

MODELLING BEHAVIORAL INTENTION TO VISIT TO HAINAN IN POST-COVID ERA: AN EXTENDED TPB

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Abstract. In the Post-COVID era, the behavioral patterns of tourists have undergone significant transformations, making it essential to understand the key determinants influencing their visit intentions, particularly in prominent destinations such as Hainan, China. The objective of this study is to construct a comprehensive model to investigate the behavioral intentions of tourists considering travel to Hainan. To establish the foundational framework, the Theory of Planned Behaviour (TPB) was adopted as the core theoretical basis. Through an extensive review of the existing literature, additional context-specific variables were identified and further validated through consultations with industry experts. Data were collected via a structured questionnaire, resulting in a total of 170 valid responses. To uncover the underlying factor structure, an exploratory factor analysis (EFA) was conducted. The findings reveal that, alongside the original constructs of the TPB, namely attitude, subjective norms, and perceived behavioral control; two additional factors emerged as significant: past behavior and risk perception. These newly identified components provide a deeper understanding of tourist decision-making in a post-pandemic context. This research contributes to the academic literature by proposing an extended TPB model that is more closely tailored to examining travel intentions toward Hainan. The enhanced framework not only reflects contemporary traveler concerns but also offers practical insights for destination marketers and policymakers aiming to revitalize tourism in the region.

Keywords: *extended TPB, behavioral intention, exploratory factor analysis, post-COVID era*

Introduction

The World Health Organization (WHO) designated the corona virus illness (COVID-19) to be a global pandemic on March 12, 2020, and it has resulted in substantial social, economic, and environmental losses worldwide. The tourist sector is one of the most negatively impacted of all. Many nations and localities closed their borders as the disease spread (Wan et al., 2024). The COVID-19 pandemic has had a substantial effect on the tourism and hospitality industries worldwide, as demonstrated by the 74% decline in foreign visitor arrivals in 2020 over 2019. The COVID-19 pandemic has had a significant influence on the tourism industry, and companies in this field face a number of difficulties as a result of the outbreak and decreased international mobility. Managers of tourist destinations and operators of tourism-related businesses faced enormous hurdles as a result of the pandemic's substantial changes in customer demands and behaviors.

According to the report, the tourism industry can be divided into four different periods according to the time of the development of the epidemic, which are Freezing Period of Tourism, Thawing Period of Tourism, Warming Period of Tourism, and Return to Growth Period of Tourism. In the "Freezing Period of Tourism", the number of takeaway orders has increased significantly along with the ban on dine-in, and

various provinces and cities have made corresponding restrictions and regulations on going out. With the control of the epidemic, tourism industry come to the “Thawing Period”, the initial stage of market recovery, consumers were still reluctant to go out and stay at home, but the long-term closed home situation made many consumers yearn to go out to play, so the recovery of non-lodging peripheral travel was earlier. With the hierarchical prevention and control of each city has been basically lifted, tourism industry comes to the third period which is called “Warming period”. The typical characteristics of this period are that air and rail passenger traffic will rebound significantly, and OTA platform orders will pick up significantly. When it come to “Return to Growth Period”, the epidemic is basically over, and consumers’ trust in the medical and health systems in various places has rebounded. After learning about the epidemic prevention and control situation in their destinations, consumers began to choose domestic long-term tours to satisfy their desire to play during the epidemic. The typical features of the return to the growth period are mainly that OTA orders have rapidly resumed growth, aviation and railway passenger transportation have recovered to the same level, and scenic spot tickets and hotel orders have recovered to the same level. The COVID-19 pandemic is over, as declared by the World Health Organization (WHO) in MAY 2023, when it was deemed to be no longer a “public health emergency of international concern” (Table 1).

Table 1. Four periods of tourism in the epidemic time.

Stage	Period of tourism	Typical features of the period
Tourism Freezing Stage	Freezing Period of Tourism	Eating out is suspended. Short-and long-distance transportation by air and rail is almost suspended there are almost no orders from OTA platforms
Tourism Recovery Stage	Thawing Period of Tourism	In the local scenario, the demand for dining out has begun to recover. The local and surrounding travel orders of OTA platform orders have rebounded.
	Warming Period of Tourism	Air and rail passenger traffic will rebound significantly. OTA platform orders will pick up significantly.
	Return to Growth Period of Tourism	OTA orders recovered rapidly, and air and railway passenger traffic recovered to the same level. Scenic spot tickets and hotel orders have recovered to the same level.

"Post-COVID Era" first appeared in President Xi Jinping’s phone call with the President of Tajikistan in 2020. It mainly covers a situation or stage that will exist for a long time after the epidemic. In this stage, the situation is complex and challenges and opportunities coexist. After that, many scholars discussed the concept and time definition of the “Post-Epidemic Era”. Yu et al. (2021) pointed out that in the post-epidemic era, tourists have a more rational understanding of tourism safety. At this stage, they have a strong willingness to travel, and their awareness of personal hygiene protection during tourism has significantly increased. External situational factors such as policies and tourism enterprise performance and tourists themselves. Under the influence of internal perception factors such as risk perception and travel mode cognition, tourists’ behavioral intentions have changed significantly. Hence, the behavioral characteristics of tourists in Post COVID period and the influencing factors of tourist behavior are very worthy of attention and research. According to Xuecong Fan’s research from 2023, the COVID-19 pandemic changed the travel habits and preferences of Chinese citizens. These included shorter trips, increased independence, a greater reliance on private transportation, and a preference for natural, outdoor, and less crowded attractions. To enable stakeholders, the government, hotel services, and

tourism marketers handle the tourism market more effectively and efficiently, it is imperative to understand their behavior (Pahrudin et al., 2021).

Literature review

The theoretical background

The theory of planned behavior (TPB), which is frequently used in the tourism industry to understand how tourists intend and behave when visiting a destination, was the subject of some of the investigations in the preceding study (Jamal and Budke, 2020). Nevertheless, there have only been a few studies conducted in the tourism industry that address the idea of planned behavior and COVID-19 (Pahrudin et al., 2021). For the current study, the intention of tourists is based on tourists' attitude towards a specific behavior, subjective norms which is the perception of other important people or relationships when an individual performs a certain behavior and behavior control cognition which refers to how easy or difficult it is for an individual to perform a particular behavior. The intention of tourists depends on these factors and can influence tourists behavior. The research plan is to apply the Theory of Planned Behavior (TPB) framework, which has been widely used in other behavior research studies, in order to gain a better understanding of the elements that affect how individuals travel in Post-COVID era (Ajzen, 2015) (*Figure 1*).

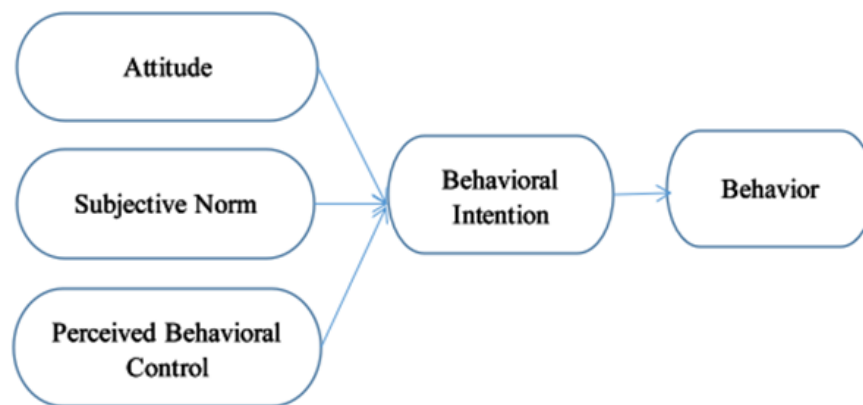


Figure 1. Theory of Planned Behavior Framework.

Human behavior theory

Human behavior theory states that the best indicator of behavioral intentions and subsequent conduct is the frequency of related past behavior (Sönmez and Graefe, 1998). Previous actions are a reflection of one's habits, and people typically like to continue acting in ways that are consistent with their values (Fredricks and Dossett, 1983). Past behaviors may be associated with corresponding rewards or punishments, influencing current and future behavioral choices (Skinner, 1957). Individuals may learn behaviors from past social experiences and apply them in future situations (Bandura et al.,1960). Past experiences may impact cognitive development and the formation of specific social cognitive models (Bandura et al.,1960). Motivation theories such as Maslow's hierarchy of needs explain how past experiences and the satisfaction of needs can influence an individual's consideration of past experiences in decision-making (Maslow,1950). Several studies have found that the TPB model's explanatory power

increases when previous behavior is taken into account. Previous studies have demonstrated a relationship between intra-pandemic perception and post-pandemic behaviors (Dedeoğlu and Boğan, 2021; Radic et al., 2021).

Risk theory

According to Reisinger and Mavondo (2005), risk is the potential for exposure to harm. But the aspect influencing people's decision-making is their perception of danger rather than the actual risk (Brewer et al., 2007; Bauer, 1967). People's subjective evaluations of the possibility of suffering from unfavorable events or contracting illnesses are known as risk perceptions (Slovic, 1987). As such, it has been extensively utilized as a crucial factor impacting travelers' choices and actions (Yu et al., 2021). In particular, research on COVID-19 tourism has demonstrated that risk perceptions are significant variables that influence decision-making processes either directly or indirectly, including travel plans (Pappas and Glyptou, 2021), destination selections (Neuburger and Egger, 2021; Rather, 2021), and lodging selections (Pappas and Glyptou, 2021). Travelers' decisions about tours, leisure pursuits, and psychological conduct are influenced by their perceptions of danger (Eid and Agag, 2020; Trope and Liberman, 2010). Risks that they perceive include those related to their health, social gatherings, the unavailability of resources, information lack of transparency, image risks, lockdowns, and travel interruptions (all of which have the potential to cause psychological anxieties). Ultimately, these risks influence their affective attitude toward tourism (Haldorai et al., 2019). Therefore, incorporating the risk perception of tourists into the model can better explain the formation mechanism of tourism behavior intention.

Attitude

There are two types of attitudes: attitudes toward behavior and attitudes toward the subject. The term "attitude towards behaviour" describes how travelers feel about the behaviour in question, such as how travel might promote new experiences and mental relaxation. Making new acquaintances and escaping to a beautiful location can be therapeutic. The tourists' attitudes regarding people, objects, or topics (apart from behaviors) are referred to as their attitude towards the subject matter. In other words, the subject's preconceived attitude and behavior are not directly related. Conversely, a behavior's tendency attitude and its actual occurrence are directly correlated. The determination of an individual to partake in a specific activity will be stronger if they have a more positive attitude about it. For instance, someone's intention to visit a particular beautiful location will be quite strong if he believes that going there makes him feel good and has a favorable attitude about it. This study is compatible with the Theory of Planned Behavior model's measurement of attitudes, which are attitudes toward the behavior rather than the object.

As a result, attitude, a person's favorable or negative assessment of a certain behavior, is the main factor that determines behavioral intention. A consumer's attitude influences whether they adopt a particular behavior, like making repeat purchases or recommending products. A customer will tend to recommendations and other actions when he has a favorable attitude toward them; if not, he will have a negative attitude. Not all relationships between attitudes and behavior have been thoroughly demonstrated by empirical research. The clear correlation between attitudes and behaviors is

acknowledged, despite the fact that numerous research findings refute this association. As a measurable psychological construct, attitude is stable and enduring, and it has some predictive power over behavior (Kraus, 1995). Many research have since been conducted on the attitudes that predict behavior and behavioral intentions in the area of consumption, and positive outcomes have been found in these domains. For instance, Zhou and Peng (2006) investigated the buy intentions of consumers from the standpoint of food safety and came to the conclusion that the attitudes of consumers regarding food safety influence their acceptance of food, which in turn influences their purchase intentions. By examining the public's propensity to buy food, attitudes about food are the result of a top-down structural process, and that attitudes influence consumers' willingness to buy. Positive buying intentions are typically generated by attitudes of approval. Littrell et al. (2004) employed the Fishbein model to gauge visitors' sentiments, and their findings demonstrated that visitors' perceptions of the local way of life have an impact on their propensity to purchase mementos. In summary, attitude is a variable that can be identified to affect tourism behavior intention. Therefore, attitude will be included in the model of this study.

Subjective norm

The term "subjective norm" describes how other significant individuals or relationships are perceived when someone engages in a particular activity; put another way, it describes the social pressure that someone feels to engage in a particular conduct (Ajzen, 1980). Subjective norms, according to Ajzen (1991), are the effects that prominent people or groups have on an individual when they carry out a certain activity. Subjective norms and behavioral intents are highly correlated. Subjective norms actually refer to the social pressure that the individual experiences or is subjected to from the relevant groups. If the behavior subject thinks that important people support the behavior, he is more inclined to engage in it. Important associated others are his spouse, family, friends, and other connected roles. According to Ajzen (1980), there are situations when environmental pressure has a greater impact on action than personal attitude. This effect is seen in both cases as attitude influences conduct intention, but the strength of the influence varies. Subjective norms and attitudes both have different degrees of effect at different times. Behavioral intentions can be influenced by attitudes, but they can also be dominated by subjective norms. For instance, bosses may occasionally put pressure on staff members to complete a particular assignment. Furthermore, research has demonstrated that attitudes may also be a medium via which subjective norms influence behavioral intentions.

In the rational behavior theory, subjective norms first relate to attitudes in a similar way and also function as independent variables that influence behavioral intentions. Subsequently, individuals gradually came to realize that subjective norms and attitudes are in fact related. Subjective norms have a substantial influence on attitudes, as numerous empirical investigations have demonstrated. However, subsequent empirical research results did not demonstrate a substantial relationship between the influence of subjective norms and behavioral intentions, which contradicts the idea of planned conduct. This could be the case because, in subsequent study, numerous academics have offered differing perspectives regarding the significance of the distinction between this direct influence and indirect influence, and since a portion of its influence on behavioral intention is really transferred through the mediation of attitude. Nevertheless, it is unclear if behavioral intentions are directly impacted by subjective norms or if

behavioral intentions are only indirectly impacted by subjective norms through the existence of attitudes. Subjective standards undoubtedly influence the mechanism by which intentions for tourism behavior are formed. Thus, the study's model will incorporate subjective norms.

Perceived behavioral control

Perceived Behavioral control cognition refers to how easy or difficult it is for an individual to perform a particular behavior, taking into account the individual's skills, resources, and opportunities. It is a reflection of how the person has previously engaged in the habit and affects how they anticipate potential roadblocks to doing so. Perceived behavioral control has a direct impact on behavior intention when it is in line with an individual's real capacity for behavior control. After proposing the theory of rational behavior, Ajzen (1985) later believed that an individual's behavioral intention is not only affected by attitudes and subjective norms, but also by the individual's willpower control over the execution of the behavior. The degree to which a behavior is carried out under the influence of willpower is referred to as willpower control, and many activities are completely under the direction of willpower. For instance, a rural tourist may choose to control his own volition and opt not to travel overseas even though he meets all the requirements in terms of attitude, subjective norms, etc. Ajzen introduced the idea of perceived behavioral control to represent the significance of willpower control on behavior in theory. In contrast to the Theory of Reasoned Action (TRA), the Theory of Planned Behavior (TPB) categorizes as behavioral control cognition a number of characteristics that cannot be explained by attitudes and subjective norms. The creation of the conceptual framework of planned behavior allows for a more thorough examination of the distinction between intended and actual action by characterizing activity as behavioral intention and perceived behavioral control (Conner and Armitage, 1998). At this point, the behavior subject will not have a strong intention to carry out the behavior, even if he has a positive attitude toward it and significant persons who are related to him encourage it. This cognitive process displays the impact of the behavior subject's prior experiences, expectations for the future environment, and attitude toward certain social norms on the motivation of the individual. As a result, in addition to personal motivation, other non-motivational elements that affect behavior execution include time, skill, and personal knowledge. Thus, the study's model will incorporate perceived behavioral control.

Past behavior

Past Behavior refers to the opinion that when people consistently carry out particular behaviors in particular ways, there is a very high likelihood that these behaviors will be repeated as long as they take place (Ouellette and Wood, 1998; Budd et al., 1984; Bentler and Speckart, 1981). There are many other empirical studies that have verified the direct impact of past behavior on behavioral intention. For example, Verplanken et al. (1998) studied the prediction of people's behavioral intention to use a car as a means of transportation, which proved that people's intention is very significantly affected by previous experience or experience of using a car. Ferguson and Bibby (2002) believed that behavioral intention can be predicted by occasional behavior and past behavior after studying the relationship between blood donors' past behavior and future blood donation intention. Knussen et al. (2004), after studying the behavior of environmental

waste dumpers, concluded that there is a strong correlation between intentions and past conduct. Aarts et al. (1999) analyzed consumers' supermarket choice decisions and believed that consumers' past behaviors had a very significant impact on their future choice decisions, even beyond the influence of factors such as the geographical location of the supermarket itself and its inherent service level. They believe that the significance of this effect may be determined by consumers' unwillingness to bear a large amount of time cost and selection risk. Overall, the results of these studies have confirmed that users' past behaviors have a significant impact on behavioral intentions, and the higher the correctness of their past behaviors, the higher their behavioral intentions. The lower the correctness of past behavior, the lower the behavioral intention. At present, many psychologists believe that: "More than 90% of what people do every day almost completely follow the usual procedure". This kind of routine procedure is what we call past behavior. Therefore, the past behavior of tourists before the epidemic not only affects their attitudes, but also affects their travel behavior after the epidemic. Therefore, incorporating the tourism behavior of tourists before the epidemic into the model can better explain the formation mechanism of tourism behavior intention.

Risk perception

According to behavioral sociologists, risk perception, a person's subjective assessment of the likelihood, that is, the possibility that they will be hurt by a dangerous event, the susceptibility, that is, their resistance to or vulnerability to disaster, and the severity, that is, the extent of the harm that a hazard can cause, is what influences people's changes in behavior (Bourque et al., 2012; Slovic, 1987). Many scholars have examined risk perception from a variety of perspectives, and they have integrated the Theory of Planned Behavior with risk perception (Ajzen, 1991). Perceived risk has been described as a complex phenomena consisting of multiple risk elements in the literature on tourism (Chien et al., 2017). When there is a perceived risk to their health, tourists steer clear of the area (Aliperti and Cruz, 2018). Rittichainuwat and Chakraborty (2009) as well as Reisinger and Mavondo (2005) have measured perceived risk as a mix of perceived severity (magnitude), anxiety (feeling of fear, anxiousness), and efficacy (safety concerns). During the SARS and HINI outbreaks, researchers mapped the risk perception using a variety of variables (Leppin and Aro, 2009). Perceived risk is thought to be significantly influenced by anxiety (Davis-Berman and Berman, 2002). According to Brewer et al. (2004), severity is a crucial factor in predicting how people would perceive danger. We can infer from this discussion that risk perception is influenced by severity, efficacy, and anxiety. Thus, the study's model will incorporate risk perception.

Intention to visit

Visit intention means the likelihood or intention of tourists to visit a destination in the future. It is also an indicator as to how much a person is willing to visit a destination (Demir et al., 2021). In general, a person's intentions are influenced by a variety of personal and influential beliefs. The dependent variable is visit intention, which is predicted by an independent variable such as attitude, perceived behaviour control, and subjective norm (Ajzen, 2015; 1991). Tourists' visit intention examines the reasons why tourists choose to visit one destination, as well as the tourists' preferences when visit a destination. When participants resolve to achieve their goals, they will have a reason to

do so. No further action can be taken unless that motive is present (Al Mamun et al., 2018). Visit intention influences tourists behaviour positively (Arora and Sahney, 2018). Intention denotes a person's desire to perform the behaviour, and it is a direct antecedent of behaviour (Al-Nahdi et al., 2015a; 2015b).

Consumer behaviour

Understanding consumer behaviour has become a critical issue in recent decades (Singh, 2019). Consumer behaviour is the study of individuals, groups, or organizations and the processes they use to select, secure, use, and dispose of products, services, experiences, or ideas to satisfy needs and the impacts that these processes have on the consumer and society (Stankevich, 2017). Consumer behaviour refers to the process that consumers go through when making purchases, and it includes factors that influence their decisions (Stankevich, 2017). So, consumer behaviour encompasses more than just making a purchasing decision or the act of purchasing; it also encompasses consumer interaction and the wide range of experiences associated with consuming (Nolcheska, 2017). Consumer behaviour is concerned with how individual consumers and families or households decide to spend their available resources (time, money, and effort) on consumption-related items (Karim and Khaled, 2020). Previous research has predicted that intention influences consumer behaviour (Al-Nahdi et al., 2015a; 2015b). Thus, studying both intention and consumer behaviour at the same time is illogical and necessitates a longitudinal study. As a result, this study assumes that intention will reflect behaviour.

Materials and Methods

The proposed model

The proposed model is depicted in *Figure 2*. The model demonstrates that five factors influence behavioral intention, which leads to actual behavior, such as visiting to Hainan. Attitude, subjective norms, and perceived behavioral control obtained from TPB, past behavior and risk perception comes from Human Behavior Theory and Risk Theory. Consumer behavioral intention is a very complex study that cannot be fully explained by a single model or theory. According to the proposed model, five variables can predict intention and assumed intention will reflect actual behaviour. This model adds to the literature on the behavioral intention to visit to Hainan. The model expanded on the TPB model by incorporating two additional latent variable: past behavior and risk perception, which are important in visiting to Hainan.

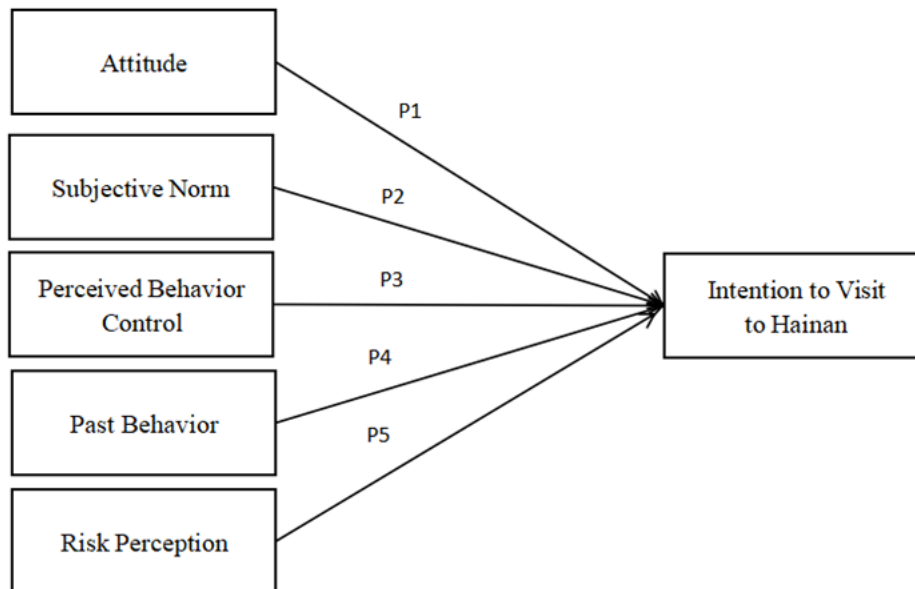


Figure 2. The proposed extended TPB Model.

The case background

Hainan Province, located in the southernmost tip of China, has a total population of approximately 10.27 million and is currently the second largest island in China. Hainan island is China's largest special economic zone and the only tropical island province. Hainan became the first ecological province in China in 1999, with a first-class natural environment and unique tourism and vacation resources. Now it has built holiday and tourism reception facilities with food, clothing, housing, transportation, education, entertainment and shopping, as well as a corresponding service team, with the ability to receive 30 million people annually. As a major strategic deployment of China, Hainan are building a world-class island leisure and holiday destination, making it an open island, green island, civilization island, and harmony island. In September 2023, the China State Council approved the "Hainan Province Land and Space Planning (2021-2035)", requiring Hainan to build a world-class tourist resort. The General Office of the Hainan Provincial People's Government issued an implementation document "Three-year action plan for the tourism industry in Hainan to develop at a high standard". Chinese government plans to systematically promote the internationalization and tourism-oriented transformation of the whole island, attract Chinese residents to return overseas consumption, build the first domestic alternative to outbound tourism shopping destination, and build an international tourism consumption center city. Benchmark the international first-class tourism service standards, vigorously improve the quality and level of tourism services. Improve the national tourism service awareness and the service skills of tourism practitioners. As a result of these justifications, Hainan is chosen as the primary subject of this study due to its importance to China's tourism industry.

Based on survey information provided by the provincial department of tourism, culture, radio, television, and sports in Hainan, Hainan Province received a total of 90 million domestic and foreign tourists in 2023, of which more than 89 million are domestic tourists, accounting for about 98.8% of the total number of tourists. This shows that domestic tourists are the main source of in Hainan Province. Therefore, this

study will focus on domestic tourists and will not take international tourists into consideration.

Sampling design

This study's sample population consists of people visiting in Hainan. In this study, the research was conducted by distribute questionnaires to tourists staying at 9 cities of Sanya, Haikou, Danzhou, Qionghai, Wenchang, Wanning, Dongfang, Wuzhishan and Sansha. A total of 180 questionnaires were distributed, 176 were collected, with a questionnaire collection rate of 97.8%. There were 170 valid questionnaires, with a questionnaire efficiency of 96.6%. In this study, 170 respondents were tested and is in line with this principle. To fulfil the study's objectives, certain sequential steps were taken to collect data. The questionnaire was distributed to the respondents through an online form-Wenjuanxing. The questionnaire requests information on attitude, subjective norms, perceived behaviour control, past behavior and risk perception. The entire data collecting process took 1 month, from June 2025 to July 2025.

Exploratory Factor Analysis (EFA)

Exploratory factor analysis (EFA) is a data-driven approach to factor analysis and is used to extract a smaller number of common factors that represent or explain the common variance of a larger set of manifest variables (Watkins, 2018). Factor analysis is a widely used technique for identifying latent constructs underlying questionnaire responses (Steiner and Grieder, 2020). According to Brown (2015), "a factor is an unobservable variable that influences more than one observed measure and accounts for the correlations between these observed measures". In other words, the observed measures are linked because they are caused by the same factor. EFA describes how the study was carried out and presents the findings in sufficient detail, clarity, and coherence to support the validity of the findings and justify the study's conclusion (Appelbaum et al., 2018). EFA is a multivariate statistical method that has become an important tool in the development and validation of psychological theories and measurements (Watkins, 2018). This study has undertaken an EFA approach since there is a lack of an established measurement scale to study tourists' behavioral intention in Hainan. This study has developed the initial questionnaire based on the literature review that has been subsequently consulted with and validated by the industry experts. The initial questionnaire contains a total of 38 questions, and after the EFA, the final questionnaire has been designed with 37 items.

Results and Discussion

Descriptive statistics

Table 2 represents the demographic analysis of the respondents. 49.4% of the respondents are female and 50.6% male. The largest number of the respondents are between 31-40 years old, accounting 32.9% and the smallest are over 60, accounting for 4.8%. As for the educational background, the majority have a bachelor degree, accounting for 37.1%. As for the occupation, the respondents who employed full time account for the largest proportion (55.3%). 2.4% are student (the lowest). Most of respondents' monthly income is between RMB 3,001-RMB5,000, with a percentage of 35.9%.

Table 2. Respondents' biographical information.

Variables	Population characteristics	Frequency	Percentage
Gender	Male	86	50.6%
	Female	84	49.4%
Age	18 – 30 years	40	23.5%
	31 – 40 years	56	32.9%
	41 – 50 years	48	28.2%
	51 – 60 years	18	10.6%
	61 years and above	8	4.8%
Education	Primary	5	2.9%
	Secondary	10	5.9%
	Diploma	31	18.2%
	Certificate	30	17.6%
	Bachelor Degree	63	37.1%
	Master	9	5.3%
	Doctorate Degree	2	1.2%
Occupation	Professional Certificate	20	11.8%
	Employed full time	94	55.3%
	Employed part time	28	16.5%
	Self employed	32	18.8%
	Student	4	2.4%
	Retired	7	4.1%
Income	Unemployed	5	2.9%
	Below RMB1,000	0	0%
	RMB1,001- RM3,000	30	17.6%
	RMB3001-RMB5,000	61	35.9%
	RMB5,001-RM7,000	39	22.9%
	RMB7,001-RMB9,999	31	18.3%
Above RMB10,000	9	5.3%	

Results of EFA

This study used 26 items to analyze the EFA. The results of KMO and Bartlett's of Sphericity are as follows. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy is 0.865 and Bartlett's Test of Sphericity shows significant with the p-value of 0.000 and Chi-Square 3549.313. This suggests that the data is suitable for conducting the EFA study. Our initial questionnaire had 38 questions. After EFA, we will keep the questions or measurement items of 25, considering the factor loading. Loadings are the correlations that exist between the resulting components and the initial variables. Cronbach's alpha coefficient was used to assess the items' internal reliability or consistency. *Table 3* shows that the items had an Alpha value greater than 0.7, indicating that the variables are reliable based on the measurement items chosen in EFA. In terms of loading, the majority of the items have loading greater than 0.70, which is recommended in the literature (Hair et al., 2016). However, items loadings below 0.70 have been deleted.

Table 3. Result of EFA.

New construct	Initial items	Revised items	Loading	Reliability (Cronbach Alpha)
Attitude	AT1	AT1	0.952	0.972
	AT2	AT2	0.968	
	AT3	AT3	0.910	
	AT4	AT4	0.924	
Subjective norm	SB1	SB1	0.744	0.753

	SB2	SB2	0.728	
	SB3	SB3	0.756	
Perceived behavioral control	PBC1	PBC1	0.814	0.838
	PBC2	PBC2	0.835	
	PBC3	PBC3	0.777	
Past behavior	PB1	PB1	0.786	0.825
	PB2	PB2	0.827	
	PB3	PB3	0.791	
Risk perception	RP1	RP1	0.718	0.905
	RP2	RP2	0.781	
	RP3	RP3	0.756	
	RP4	RP4	0.746	
	RP5	RP5	0.736	
	RP6	RP6	0.765	
	RP7	RP7	0.747	
Intention to visit to Hainan	IV1	IV1	0.835	0.889
	IV2	IV2	0.702	
	IV3	IV3	0.705	
	IV4	IV4	0.784	
	IV5	IV5	0.727	

Testing the propositions

We also tested the proposition using multiple regression method. The summary reports are presented in *Table 4* and also graphically in *Figure 3*. The model summary of SPSS output reports that R square values is .478 indicating 47.8% of the variances is explained by the predictors. The result of ANOVA reveals that the F value is 30.036 with p value <0.001 indicating the overall model relationship is significant. Regrading the individual propositions the findings reveal that all the relationships are significant. The predictors namely, attitude, subjective norm, perceived behavioral control, past behavior and risk perception have a significant positive relation with the intention.

Table 4. Result of multiple regression.

P	Relationship	SB	SE	t value	p value	Decision
P1	Attitude-->Intention to visit to Hainan	.134	.064	2.227	<.05	Supported
P2	Subjective norm-->Intention to visit to Hainan	.201	.074	3.000	<.05	Supported
P3	Perceived Behavior Control-->Intention to visit to Hainan	.154	.071	2.306	<.05	Supported
P4	Past Behavior-->Intention to visit to Hainan	.226	.062	3.574	<.001	Supported
P5	Risk Perception-->Intention to visit to Hainan	.287	.072	4.199	<.001	Supported

Note: P=Propositions; SB=Std. Beta; SE=Std. Error.

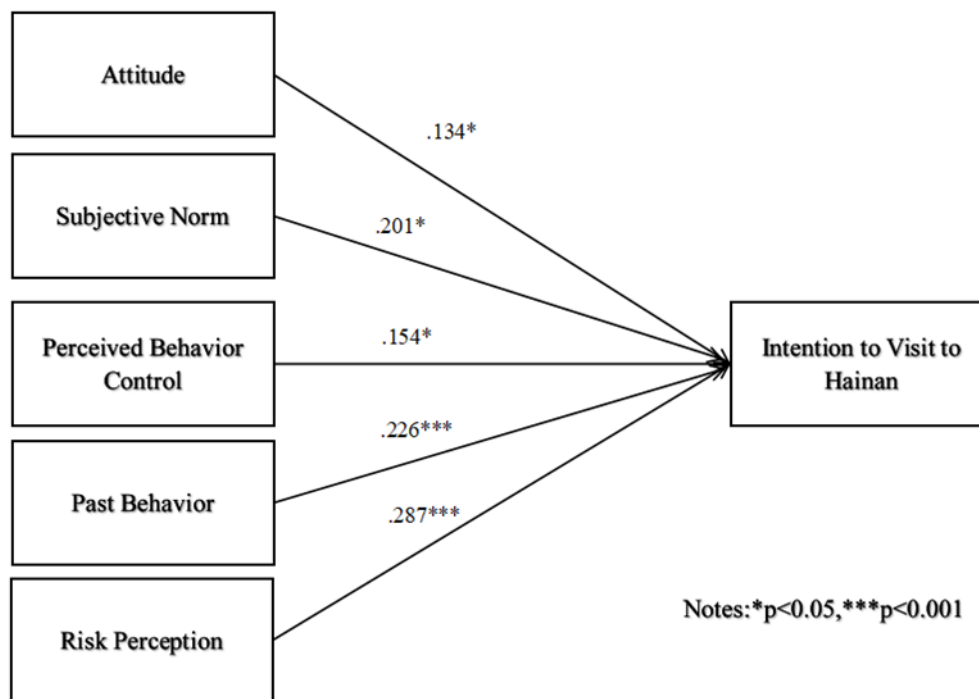


Figure 3. Graphical representation of the causal relationships.

Theoretical and practical implication

The present research used an extended TPB model to examine tourists' intention to visit to Hainan. Aside from TPB, the findings indicated numerous new characteristics that can be used to predict behavioral intention, including past behavior and risk perception. The TPB was employed to create initial factors including subjective norm, attitude, and perceived behavioral control in this study. Using exploratory factor analysis (EFA), the researchers discovered two additional important components. Additional aspects include past behavior and risk perception. Therefore, this study extended the TPB by integrating two additional contextual factors for studying behavioral intention. The expanded TPB model, rather than the original TPB model, appears to be a better fit for the circumstance. By establishing a model for understanding behavioral intention, this study contributes significantly to the literature. As mentioned before, the travel intentions and travel behavior characteristics of tourists in the Post-COVID era have changed greatly, so the establishment of a new model is very worthy and imperative. This study also bring practical implications. First, the proposed model helps Hainnan government to study the perceptions of tourists in tourism industry with an aim to understand their visit intention. Second, the empirical evidences of this study also provide useful information to the tourists engaged in tourism industry for better decision making regarding designing their products and services.

Conclusion

It is critical for both tourists and industry to understand the elements that influence tourists' visit intention to Hainan. To succeed in tourism industry, companies must first comprehend tourists behaviour while travelling in Hainan. The goal of the study is to

create a model for analyzing behavioral intentions to travel in Hainan. TPB was used as an underlying framework. This study identified other relevant factors by conducting exploratory factor analysis (EFA). Finally, a new proposal is presented. Based on the extended TPB, this study created a theoretical model of behavioral intention to investigate factors influencing tourists' intention to travel to Hainan. This paper adds to discussion by presenting two additional factors in addition to the one proposed by TPB. The addition of two variables is expected to improve the existing theory's explanatory power in the given content. Several limitations apply to this study. First, this study investigated the relevant factors using EFA without delving into the causal relationship between the independent and dependent variables. Second, no moderator or mediator was considered in this study. Therefore, future research could include a mediator and moderator. Although gender and age are usually used as moderator variables, it would be interesting to observe the tourism recovery strategy to tourism as moderator or mediator variables in this model. Finally, this study only considered the impact of psychological factors on consumer behavioral intentions and did not consider other factors, such as media influence and destination trust. Therefore, future research can deeper explore other factors.

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Conflict of interest

The authors confirm that there is no conflict of interest involve with any parties in this research study.

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