and outdoors in the COVID-19 pandemic in 2020 [44,45]. Patagonia has also promoted sustainable clothing consumption through social media, encouraging consumers to buy only when they have need it. Patagonia's social media has also served as an important tool to inform its consumers of the company's sustainable and socially responsible business practices [46]. While some research has been done in other domains related to the influence of consumer emotions on purchase intention, there is a lack of understanding of how consumer emotions toward sustainability practice messages influence attitudes and social interactions. Based on the literature cited, the following relationships are hypothesized:

Hypothesis 2 (H2). Perceived positive emotion significantly influences (a) attitude and (b) social interaction.

Hypothesis 3 (H3) . Perceived negative emotion significantly influences (a) attitude and (b) social interaction.

Hypothesis 4 (H4) . Attitude has a significant influence on social interaction.

3. Method

3.1. Sample and Data Collection

The research population of this study includes consumers who have the experience of sharing sustainability practice messages of cotton apparel and textile products on social media. However, it was difficult to invite all of them into our study design except for case studies. It was highly impractical and unnecessary to reach everyone who fit our study design. Therefore, a convenience sampling method was a practical solution to estimate the population parameters from sample statistics [47]. Amazon Mechanical Turk (Mturk), a crowdsourcing marketplace where researchers and research participants can find each other and provide a secure means of payment for participants [48], was used for convenience sampling. Additionally, according to statistical power criteria (80% power with d = 0.3, $\alpha < 0.05$) [49], over 350 were collected for sample size.

Of the 405 participants recruited by (MTurk) in January 2019, this study collectively obtained 388 usable responses comprised of US consumers screened to experience sharing sustainability practice messages for cotton apparel and textile product in social media. Since cotton is the most commonly used natural material in the apparel industry and discussed its sustainability in production, cotton apparel and textile were used as examples of sustainable apparel and textile products in the survey scenario [50]. It took approximately 10 min for a participant to complete the online survey built by Qualtrics.

3.2. Survey Instruments

A scenario-based survey is used in this study because it can be advantageous to implement a scenario that creates the "same" frame of reference for all participants [51]. In order to get participants to answer the survey questions by considering social media messages related to sustainability and sustainable textile and apparel products, the following statements were provided at the beginning of the survey. Social media such as Instagram, Facebook, Youtube, etc., is now considered an essential marketing tool, (1) helping apparel brands and retailers communicate their environmental, social, and economic sustainability practices with consumers and (2) providing opportunities for consumers to share their sustainable apparel product consumption (e.g., sharing reviews about brands and products, and social issues related to corporate social responsibility). For example, "cotton" textiles and apparel products are most often communicated about their environmentally friendly manner, labor issues, and economic value in this culture; it is also considered as "organic" or "natural". Therefore, in this study, we would like to know your social media usage behavior, such as the "liking", "commenting", and "repining" behavior related to these cotton apparel sustainability practice messages."

The reflective constructs of the questionnaire were adapted from existing literature: (a) perceived information (b) perceived positive and negative emotions [52], (c) attitude toward sustainability practice messages regarding cotton textiles and apparel [53], and (d) interactions (liking, commenting, and repining) in social media [54]. They were employed using a seven-point Likert scale (1 = very strongly disagree, 7 = very strongly agree) [52–54].

3.3. Data Analysis Procedures

Structural equation modeling (SEM) was conducted to test proposal hypotheses using Mplus 7.0 software. This analysis required a two-step approach testing of a theoretical conceptual model's measurement and structural components. In a first step, confirmatory factor analysis (CFA) with maximum likelihood estimation was utilized in evaluating the reliability of the measurement components for the model. In the next step, an estimation of the structural model and an investigation of the hypothesized interrelationships among latent constructs were performed. The model fit was assessed using four goodness-of-fit statistics such as the chi-squared value (χ^2), comparative fit index (CFI > 0.9), the Tucker-Lewis index (TLI > 0.9), the root mean squared error of approximation (RMSEA < 0.08),

and standardized root mean square residual (SRMR < 0.08) based on rule-of-thumb criteria for goodness-of-fit indices [55].

4. Results

The following theoretical framework was proposed according to a literature review related to cognitive reasoning-based models. We tested hypotheses regarding perceived information, perceived positive and negative emotions, (c) attitude toward positive toward sustainability practice messages regarding cotton textiles and apparel, and (d) interactions.

4.1. Demographic Information

As shown in Table 1, a total of 388 usable responses were recruited from the Amazon Mechanical Turk (MTurk). One hundred ninety-three participants were female (49.7%) and 195 participants were male (50.3%), with ages ranging from 18 to 76 years with a mean age of 34. The majority was Caucasian/European American (73%), followed by Hispanic/Latino (10%), African American (7%), Asian (7%), and others (3%). Fifty-nine percent of the participants had incomes between \$25,000 and \$75,000. Twenty-six percent had incomes of \$75,000 or more, while 14% had incomes of less than \$25,000. Regarding their average daily use of social media, approximately 43 and 32% of the participants spent 1–2 and 3–4 h per day on social media. Forty-nine percent of the participants frequently used Facebook, followed by Instagram (35%), Twitter (6%), YouTube (4%), Pinterest (3%), and others (2%). Most participants had either a high level or advanced level of Internet experience (42 or 39%, respectively). The majority of the participants (77%) followed sustainability-related messages of apparel on social media, and 43% of participants preferred "liking", "commenting", and "repining" on posts more often in general.

Table 1. Results of Demographic Information.

	Category	N (%)
C 1	Female	193 (49.7)
Gender	Male	195 (50.3)
	Caucasian	283 (72.9)
	Hispanic or Latino	37 (9.5)
Ethnicity	African American	29 (7.5)
Ethilicity	Asian	26 (6.7)
	American Indian/native	6 (1.5)
	Others	7 (1.8)
	\$25,000 below	56 (14.4)
	\$25,000-\$50,000	110 (28.4)
Household income	\$50,000-\$75,000	118 (30.4)
	\$75,000-\$100,000	62 (16.0)
	\$100,000-\$150,000	24 (6.2)
	\$150,000 over	18 (4.7)
	less than 1 h	38 (9.8)
	1–2 h	166 (42.8)
C di di di d2	3–4 h	124 (32)
Spending on social media a day?	5–6 h	43 (11.1)
	6 h over	14 (3.7)
	no everyday	3 (0.8)
	low level	2 (0.5)
	Basic level	12 (3.1)
Level of Internet experience?	Intermediate level	57 (14.7)
•	High level	163 (42)
	Advanced level	154 (39)

Table 1. Cont.

	Category	N (%)
	Facebook	191 (49.2)
	Instagram	136 (35.1)
Conicl 1: 1-+f	Twitter	24 (6.2)
Social media platform	YouTube	17 (4.4)
	Pinterest	11 (2.8)
	Other	9 (2.4)
Follow sustainability practice messages of apparel	Yes	297 (76.5)
on SNS?	No	91 (23.5)
In general, like, comment, and repining on posts	Yes	168 (43.3)
more often?	No	220 (56.7)

4.2. Measurement Model Testing Results

A confirmatory factor analysis (CFA) was conducted to examine the measurement model's factor structure and scale validity. Table 2 presents the results of the CFA. The results indicated that the measurement model fit the data well (χ^2 = 373.4, df = 142, p < 0.001, TLI = 0.94, CFI = 0.95, RMSEA = 0.065, SRMR = 0.060). With regard to constructing validities, all factor loadings were significant and greater than 0.65 (p < 0.001; loadings ranging from 0.65 to 0.95). The estimates of average variance extracted (AVE) for this study constructs ranged from 0.50 to 0.96 were the suggested guideline of 0.50 [56,57]. Furthermore, the construct reliability (C.R.) coefficients, ranging from 0.79 to 0.88, were greater than the suggested criterion value of 0.60 [58]. The measurement model was conducted to analyze the scales' overall factor structure and construct validity with all Cronhach's alphas above 0.70 [57]. These results indicated commonly acceptable evidence of the construct validity in the measurement model.

Table 2. Results of the Measurement Model.

	Factors & Items	λ	C.R.	Cronbach's α	AVE
	Perceived information		0.83	0.83	0.50
P.I. 1	Availability	0.65			
PI 2	Special offers	0.71			
PI 3	Packing or shape	0.73			
PI 4	Guarantees or warranties	0.74			
PI 5	New ideas	0.66			
	Perceived positive emotion		0.79	0.79	0.56
PPE 1	Нарру	0.76			
PPE 2	Acceptance	0.72			
PPE 3	Interest	0.76			
	Perceived negative emotion		0.85	0.96	0.96
PNE 1	Fear	0.88			
PNE 2	Anger	0.94			
PNE 3	Disgust	0.95			
PNE 4	Sadness	0.92			
Attitu	des toward sustainability practice messages regarding cotton		0.88	0.88	0.66
	textiles and apparel		0.00	0.00	0.00
ATT 1	I like sustainability practice messages in social media.	0.82			
ATT 2	I feel positive toward sustainability practice messages	0.85			
ATT 3	Sustainability practice messages are good for the environment.	0.79			
ATT 4	I feel proud when buying sustainable cotton textiles and apparel.	0.78			
	Social Interactions		0.87	0.93	0.68
P.I. 1	Liking	0.79			
PI 2	Commenting	0.83			
PI 3	Repining	0.86			

Table 2. Cont.

	Factors & Items	5		λ	C.R.	Cronba	ich's α	AVE
Model fit index	χ^2 (df)	<i>p</i> -value	TLI	CFI	RI	MSEA	SRI	MR
	373.4 (142)	0.000	0.94	0.95	(0.065	0.0	60

Notes. χ^2 = chi-suqare; df = degree of freedom; λ = standard regression weights; CR = composite reliability; AVE = average variance extracted; TLI = Tucker-Lewis index; CFI = comparative fit index; RMSEA = root mean error of approximation; SRMR = standardized root mean square residual.

4.3. Structural Model and Hypothesis Testing Results

As shown in Figure 1 and Table 3, structural equation modeling (SEM) indicated good model fit (χ^2 = 357.86, df = 141, p < 0.001, TLI = 0.95, CFI = 0.96, RMSEA = 0.06, SRMR = 0.06). Testing the hypotheses in a theoretical conceptual model revealed perceived information did not influence attitude toward sustainability practice messages regarding cotton textiles and apparel but positively influenced social interaction (γ = 0.28, p < 0.001). Therefore, Hypothesis 1(a) is not supported, but Hypothesis 1(b) is supported. Perceived positive emotion positively influenced attitude toward sustainability practice messages regarding cotton textiles and apparel (γ = 0.67, p < 0.001), but not social interaction. Therefore, Hypothesis 2(a) is supported, and Hypothesis 2(b) is not supported. Perceived negative emotion negatively influenced attitude toward sustainability practice messages regarding cotton textiles and apparel (γ = -0.13, p < 0.01).) and positively influenced social interaction (γ = 0.28, p < 0.001). Therefore, both Hypotheses 3(a) and 3(b) are supported. In addition, the attitude toward sustainability practice messages regarding cotton textiles and apparel influenced social interaction (γ = 0.58, p < 0.001).

Further, the indirect effect of perceived positive emotion on social interaction was positive and significant ($\gamma = 0.13$, p < 0.05). This result indicated that attitude toward sustainability practice messages regarding cotton textiles and apparel partially influences the relationship between perceived negative emotion and social interaction.

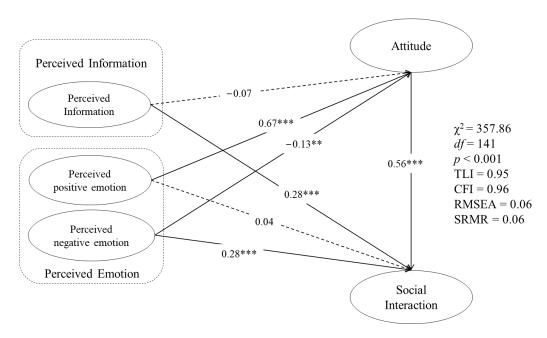


Figure 1. Theoretical conceptual model. (** $p \le 0.01$, *** $p \le 0.001$).

Table 3. Results of the structural model.

Hypothesized Path	Standardized Coefficient	Hypothesis Testing
Direct effects		
H1a Perceived information \rightarrow Attitudes	-0.07	Not supported
H1b Perceived information \rightarrow Social interaction	0.28 ***	Supported
H2a Perceived positive emotion \rightarrow Attitudes	0.67 ***	Supported
H2b Perceived positive emotion \rightarrow Social interaction	0.04	Not supported
H3a Perceived negative emotion \rightarrow Attitudes	-0.13 **	Supported
H3b Perceived negative emotion \rightarrow Social interaction	0.28 **	Supported
Indirect effect		
Perceived information \rightarrow Attitudes \rightarrow Social interaction	0.04 *	Not supported
Perceived positive emotion \rightarrow Attitudes \rightarrow Social interaction	0.56 *	Fully supported
Perceived negative emotion \rightarrow Attidues \rightarrow Social interaction	0.56 *	Partially supported

Note: * $p \le 0.05$, ** $p \le 0.01$, *** $p \le 0.001$.

5. Discussion

This study emphasizes the influence of perceived information and emotions related to sustainable concerns and benefits on attitudes to sustainable products and social interaction on social media. The results show that positive emotions toward sustainable messages have no direct effect but have a considerably high indirect effect on social interactions. It generates a positive attitude toward the message, and leads consumers to express their liking or repine of the message through social interaction. On the other hand, negative emotions toward sustainable concerns, directly and indirectly, affect social interactions. As consumers perceive negative emotions, they negatively affect the social media message. Intriguingly, however, negative emotions and attitudes positively influence social interaction. Furthermore, the model provides a higher level of explanatory power.

Interestingly, the cognitive benefits of sustainable apparel products do not form positive attitudes, but consumers still share this information with others. Therefore, the cognitive processing of information and feeling as information of sustainable messages can be claimed as determinants of emotional contagion and collective behaviors that can affect viral behaviors in social media. An implication is that apparel retailers should emphasize positive and negative emotions caused by sustainable promotional messages.l They should not only rely on cognitive responses to the advertising of sustainable apparel products.

The results of this study help clarify why consumers share and interact with businesses and other consumers regarding sustainable messages on social media. Prior research has suggested that the increasing impact of social media marketing depends on how consumers get involved with behavioral engagement in social media promotional messages [59], but the messages have no detailed mechanisms through which this interaction occurs. Our findings suggest that one such mechanism is that arousing emotions may trigger sharing sustainable related messages and getting involved with the message and businesses. The unconscious and instant responses such as emotions, happiness, acceptance, interest, fear, anger influence decisions and rational thinking emotions [16]. Accordingly, this result confirms feeling-as information theory that emotions follow the same principle as using emotion as a source of information [19].

Consistent with other research [41,42], emotions influence consumers' attitudes and social interaction behavior. However, in this study, negative emotions toward sustainable social media issues have a more direct and indirect effect on social interaction than positive emotions have an indirect effect through positive attitude building. It contradicts previous research [42,43] that positive emotion can lead to a more optimistic lead consequence behavior than negative emotion toward sustainable issues. When consumers feel fear, anger, disgust, sadness toward sustainable issues, it generates more power for them to instantly react to the feelings by expressing liking and their opinions and sharing them with others. This is due to the context of this study, sustainable messages on social media. Consumers who feel negative emotions such as anger or guilt were more likely to condemn those

involved in environmental damages and participate in activities to recover them [20,21]. However, both positive and negative emotions have value in social media marketing in that they shape attitudes and eventually influence interactions.

Previous research argued that product quality information influences a positive attitude toward a sustainable product. Therefore, it dominates the decision-making processes [13–15]. However, in this study, perceived information about sustainable textile and apparel products does not lead to positive attitudes toward the message, although it leads to sharing the message. This result could be understood as that consumers use social media to seek information about their purchases and use it for entertainment or socializing to share and react to these informative messages [60].

6. Conclusions

6.1. Theoretical Contribution

This study contributes to understanding how consumers motivate to get involved with sustainability-related messages in order to have a viral effect of promotional messages on social media. As confirming Schwarz's Feeling-As-Information Theory [17], perceived information and emotions and a positive attitude toward the messages bring social interactions. Further, negative emotions toward sustainability-related messages, directly and indirectly, affect consumers' behaviors on social media. However, to confirm whether these interactions finally occur in sustainable product consumption, future research needs to investigate how these emotionally formed social interactions affect consumption.

6.2. Managerial Contribution

With new digital technologies and the availability of information via different sources, marketers must establish two-way communication with their consumers and understand underlying reasons why consumers intend to interact with businesses and other consumers socially. According to this study, delivering information and evoking emotions of sustainability practice messages are essential to initiate consumer interaction on social media.

6.3. Limitations and Suggestions for Future Research

This study has a few limitations that suggest a direction for future study. First, since this study used MTurk to collect consumer samples, a web-based survey using MTurk offered the samples from consumers. It limited the sampling pool to only those individuals who had access to MTurk in the United States. Future studies should consider recruiting participants from different cultures to generalize the findings internationally. Second, the results of the cognitive reasoning-based models are quite straightforward and robust—that emotions influence attitude and social interaction toward sustainable messages. However, these social interactions could not fully explain the underlying reason for purchasing sustainable apparel products. Further studies could include additional variables (e.g., purchase intention, behavior, etc.) to confirm whether these interactions finally occur in sustainable product consumption. In addition, future research needs to investigate how these emotionally-formed social interactions affect consumption.

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Why Do(n't) We Buy Second-Hand Luxury Products?

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Abstract: Global sales of second-hand luxury products are steadily increasing. To better understand key drivers for purchasing second-hand luxury products, a survey was conducted including 469 respondents. The study not only includes existing customers, but also non-customers and thus potential future clientele. Based on the theory of planned behavior, the components of attitude, subjective norms, perceived behavioral control, and individual motivators (creative, economic, ethical, nostalgic, sustainable) were investigated. Using structural equation modeling, the results support the influence of attitude, past purchase experience, perceived behavioral control, and subjective norms on purchase intention. Attitude, in turn, is mainly impacted by economics and ethics as individual motivators. Further, subjects were asked to state their own definition of luxury and to name individual reasons for and against second-hand luxury products. Thereby, quality turned out to be double-edged: on the one hand, second-hand products were able to prove their quality, on the other hand, the fear of counterfeits and unhygienic products was cited. Overall, consumers of second-hand luxury goods are heterogeneous and have different buying experiences with one or more of the three categories: new luxury goods, second-hand luxury goods, and second-hand products. The study thus expands the understanding of the transformation within the (second-hand) luxury industry.

Keywords: consumer behavior; luxury; pre-owned; purchasing behavior; second-hand; sustainability; theory of planned behavior

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1. Introduction

Overall, the sensitivity of customers towards waste and recycling, as well as the throwaway society, is increasing [1]. Especially, the increased pressure for sustainability and demand for thoughtful use of resources [2] call for counter-reactions that require strategic considerations, which include the used goods market [1,3]. The term second-hand goods describes items that have previously been owned or used [4], meeting expectations that go far beyond an economic advantage [1,5]. The trend towards second-hand also spreads into the luxury goods industry [6–9]. Despite its strong connection with tradition and heritage [10] including a traditional perception of restrictive and exclusive distribution [2,11,12], traditional retailers are starting to expand second-hand departments and arrange swap meetings or trade-in events [1]. The worldwide market volume of used personal luxury goods increased from 26 billion euros in 2019 to 28 billion euros in 2020 [13], and about 33 billion euros in 2021 [14]. This growth represents an increase of 65 percent in 2021 compared to 2017 [15]. Due to their high quality, luxury products are not only suitable for second-hand customer involvement, but even for third-hand use [3].

In this context, the second-hand luxury market also influences luxury brands due to the extended product life cycle and the spread of the consumption of luxury products-even among consumers who might otherwise not have bought a luxury product at all [3,16]. Therefore, companies in the luxury goods industry need to realign their business strategy to be able to draw a competitive advantage [16,17]. Targeting marketing activities and understanding purchase intent and client motivation is crucial [18]. Research on purchase intention is particularly important because, unlike "luxury consumers", "consumers of luxury brands" can be characterized as a heterogeneous customer group who are considered

a suitable target for various consumption patterns ranging from mass to luxury fashion [3] (p. 60). To examine customers' motivators, Ajzen's [19] theory of planned behavior (TPB) is a well-researched model that has been shown to predict behavioral intention in a variety of situations [20] and demonstrated to be applicable and robust [21]. Thus, in the existing literature, the theory has been applied for the examination of general shopping behavior (e.g., [22,23]), specifically in the fashion context (e.g., [24,25]), luxury context (e.g., [26–28]), and second-hand context [29,30], but it misses the intersection of luxury and second-hand.

Even though the previous literature has acknowledged the growing importance of the used luxury goods market, most studies and luxury brand retailers focus on new luxury products [3,7,31,32] and lack investigations on second-hand luxury items [3,33]. Quantitative research is especially missing within the second-hand luxury context since most studies are concentrated on qualitative methods such as interviews with a small sample size (e.g., [3,8,9,32]). Moreover, many studies only involve current market participants, i.e., customers who have already purchased a second-hand luxury product [3,8,9,32–34], and neglect potential future clientele. Within this, Turunen and Pöyry [32] argue that it is essential to understand not only current second-hand luxury customers but also the intention of (previously) non-customers.

Hence, this paper examines the significance of second-hand trade in the context of the luxury goods industry by including a more heterogeneous sample and using a questionnaire with both open and closed questions. Herein, the following research questions are pursued:

- RQ1: What key factors drive individuals' intentions to purchase second-hand luxury products?
- RQ2: What key factors drive individuals to not buy second-hand luxury products?
- RQ3: Does the experience with second-hand luxury products influence the intention to purchase a second-hand luxury product?

The overarching aim of the paper is to expand the understanding of second-hand luxury purchase intentions of second-hand luxury consumers and present non-consumers. Within this, previous work will be challenged and extended. First, the work investigates how second-hand luxury consumers, as well as current non-consumers, evaluate second-hand luxury products. Second, the work complements existing qualitative studies within second-hand luxury research (e.g., [3,8,9,32]) by using a mixed-method approach. Third, the work provides a holistic examination by including all genders rather than focusing on female consumers, as most previous works have done [3,8,32,34].

The remainder of this paper is structured as follows: the Section 2 deals with the theoretical underpinnings, including the clarification of the term luxury and the market for second-hand luxury products as well as the theory of planned behavior. Section 3 includes hypotheses derivation and the research model, followed by the methodology in Section 4, and a discussion in Section 5. The paper ends with a conclusion and suggestions for further research.

2. Literature Background

In the following, the concept of the second-hand luxury industry as the investigated industry and the theory of planned behavior (TPB) as the applied theory will be illustrated in greater detail.

2.1. Luxury and Second-Hand Luxury

The luxury segment is considered one of the fastest-growing segments in the world [26,35]. Even though the luxury sector has grown steadily since 1990 [11], and although the luxury market is characterized by numerous luxurious brands, products, and services, no universally valid definition of the term "luxury" exists [2,36–38]. Frontier Economics Ltd. (London, UK) [36] divides the luxury market into the following product groups: watches and jewelry, fashion, perfumes and cosmetics, accessories, leather goods, gastronomy, furniture and furnishing, designer household equipment, cars, yachts, wines and spirits, hotels and leisure experience, retail and auction houses, and publishing. According to Kapferer

and Bastien [39], luxury is characterized by two components in particular: the product must be (at least partially) handmade and an exclusive service must be offered. Overall, luxury products are associated with "product excellence" [39] (p. 316). Roberts [2] also cites the highest quality, sophistication, and rarity as characteristics of current luxury goods associated with a wealthy, comfortable, and opulent lifestyle. Dubois et al. [12] identify the following six characteristics to describe luxury: a very high price, scarcity and uniqueness, aesthetics and polysensuality, ancestral heritage and personal history, superfluousness, and excellent quality.

The term second-hand includes products that have already been used, regardless of whether they are from previous decades or from a more recent collection, i.e., regardless of their age [34]. Thus, the term second-hand represents items that have previously been in possession or use [4]. Sometimes the terms "pre-owned" or "pre-loved" are used [40]. Consequently, the term second-hand luxury is composed of the two components, luxury and second-hand, including luxury items that were already owned or used by others. Within this new form of consumption for the luxury goods industry, a permanent exchange of goods takes place [9]. Therefore, the second-hand market offers another distribution channel that complements the luxury ecosystem and is experiencing growing relevance and interest [15]. While the growth of luxury brands slows, the second-hand trade in luxury products is booming [33]. Overall, the second-hand luxury market has recently stepped out of the niche and is becoming more established in the market [16]. The trend is also reflected in the fact that global sales of second-hand luxury products reached a value of 33 billion euros in 2021 [14]. In addition to the widening of product portfolios and the expansion of brands offered, second-hand luxury platforms increasingly provide expanded services [16]. Furthermore, luxury businesses more frequently provide a combination of online and offline stores [16]. Overall, luxury platforms can help to facilitate the exchange of used luxury goods from consumer to consumer, or from business to consumer [9].

Although the focus of the literature continues to be on either the second-hand sector or the luxury sector, more attention has been paid to second-hand luxury development lately. Prior research related to the second-hand luxury market has investigated different aspects: for example, Miller and Brannon [41] studied purchase intentions for cars and found that customers have a greater preference for luxury models in used cars compared to customers of new cars. Further, based on twenty-two interviews, Turunen and Pöyry [32] investigated decision-making styles in the context of second-hand luxury purchases and identified nine dimensions (e.g., high-quality consciousness, fashion consciousness, recreational shopping consciousness) to cluster the styles. Turunen et al. [8] looked at the supply side, using eighteen interviews to explore why individuals sell luxury products and serve the secondhand market. Cervellon et al. [34] focused on (luxury) vintage products, which usually originate from a specific time (1920s to the 1980s), and differentiated these products from second-hand products. Christodoulides et al. [9] used twenty-five interviews to investigate new ways of consuming luxury products that include co-ownership (e.g., SeaNet), ondemand economy (e.g., Airbnb Luxe), product-service economy (e.g., RentTheRunway), and second-hand consumption (e.g., Luxury Closet). Thereby, second-hand consumption represents a sequential exclusive use of a specific product or service at a certain time [9].

2.2. Theory of Planned Behavior

At the center of the theory of planned behavior (TPB) is a person's intention to engage in a particular behavior [19]. Thereby, intentions capture the motivating factors impacting a behavior and give an indication of how strongly people are willing to try and how much effort they will exert to perform a specific behavior [19]. This is based on the general rule that the stronger a person's intention to perform a behavior, the more likely they are to perform it [19]. TPB consists of the following three factors: attitudes, subjective norms, and perceptions about behavioral control (PBC) [42]. Thereby, attitudes can be described as an individual's overall evaluation [42]. Since attitude refers to the extent to which a person views the behavior in question positively or negatively [19], it plays an essential

part in the intention to perform a certain behavior [43]. Similarly, Jiang et al. [44] support the positive relationship between one's attitude and purchase intention. Subjective norms include an individual's efforts to behave as others think one should behave [19,20,42,45]. This puts a certain amount of social pressure on the individual as to whether or not they should perform a certain behavior [42]. Kastanakis and Balabanis [46] suggest the term "bandwagon consumption", which refers to the influence of others who also engage in certain patterns of consumption. PBC is concerned with individuals' perception of the ease or difficulty of performing a particular behavior, whereby this perception depends on the situation and action [19]. The availability of a person's resources and opportunities serves, to a certain extent, as a prerequisite for performing a specific behavior [19], which includes, in particular, knowledge about and access to these goods, as well as the ability to acquire them at the appropriate time and place [47]. TPB plays a key role in applying behavioral theory in a more complex context based on different types of behavior rather than using a simplistic and volitional model approach [42].

Beyond the three basic elements of TPB mentioned above, the literature supports the addition of variables adapted to the context under study to increase the predictability of the model [48]. Within this, Jain et al. [26] claim that attitude is in turn influenced by intrinsic (personal) factors. Regarding the luxury goods industry, TPB has been applied especially to new products (e.g., [26-28,49-52]). Overall, Kessous and Valette-Florence [33] state that the investigation of determinants and motivators for second-hand luxury products is very rare in the literature. Based on interviews with ten Finnish women, Turunen and Leipämaa-Leskinen [3] suggest pre-loved treasure, the real deal, risk investment, sustainable choice (including ethical and ecological aspects), and unique finds as meanings of second-hand luxury possessions. Following Cervellon et al. [34], frugality, eco-consciousness, bargain hunting, and fashionable uniqueness are the main antecedents to purchasing second-hand; still, it should be noted that the study included second-hand luxury products, but not exclusively. Kessous and Valette-Florence [33] identified that second-hand purchases of luxury goods are driven by the search for a piece with brand heritage including nostalgia, eco-conscious concerns such as ecology and ethics, social climbing, and windfall. Bringing together the proposed antecedents and the TPB, economic, sustainable, ethical, nostalgic, and creative motivations emerge for the individual intrinsic factors. So far, none of the studies on the second-hand luxury market have included all these aspects.

Furthermore, Carr and Sequeira [53] state that behavioral intention can be affected by prior experience. In addition, Frambach et al. [54] and Fuchs and Reichel [55] claim that the intention behind a behavior is influenced by prior experience. Jun [56] highlights the impact of past experience when investigating a behavioral intention. Regarding luxury counterfeits, for example, Yoo and Lee [57] (p. 284) argue that past behavior is even "the strongest antecedent of purchase intention of counterfeits".

3. Hypotheses Derivation

The hypotheses are derived based on the TPB and its inherent subdivisions of attitude, subjective norms, PBC, and the individual motivators (economic, sustainable, ethical, nostalgic, and creative).

3.1. Attitude

According to Bian and Forsythe [18], attitudes toward luxury itself and luxury brands influence the purchase intentions of luxury products. Regarding second-hand products, Seo and Kim [58] cite a divided overall attitude of people for and against these very products. For instance, some of the interviewed sellers of second-hand luxury products would not buy these products for themselves as described in the study by Turunen et al. [8]. Based on this, the following is examined:

Hypothesis 1 (H1). Attitude will positively affect an individual's behavioral intention to purchase a second-hand luxury product.

3.2. Subjective Norms

Buying a luxury product can be assigned to status consumption [7,35,59–62]. Thereby, Pipyrou [63] and Rudawska et al. [7] mention that, especially in the past, thrift stores were out of bounds for wealthier individuals, because these stores were associated with poverty and the lower working class. Turunen et al. [8] emphasize that the social factor persists within the second-hand luxury industry: for example, respondents indicated that they pass on used luxury products, especially to people whose status is lower than their own, which gives sellers the feeling of belonging to a higher social class. Therefore:

Hypothesis 2 (H2). Subjective norms will positively affect an individual's behavioral intention to purchase a second-hand luxury product.

3.3. Perceived Behavioral Control

One motivating factor for consuming second-hand luxury products is the acquisition of a limited edition or a classic that is no longer produced [3,4], wherein finding these precious products can require a great deal of effort. In the context of digitalization and the usage of social media, the trend towards second-hand trade is increasing [16,64,65]. Overall, more and more (large) second-hand luxury retailers are on the market (e.g., Vestiaire Collective, Vite EnVogue). Thus, there is an ever-increasing supply of used luxury goods with extended services, a wide range of brands, and a large product selection [16], which might help to strengthen awareness and access to corresponding offers. Because of these developments, the following is examined:

Hypothesis 3 (H3). *Perceived behavioral control will positively affect an individual's behavioral intention to purchase a second-hand luxury product.*

3.4. Second-Hand Luxury Purchase Experience

Considering consumers who buy new luxury products, it can be observed that they hardly buy any second-hand luxury products [16,32]. In contrast, second-hand luxury consumers rarely buy new luxury products first-hand [16]. Nevertheless, regarding the second-hand luxury sector, the clientele continues to grow and attracts not only existing customers [16]. Since the previous literature has mostly included existing customers in their studies [3,8,9,32,34], and there is a call to include consumers who have no previous experience with used luxury goods [32], the following is examined:

Hypothesis 4 (H4). *Individuals' experience with second-hand luxury purchases will positively affect an individual's behavioral intention to purchase a second-hand luxury product.*

3.5. Intrinsic (Personal) Factors (Economic, Sustainable, Ethical, Nostalgic, Creative)

3.5.1. Economic Motivation

Overall, the lower price of second-hand products is a frequently mentioned reason why consumers buy second-hand products rather than new ones [3,5,6,32,34]. New luxury goods are considered needlessly expensive [66], therefore economic aspects can be of great importance in promoting the intention to purchase second-hand luxury products. Still, second-hand pieces are not necessarily cheaper compared to new ones, especially when they belong to a specific collection [16]. For vintage pieces, for example, the price might exceed that of modern luxury items [34]. Thus:

Hypothesis 5.1 (H5.1). *Economic motivation will positively affect an individual's attitude towards second-hand luxury products.*

3.5.2. Sustainable Motivation

According to Osburg et al. [67], luxury goods can be considered sustainable. For instance, due to the high product quality, luxury goods are even suitable for second- or third-hand customers [3]. For example, luxury watches with a cult character go on the aftermarket for a long time [68]. Buying second-hand luxury products can thus be seen as a strategy against overconsumption [3]. This seems to be particularly relevant because following Kapferer and Michaut-Denizeau [66], luxury is often associated with extras that go beyond what is necessary. However, consumers' preferences can be negatively impacted by sustainability aspects such as the use of recycled materials in luxury items [69]. Given that sustainability has hardly been taken into account in the marketing of luxury brand manufacturers [3] and Kapferer and Michaut-Denizeau [66] encourage the investigation of sustainability in the context of luxury, the following will be analyzed:

Hypothesis 5.2 (H5.2). Sustainable motivation will positively affect an individual's attitude towards second-hand luxury products.

3.5.3. Ethical Motivation

The production and consumption of luxury goods can have a wasteful and socially divisive effect in an era of abundance in the West [2]. Overall, awareness of ethical issues is leading individuals to question their own consumer behavior [70,71], whereby striving for ethical behavior can motivate customers to buy second-hand [1]. However, the evaluation of ethical issues has a lower priority in the purchase of luxury goods compared to consumer durables [72]. Following Davies et al. [72], many respondents stated that they had not yet given consideration to ethical aspects when making luxury purchases. Therefore, the following is assumed:

Hypothesis 5.3 (H5.3). *Ethical motivation will positively affect an individual's attitude towards second-hand luxury products.*

3.5.4. Nostalgic Motivation

At present times, several businesses are faced with the so-called "retro trend" and the revival of once outdated technology, also known as retro technology, to modern market-places [73], which can be effectively used to promote a product [74,75]. Following Arslan and Oz [76], the retro concept has spread throughout the world, including in the luxury goods sector [34]. According to Cervellon et al. [34], one of the core reasons for buying retro products—which are also referred to as vintage products—is nostalgia, which arouses feelings for a certain time. Thereby, it is irrelevant whether the people themselves lived in the corresponding time [34]. Further, Guiot and Roux [1] consider nostalgic reasons as a motivational factor for the acquisition of second-hand goods. Contrary to this, Brown [77] (p. 138) characterizes the 21st century as an era of "retro shock", but claims that emotional connections to the past are not critical to the success of retro products in the 21st century. Turunen et al. [8] note that vintage and second-hand items are not interchangeable and do not attract the same buyers. Given these inconsistencies, the following is examined:

Hypothesis 5.4 (H5.4). *Nostalgic motivation will positively affect an individual's attitude towards second-hand luxury products.*

3.5.5. Creative Motivation

In accordance with Hemetsberger et al. [78], retro brands and products are often consumed and valued by consumers for fashion reasons, which, in turn, are a core driver for the consumption of luxury brands. Regarding watches, for example, the international Red Dot Design Award currently shows a strong trend towards watch designs from the 1950s and 1960s [79]. The interest in design awards [80] corresponds with the statements by Dubois et al. [12] and Kapferer and Bastien [39], underlining the great connection of luxury

to art. Following Ferraro et al. [5] and Ruvio et al. [81], second-hand shopping also helps to create uniqueness and a personal image. Creativity and the ability to combine are also mentioned by Kapferer [61], according to whom it is a common practice among Western youth to combine luxurious accessories with ordinary clothes. Thus:

Hypothesis 5.5 (H5.5). *Creative motivation will positively affect an individual's attitude towards second-hand luxury products.*

Figure 1 presents the research model including the hypotheses derived from the literature.

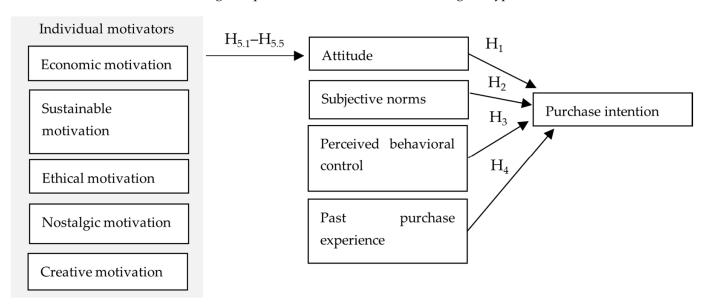


Figure 1. Research framework.

4. Methodology

4.1. Measurement and Questionnaire Design

To measure the constructs and the relationships, as well as to get further insights into individual perceptions and motivations, an online survey was conducted via Unipark [82] using both open and closed questions. On the entry page, participants were assured of the anonymity of the data collection [83]. To assess previous shopping behavior, participants were asked about their experiences with luxury products, second-hand products, and second-hand luxury products within the last three years. In a further step, attitude, subjective norms, PBC, motivators (economic, sustainable, ethical, nostalgic, creative), and purchase intention were recorded using a five-point Likert scale, whereby "1" indicates "strongly disagree" and "5" represents "strongly agree". Scales and items were taken from the established literature and adapted to the current research topic (see Appendix A, Table A1). Additionally, open text fields were offered. At the beginning of the questionnaire, participants had the opportunity to name up to three keywords they associated with the term "luxury" in an open text box to get a first impression of their understanding of the subject. At the end of the questionnaire, all participants were offered two further open text fields with the questions "I would buy a luxury product second-hand, because \dots " and "I would not buy a luxury product second-hand, because ... " to share their personal opinion [84]. The free text fields were offered since open-ended questions are specially designed to gain insights into individual values and assumptions [85]. Thereby, participants could express themselves freely, without restrictions, by using their own words. Overall, the lack of an interview guide when filling out the questionnaire [86] was taken into account by a clear structure and a scale that was as uniform as possible.

A pre-test was conducted in September 2021 to check operationalization [87], as a result of which optimizations were made. In addition, the pre-test served to check for

content validity [87]. The data were analyzed using IBM SPSS Statistics as well as IBM SPSS Amos for structural equation modeling (SEM). Cronbach's alpha was invoked to ensure reliability, assuming an internal consistency for values above 0.7 [88] and Spearman–Brown for those scales with two items (see Appendix B, Table A2). As a result of the reliability analysis, the items A4, ECM4, ETM4, PBC3, NM1, and NM4 were deleted (see Appendix A, Table A1). To capture the participants' understanding of the concept of luxury as well as to identify potential further influencing factors, the open questions were analyzed by applying the content analysis by Mayring [89]. A descriptive approach was taken for the demographic parts of the survey [90].

4.2. Data Collection and Sample

In order to reach participants, respondents were recruited through various channels such as social networks [91], e-mail [92], and the online platform SurveyCircle. The survey was available online between September 26th of 2021 and October 27th of 2021 and was answered by 607 participants. After removing incomplete questionnaires, the sample size was 469. Among the participants, 402 indicated their gender as female, 58 as male, one as diverse, and seven wished not to disclose their gender. The participants' (n = 465) ages ranged from 16 to 70 years with an average of 30.67 (SD = 10.023) and a median of 27. Four participants did not mention their age. A total of 438 of the 469 valid participants claimed Germany to be their current country of residence.

5. Results

Within the past three years, almost 30 percent (n = 140) of the 469 respondents have purchased a second-hand luxury product, 53 percent (n = 250) a luxury product, and 82 percent (n = 386) a second-hand product (see Table 1).

Table 1. Description of the sample.

	All Participants	Participants with Purchasing Experience of Second-Hand Luxury Products within the Last Three Years	Participants with Purchasing Experience of Luxury Products within the Last Three Years	Participants with Purchasing Experience of Second-Hand Products within the Last Three Years
Number of participants	100% (n = 469)	30% (n = 140)	53% (n = 250)	82% (n = 386)
Age	16–70; average: 31;	18–70; average: 31;	16–70; average 31;	16–70; average: 30;
	median: 27	median: 28	median: 27	median: 27
Gender	female: 86% (<i>n</i> = 402)	female: 86.4% (<i>n</i> = 121)	female: 83.2% (<i>n</i> = 208)	female: 88.6% (<i>n</i> = 342)
	male: 12% (<i>n</i> = 58)	male: 10.7% (<i>n</i> = 15)	male: 14.8% (<i>n</i> = 37)	male: 9.6% (<i>n</i> = 37)
	diverse: 0.2% (<i>n</i> = 1)	diverse: 0.7% (<i>n</i> = 1)	diverse: 0.4% (<i>n</i> = 1)	diverse: 0.3% (<i>n</i> = 1)
	no answer: 1.4% (<i>n</i> = 7)	no answer: 2.1% (<i>n</i> = 3)	no answer: 1.6% (<i>n</i> = 4)	no answer: 1.6% (<i>n</i> = 6)

It should be noted that subjects may also have experience related to more than one of these categories, resulting in intersections. Thus, having purchase experience with second-hand luxury and luxury products was indicated by 23 percent (n = 110), experience with luxury second-hand and second-hand products by 29 percent (n = 136), experience with luxury and second-hand products by 41 percent (n = 191), and experience with the three categories second-hand luxury, second-hand, and luxury products by 23 percent (n = 108).

Referring to the product categories of those with second-hand luxury experience, most of them purchased fashion, perfume, and cosmetics (48.2 percent, n = 68), accessories (23.4 percent, n = 33), leather goods (23.4 percent, n = 33), watches and jewelry (16.3 percent, n = 23), and furniture and home furnishings (16.3 percent, n = 23).

The results of the qualitative analysis can be categorized as follows: to define luxury, a majority (n = 277) of 63 percent of the participants (n = 443) mentioned an economic term such as a high price, followed by superfluousness (52 percent, n = 232), excellent

quality (17 percent, n = 76), aesthetics and polysensuality (15 percent, n = 66), scarcity and uniqueness (13 percent, n = 59), status (9 percent, n = 39), as well as ancestral heritage and personal history by one person. Among all descriptions, 42 percent (n = 184) used immaterial terms to describe luxury. Almost 28 percent (n = 126) mentioned a specific item (e.g., watch, house, car, private plane), and 12 percent (n = 52) a specific trademark (e.g., Chanel, Dior, Gucci) or the term trademark itself. Table 2 summarizes the advantages that speak in favor of buying and the disadvantages that speak against buying a second-hand luxury product.

Table 2. Second-hand luxury purchases: pro and contra.

Category	Pro Second-Hand Luxury Total ($n = 384$), second-hand luxury experience ¹ ($n = 99$), no second-hand luxury experience ² ($n = 285$)	Contra Second-Hand Luxury Total ($n = 378$), second-hand luxury experience ($n = 99$), no second-hand luxury experience ($n = 279$)
Subjective norms	Total: 1% ($n = 4$) Second-hand luxury experience: 1% ($n = 1$) No second-hand luxury experience: 1% ($n = 3$) e.g., status, prestige	Total: 1.6% ($n = 6$) Second-hand luxury experience: 2% ($n = 2$) No second-hand luxury experience: 1.4% ($n = 4$) e.g., others' expectations, image
Perceived behavioral control	Total: 9% ($n = 33$) Second-hand luxury experience: 7% ($n = 7$) No second-hand luxury experience: 9% ($n = 26$) e.g., limited edition, classic, knowledge, access	Total: 6.6% ($n = 25$) Second-hand luxury experience: 8% ($n = 8$) No second-hand luxury experience: 6% ($n = 17$) e.g., no knowledge, no access, no availability
Attitude	Total: 7% ($n = 26$) Second-hand luxury experience: 2% ($n = 2$) No second-hand luxury experience: 9% ($n = 26$) e.g., I like second-hand (luxury) shopping, overall positive attitude	Total: 19% ($n = 70$) Second-hand luxury experience: 11% ($n = 11$) No second-hand luxury experience: 21% ($n = 59$) e.g., I do not like second-hand luxury shopping
Creativity/fashion	Total: 13% ($n = 50$) Second-hand luxury experience: 14% ($n = 14$) No second-hand luxury experience: 13% ($n = 36$) e.g., fashion, art, design, personal image	Total: 3% ($n = 10$) Second-hand luxury experience: 5% ($n = 5$) No second-hand luxury experience: 1.7% ($n = 5$) e.g., old-fashioned, not my style
Economics	Total: 70% ($n = 268$) Second-hand luxury experience: 87% ($n = 86$) No second-hand luxury experience: 64% ($n = 182$) e.g., lower price, cheaper	Total: 15% ($n = 57$) Second-hand luxury experience: 6% ($n = 6$) No second-hand luxury experience: 18% ($n = 51$) e.g., still too expensive, high price
Ethics	Total: 0.8% ($n = 3$) Second-hand luxury experience: – No second-hand luxury experience: 1% ($n = 3$) e.g., ethical	
Nostalgia	Total: 6% ($n = 23$) Second-hand luxury experience: 8% ($n = 8$) No second-hand luxury experience: 5% ($n = 15$) e.g., retro, nostalgic, past	
	Total: 12% ($n = 47$)	Total: 34% ($n = 129$) Second-hand luxury experience: 38% ($n = 38$) No second-hand luxury experience: 33% ($n = 91$) e.g., low quality, signs of use, unhygienic
Quality	Second-hand luxury experience: 23% (n = 23) No second-hand luxury experience: 8% (n = 24) e.g., high quality (ingredient/component/material)	Fear of counterfeits: Total: 12% ($n = 46$) Second-hand luxury experience: 17% ($n = 17$) No second-hand luxury experience: 10% ($n = 29$) e.g., counterfeits, no warranty, dubious, fake
Sustainability	Total: 53% ($n = 202$) Second-hand luxury experience: 70% ($n = 70$) No second-hand luxury experience: 46% ($n = 132$) e.g., sustainable, recycling, longer life cycle, environmentally friendly	

Source: Own data. ¹ second-hand luxury experience = participants who purchased a second-hand luxury product within the past three years; ² no second-hand luxury experience = participants who did not purchase a second-hand luxury product within the past three years.

Using SPSS Amos, SEM was conducted on purchase intention as the dependent variable. CMIN/DF, which is "the minimum sample discrepancy divided by the degrees of freedom" [93] (p. 92) and should be between two and five according to Danish et al. [94], is 3.459. The root mean squared error of approximation (RMSEA) is 0.072, and therefore below 0.08, which is suggested by Hu and Bentler [95] and Schumacker and Lomax [96]. The Comparative Fit Index (CFI) is 0.889 and thus close to 0.90, as suggested by Hu and Bentler [95] to determine that a model is acceptable. In addition, the Normed Fit Index (NFI) is 0.851, which is acceptable following Forza and Filippini [97] and Shore and Tetrick [98], since the value is greater than 0.80. Due to the acceptable values, hypotheses testing and their interpretation followed (see Table 3).

Table 3. Results of hypotheses testing.

Hypotheses	Estimates	Results
H1: Attitude \rightarrow Purchase Intention	0.172 ***	supported
H2: Subjective Norms \rightarrow Purchase Intention	0.228 ***	supported
H3: Perceived Behavioral Control \rightarrow Purchase Intention	0.247 ***	supported
H4: Past Purchase Experience → Purchase Intention	0.561 ***	supported
H5.1: Economic Motivation \rightarrow Attitude	0.453 ***	supported
H5.2: Sustainable Motivation \rightarrow Attitude	0.066	not supported
H5.3: Ethical Motivation → Attitude	0.227 ***	supported
H5.4: Nostalgic Motivation → Attitude	-0.013	not supported
H5.5: Creative Motivation → Attitude	0.194	not supported

^{***} signifies p < 0.001 (two-tailed).

6. Discussion

The present study shows that there are various aspects influencing an individual's intention to purchase a second-hand luxury product. According to the SEM results, attitude has a significant impact on purchase intention, which is consistent with the qualitative results and hence supports Hypothesis 1. Thus, regarding the aspects in favor or against second-hand luxury products, there were participants who either generally agreed or disagreed with these products. Of those who had not yet purchased a second-hand luxury product, 21 percent (n = 59) indicated that they are generally not interested in such products. Attitude itself is determined by individual (intrinsic) motivators, which are addressed in the following.

One of the investigated individual motivators is sustainability since second-hand shopping can be classified as sustainable consumption [47]. Sustainability is a current megatrend that simultaneously encompasses cultural, economic, philosophic, political, and technological aspects [99]. Following the qualitative results, 53 percent (n = 202) of the respondents mentioned sustainability aspects as a reason for buying second-hand luxury products. The value is particularly high among those participants who have already purchased a second-hand luxury item (70 percent, n = 70). Contrary to the qualitative results, sustainable motivation is not evident from the SEM results, wherefore Hypothesis 5.2 cannot be supported. This might be reinforced by the fact that luxury corporations do not communicate sustainability widely to the public [100]. Overall, Kapferer and Michaut-Denizeau [100] emphasize that luxury companies do see sustainability as an important success factor but not as a core value of a luxury brand that still embodies dreams, exclusivity, and craftsmanship. Yet, the meaning of sustainability to luxury companies appears to be changing. For example, in 2018, IWC Schaffhausen [101] became the first Swiss luxury watch brand to release a sustainability report prepared in accordance with the Global Reporting Initiative (GRI) standard, representing "global best practice for sustainability reporting" [102].

According to SEM, however, economic motivation has the strongest influence on attitude, which supports Hypothesis 5.1. The significant influence of economic reasons is particularly pronounced among those who have already purchased second-hand luxury products. This great relevance of price discounts in the second-hand business is confirmed by Cervellon et al. [34]. The attraction over price is also evident on the websites of wellknown suppliers. For example, The Luxury Closet [103] advertises luxury products by offering "irresistible discounts" and Vestiaire Collective [104] promotes its items by selling them up to 70 percent cheaper than the retail price. Additionally, items are bought for investment reasons. In relation to used watches, buying a pre-owned luxury watch is not only worthwhile for aesthetic reasons, but also for financial incentives: second-hand Patek Philippe and Rolex watches, for example, have performed better than many other investment sectors over the past 20 years; moreover, the circle of buyers is expanding [105]. Despite the reduced prices for a used luxury item compared to the original price, some of the respondents perceive the prices as too high. For many, a high price is, in turn, a logical consequence of the perceived excellent quality associated with luxury goods or services [12].

This coincides with Dubois et al. [12], Ertekin and Atik [106], Kapferer and Bastien [39], and Roberts [2], indicating product excellence as a key characteristic of luxury products. The focus on quality is also emphasized by luxury manufacturers. To underscore its exceptional longevity, the watch manufacturer Patek Philippe launched a campaign in 1996 with the slogan "You never actually own a Patek Philippe. You merely take care of it for the next generation." [107]. For instance, quality also plays a major role among respondents. Seventeen percent (n = 76) included the term excellent quality in their understanding of luxury. Additionally, some of the respondents stated that they prefer a high-quality used product to an inferior new one, since its quality had already been proven. Still, 34 percent (n = 129) named quality as a reason against buying a second-hand luxury product in the sense of potentially worn, unhygienic, damaged, low quality, or used products. Twelve percent (n = 46) cited a missing warranty and the risk of counterfeits when buying luxury products second-hand. Indeed, fraudulent (by the buyer, unknowingly) and non-deceptive (low price, deliberate purchase of a copy) counterfeits of luxury products are on the rise [11]. The volume of international trade with counterfeits can be estimated at USD 464 billion for 2019, which corresponds to about 2.5 percent of world trade [108]. The luxury goods industry, with its luxury watches and fashion apparel, can be considered to be particularly affected [108]. To counteract this, Watchbox [109], for example, "home to the greatest collection of pre-owned luxury watches", offers a warranty of authenticity as well as a two-year warranty. Respondents also assumed high-quality second-hand luxury products to be usable for a long time and hence more sustainable, which is also mentioned by, e.g., Carcano [110], Guercini and Ranfagni [111], and Sun et al. [112].

As another core element of the TPB, the effect of subjective norms on purchase intention was studied and is supported (Hypothesis 2). The literature on luxury purchase intentions estimates the influence of relevant persons (subjective norms) to be high [28,113,114]. This could be due to the fact that luxury goods are often defined as status symbols [7,35,59–62]. In the present study, nine percent of participants described luxury via status, which is accompanied by a certain external dimension. Following Kessous and Valette-Florence [33], the purchase of second-hand luxury products can be connected to social climbing. Thereby, the authors state that "purchasing second-hand luxury products is driven by social considerations: a desire for social recognition, a sensitivity to normative influence and a need to belong" [33] (p. 318). Looking at the seller side, Turunen et al. [8] show that some sellers do not like to communicate the sale of used luxury products because it might be associated with the idea of having to make the sale in order to get money; thus, these sellers want to differentiate themselves from the buyers of used products and maintain an exclusive status.

Additionally, perceived behavioral control seems to play a role for both sides—buying second-hand luxury products and not buying them. The availability of specific collections and unique pieces makes buying luxury goods on the second-hand market especially

attractive. This coincides with Turunen and Pöyry [32], according to whom second-hand stores offer authentic and original items of current trends. On the other hand, participants claimed that they are not aware of where to buy these items, e.g., one respondent stated "currently, I don't know of a good platform for this". Within this, and due to the increasing popularity and growth of second-hand shopping, e-commerce has opened up many new business opportunities [115], in particular for luxury products. Examples are Chrono24 GmbH [116], Collector Square [117], and Fa. Anke Michels/nobeluhren-store [118]. In the context of digitalization, the usage of social media, and the transformation in consumer behavior, the trend of second-hand trade is not only maintained but even strengthened, leading to a progressive increase in the second-hand market [64,65]. However, availability and access are double-edged in the luxury product context: if a large number can obtain a product—including through a large number of distribution channels—its perceived value decreases, whereas scarce market availability increases value [4].

With regard to the customer group, there are diverging observations in the literature. Abtan et al. [16] and Turunen and Pöyry [32] conclude that people who buy new luxury products rarely buy second-hand luxury products. In the present study, previous purchase experience proved to have an essential impact on purchase intention (support for Hypothesis 4). Among the 140 participants with second-hand luxury experience, 92 percent (n = 12) would consider another purchase. However, the present results underline that the circle of consumers of second-hand luxury products is heterogeneous and growing. About 41 percent (n = 190) have already purchased both a luxury product and a second-hand product, as well as 23 percent (n = 110) a new luxury product and a second-hand luxury product. In thirty cases, respondents stated that they have not bought a luxury product new, but second-hand. This is in line with Turunen and Leipämaa-Leskinen [3], according to whom the second-hand market also reaches consumers who would otherwise not have purchased a luxury product.

Qualitative results emphasize the relevance of intangible luxury, as 42 percent (n = 184) described luxury as something intangible such as (leisure) time, freedom, love, vacation, joy of life, and health. This variation also reflects the individual definition and evaluation of luxury [119–122]. Dubois et al. [12] argue that the importance of intangible luxury is increasing. Thus, luxury is not perceived as a product, but rather as a concept that encompasses leisure, the absence of stress, or even freedom from everyday constraints [12]. Sirgy [123] points out that materialism can be at odds with quality of life. Further, the focus on intangible luxuries might be related to the respondents' country of current residence, as 93 percent (n = 438) indicated Germany as the country in which they currently reside. According to the World Population Review [124], Germany is the fourth largest economy worldwide (GDP of \$4.0 trillion) and has a GDP per capita of \$46,560, which ranks 18th in the world. This may contribute to the fact that a certain level of luxury has already been reached and people, therefore, seek intangibles. Similarly, Dubois et al. [12] argue that luxury goods are not crucial for survival.

7. Conclusions, Limitations, and Future Research

7.1. Theoretical Implications

Based on the TPB, purchase intentions for second-hand luxury products were investigated using SEM. The results show that attitude, purchasing experience, perceived behavioral control, and subjective norms impact purchase intention. Attitude, in turn, is mainly influenced by economic and ethical factors as individual motivators. Additionally, qualitative analysis revealed that overall quality and sustainability are highly relevant factors. Within this, quality was viewed ambivalently: on the one hand, excellent quality, selected ingredients, and components were named in favor of buying second-hand luxury products. On the other hand, products being worn out and unhygienic, as well as the risk of counterfeiting, were named as disadvantages. The results also illustrate that the understanding of luxury does not only include material things and associated characteristics. Forty-two percent (n = 184) of the respondents included intangible concepts such as

freedom, health, or satisfaction in their understanding of luxury. For instance, luxury also embraces intangibles such as time and health, which are not represented in many classic definitions of luxury. Overall, the results indicate that current and potential customers of used luxury products cannot be narrowed down to a homogeneous group. Some subjects already have experience with one of the three categories (used products in general, new luxury products, used luxury products), while others have already purchased products from several of these categories. Thus, subjects are very heterogeneous in terms of their purchasing experience.

7.2. Practical Implications

The results can be understood as a suggestion for managers to focus on economic aspects within the advertisement of second-hand luxury products. Since purchasers of second-hand luxury products are no homogenous group and the principal purchase intention is also given by those who have not yet purchased a second-hand luxury product, it is important that managers also attract present non-customers by, e.g., offering great deals or organizing special events to show the presence and increase the popularity of the stores and websites. Additionally, even 17 percent (n = 17) of the participants with second-hand luxury experience and 10% (n = 29) with no second-hand luxury experience named the risk of counterfeits and a missing warranty, which is why traders should pay attention to the originality and certificates of authenticity, avoiding a bad reputation against these products.

7.3. Limitations

There were some limitations in the present study leading to suggestions for further research. First, due to a self-reporting procedure, data collection might be biased due to social desirability [47]. In particular, a green lifestyle coincides with social norms being impacted by social approval or disapproval [125]. Since very few empirical studies on the relationship between luxury and sustainability exist [126], further research in this area is needed to gain a deeper understanding. Second, even though the sample is more heterogeneous with regard to gender compared to other studies on second-hand luxury studies, which solely focused on female respondents [3,8,32-34,127], a limiting factor is the greater proportion of women in the sample. Still, this imbalance is also reflected by the real secondhand market, according to which about seven times as many used women's clothes are offered than used men's clothes [128]. Given that this imbalance seems to change and men increasingly are fashion-conscious and buy clothes more frequently [129,130], also in the second-hand context [131], future research can include more male respondents. Third, online retailing increases within the (second-hand) luxury sector. Since online peer-to-peer second-hand trading companies make heavy investments to entice shoppers to visit their stores, understanding the motivations and behavior is important [6,31,115]. Hence, future research can especially focus on this sub-channel.

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Conflicts of Interest: The authors declare no conflict of interest.

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Appendix A. Scale Development

Table A1. Questionnaire design.

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Scale	Adapted Items—Second-Hand Luxury	Based on
Definition luxury Open text field	Please name 1–3 keywords that you associate with luxury.	
Purchase experience with luxury products Item 1: 1 = strongly disagree, 5 = strongly agree Item 2: 1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always	 Examples are products from Armani, BMW, Burberry, Calvin Klein, Cartier, Chanel, Dior, Dolce e Gabbana, Gucci, Hermes, Hugo Boss, Longchamp, Louis Vuitton, Patagonia, Ralph Lauren, Rolex, Versace, Yves Saint Laurent, watches made in Glashütte, and so on. I often buy luxury products. Number of times I bought luxury products during the last three years. Here, you can name the luxury brands from which you bought a product. 	Aiello et al. [132], Festing et al. [133], Kastanakis and Balabanis [46], Lee et al. [134], Liu et al. [31], Montanari et al. [135], Shih and Fang [136], Sullivan and Artino [137], Sun et al. [112]
Product group luxury purchases Multiple answer options were possible	Please select the product categories in which you have purchased a luxury product in the last three years: • Watches and jewelry; • Fashion, perfumes, and cosmetics; • Accessories; • Leather goods; • Furniture and furnishing; • Designer household equipment; • Cars; • Yachts; • Publishing; • Other, please name the category.	Boston Consulting Group [138]
Purchase experience with second-hand luxury products Item 1: $1 = \text{strongly disagree}$, $5 = \text{strongly agree}$ Item 2: $1 = \text{never}$, $2 = \text{rarely}$, $3 = \text{sometimes}$, $4 = \text{often}$, $5 = \text{always}$	 I often buy second-hand luxury products. Number of times I bought second-hand luxury products during the last three years. 	Shih and Fang [136] and Sullivan and Artino [137]

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Scale	Adapted Items—Second-Hand Luxury	Based on
Product group second-hand luxury purchases Multiple answer options were possible	Please select the product categories in which you have purchased a second-hand luxury product in the last three years: • Watches and jewelry; • Fashion, perfumes, and cosmetics; • Accessories; • Leather goods; • Furniture and furnishing; • Designer household equipment; • Cars; • Yachts; • Publishing; • Other, please name the category.	Boston Consulting Group [138]
Purchase experience with second-hand products Item 1: 1 = strongly disagree, 5 = strongly agree Item 2: 1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always	 I often buy second-hand products. Number of times I bought second-hand products during the last three years. 	Shih and Fang [136] and Sullivan and Artino [137]
Product group second-hand purchases	Please select the product categories in which you have purchased a second-hand product in the last three years: • Watches and jewelry; • Fashion, perfumes, and cosmetics; • Accessories; • Leather goods; • Furniture and furnishing; • Designer household equipment; • Cars; • Yachts; • Publishing; • Other, please name the category.	Boston Consulting Group [138]

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Scale	Adapted Items—Second-Hand Luxury	Based on
Economic motivation 1 = strongly disagree, 5 = strongly agree	 ECM1: If I would buy second-hand luxury, I could afford more things because I pay less for second-hand luxury. ECM2: One can have more things for the same amount of money if one buys second-hand luxury. ECM3: If I would buy second-hand luxury, I would have lots of things for not much money. ECM4: I do not want to pay more for a luxury product just because it is new. ECM5: By buying second-hand luxury, I feel I'm paying a fair price for things. 	Guiot and Roux [1]
Sustainable motivation \mathbb{R}^2 1 = strongly agree	 SM1: I believe that second-hand luxury buying by me will help in reducing pollution and also help in improving the state of the environment. SM2: I believe that second-hand luxury buying by me will help in reducing the wasteful usage of natural resources. SM3: I believe that second-hand luxury buying by me will help in natural resources will help in natural resources. 	Borusiak et al. [47]
Ethical motivation 1 = strongly disagree, 5 = strongly agree	 If I would purchase second-hand luxury, I would be able to ETM1: contribute toward a greener way of shopping. ETM2: play a part in recycling. ETM3: make more environmentally conscious decisions. ETM4: extend the life of luxury products. 	Lo et al. [139]
Nostalgic motivation $1 = \text{strongly agree}$	 NMI: I am attracted more to old things than new ones. NM2: Above all, I would buy second-hand luxury products because they are old and have a history. NM3: I would buy second-hand luxury products because they evoke the past. NM4: I would buy second-hand luxury products because them authentic. 	Guiot and Roux [1]

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Scale	Adapted Items—Second-Hand Luxury	Based on
Creative motivation 1 = strongly disagree, 5 = strongly agree	 By buying second-hand luxury products, CM1: I would be able to combine possessions to create a personal image that cannot be duplicated. CM2: I could try to find a more interesting version of run-of-the-mill products because I enjoy being original. CM3: I could actively seek to develop my personal uniqueness by buying special products or brands. CM4: I would have an eye for second-hand luxury products that are interesting and unusual and assist me in establishing a distinctive image. 	Ruvio et al. [81]
Attitude $1 = \text{strongly agree}$ $2 = \text{strongly agree}$	 Second-hand luxury shopping is A1: a foolish/wise idea. A2: a harmful/beneficial idea. A3: a bad/good idea. A4: Overall, my attitude toward second-hand luxury shopping is unfavorable/favorable. 	Taylor and Todd [140] and Yoon [141]
Perceived behavioral control 1 = strongly disagree, 5 = strongly agree	 PBC1: I would be able to buy second-hand luxury products. PBC2: I have the resources to buy second-hand luxury products. PBC3: I have the knowledge to buy second-hand luxury products. PBC4: I have the ability to buy second-hand luxury products. 	Shih and Fang [136] and Taylor and Todd [140]
Subjective norms 1 = strongly disagree, 5 = strongly agree	 SNI: My friends expect me to buy luxury products second-hand. SN2: My family expects me to buy luxury products second-hand. SN3: Society expects me to buy luxury products second-hand. SN4: Most people who are important to me think that I should buy luxury products second-hand when I have to buy something. 	Borusiak et al. [47]

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Scale	Adapted Items—Second-Hand Luxury	Based on
Purchase intention $1 = \text{strongly agree}$	 P11: It is very likely that I will buy a second-hand luxury product in the future. P12: Certainly, I will buy a second-hand luxury product. 	Borusiak et al. [47]
Pro second-hand luxury Open text field	I would buy a luxury product second-hand because	
Contra second-hand luxury Open text field	I would not buy a luxury product second-hand because	
Gender	Female;Male;Diverse;Do not wish to disclose.	
Please enter your age		
E In what country do you currently live? Open text field		

Items in italics were deleted as part of the reliability analysis.

Appendix B. Reliability Analysis

Table A2. Reliability Analysis.

Scale	Reliability
Purchase intention	0.919 ²
Attitude	0.876 ¹
Subjective norms	0.849 ¹
Perceived behavioral control	0.823 ¹
Experience second-hand luxury	0.904 ²
Economic motivation	0.759 ¹
Ethical motivation	0.849 ¹
Sustainable motivation	0.934 ¹
Nostalgic motivation	0.839 ¹
Creative motivation	0.888 1

¹ Cronbach's Alpha, ² Spearman Brown.

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Article

Influence of Flow Experience, Perceived Value and CSR in Craft Beer Consumer Loyalty: A Comparison between Mexico and The Netherlands

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Abstract: Craft beer production enterprises are categorized as micro-, small- and medium-sized enterprises (MSMEs) in Mexico and the Netherlands. As MSMEs, they encounter challenges to achieving consolidation; one main challenge is linked to deficient consumer-loyalty development. This work explores and compares the effects of experience of flow, perceived value and CSR in the development of loyalty in two different population samples of craft beer consumers: Mexico and the Netherlands. In total, 452 surveys were collected during experiential events, and the data were analyzed using multivariate partial-least-square (PLS) structural equation modeling. Our model results indicate that attention, concentration and notion of time influence flow experience in the same way in both countries. Experiential factors are stronger for the Mexican population. For the case of the Netherlands, perceived value had a higher effect on loyalty development and a lower impact on experiential factors. The CSR variable was only significant for the Dutch sample.

Keywords: flow experience; consumer behavior; loyalty

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1. Introduction

Within the last two decades, the beer market has undergone several changes regarding the way beer is consumed. Such changes have triggered several opportunities for the emerging craft beer market. In Mexico, between 2011 and 2017, there has been a 2500% growth in the production of craft beer due to a variety of factors, which include: the implementation of innovative technologies, the development of a diversity of beer types and, especially, the design and growth of novel experiences that enhance several of our senses [1–3].

In the Netherlands, the Central Brouwerij Kantoor, now the Dutch Brewers of the Netherlands, has undergone intensive development within the last two decades. Such development is related to several social changes and an increase in the innovation and creation of new breweries. Historically, in the beginning, the role of the Central Brouwerij Kantoor consisted of aiding in the purchase and distribution of raw materials. However, their tasks now involve representing the interests of the beer sector in the political sphere, for stakeholders and consumers.

In recent years, both countries have hosted a very similar number of active breweries, as shown in Table 1. Therefore, this manuscript seeks to perform a thorough analysis comparing population samples from both countries.

It is essential to mention that, as shown in Table 2, both countries maintain the top positions in exporting commercial beer and craft beer worldwide. Mexico leads with 31.5% of the international beer sales exported by country in 2020, followed by 13.4% from The Netherlands.

Table 1. Active Breweries and production (in hectoliters) in Mexico and the Netherlands.

			Active B	reweries		
	2014	2015	2016	2017	2018	2019
Mexico	137	256	400	740	940	1020
The Netherlands	263	320	395	623	738	780
			Production i	n hectoliters		
Mexico	45.2	64,561	104,466	117,781	121,652	124,502
The Netherlands	23,726	24,012	24,559	24,313	24,912	24,128

Note: Own elaboration based on data from Global Beer Industry, Statista (2020).

Table 2. Beer exports from Mexico and the Netherlands.

Rank	Exporter	2020 Beer Export	% Total in the World
1	Mexico	US\$ 4.89 B	31.5%
2	The Netherlands	US\$ 2.08 B	13.4%

Note: Own elaboration based on data from Global Beer Industry, Statista (2020).

These similarities in numbers and leadership in the beer sector motivated us to explore and compare the development of loyalty in craft beer consumers from both countries who take part in experiential events such as tastings and tours.

Both in the Netherlands and in Mexico, craft beer has grown exponentially and is considered an emerging sector. Given their characteristics, such as the number of employees, age of the company, percentage of export and percentage of ownership of the CEO, craft beer enterprises are categorized as micro-, small- and medium-sized companies (MSMEs) [4,5]. Although MSMEs make a great contribution to economic growth [6], most of them do not survive after 2 years [7]. One strategy, as [8] mentions, is to increase consumer loyalty to ensure long-term survival of MSMEs.

Large companies design their consumer experiences, and they are a fundamental part of their growth and consolidation. The purchase of goods and services corresponds to a search for benefits and experiences by consumers. According to Pine and Gilmore [9], marketing strategies involve integrating experiences to intentionally use their products within a memorable setting for the consumer. The following constructs have been used to explain the theory of consumer experience: enjoyment [10–12], trust [13,14], satisfaction [15,16] and, in the last decade, the value perception construct [17–20]. In turn, these constructs have been correlated previously with consumer loyalty [21–23]. On the other hand, through repurchase intention, large corporations increase their sales to consumers [24,25], and through word of mouth, they manage to attract new potential customers [26–29].

The design of experiences has been related to the experience of flow based on the theory of flow, defined by Csikszentmihalyi and LeFevre [30] as an optimal experience through an emotional cognitive state where a balance exists between the challenges and a person's skills. While someone is in flow, the person is entirely immersed in an activity, and they do not stop performing it, losing awareness of time and their environment [31]. People reach the flow state through attention [32–34], concentration [35] and the notion of time [36,37]. Implementation of flow theory has had favorable results in previous research focused on language learning [38], virtual reality [39] and e-commerce [40,41].

Therefore, this manuscript proposes a model that answers the following questions: Do attention, concentration and notion of time impact flow experience? Is the impact of attention, concentration and notion of time on flow experience moderated by country? Does flow experience impact the intention to repurchase? Is the impact of flow experience on repurchase intention moderated by country? Does flow experience impact word of mouth? Is the impact of flow experience on word of mouth moderated by country? Does perceived value impact repurchase intention? Is the impact of perceived value

on repurchase intention moderated by country? Does perceived value impact word of mouth? Is the impact of perceived value on word of mouth moderated by country? Does corporate social responsibility impact repurchase intention? Is the impact of corporate social responsibility on repurchase intention moderated by country? Does corporate social responsibility impact word of mouth? Is the impact of corporate social responsibility on word of mouth moderated by country?

Furthermore, this document aims to compare the craft beer market, composed primarily by MSMEs, in the countries of Mexico and the Netherlands through a loyalty-development model explained by flow experience, perceived value and corporate social responsibility through experiences such as tours and tastings.

Here, we propose that the experience of flow developed through experiential events, such as tastings and tours, generates loyalty to and preference for a craft beer brand through the intention to repurchase and word of mouth spread by promotion of the product with family and friends. Our model proposes that the experience of flow can be explained through the variables of attention, concentration and the notion of time when consumers interact with a craft beer brand at experiential events (tastings or tours). The model also explains perceived value through the variables of perception of quality, perception of taste and perception of price. Finally, the relationship between corporate social responsibility and consumer loyalty through repurchase intention and word of mouth is also studied. This study leads to an understanding of the impact of managing marketing strategies through experiences within the craft beer market. With the results obtained here, the incorporation of the experience of flow, perceived value and corporate social responsibility constructs in strategies such as tours and tasting experiences is highly recommended in order to increase consumer loyalty in MSMEs such as the craft beer sector.

2. Literature Review

In recent decades, developing consumer loyalty has been one of the most studied marketing strategies. One of the most common marketing strategies, widely used by big companies, is the development of loyalty. Through loyalty, large corporations manage to position themselves in new markets [42]. Loyalty development is defined as a strong commitment or intention to return and buy a product or service again [43].

Development of consumer loyalty is achieved when three characteristics are developed in a consumer: (a) they buy a larger number of products; (b) price is not important to them; and (c) advertising from competing brands attracts less of their interest. Furthermore, loyal consumers tend to attract new customers through word of mouth [44]. Therefore, loyal consumer help large corporations increase their profitability [45,46]. Consumer readiness is measured by two dimensions: behavioral and attitudinal. A repetitive purchase by a consumer is a behavioral dimension that is linked to his preference for a specific brand or service. On the other hand, an intention to repurchase [28,47] and word of mouth [48,49] can be linked to attitudinal dimensions. Specifically, this study considers loyalty developed through the attitudinal dimension, since a customer who intends to repurchase and perform word of mouth is more likely to remain loyal to the product, service or brand [50,51]. For the purposes of this study, the variables to consider in relation to consumer loyalty will be repurchase intention and word of mouth.

2.1. Repurchase Intention

Hume [52] defines repurchase intention as the consumer's judgment to make a purchase of a product or service again, through a conscious decision. Based on the theory of Howard and Sheth [53], the consumer develops purchase cycles for products or services necessary in his daily life or those products used in high frequency. This type of conduct is attributed to the fact that human beings seek to simplify tasks by establishing routines and even developing consumption habits. However, repurchase intention is also applicable for products that are consumed with a lesser frequency [54], as is the case for the product analyzed in this work, craft beer. The importance of repurchase intention in emerging

markets, such as craft beer, arises from the premise of Singh and Khan [55] that through continuous repurchase behavior and a competitive advantage, commercial growth will be faster and be accompanied by higher profit margins [56].

2.2. Word of Mouth

Word of mouth (WOM) is the channel through which people evaluate their experience with a product or service [57]. Word of mouth can be defined, according to traditional marketing, as information that is obtained or gathered from communication within family circles or interactions with friends [58]. Word of mouth is taken into account among consumers in future decision making when purchasing a product; this is because word of mouth is perceived as a more reliable source compared to any other traditional means [59]. Word of mouth has been positively related to growth in sales within large corporations [60], and therefore, its development has been strongly considered to trigger the growth of enterprises [61]. Word of mouth has been recognized as an important marketing strategy, due to its influence on attitudes, assisting in decision making and increasing consumer purchase intention [62]. The characteristics of a loyal consumer include word of mouth and a high repurchase intention, according to Yi and La [63]. Moreover, word of mouth has been previously considered relevant for the analysis of loyalty development in the craft beer industry [56]. Therefore, the literature strongly supports monitoring repurchase intention and word of mouth's effects on the development of consumer loyalty.

2.3. Flow Experience

Currently, large corporations use consumer experiences as a marketing strategy to induce their growth. It is therefore of great importance for corporations to focus on designing experiences that would lead a consumer to make a purchase [64]. Consumer experiences should be memorable moments, according to Pine and Gilmore [9] where a company's products or services are used by the consumers. In the last two decades, academics and researchers have developed knowledge about consumer states of consciousness through experiential strategies [65-67]. However, there is great interest in further understanding the factors involved and their impact. One of the most important theories that measures these factors is the flow theory developed and defined by Csikszentmihalyi [68] as a hedonistic construct. In [69], it is mentioned that flow experience is a crucial state for satisfaction in any activity. In Csikszentmihalyi [68], flow experience is also defined as a balance between challenge and skills when performing a task. Within the state of flow, a person concentrates so much on an activity that they lose awareness of time and their environment; however, they never stop doing the activity [70]. There are important studies within the area of consumption that relate it to the experience of flow, including; mountaineering [71], river rafting [72] and the consumption of chocolate [73]. Diverse authors have identified different dimensions to define the state of flow in a person; these include: attention [74], concentration [37] and notion of time [36].

2.4. Perceived Value

Perceived value is derived from the theory of equity, which postulates that consumers evaluate the relationship between what they give and what they receive [43]. In other words, the consumer generally evaluates the usefulness of the product through the perception of what he receives and what he gives in return, according to Zeithaml [75]. Within the perceived value, the consumer evaluates the quality and price of the products or services after the purchase [76]. The concept of perceived value, according to Holbrook [77], is the standard by which to measure marketing activity within a corporation. One can colloquially define perceived value as "the good feeling" when the consumer performs an analysis of the attributes found in a product, and these attributes make the consumer feel good and experience enhanced emotional feelings towards the product and the brand [78]. Therefore, perceived value is a fundamental part of obtaining a competitive advantage for a company.

2.5. Corporate Social Responsibility

The roots of the concept of corporate social responsibility (CSR), as it is known today, have a long and extensive history that indicates that companies have paid more and more attention to the concerns of society [79]. White [80] defines CSR as the achievement of the realization of the company while respecting ethics, people, the social environment and the environment. The interest of corporations in corporate social responsibility has had a considerable increase within the last decades. There are different motivations for companies to develop CSR practices. Some practices are carried out due to legal and regulatory pressure, and others are promoted through voluntary initiatives [79].

3. Conceptual Model and Hypothesis Development

3.1. Attention, Concentration, Notion of Time and Flow Experience

Attention, as a dimension of the state of flow, is achieved by maintaining the senses in the activity that is being carried out, according to Mirvis [81]. Dobrynin [82] mentions that attention cannot be considered independently or separately, since it is always in relation to some activity. Attention is a process that can occur with any mental activity, excluding those that are carried out automatically. However, when a person experiences attention, activities are carried out automatically, and thus consciousness disappear [83]. Hence, the hypotheses would be:

Hypothesis 1. Flow experience is positively affected by attention.

Hypothesis 1a. Attention to flow experience is moderated by country.

Concentration is achieved through immersion in a chosen activity, through which any distraction that interferes with said activity is eliminated [82]. More recently, Csikszentmihalyi and Nakamura [84] define it as a factor within the experience of flow, stating that it has a deeper degree of influence compared to attention. Ghani and Deshpande [85] describe concentration as one of the most important parts of the flow experience, and within the meta-analysis prepared by [86], this is confirmed. However, more recently, Marty-Dugas and Smilek [87] and [56] differ from this perspective in finding that deep and effortless concentration does not receive more weight than the other facets. Hence, the hypotheses would be:

Hypothesis 2. Flow experience is positively affected by concentration.

Hypothesis 2a. The effect of concentration on flow experience is moderated by country.

Notion of time is defined by Csikszentmihalyi [69] as a change in the perception of time, where it can be perceived as fast or slow. Other authors such as Skadberg and Kimmel [88] also define the notion of time as one more factor in the experience of flow. Likewise, J. Keller et al., [89] explain the notion of time as a feeling that simply becomes irrelevant, ending up outside the person's consciousness. Something important about this factor is that while Csikszentmihalyi [69] recognizes its existence, he mentions that for certain activities, awareness of notion of time is not of the utmost importance, so he does not consider it as a universal factor. Together, this information leads to the development of the following hypotheses:

Hypothesis 3. *Notion of time has a positive effect on flow experience.*

Hypothesis 3a. The effect of notion of time on flow experience is moderated by country.

3.2. Flow Experience, Repurchase Intention and Word of Mouth

Within the marketing literature, there are previous studies where repurchase intention has been related to the flow experience [90,91]. Novak, Hoffman and Yung [92] confirm the positive relationship between both variables within online shopping. Likewise, [93] also verify this by measuring flow through challenges, concentration, control and enjoyment. In addition, it is also confirmed by Kim and Thapa [94] within tours as marketing experiences. Hence, the hypotheses would be:

Hypothesis 4. Repurchase intention is positively affected by flow experience.

Hypothesis 4a. Flow experience's effect on repurchase intention is moderated by country.

Recent studies have shown the positive impact of the flow experience on word of mouth. Most of these studies involve online shopping. However, there are also some studies focused on the consumption of art, including one by Aykol, Aksatan and İpek [95], performance in online games [96], use of messaging services [97] and experiential activities and tourism [98]. Here, the following hypotheses are proposed:

Hypothesis 5. Word of mouth is positively affected by flow experience.

Hypothesis 5a. Flow experience's effect on word of mouth is moderated by country.

3.3. Perceived Value, Repurchase Intention and Word of Mouth

The relationship between loyalty development and perceived value has been addressed by several studies. O'Brien and Jones [99] mention that one of the most important aspects of the development of loyalty is the perception of value. In addition, Holbrook [77] mentions that perceived value is the most important factor that influences the development of consumer loyalty and occurs when the expected gains compensate for the perceived losses. Chang and Wildt [100] confirm this, adding that perceived value occurs both in repurchase and in an intention to repurchase. Mencarelli and Lombart [101] mention that consumers develop loyalty to a brand or product when they perceive the correct characteristics of the product, the correct images or quality at a fair price.

This tells us that the consumers get to know a brand through a product or service, and when they experience satisfaction, it leads to their desire to repeat it, resulting in a feeling of familiarity and security, making this activity a habit. Molinari [102] mentions that the consumer remains faithful to a product or service when they perceive that they obtain greater benefits than from the competition [103–105]. Together, these studies lead to the development of the following hypotheses:

Hypothesis 6. Repurchase intention is positively affected by perceived value.

Hypothesis 6a. The effect of perceived value on repurchase intention is moderated by country.

Perceived value has been positively related to word of mouth [49,106,107]. Anderson and Srinivasan [108] mention that optimal consumer experience with a brand, product or service will provoke a perception of value and, therefore, lead them to speak positively of it. There is a relationship between the increase in consumer satisfaction and the perception of the value of the brand or product [109]. In addition, the positive correlation between perceived value and word of mouth has also been verified for different sectors such as commercial retailers [110], tourism [107,111,112] and airlines [113]. Hence, the hypotheses would be:

Hypothesis 7. *Word of mouth is positively affected by perceived value.*

Hypothesis 7a. The effect of the perceived value on word of mouth is moderated by country.

3.4. Corporate Social Responsibility, Repurchase Intention and Word of Mouth

CSR programs have become an important part of marketing strategies of large corporations. It is of the utmost importance for large corporations to comply with corporate social responsibility in order to capture repurchase intention in customers and increase loyalty [114]. This has been proven for the clothing [115], food [116] and tourism industries [117]. Hence, the hypotheses would be:

Hypothesis 8. Repurchase intention is positively affected by corporate social responsibility.

Hypothesis 8a. The effect of corporate social responsibility on repurchase intention is moderated by country.

Positive word of mouth is a pertinent factor to measure current clients' willingness to speak positively about the item or merchant and can be a free form of advertising. Customer experience with goods and services leads to external communication [118], chiefly word of mouth, which can be a blessing or a bane. Favorable word of mouth is warmly welcomed by a retailer, while negative word of mouth is something a merchant needs to rectify, either using public relations or CSR as a crisis management tool [119]. Empirical studies reveal that satisfied clients disseminate positive word of mouth, which subsequently turns into better sales [120]. Word of mouth is a pertinent evaluative tool, as it helps potential buyers to buy confidently, decreasing their uncertainty due to unknown risk [121]; it is also an influential source of data, impacting the choice of brand and brand loyalty [122]. Hence, the hypotheses would be:

Hypothesis 9. Word of mouth is positively affected by corporate social responsibility.

Hypothesis 9a. The effect of corporate social responsibility on word of mouth is moderated by country.

Based on the review of the literature, the following research model is proposed, in which the relationships of the flow experience, the perceived value and the corporate social responsibility to the development of consumer loyalty are evaluated through a repurchase intention or word of mouth. The relationships formulated in the study were compared in both the Mexican and Dutch markets (Figure 1).

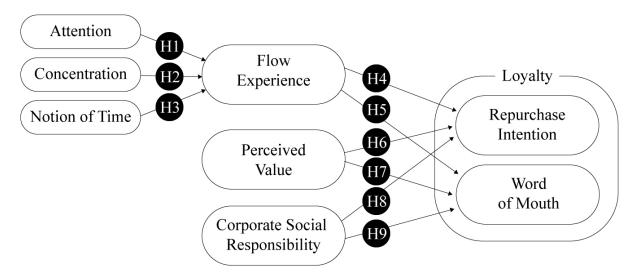


Figure 1. Conceptual Model.

4. Research Method

Our hypothesis was tested through a cross-cultural quantitative study. We gathered 226 valid questionnaires for each of the two countries (Mexico and the Netherlands); therefore, in total, we obtained 452 questionnaires. All the information obtained from the questionnaires was collected at the times the consumers were experimenting tours and tastings within craft beer companies in each country. The questionnaire contains a demographic section, and in this section, the interviewees were asked both their age and their home address. These pieces of information were important to gather, since they served two purposes: (a) they assured us that the interviewees were of legal age to consume alcohol (over 18 years old), and (b) it allowed us to confirm the participants were residents of either Mexico or the Netherlands. After answering the survey, the participants took part in a raffle, where they had the chance to win products produced by the craft beer brands. Table 3 shows the technical information for the study.

Table 3. Technical information.

Scope	Mexico	The Netherlands				
	Mexican individuals over	Dutch individuals over				
Universe	18 years old, craft beer	18 years old, craft beer				
	consumers	consumers				
Method	Questionna	ire survey				
Sample size	226 valid surveys	226 valid surveys				
Data field Work	March–April 2019	June–July 2018				
Statistics	Collinearity statistics, CFA	, PLS—SEM, invariance of				
Statistics	measurement instrument, multi-group analysis.					
	Attention Csikszentmihalyi [68]					
	Concentration Csil	kszentmihalyi [68]				
	Notion of time Csil	<i>y</i> = 1				
	Flow experience Cs	ikszentmihalyi [68]				
Measures (5 points Likert)	Perceived value Parasuram	nan, A., & Grewal, D. [123]				
wedsures (5 points likert)	Corporate social responsib					
	Repurchase intention (Blo	emer and de Ruyter [124];				
	Chaudhuri and	Holbrook [125])				
	Word of mouth (Bloemer et al., 1999 [124];					
	Ganesh et al., 2000 [126])					
Statistic Software	Smart PLS 3.0 and I	BM SPSS AMOS 26				

The data were processed in several stages. The descriptive statistics were employed to facilitate the characterization of the sample profile. We performed a confirmatory factor analysis (CFA) on the entire sample, evaluating the reliability and validity of the measurement tool. The ensuing step consisted of modelling the structural equations for the subsamples to determine the significant relationships between the variables, in accordance with the analysis sample. Next, measurement of the invariance was performed, and lastly, a multigroup analysis was conducted to determine the moderating effect of country between the two different countries on the analyzed population.

5. Data Analysis and Results

As shown in Table 4, the research model was tested at tastings and craft beer tours in Mexico and the Netherlands, which included 452 consumers, 226 from Mexico and 226 from the Netherlands. The sample included 63.8% men and 36.2% women. In terms of age, 73.4% of those surveyed were between their twenties and thirties, making up the majority of the sample.

Table 4. Demographic information of the sample.

37 * 11	τ.	Mexi	со	The Nethe	erlands
Variable	Items	Frequency	%	Frequency	%
	Male	150	66.4	138	61.1
Gender	Female	76	33.6	88	38.9
	18-20	12	5.3	16	7.1
	21–29	90	39.8	104	46.0
Age	30-39	88	38.9	50	22.1
Ü	40–49	26	11.5	42	18.6
	50-59	10	4.4	14	6.2
	Single	126	55.8	104	46.0
C: 11	Married	68	30.1	86	38.1
Civil status	Divorced	4	1.8	4	1.8
	Consensual union	28	12.4	32	14.2
	Technical career	12	5.3	6	2.7
E1 1 1	High school	18	8.0	36	15.9
Education level	Bachelor	148	65.5	124	54.9
	Postgraduate degree	48	21.2	60	26.5
	Housewife	2	0.9	0	0.0
	Student	34	15.0	56	24.8
Occupation	Artist/Athlete	2	0.9	2	0.9
Occupation	Employee	148	65.5	158	69.9
	Independent	38	16.8	10	4.4
	Retired	2	0.9	0	0.0
	140 to 350 USD	26	11.5	0	0.0
	351 to 600 USD	20	8.8	6	2.7
Monthly income	601 to 1800 USD	104	46.0	92	40.7
•	1801 to 4500 USD	64	28.3	90	39.8
	More than 4501 USD	12	5.3	38	16.8
	First time	18	8.0	16	7.1
Time of	Less than 12 months	82	36.3	32	14.2
consumption	1 year	42	18.6	30	13.3
	More than a year	84	37.2	148	65.5

Moreover, as a general average between the Mexican and the Dutch sample we can observe that a majority is reported in the group of single respondents (50.9%) with a bachelor educational level (60.2%), a salaried occupation (67.7%) and a monthly income salary between 610 to 4400 USD (77.4%). Finally, the sample of participants from the Netherlands indicates that 65.5% of them have consumed craft beer for more than one year. This number is noticeably different in the sample of participants from Mexico, where only 37.2% have consumed craft beer for more than one year.

5.1. Model Validation

The proposed model was validated with a CFA of the entire sample using PLS Algorithm with Smart PLS 3.0. Table 5 shows the main results of the analysis, in addition to the descriptive statistics of the constructs analyzed in the model.

 Table 5. Loadings, Cronbach's alpha, composite reliability and AVE values.

Construct	Item	Loadings	Cronbach's Alpha	Composite Reliability	AVE
D	RI1	0.88			
Repurchase intention	RI2	0.85	0.82	0.89	0.74
	RI3	0.85	_		

Table 5. Cont.

Construct	Item	Loadings	Cronbach's Alpha	Composite Reliability	AVE	
	WM1	0.81				
Word of mouth -	WM2	0.84	- 0.81	0.88	0.64	
vvoid of moduli -	WM3	0.80	- 0.81	0.88	0.04	
	WM4	0.75	_			
	FW1	0.81				
	FW2	0.79	_			
Flow experience	FW3	0.78	0.83	0.88	0.59	
_	FW4	0.75	_			
_	FW5	0.72	_			
	AT1	0.81				
Attention -	AT2	0.75	- 0.79	0.86	0.61	
Attention -	AT3	0.83	- 0.79	0.80	0.01	
	AT4	0.74	_			
	CN1	0.79				
Concentration -	CN2	0.76	- 0.81	0.88	0.63	
Concentration	CN3	0.78	0.01		0.03	
	CN4	0.79	_			
	NT1	0.81				
Notion of time -	NT2	0.78	- 0.80	0.87	0.63	
Notion of time -	NT3	0.76	- 0.80	0.67	0.03	
_	NT4	0.81	_			
	PV1	0.83				
Perceived value	PV2	0.77	0.73	0.85	0.65	
	PV3	0.81				
	SCR1	0.89	_			
Corporate social	SCR2	0.76	- 0.83	0.88	0.65	
responsibility	SCR3	0.75	- 0.03	0.00	0.03	
_	SCR4	0.81	_			

 X^{2} (452) = 1680.4; NFI = 0.921; SRMR = 0.045. Note: X^{2} = Chi Square; NFI = Normed fit index (0.9 is considered the threshold for an indicator of good fit [127]); SRMR = Standardized root mean square residual (Values less than 0.08 are considered a good fit [128]).

The standardized loads (β) are over 0.72, which is the ideal scenario. After running SMART PLS 3.0 and IBM SPSS AMOS 26 Graphics, the data suggested that certain items should be eliminated to improve the goodness of fit (see Appendix A). Cronbach alpha coefficients are between 0.73 and 0.83, values that, according to the literature, are considered acceptable. The composite reliability of the constructs was over 0.7, and the Average Value Extracted (AVE) was over 0.6 for each construct. Thus, we can confirm the reliability of the constructs of the research model for the whole sample. In addition, the goodness of fit of the research model is as expected, with levels higher than 0.9 in the NFI indicator and with levels lower than 0.08 in the SRMR. Discriminant validity is tested using the Fornell and Larcker criteria.

Table 6 shows the constructed discriminant validity, and on the diagonal, we inserted the AVE values to compare them with the other correlation coefficient factors. The results

show values above 0.5, confirming the discriminant validity of all the factors. To confirm the validity and reliability of the measurement instrument in the analyzed markets, we conducted a CFA for each subsample, obtaining the results presented in Table 7.

Table 6. Discriminant validity—Fornell and Larcker criterion.

	AT	CN	FE	IR	NT	PV	SCR	WOM
AT	0.78							
CN	0.80	0.78						
FE	0.76	0.73	0.77					
IR	0.73	0.75	0.74	0.86				
NT	0.68	0.65	0.66	0.59	0.79			
PV	0.65	0.63	0.71	0.74	0.55	0.80		
SCR	0.22	0.21	0.19	0.20	0.18	0.20	0.81	
WOM	0.73	0.72	0.77	0.78	0.58	0.73	0.26	0.80

 Table 7. Confirmatory Factorial Analysis.

			Mexi	co		T	The Netherlands		
Construct	Item	Loadings	CA	CR	AVE	Loadings	CA	CR	AVE
	RI1	0.88				0.88			
Repurchase Intention	RI3	0.85	0.83	0.90	0.74	0.85	0.82	0.89	0.74
Intention	RI4	0.85				0.85			
	WM1	0.80				0.82			
Word of Mouth	WM2	0.85	0.82	0.88	0.65	0.83	0.81	0.87	0.63
word of Mouth	WM3	0.81	0.62	0.66	0.63	0.79	0.61	0.67	0.63
	WM4	0.76				0.74			
	FE2	0.81				0.81			
	FE3	0.78				0.80	0.83		0.60
Flow Experience	FE4	0.79	0.83	0.88	0.59	0.78		0.88	
	FE5	0.75	-			0.75			
	FE6	0.72				0.72			
	AT1	0.80				0.81	0.78		
Attention -	AT2	0.75	. =.			0.74			
	AT3	0.84	0.79	0.86	0.62	0.82		0.86	0.60
	AT4	0.74				0.74			
	CN1	0.79				0.78			
	CN2	0.77		0.44	0.76	0.70	2.24	0.60	
Concentration	CN3	0.79	0.79	0.86	0.61	0.78	0.78	0.86	0.60
	CN4	0.78				0.79			
	NT1	0.81				0.82			
NI CET	NT2	0.78	0.00	0.05	0.62	0.78	0.00	0.07	0.70
Notion of Time	NT3	0.76	0.80	0.87	0.63	0.76	0.80	0.87	0.63
	NT4	0.81				0.81			
	PV2	0.81				0.85			
Perceived Value	PV3	0.74	0.75	0.86	0.67	0.79	0.70	0.83	0.62
	PV4	0.90				0.72			
	CSR1	0.88				0.84			
Corporate	CSR2	0.95	0.00	0.04	2.24	0.77	- - 0.70	0.80	0.62
Social Responsibility	CSR3	0.83	- 0.82	0.91	0.84	0.74			
. ,	CSR4	0.91				0.88			

Notes: CA: Cronbach´s alpha; CR: Composite Reliability; AVE: Average Variance Extracted.

Table 7 shows the CFA for the scales proposed in the research model in both countries. Item loads on the factors exceeded the minimum requirement of 0.6. Composite reliability indexes for the variables were above 0.7, and the AVE values exceeded 0.5. Discriminant validity is shown for each sample in Tables 8 and 9, and as explained in the methodology used in Table 6, the diagonal AVE values are above 0.5, confirming the discriminant validity of all factors.

Table 8. Discriminant validity—Mexico sample.

	AT	CN	FE	IR	NT	PV	SCR	WOM
AT	0.78							
CN	0.79	0.78						
FE	0.76	0.73	0.77					
IR	0.73	0.75	0.74	0.86				
NT	0.67	0.64	0.66	0.59	0.79			
PV	0.67	0.63	0.7	0.8	0.55	0.79		
SCR	0.61	0.55	0.58	0.63	0.45	0.67	0.79	
WOM	0.73	0.71	0.76	0.79	0.58	0.79	0.75	0.80

Table 9. Discriminant validity—The Netherlands sample.

	AT	CN	FE	IR	NT	PV	SCR	WOM
AT	0.78							
CN	0.80	0.78						
FE	0.76	0.72	0.77					
IR	0.73	0.75	0.74	0.86				
NT	0.69	0.65	0.66	0.59	0.79			
PV	0.64	0.65	0.74	0.69	0.57	0.82		
SCR	0.06	0.04	-0.03	-0.08	0	0.03	0.92	
WOM	0.73	0.72	0.77	0.78	0.58	0.69	0.01	0.81

Discriminant validity is confirmed, because the correlation between factors is less than the square root of AVE for each factor. Although there were no close correlations to 0.7 found in the subsamples, the VIF collinearity statistics have been verified (see Appendix B), which indicates that there are no problems in the partial-least-squares estimates.

5.2. SEM Analysis

The hypothesized relationships in the research model have been contrasted using bootstrapping analysis via Smart PLS 3.0 software. The results for the sample are presented in Table 10, and according to the SEM analysis, all the relationships proposed in the research model have been contrasted successfully.

Table 10. Standardized structural estimates.

Н	Description	β	t Value	p Value
H1	At→FE	0.41	6.19	0.00
H2	$CN \rightarrow FE$	0.26	3.87	0.00
H3	$NT \rightarrow FE$	0.21	4.12	0.00
H4	$FE{ ightarrow}RI$	0.44	8.79	0.00
H5	$FE \rightarrow WOM$	0.50	11.06	0.00
H6	$PV \rightarrow RI$	0.42	5.83	0.00
H7	$PV \rightarrow WOM$	0.35	4.68	0.00
H8	$SCR \rightarrow RI$	0.04	1.36	0.18
H9	$SCR \rightarrow WOM$	0.10	3.55	0.00
	Constructs	R2		
	Flow Experience	64.40		
	Repurchase intention	64.00		
	Word of mouth	66.30		

5.3. Validation of the Measuring Instrument

To determine whether the factorial structure is the same in the subgroups, an equal form analysis was conducted based on a multigroup confirmatory factor analysis using IBM SPSS AMOS 26 Graphics. The results are shown in Table 11.

Table 11. Measure invariance test.

Single Group Solutions	X ²	df	ΔX^2	Δdf	p	RMSEA	SRMR	NFI	NNFI	CFI
Mexico The Netherlands	1048.4 1275.4	452 452					0.062 0.063	0.912 0.904	0.924 0.908	0.953 0.913
Measurement inva	Measurement invariance									
Equal form	1680.9	452				0.067	0.065	0.903	0.923	0.933
Equal factor loading	2326.3	652	645.4	200	0.05	0.063	0.065	0.902	0.921	0.924

Notes: X^2 = Chi Square; df = Degrees of freedom; ΔX^2 = Difference between X^2 statistics of the two models compared; Δdf = Difference in degrees of freedom; p = measures the probability of obtaining the observed results; RMSEA = Root mean square error of approximation; NFI = Normed fit index; NNFI = No-Normed fit index; CFI = Comparative fit index.

In accordance with [129], goodness of fit is confirmed according to an Δ CFI < 0.01 between equal form and equal factor loading. Therefore, the restrictions are retained, and the analysis continues.

5.4. Multigroup Analysis

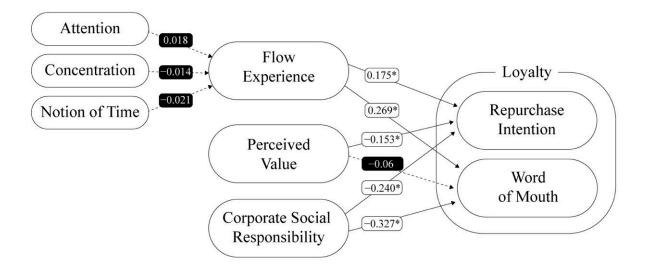
The next step was to test the hypotheses in the multigroup analysis to find the moderating effect of country in the proposed relationships. Relationships in each subsample were tested beforehand to accept or reject the hypotheses. Table 12 shows the betas and t-values for each independent sample, as well as the significance of the hypothesized moderation of country differences.

Table 12. Results of SEM and Multigroup Analysis.

		Mexico		The Net	herlands	A.D. (L	D
Н	Description	β	t	β	t	- Δ Path	P
H1a	At→FE	0.422	6.192	0.404	6.292	0.018	0.85
H2a	$CN \rightarrow FE$	0.252	3.867	0.267	4.199	-0.014	0.87
Н3а	$NT \rightarrow FE$	0.203	4.124	0.223	4.798	-0.021	0.76
H4a	$FE \rightarrow RI$	0.494	8.792	0.318	5.853	0.175	0.03
H5a	$FE \rightarrow WOM$	0.582	11.057	0.313	6.691	0.269	0.00
H6a	$PV \rightarrow RI$	0.326	5.831	0.479	9.581	-0.153	0.04
Н7а	$PV \rightarrow WOM$	0.255	4.68	0.313	5.95	-0.06	0.44
H8a	$SCR \rightarrow RI$	-0.099	1.152	0.142	2.667	-0.240	0.02
H9a	$SCR \rightarrow WOM$	0.039	0.673	0.366	7.708	-0.327	0.00

Note: β = Beta coefficient; t = t-statistic; Δ Path = Difference in betas; P = p-value.

The results show a non-significant moderation of country in the following relationships: H1a (attention—flow experience), H2a (concentration—flow experience), H3a (notion of time—flow experience) and H7a (perceived value—word of mouth). In contrast, the following relationships show a significant moderation of country: H4a (flow experience—repurchase intention), H5a (flow experience—word of mouth), H6 (perceived value—repurchase intention), H8a (social corporate responsibility—repurchase intention) and H9a (social corporate responsibility—word of mouth). Figure 2 provides the results of the multigroup analysis.



(* indicates significant at ρ < 0.001)

Figure 2. Multigroup analysis.

6. Discussion

In this work, flow experience was verified and analyzed through tours and tastings within the craft beer market for Mexico and the Netherlands. Through the multigroup analysis, we found that the variables of attention, concentration and notion of time do not act as mediating variables in the explanation of the flow experience in either country. This may be due to similarities in consumer experiences of tours and tastings in both Mexico and the Netherlands. These results agree with Nakamura and Csikszentmihalyi [83] and with Guerra-Tamez [56], who have reported that these variables are the most impactful within the flow experience. This is also reported in studies by Su et al., [74]; Zhou et al., [97]; and Zhou and Lu, [130], in activities carried out in online shopping. Several previous studies have shown that concentration has the greatest impact within the flow experience in language learning and sport activities [83]; however, our exhibited results indicate concentration to have a considerably lower impact compared to attention. This difference can be attributed to the fact that in a context of tastings or tours within craft beer companies, where consumer decisions are of less importance, a less analytical sense is required compared to activities such as language learning or sports activities. The notion of time variable also has a significant positive impact, although to a lesser extent than the other variables. It is important to mention that, as proposed by [83], the notion of time is a variable that, when performing certain activities, requires awareness of time, which is why it becomes a momentary variable, preventing it from being a universal such as attention or concentration. These results agree with what was previously observed by [56], where the experience of flow in events such as tours and craft beer tastings is explained through the variables of attention, concentration and notion of time.

Next, this work verified the positive impact of the flow experience in the development of consumer loyalty through repurchase intention and word of mouth in both Mexico and the Netherlands. This impact was measured through experiential events such as tastings and tours within craft beer companies. The loyalty dimensions were verified through repurchase intention, as in previous studies of online experiences, such as the study by Novak, Hoffman, and Yung [92], and through word of mouth, as in studies of online games [96] and browsing art websites [95], resulting in a positive impact on the flow experience for both variables. With these results, the panorama of knowledge of the flow experience's role in consumer loyalty is broadened for physical experiences, not only online experiences, which have been the focus for most of the previous studies. It is therefore

important to mention that the impact of repurchase intention and word of mouth in Mexico was significantly higher than in the Netherlands.

Likewise, our findings indicate a significant positive impact of the perceived value on both dependent variables, repurchase intention and word of mouth, for both countries. These results are in agreement with those of [49,104,105,107], who report a positive impact among the variables of perceived value in relation to repurchase intention; they are also in agreement with studies on the word of mouth within experiential events [29,96,98,112]. Our work shows that for the Dutch sample, corporate social responsibility has a positive impact on repurchase intention and word of mouth, in accordance with [51,114,131]. For the Mexican sample, CSR was not a significant variable, so it was discarded as a determining variable. These results can be a consequence of the lack of practices on the part of craft beer companies and public policies on the part of the government related to CSR in Mexico.

7. Implications of Results

The development of consumer loyalty has been studied for the development of MSMEs through customer satisfaction and experience. Through this study, the impact of the flow experience is corroborated through the variables attention, concentration and notion of time for the countries of Mexico and the Netherlands. Likewise, this study validates the variable perception of value in both countries. In addition, it is important to mention that although the corporate social responsibility variable is not a predictor of repurchase intention and word of mouth for Mexico, for the Netherlands, it was a significant variable, so it is strongly suggested to be considered within the model. The successful implementation of this proposed model can create a competitive advantage for craft beer producers. Through this model, craft beer producers have the opportunity to keep their current loyal customers and also attract new loyal customers.

Within the academic context, this study contributes significantly to consumer-loyalty-development strategies by exploring the impact of the flow experience, perceived value and corporate social responsibility in an experiential context with craft beer in a comparison between Mexico and the Netherlands.

In this study, we found that the relationship between the variables that explain the experience of flow (attention, concentration and notion of time) and the relationship of the perception of value to loyalty through word of mouth do not significantly differ between the countries of Mexico and the Netherlands, so academics and researchers are encouraged to use them in the implementation of the model in other countries or other areas of consumption.

8. Limitations and Future Research

Some limitations are present in this study, starting with the differences of each craft beer company in both Mexico and the Netherlands in the implementation of tours and tasting experiences for the consumer. Likewise, to measure the value perception variable, the consumer must consume the craft beer before answering the survey, so this being an alcoholic beverage could have had an impact on the answers to the questionnaire.

With the contributions that were obtained through this study for both the academy and the industrial sector, future research is recommended. It is recommended to explore the craft beer sector in countries with growth in recent years such as: the United States, Belgium and Germany. Likewise, this study can also be helpful in analyzing other sectors focused on the experience of the consumer, such as the tea and coffee industry. These research suggestions would help in the development of MSMEs in terms of their permanence and consolidation.

9. Conclusions

This study contributes to the literature by analyzing the behavior of the craft beer consumer through experiential events such as tours and tastings. Here, we demonstrate that the development of loyalty can be achieved through repurchase intention and word of

mouth, developed with the experience variables of flow, perceived value and corporate social responsibility within an intercultural context in countries with different economic development. The study highlights the impact of cultural differences on the behavior of the Mexican and Dutch communities. We can observe from our data that, for both Mexico and the Netherlands, flow experience can be represented with three dimensions: attention, concentration and notion of time. Moreover, for the case of experiential events, involving tours and tastings, our results demonstrate that flow experience induces a positive effect on the variables repurchase intention and word of mouth. In combination, these results encourage MSMEs to design experiential events, considering both repurchase intention and word of mouth, to augment customer flow experience. Therefore, the model proposed in this work demonstrates that there is a positive link between the experience of flow and both variables, repurchase intention and word of mouth.

The positive relationship of the proposed variable of perceived value with repurchase intention and word of mouth is confirmed for both the Mexico and the Netherlands samples. However, we here show that corporate social responsibility is only a determining factor for loyalty through the intention to repurchase and word of mouth in the Dutch segment, discarding it for the Mexican population.

In conclusion, the results obtained show that the flow experience and the perceived value are determining variables in the development of consumer loyalty in the craft beer sector for the Mexican sample. Through them, consumer behavior including repurchase intention and word of mouth is made possible. For the Dutch sample, the model is more robust and includes corporate social responsibility as a determining factor for repurchase intention, word of mouth and the variables flow experience and perceived value.

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Appendix A. Indicators

Table A1. Indicators in the measuring instrument.

Construct		Items
	RI1	After attending this event I intend to continue consuming craft beer.
Repurchase	RI2	After attending this event I trust the quality of craft beer. A
intention	RI3	After attending this event, I consider craft beer as the first option as opposed.
	RI4	After attending this event I will look for how to buy craft beer.

 Table A1. Cont.

Construct	Items				
WOM -	WM1	I would recommend the consumption of craft beer after having attended this event.			
	WM2	After attending this event I will say positive things about craft beer.			
	WM3	After attending this event I hesitate to recommend craft beer. $^{\rm B}$			
	WM4	After attending this event I will not encourage my friends of family to consume craft beer. ^B			
	FE1	Enjoy the experience during the craft beer event to a high degree. ^A			
_	FE2	I found the experience in the craft beer event very rewarding.			
Flow experience	FE3	After attending this event my curiosity about the craft beer increase.			
	FE4	I would like to have an experience like the one lived in this craft beer event.			
	FE5	This craft beer event has exceeded my highest expectations.			
_	FE6	I feel better consuming craft beer compared to industrial beer.			
_	AT1	My attention remained specifically in the talk about craft beer.			
Attention	AT2	It was very difficult for me to keep my attention on the creation beer talk. ^B			
	AT3	My total attention was in the talk about craft beer received a the event.			
_	AT4	I did not have to strive to keep my focus on the craft beer tal received at the event.			
Concentration	CN1	It was not an effort to keep my mind on the talk about craft beer received at the event.			
	CN2	I had to make an effort to concentrate on the talk about craft beer. $^{\rm B}$			
	CN3	My total concentration is estimated in the talk about craft beer received at the event.			
	CN4	It was easy to understand the talk about craft beer.			
Notion of time —	NT1	During the talk at the craft beer event, I noticed that time passed very slowly.			
	NT2	It seemed that time stopped during the talk at the craft bee event. ^B			
	NT3	It seemed that things were happening in slow motion during the talk at the craft beer. ^B			
	NT4	During the talk at the craft beer event, I noticed that time went by very quickly.			
Perceived Value =	PV1	After attending this event, I recognize the differences between the price of craft beer. ^A			
	PV2	Compared to industrial beer, I prefer the variety of flavours that craft beer offers.			
	PV3	Compared to industrial beer, the craft beer consumed in this event offers better quality.			
	PV4	In comparison with industrial beer, I consider better the production processes of craft beer.			

Table A1. Cont.

Construct	Items		
Corporate Social Responsibility	Corporate Social Responsibility (active and volu contribution to social, economic, and environme CSR1 improvement by companies) is important because i me feel that I contribute or make a social or environmental difference		
	CSR2	If my friends thought that Corporate Social Responsibility (active and voluntary contribution to social, economic, an environmental improvement by companies) is important; would also pay more attention	
	CSR3	Corporate Social Responsibility (active and voluntary contribution to social, economic, and environmental improvement by companies) is an important factor in a satisfaction with my favourite craft beer brand.	
	CSR4	Corporate Social Responsibility (active and voluntary contribution to social, economic, and environmental improvement by companies) makes you feel confident in the company.	

Results of measurement model and confirmatory factor analysis. ^A Items were deleted during confirmatory factor analysis. ^B Reverse item.

Appendix B. Variance Inflation Factor—VIF

To explore possible multicollinearity problems, we proceeded to analyze the VIF value for the total sample and subsamples. The results show that VIF ranges (Table 4) from 1.05 to 2.7, which is beneath the threshold level of 3–5 as suggested by Cheung et al. [129] and thus shows lack of multicollinearity issues.

Table A2. VIF Values Structural Model—Total Sample.

	Flow Experience	Repurchase Intention	WOM
Attention	2.675		
Concentration	2.596		
Notion of Time	1.962		
Flow Experience		2.041	2.041
Perceived Value		2.332	2.651
Corporate Social Responsibility		1.047	1.047

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