Investigating COVID-19 Risk Perception Effects on Chinese Theme Park Tourists’ Behavioral Intentions through a Model of Goal-Directed Behavior

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Abstract. This study investigates Chinese theme park tourists’ behavioral intentions through the lens of the Model of Goal-Directed Behavior (MGB), elucidating the effects of COVID-19 risk perceptions. A survey of 390 tourists was analyzed using structural equation modeling. Results demonstrate tourists’ epidemic risk perceptions significantly reduce desires and intentions to visit theme parks. Meanwhile, positive attitudes and emotions encourage desires, despite norms and control being insignificant. The findings imply safety assurances and bolstering positive messaging could mitigate adverse risk impacts and foster theme park industry recovery. This research pioneers application of MGB in examining tourism behavioral motivations during an enduring health crisis.

Keywords: Theme park; Goal-oriented behavior model; Tourism intention; Desire
1. Introduction

Tourism is one of the most important economic sectors in the world, providing employment opportunities for one-tenth of the world’s population and ensuring the livelihood of hundreds of millions of people. Theme park is a branch of the tourism industry. It is a modern artificial scenic spot with unique cultural content as its theme, expressed by modern science and technology and cultural means, and oriented by market innovation (Liang & Li, 2023). Theme park visitors are mainly families and traveling in groups, and their travel motivations are mainly leisure, relaxation and excitement seeking (Bigne et al., 2005). Theme parks do not rely on natural resources, are highly replicable, have rich categories, and are popular among young people. They are one of the fastest growing types of the tourism industry.

Theme parks have a positive relationship with local GDP, and the number of theme parks can usually reflect the level of regional development (Li et al., 2021). With the development of China’s economy, the growth of the middle class and the upgrading of consumption, theme parks have developed rapidly in the Chinese tourism market. Since China built its first theme park in 1983, the number of theme parks has continued to grow. In 2022, the number of theme parks in China will be approximately 3,180, with large theme parks accounting for about 13%, and small and medium-sized theme parks accounting for 87%. However, the COVID-19 epidemic in 2019 had a huge impact on the tourism industry, and the theme park industry suffered a heavy blow. Since most theme parks are indoor or a combination of indoor and outdoor settings, theme parks have been forced to close or restrict operations due to the impact of epidemic prevention and control policies. Perception of external risks will affect tourist behavior (Abraham et al., 2021; Rahmaitria et al., 2021). Under the influence of the COVID-19 epidemic, the behavioral patterns and psychological expectations of theme park tourists have changed, resulting in a sharp decline in theme park tourist flow and tourism revenue. Taking four well-known theme parks in China as an example, the passenger traffic of Hengqin Chimelong Ocean Kingdom in 2022 will decrease by 41% year-on-year, Shanghai Disneyland will decrease by 38% year-on-year, Beijing Happy Valley will decrease by 24% year-on-year, and Guangzhou Chimelong Paradise will decrease by 41% year-on-year. 41% reduction.

In 2023, epidemics such as influenza A, mycoplasma infection, and pneumonia have successively appeared in China, which have had a profound impact on tourists’ travel intentions and behaviors for densely populated theme park tourism (Fong L H N, Law R & Ye B H, 2021). Although existing research has proven that risk perception is negatively related to travel intention, that is, the stronger the risk perception, the weaker the tourist intention to travel (Peric et al., 2021; Meng et al., 2021). However, scholars mainly explore the relationship between travel intention and risk perception from a macro level, without considering theme parks as a special form of tourism. The travel intention of theme park tourists is affected by many factors, such as personal subjective and objective conditions, accumulation of travel desire, stimulation of travel intention, etc. In addition, theme park tourism has the characteristics of emotional participation, so this study adopted goal-oriented behavior model (MGB) as a theoretical framework. In light of the current global situation and the growing concerns about public health caused by the COVID-19 pandemic (Durgun & Davras, 2024), incorporating epidemic risk perception variables into the behavioral goal-oriented model (MGB) is particularly important for understanding visitor behavior in theme parks (Chiu & Cho, 2022). In the process of exploring the behavioral intentions and influencing factors of theme park visitors, this study considers the high risks and uncertainties brought by the epidemic and introduces the extended MGB model of epidemic risk perception (Osiako & Szente, 2024). In the post-epidemic era, what changes will occur in the behavioral intentions of theme park visitors under the influence of the health crisis? What factors influence theme park visitors’ travel desire and intention? This study focuses on the above issues. The research results will provide the theme park tourism industry with insights into tourists’ behavioral intentions, and the insights will provide useful reference for theme park practitioners to adjust operating strategies and optimize products and services.
2. Literature Review

2.1. Related research on goal-oriented behavioral models

Consumer behavior decision-making is a complex process that is affected by multiple subjective and objective factors. Since the 1970s, scholars in social psychology, marketing and other fields have continued to conduct research and try to establish consumer behavior decision-making prediction models. In order to explain consumer behavioral intentions and actual behaviors, classic research results such as the Theory of Reasoned Action (TRA) (Ajzen, 1980) and the Theory of Planned Behavior (TPB) (Ajzen, 1991) were produced, which are widely used in the field of tourism to influence tourist behavior. and prediction of travel behavior. However, both theories have certain shortcomings, and the theory of reasoned action cannot explain individual behavior in the context of external environment and internal intervention (Zint, 2002). The theory of planned behavior does not consider the impact of individual emotions on behavioral intentions (Conner & Armitage, 1998). In view of the limitations of the theoretical behavior theory and the theory of planned behavior in terms of emotion and motivation, Perugini and Bagozzi introduced the variable of expected emotion based on the theory of planned behavior based on the view that expected emotions influence the decision-making process (Parker, Manstead, & Stradling). Adding behavioral desire as a mediating variable, a goal-directed behavior model (MGB) was constructed (Perugini & Bagozzi, 2001).

MGB considers the impact of variables such as expected emotions and past behavior on individual behavioral decisions. Anticipated emotions are divided into positive expected emotions and negative expected emotions, which are the emotional results of individuals achieving or achieving characteristic behaviors (Bagozzi, Dholakia & Pearo, 2007), anticipatory interest can effectively amplify the effect of the theory of planned behavior by introducing decision-making criteria related to individual goals. Bentler and Speckart added the frequency of past behavior (FPB) variable to the MGB model, which is the frequency with which an individual performs a specific behavior over a period of time (Bentler & Speckart, 1981). Some scholars believe that past behavior or habits are indicators of individual behavioral intentions. Key determinants (Bagozzi, Dholakia & Pearo, 2007). Behavioral desire is a mental state of an individual, that is, an individual’s desire for a specific behavior to occur and his desire for other things and people (Taylor, Bagozzi & Gaither, 2005). Perugini and Bagozzi believe that adding behavioral desire variables can better integrate variables such as attitude, subjective norms, and willingness to control behaviors, and more effectively predict and judge individual behavior. The proposal of the goal-oriented behavior model theory has overcome the limitations of previous theories, emphasized the important role of emotional factors and the mediating role of behavioral desires, greatly improved the depth and breadth of research on behavioral intentions, and enhanced the understanding of individual behavioral decision-making. Its explanatory power and predictive power have been effectively verified and recognized in practical applications in various disciplines.

2.2. Research review on tourists’ travel behavioral intention

In the post-epidemic era, tourists’ travel intentions and behavioral trends have changed. These changes are mainly affected by factors such as health and safety, economic impact, and psychological impact. First of all, the epidemic has deepened people’s concerns about health and safety, enhanced risk perception, and are more inclined to choose destinations with strict health and safety measures (Fong L H N, Law R, Ye B H, 2021; Corbisiero F, Monaco S, 2021; Li J, Nguyen T H H, Coca-Stefaniak J A, 2021). Secondly, domestic tourism and short-distance travel are on the rise in China. Due to international travel restrictions and safety concerns, domestic tourism and short-distance travel are favored by tourists (Abraham V, Bremser K, Carreno M, et al, 2021; Li Z, Zhang S, Liu X , et al., 2020). Thirdly, the epidemic has accelerated the digital transformation of the tourism industry, such as virtual tourism, artificial intelligence and big data technologies, which are widely used in tourism marketing, service improvement and customer experience enhancement (Okafor L, Khalid U, Gama L E M, 2023). Finally, there are changes in tourists’ travel psychology. The epidemic has a profound impact on
people’s mental health and social behavior, including travel motivation, wind direction perception, etc. (Ánchez-Cañizares S M, Cabeza-Ramírez L J, Muñoz-Fernández G, et al., 2021; Rahmafitria F, Suryadi K, Oktadiana H, et al., 2021). In the post-epidemic era, the tourism industry faces the challenge of rebuilding trust, adapting to the new normal, and promoting sustainable development. Researchers, policymakers and industry players need to collaborate to leverage new technologies and innovative strategies to respond to these changes and seize new opportunities (Semley N, Horner S, Brunt P, 2017).

In research in the field of tourism, scholars conduct research based on the theory of reasoned action and the theory of planned behavior. The theory of reasoned action has been applied to tourist destination behavioral intentions (Lam & Hsu, 2006), tourist behavior and shopping intention (Lo & Qu, 2015), tourist visa intentions (Han, Lee & Lee, 2011), etc. The theory of planned behavior is based on the expansion of the theory of reasoned action, so it has also been widely used in the study of tourists’ travel behavioral intentions, such as tourists’ motivation and actual behavior (Hsu & Huang, 2012), tourists’ pro-environmental behavioral intentions (Zheng et al., 2022; Wang et al., 2020), European tourists’ choice behavioral intention towards green products (Nekmahmud et al., 2022), etc. However, based on the limitations of the theory of reasoned action and the theory of planned behavior, whether it can fully predict tourists’ travel behavior has been questioned. In order to achieve in-depth exploration of tourists’ travel behavioral intentions, some scholars have added new variables based on existing theoretical models to obtain better explanatory power (Hsu & Huang, 2012; Han, Lee & Lee, 2011). At the same time, some scholars have explored tourists’ travel behavior under the framework of the MGB model, and believe that the explanatory power of the model is relatively more significant (Meng & Han, 2016; Lee et al., 2020; Lee et al., 2012; Song et al., 2012). Currently, there are relatively few research documents on tourists’ travel behavioral intentions based on MGB theory, which is why this study chose MGB theory for research.

2.3. Research review on factors influencing tourists’ travel behavior decision-making

Tourism intention and behavior is a complex system that is affected by many factors. Positive factors will increase tourists’ intention and behavior, while negative factors will weaken tourists’ intention and behavior. In terms of psychological factors, residents’ behavioral intentions to support tourism were measured through modeling analysis of emotional solidarity and structural theory of planned behavior (Erul et al., 2020). When exploring which memorable tourism experiences affect tourists’ psychology, the main results show that novelty, participation and social activities will make tourists recall the tourist experience (Wei et al., 2019).

Social and cultural factors mainly explore and analyze how tourists’ social and cultural environment affects their travel intentions and behaviors. Compared with tourists from the Millennial generation, the intention to use AR technology among non-Millennial tourists is less affected by subjective norms (Zhuang et al., 2021). In the study of leisure travel behavior and behavioral intention, based on the extended TPB model, it was concluded that subjective norms have a significant impact on leisure travel intention (Huamin & Xuejing, 2019).

The technical aspect mainly analyzes technological progress, especially how information and communication technology changes tourists’ information search, travel decision-making, booking behavior and travel experience. For example, research has proven that attributes such as intelligent information systems, smart tourism, e-commerce systems, and intelligent forecasting have a positive impact on tourists’ perceived destination image (Tavitiyaman et al., 2021). The informativeness, interactivity, and personalization of smart tourism technology are key factors that affect tourists’ experience, satisfaction, and revisit intention (Jeong & Shin, 2020).

Pay attention to the long-term impact of the epidemic on travel intentions and behaviors, including concerns about health and safety, changes in tourism models, and emphasis on sustainable tourism and responsible tourism. The study believes that attitudes, subjective norms, perceived behavioral control and past outbound travel behavior have a significant positive impact on post-epidemic outbound travel
intentions. Risk tolerance has a negative moderating effect on the direct impact of residents’ perceptions of COVID-19 on their willingness to travel (Liu et al., 2021). After the epidemic, most tourists have a preference for rural tourism. Potential participants in rural tourism are most concerned about the performance realization and time cost of scenic spots, and the psychosocial risks brought by the new coronavirus have less impact. In terms of rural tourism travel intention and recommendation intention, risk aversion attitude has a greater negative impact than risk perception (Zhu & Deng, 2020).

This study aims to explore tourists’ risk perception of public health emergencies and its role in theme park tourists’ behavioral intentions and influencing factors, and conduct an in-depth analysis of tourists’ behavioral intentions with the help of goal-oriented behavior theory. This move not only expands the application of goal-directed behavior theory in specific situations, but also reflects the innovation of this study. By revealing tourists’ psychological responses and behavioral adjustment mechanisms when facing public health emergencies, this study aims to provide theoretical and practical guidance to the tourism industry and policymakers.

3. Model Construction and Research Hypotheses

3.1. Model construction

MGB is an improvement on the theory of planned behavior. By adding emotions, motivational processes and past behavioral frequencies, expected emotions are added as pre-variables and behavioral desires are set as mediating variables. Existing research has proven that the explanatory and predictive capabilities of MGB have been greatly improved (Wu et al., 2013). In order to explore the travel behavior intention of Chinese theme park tourists and its influencing factors, this article uses MGB as the theoretical basis and follows the method of empirical testing to conduct research.

Based on MGB, tourists’ behavior under risky and uncertain conditions can be effectively predicted (Kim & Hall, 2021; Kim et al., 2020). This study takes tourists’ theme park travel behavioral intention as the outcome variable. In their study of Korean tourists’ wine tourism decision-making based on MGB, Lee et al. pointed out that the frequency of past behaviors has no significant impact on tourists’ travel intention (Lee, Bruwer & Song, 2017). Therefore, this study deletes the past behavior frequency variable in the MGB model. When applying MGB, the model can be supplemented by adding some external variables that directly or indirectly affect individual behavioral intentions to ensure the application effect of the model (Leone, Perugini & Ercolan, 2004). In the post-epidemic era, people are eager to meet their travel and leisure needs, but at the same time they are worried about the risks of the epidemic. Finding a balance between releasing tourism demand and tourism safety perception has become the key to influencing tourists’ behavioral decision-making. Research believes that during the epidemic, tourists’ risk perception of the epidemic, travel risk perception, and travel behavior are related (Neuburger & Egger, 2021). Therefore, this article is based on the theoretical model of goal-oriented behavior (MGB), combined with the characteristics of theme park tourism and tourist behavior, and selects attitude (AT), subjective norm (SN), positive anticipated emotion (PAE), and perceived behavioral control (PBC) as the independent variable, behavioral intent (BI) as the mediating variable, behavioral intention (BI) as the dependent variable, add the epidemic risk perception (ERP) variable, and establish the relationship between epidemic risk perception and travel desire (TD) and behavioral intention (BI), the conceptual model of this study is obtained, as shown in Figure 2.
3.2. Research hypothesis

3.2.1. Epidemic risk direction perception and behavioral desire and behavioral intention

Epidemic Risk Perception (ERP) is people’s risk perception of diseases caused by public health events. This study mainly focuses on tourists’ fear of influenza caused by the COVID-19 epidemic. Safety is the lowest and most basic need of human beings. When there is an external threat of infectious disease, it will inevitably affect tourists’ safety perception, thus prompting them to change their travel plans. Existing research believes that the COVID-19 epidemic has greatly affected tourists’ risk perception (Rahman et al., 2021). The epidemic has significantly increased tourists’ risk perception, which in turn affects mental health and uncertainty, leading to tourists’ short-term travel avoidance behavior (Chua et al., 2021). Cognition is the key factor affecting tourists’ risk perception, and tourists’ risk perception of the external environment can reduce travel intentions (Sanchez et al., 2021). Based on the above analysis, hypotheses are put forward:

H1: The epidemic risk perception of Chinese theme park tourists has a significant negative impact on behavioral desire.

H2: The epidemic risk perception of Chinese theme park tourists has a significant negative impact on behavioral intentions.

3.2.2. Behavioral attitudes and behavioral desires

Attitudes are beliefs and feelings about people or things and the resulting behavioral tendencies. That is, an individual’s evaluative response to the positive or negative aspects of people or things (Petty, Wegener & Fabrigar, 1997). When an individual behaves, he or she usually predicts the consequences of the behavior based on interests, and this prediction forms the individual’s attitude towards the behavior. An individual’s attitude toward a behavior reflects the individual’s psychological desire to perform the behavior. Therefore, behavioral attitude is a key indicator for predicting behavioral intention (Ajzen & Madden, 1986). According to the theory of reasoned action and the theory of planned behavior, behavioral attitude has a significant positive impact on behavior, and behavioral attitude has a positive impact on behavioral intention through behavioral desire. In the tourism context, multiple studies have confirmed the positive impact of behavioral attitudes on behavioral desires (Duong et al., 2022; Chen et al., 2023). Based on the above analysis, hypotheses are put forward:

H3: The behavioral attitudes of Chinese theme park tourists have a significant positive impact on behavioral desires.

3.2.3. Subjective norms and behavioral desires

Subjective norms are the social pressure an individual feels on whether to adopt a certain behavior
(Schepers & Wetzels, 2007). That is, when predicting the behavior of others, external factors such as family members and mainstream opinions will put pressure on the individual, and these pressures will influence the individual to adopt a certain behavior. Behavior has an impact. According to the theory of goal-directed behavior, subjective norms indirectly affect behavioral intentions through behavioral desires. Sparks’ research pointed out that subjective norms will affect the behavioral intentions of wine tourism (Sparks, 2007). Based on the above analysis, hypotheses are put forward:

H4: The subjective norms of Chinese theme park tourists have a significant positive impact on behavioral desires.

3.2.4. Positive expectations, emotions and behavioral desires
As individuals who are not completely rational, their behavior will be affected by emotions. When faced with a specific thing or behavior, one will predict whether the behavior will bring emotional changes to oneself, that is, expected emotion. This study believes that traveling to theme parks can bring positive and positive emotional feedback. Based on the above analysis, hypotheses are put forward:

H5: The positive expectations of Chinese theme park tourists have a significant positive impact on behavioral desires.

3.2.5. Perceived behavioral control and behavioral desire
Perceived behavioral control is an individual’s perception of the difficulty of a specific behavior, and the degree of controllability of relevant factors that promote or hinder the execution of a specific behavior. Perceived behavioral control has a positive promoting effect on behavioral intention. Stronger behavioral control perception can strengthen the individual’s willingness to implement the behavior, making it more likely to make corresponding actual behavior. When an individual judges that he or she has sufficient resources to perform a certain behavior, the desire to perform the behavior will be strengthened. Based on the above analysis, hypotheses are put forward:

H6: Perceived behavioral control of Chinese theme park tourists has a significant positive impact on behavioral desire.

3.2.6. Behavioral desire and behavioral intention
Behavioral desire is an individual’s intrinsic motivation to perform a certain behavior and has strong predictive ability for individual behavioral intentions. In the current study, it is generally believed that behavioral desire will have an effect on behavioral intention (Chen et al., 2022).

H7: The behavioral desire of Chinese theme park tourists has a significant positive impact on behavioral intention.

4. Research Methods

4.1. Survey objects and questionnaire implementation
This study aims to explore the perceptions of epidemic risks among individuals with travel experience since the outbreak, as well as the influence and mechanism of goal-oriented behavior theory on their travel intentions. Using a combination of online and offline methods, this study distributed and collected questionnaires in Taiyuan City, Shanxi Province. Taiyuan Fantawild Theme Park was specifically selected as the site for empirical research, taking into account its attraction to young tourist groups and its Parents are highly concerned about health and safety. In the context of normalized epidemic prevention and control, such leisure places can not only provide space for stress relief, but also are important places for parent education and the spread of epidemic prevention and control awareness. Therefore, this study conducted a questionnaire survey in this environment, aiming to deeply understand and analyze tourists’ behavioral intentions and the psychological motivations behind them. At the same time, the distribution of the online questionnaire is not limited to specific regions to enhance the generalizability and applicability of the research.

Questionnaires were collected through two methods, online and offline. A total of 136 paper questionnaires and 269 electronic questionnaires were collected. The questionnaires were screened to
eliminate questionnaires with obvious answers and 390 valid questionnaires were obtained.

In the sample, men accounted for 53.85% and women accounted for 46.15%. This indicates that the gender distribution in the sample of this study is relatively balanced, with slightly more males than females. The age group distribution shows that respondents aged 18 to 25 account for the highest proportion, accounting for 29.49%, followed by those aged 26 to 30, accounting for 20.26%. This means that nearly half of the respondents in the sample (49.75%) are concentrated in young people aged 18 to 30. In terms of education level, most of the respondents (68.72%) have a college degree, followed by respondents with a graduate degree or above, accounting for 13.33%, indicating that the overall education level of the respondents in the sample is relatively high. Regarding average monthly income, the largest proportion of respondents (57.18%) have a monthly income between 3,000 and 5,000 yuan. From the descriptive statistical analysis, the sample of this study has the characteristics of relatively balanced gender distribution, young age, high education level, and middle economic income level. When assessing the impact of theme park visitors on epidemic risk perceptions, these characteristics are critical to understanding the behavioral intentions and motivations of the sample group.

<table>
<thead>
<tr>
<th>Table. 1: Demographic information of the sample.</th>
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<tr>
<td>name</td>
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<td>Gender</td>
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<td>Total</td>
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4.2. Scale design and its sources

In order to ensure the content validity of the measurement, the scales used in this study are all existing mature scales. Considering the differences in epidemic risk perceptions in different regions, as well as the authority and timeliness of the scale, the risk perception scale for this study was based on the COVID-19 Epidemic Risk Perception Scale developed by Chinese scholars based on big data samples (CUI, HAO & TANG, 2021), measured from three dimensions: severity, susceptibility, and controllability, with a total of 9 items. The scale collected 19,132 valid questionnaires, and the Cronbach’s alpha coefficient of the total scale was 0.824. The confirmatory factor analysis results showed that the model fitting indicators were all within the standard range, and it is an effective measurement tool for measuring the public’s risk perception of COVID-19. Therefore, this scale was
selected as a measurement scale for the epidemic risk perception of research subjects. The MGB model scale also refers to the mature scales developed by Davis et al., Venkatesh et al., and Taylor et al. In order to ensure that the scale can accurately reflect individual psychological and social factors in the specific behavioral context of theme park tourism, the following adjustments were made to the original MGB scale: In order to better reflect the unique charm and appeal of theme park tourism, the "attitude" (AT) dimension was refined, and an additional dimension describing the specific pleasure and value of theme park tourism was added. In view of the importance of family opinions in leisure travel decision-making, the "subjective norm" (SN) dimension is particularly strengthened to clarify the impact of family members’ attitudes and suggestions on individual behavioral intentions. The “Behavioral Intention” (BI) dimension concretizes participants’ descriptions of future theme park travel plans to more accurately measure the intensity and certainty of their travel intentions.

4.3. Scale reliability and validity test

Reliability testing is used to evaluate the consistency and stability of a measurement tool or scale. Internal consistency measures the correlation between items within a scale to determine whether they consistently measure the same concept. The most commonly used internal consistency measure is Cronbach’s alpha coefficient. The value of the alpha coefficient ranges from 0 to 1, with higher values indicating better internal consistency. An alpha coefficient greater than 0.7 is considered acceptable, greater than 0.8 is considered good, and greater than 0.9 is considered excellent. The reliability test results are shown in Table 1. According to the data in Table 2, the Cronbach’s $\alpha$ value of each variable is greater than 0.7, indicating that the consistency of the scale is acceptable.

Scale validity was measured through convergent validity and discriminant validity. Convergent validity is judged by two indicators: composite reliability (CR) of latent variables and average variance extracted (AVE) of latent variables. CR is the internal consistency of the facet indicator. The higher the CR value, the higher the consistency of the indicator. It is generally believed that the value should be higher than 0.6. AVE is the variance-explaining ability of each measured variable to its corresponding latent variable. It is generally believed that the value should be higher than 0.5. The measurement results are shown in Table 1. From the data in Table 1, it can be seen that the CR value and AVE value of each potential variable are higher than the standard value, indicating that the scale has good convergent validity. When the factor loading of a variable on a measured construct is greater than 0.5, it indicates that it meets the requirements of convergent validity (Fornell & Larcker, 1981). The standardized loadings between each measurement item and latent variable in this study are all higher than 0.5, indicating good convergent validity.

For discriminant validity, if the square root of the AVE value of a construct is greater than the correlation coefficient between the construct and other constructs, it indicates that the two constructs have good discriminant validity. According to Table 3, the square root of the AVE value of each latent variable is greater than the correlation coefficient between the latent variable and other latent variables. Therefore, the measurement scales of each latent variable have good discriminant validity.

<table>
<thead>
<tr>
<th>Latent variable</th>
<th>Measured items</th>
<th>Factor loadings</th>
<th>Significance level</th>
<th>Cronbach’s $\alpha$</th>
<th>AVE</th>
<th>CR</th>
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<tbody>
<tr>
<td>ERP</td>
<td>Once infected, it can have severe effects on one’s health.</td>
<td>0.685</td>
<td>** ***</td>
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<td></td>
<td>Infection leads to serious long-term effects.</td>
<td>0.745</td>
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<td></td>
<td>There is a high probability of death post-infection.</td>
<td>0.695</td>
<td>** ***</td>
<td>0.810</td>
<td>0.623</td>
<td>0.862</td>
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<td></td>
<td>I am highly likely to get infected.</td>
<td>0.785</td>
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<td></td>
<td>I am more susceptible to infection than others.</td>
<td>0.652</td>
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<td>AT</td>
<td>I perceive the epidemic in my area as severe and easily contractible.</td>
<td>0.756 ***</td>
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<td>AT</td>
<td>I believe the current epidemic’s spread and transmission are difficult to control.</td>
<td>0.741 ***</td>
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<td>AT</td>
<td>I think recovery post-infection is challenging.</td>
<td>0.852 ***</td>
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<td>AT</td>
<td>The current epidemic is far from over; the risk of infection is ever-present.</td>
<td>0.843 ***</td>
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<td>AT</td>
<td>Theme park tourism is enjoyable.</td>
<td>0.721 ***</td>
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<td>AT</td>
<td>Theme park tourism is valuable.</td>
<td>0.695 ***</td>
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<td>AT</td>
<td>Theme park tourism is attractive.</td>
<td>0.785 *** 0.921 0.720 0.847</td>
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<td>AT</td>
<td>Theme park tourism is relaxing.</td>
<td>0.695 ***</td>
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<td>AT</td>
<td>My family agrees with me going on theme park tours.</td>
<td>0.785 ***</td>
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<tr>
<td>AT</td>
<td>My family supports my theme park tourism.</td>
<td>0.951 ***</td>
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<td>SN</td>
<td>My family understands my desire for theme park tourism.</td>
<td>0.932 ***</td>
<td></td>
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<td>SN</td>
<td>My family suggests I go on theme park tours.</td>
<td>0.854 ***</td>
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<tr>
<td>SN</td>
<td>As long as I want to visit a theme park, I can make it happen.</td>
<td>0.874 ***</td>
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<td>SN</td>
<td>I have the autonomy to decide whether or not to visit theme parks.</td>
<td>0.812 *** 0.903 0.675 0.796</td>
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<tr>
<td>SN</td>
<td>I have sufficient funds for theme park tourism.</td>
<td>0.830 ***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SN</td>
<td>I have enough time for theme park tourism.</td>
<td>0.847 ***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SN</td>
<td>Visiting theme parks makes me happy.</td>
<td>0.832 ***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAE</td>
<td>Visiting theme parks leaves me satisfied.</td>
<td>0.795 *** 0.896 0.785 0.846</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAE</td>
<td>Visiting theme parks excites me.</td>
<td>0.802 ***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TD</td>
<td>I long to visit theme parks.</td>
<td>0.854 ***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TD</td>
<td>I hope to visit a theme park soon.</td>
<td>0.901 *** 0.874 0.769 0.842</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TD</td>
<td>I wish to visit a theme park soon.</td>
<td>0.874 ***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TD</td>
<td>I am ready to visit a theme park soon.</td>
<td>0.856 ***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TD</td>
<td>I plan to visit a theme park soon.</td>
<td>0.842 *** 0.912 0.744 0.837</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BI</td>
<td>I choose theme park tourism as my preferred leisure activity.</td>
<td>0.836 ***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BI</td>
<td>I will invest time and money in theme park tourism.</td>
<td>0.841 ***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: *** means $p < 0.001$. 

---

I believe the current epidemic’s spread and transmission are difficult to control. 
I think recovery post-infection is challenging. 
The current epidemic is far from over; the risk of infection is ever-present. 
Theme park tourism is enjoyable. 
Theme park tourism is valuable. 
Theme park tourism is attractive. 
Theme park tourism is relaxing. 
My family agrees with me going on theme park tours. 
My family supports my theme park tourism. 
My family understands my desire for theme park tourism. 
My family suggests I go on theme park tours. 
As long as I want to visit a theme park, I can make it happen. 
I have the autonomy to decide whether or not to visit theme parks. 
I have sufficient funds for theme park tourism. 
I have enough time for theme park tourism. 
Visiting theme parks makes me happy. 
Visiting theme parks leaves me satisfied. 
Visiting theme parks excites me. 
I long to visit theme parks. 
I hope to visit a theme park soon. 
I wish to visit a theme park soon. 
I am ready to visit a theme park soon. 
I plan to visit a theme park soon. 
I choose theme park tourism as my preferred leisure activity. 
I will invest time and money in theme park tourism.
Table 3: Discriminant validity test table for latent variables

<table>
<thead>
<tr>
<th>Latent variable</th>
<th>AT</th>
<th>SN</th>
<th>PBC</th>
<th>PAE</th>
<th>TD</th>
<th>ERP</th>
<th>BI</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>0.725</td>
<td>0.632***</td>
<td>0.645***</td>
<td>0.604***</td>
<td>0.742***</td>
<td>0.674***</td>
<td>0.352***</td>
</tr>
<tr>
<td>SN</td>
<td>0.632***</td>
<td>0.635***</td>
<td>0.635 ***</td>
<td>0.595***</td>
<td>0.645***</td>
<td>0.654***</td>
<td>0.354***</td>
</tr>
<tr>
<td>PBC</td>
<td>0.645***</td>
<td>0.635***</td>
<td>0.635 ***</td>
<td>0.651***</td>
<td>0.815</td>
<td>0.635***</td>
<td>0.387***</td>
</tr>
<tr>
<td>PAE</td>
<td>0.604***</td>
<td>0.595***</td>
<td>0.651***</td>
<td>0.901</td>
<td>0.634***</td>
<td>0.635***</td>
<td>0.352***</td>
</tr>
<tr>
<td>TD</td>
<td>0.742***</td>
<td>0.645***</td>
<td>0.684***</td>
<td>0.634***</td>
<td>0.835</td>
<td>0.842</td>
<td>0.432***</td>
</tr>
<tr>
<td>ERP</td>
<td>0.674***</td>
<td>0.654***</td>
<td>0.633 ***</td>
<td>0.651***</td>
<td>0.387 ***</td>
<td>0.331***</td>
<td>0.901</td>
</tr>
<tr>
<td>BI</td>
<td>0.352***</td>
<td>0.354***</td>
<td>0.387 ***</td>
<td>0.352***</td>
<td>0.835</td>
<td>0.842</td>
<td>0.331 ***</td>
</tr>
</tbody>
</table>

Note: *** means $p < 0.001$.

5. Model Fitting and Hypothesis Testing

5.1. Model fitting

On the basis of ensuring that each research variable has good reliability and validity, the study selected AMOS 23.0 as a tool to test the fit between the hypothesized model and the actual data. The study selected CMIN/DF as the measurement index. CMIN/DF less than 5 indicates that the model has good fitness. According to Table 4, each index value in this study meets the index critical value requirements.

Table 4: Model fitness test indicators

<table>
<thead>
<tr>
<th>Fit index</th>
<th>CMIN/DF</th>
<th>GFI</th>
<th>RMR</th>
<th>RMSEA</th>
<th>AGFI</th>
<th>NFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested value</td>
<td>&lt;5</td>
<td>&gt;0.9</td>
<td>&lt;0.08</td>
<td>&lt;0.8</td>
<td>&gt;0.8</td>
<td>&gt;0.9</td>
<td>&gt;0.9</td>
</tr>
<tr>
<td>Value of this study</td>
<td>1.654</td>
<td>0.954</td>
<td>0.042</td>
<td>0.047</td>
<td>0.921</td>
<td>0.954</td>
<td>0.995</td>
</tr>
</tbody>
</table>

5.2. Hypothesis testing

AMOS 23.0 software was used to test the fit between the construction model and the survey data, obtain the standardized path coefficients between the variables of the structural equation model, and empirically test each research hypothesis. The empirical test results are shown in Figure 2.
model are organized and Table 4 is obtained.

Table 5: Structural equation model path analysis and hypothesis testing results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path relation</th>
<th>Standardized regression coefficient</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>TD &lt;-- EPR</td>
<td>-0.112</td>
<td>0.039</td>
<td>-3.524</td>
<td>***</td>
<td>accepted</td>
</tr>
<tr>
<td>H2</td>
<td>BI &lt;-- EPR</td>
<td>-0.235</td>
<td>0.042</td>
<td>-6.625</td>
<td>***</td>
<td>accept</td>
</tr>
<tr>
<td>H3</td>
<td>TD &lt;-- AT</td>
<td>0.248</td>
<td>0.085</td>
<td>3.521</td>
<td>***</td>
<td>accept</td>
</tr>
<tr>
<td>H4</td>
<td>TD &lt;-- SN</td>
<td>0.004</td>
<td>0.052</td>
<td>0.057</td>
<td>0.658</td>
<td>reject</td>
</tr>
<tr>
<td>H5</td>
<td>TD &lt;-- PAE</td>
<td>0.368</td>
<td>0.083</td>
<td>6.542</td>
<td>***</td>
<td>accept</td>
</tr>
<tr>
<td>H6</td>
<td>TD &lt;-- PBC</td>
<td>-0.094</td>
<td>0.95</td>
<td>-1.524</td>
<td>0.175</td>
<td>reject</td>
</tr>
<tr>
<td>H7</td>
<td>BI &lt;-- TD</td>
<td>0.742</td>
<td>0.044</td>
<td>13.582</td>
<td>***</td>
<td>accept</td>
</tr>
</tbody>
</table>

The standardized path coefficient between theme park tourists’ epidemic risk perception and behavioral desire is -0.112, p<0.001, indicating that theme park tourists’ epidemic risk perception has a significant negative impact on behavioral desire, and hypothesis H1 is supported.

The standardized path coefficient of theme park tourists’ epidemic risk perception and behavioral intention is -0.235, p<0.001, indicating that theme park tourists’ epidemic risk perception has a significant negative impact on their behavioral intention, and hypothesis H2 is supported.

The standardized path coefficient of theme park tourists’ behavioral attitudes and behavioral desires is 0.248, p<0.001, indicating that theme park tourists’ behavioral attitudes have a significant positive impact on their behavioral desires, and hypothesis H3 is supported.

The standardized path coefficient of the impact of theme park tourists’ subjective norms and behavioral desires is 0.004, p>0.05. Therefore, hypothesis H4 “The subjective norms of Chinese theme park tourists has a significant positive impact on behavioral desires” is rejected. Although subjective norms (such as family opinions, social expectations) usually have some influence on personal behavior, in this study, the influence on behavioral desires was not significant. This shows that for theme park visitors, traveling to theme parks is based more on personal preferences and feelings rather than other people’s opinions or social norms.

The standardized path coefficient of theme park tourists’ positive emotion perception and behavioral desire is 0.368, p<0.001, indicating that theme park tourists’ positive emotion perception has a significant positive impact on behavioral desire, and hypothesis H5 is supported.

The standardized path coefficient of the impact of theme park tourists’ perceived behavioral control and behavioral desire is -0.094, p=0.05. Therefore, hypothesis H6 “Chinese theme park tourists’ perceived behavioral control has a significant positive impact on behavioral desire” is rejected. The impact of perceived behavioral control on behavioral desire is not significant, which means that tourists believe that they have control over whether to visit the theme park, but this perception does not strongly affect behavioral desire. The reason is that tourists believe they have the ability to go to theme parks, but this is not the main reason for their strong desire.

The standardized path coefficient of theme park tourists’ behavioral desire and behavioral intention is 0.742, p<0.001, indicating that theme park tourists’ behavioral desire has a significant positive impact on behavioral intention, and hypothesis H7 is supported.

6. Discussion

On the basis of the MGB model, this article constructs a conceptual model of factors affecting travel intentions when tourists face possible epidemic risks in the post-epidemic period. Through questionnaire surveys of tourists who are aware of epidemic risks, the empirical results show that epidemic Risk perception has a significant negative impact on theme park travel desire and behavioral intention. Attitude and positive emotion perception have a significant positive impact on theme park
travel desire, while subjective norms and perceived behavioral control have a significant negative impact on theme park travel desire.

First, theme park tourists’ popularity risk perception has a significant negative impact on travel behavior desire. The stronger the epidemic risk perception of theme park tourists, the weaker the desire for tourism behavior, and the low desire will be further transmitted to the behavioral level, making the theme park tourism behavior intention weaker (Agyeiwaah et al., 2021). In the presence of epidemic risks, even if tourists are eager to travel to theme parks, they will temporarily avoid traveling due to safety concerns (Abraham et al., 2021).

Second, theme park tourists’ travel behavioral attitudes and positive emotional expectations have a significant positive impact on behavioral desires. The more positive tourists evaluate a theme park, the stronger their behavioral desire to travel will be (Koo et al., 2021). When tourists believe that traveling to a theme park will bring positive emotions of happiness and satisfaction, the desire to travel to the theme park will be stronger. Affected by the epidemic, people have been quarantined at home for a long time. People generally have a positive attitude towards theme park tourism, a healthy and leisure form of entertainment, and believe that going to theme parks can obtain positive emotional feedback (Hosany & Prayag, 2013).

Third, theme park tourists’ subjective norms and perceived behavioral control do not have a significant impact on behavioral desire. In this research context, these two variables cannot be used as influencing factors to explore theme park tourists’ travel behavioral intentions. In the context of the epidemic, tourists’ travel behavior is more directly affected by the external environment and personal health considerations, rather than social expectations or personal sense of control. Health and safety concerns can override external expectations.

7. Conclusion

This study pioneeredly applied a Model of Goal-Directed Behavior to examine Chinese theme park tourists’ risk perceptions and travel intentions amidst the COVID-19 crisis. Empirical analysis reveals tourists’ perceptions of pandemic risks significantly dampen their desires and plans to visit theme parks as safety concerns override other motivations. However, fostering positive attitudes and anticipated emotions can still encourage greater intentions to visit theme parks, despite subjective norms and perceived control being overshadowed. These findings provide novel insights on risk impacts during enduring health emergencies and how tourist behavioral drivers operate in such contexts.

7.1. Theoretical Implications

This research incorporates the Model of Goal-Directed Behavior (MGB) into the study of behavioral intentions among visitors to theme parks in China, empirically substantiating the applicability of this theoretical model in this domain. In doing so, it significantly deepens academic understanding of the mechanisms behind theme park visitors’ behaviors. Specifically, this study introduces the novel aspect of epidemic risk perception into the MGB framework, examining its role within the behavioral mechanisms of theme park visitors. According to the findings related to the MGB, the perception of epidemic risk substantially diminishes visitors’ desire and plans to engage with theme parks, whereas positive attitudes and the anticipation of positive emotions act as motivators, encouraging visitors to actively pursue theme park tourism. This exploration not only validates the MGB within the context of theme park tourism but also enriches the existing body of environmental psychology research by integrating risk perception as a pivotal factor influencing the goal-directed behavior of consumers.

7.2. Research enlightenment

7.2.1. Improve tourists’ safety perception

In order to improve tourists’ safety perception, first of all, theme parks need to implement a series of comprehensive health and safety measures, including but not limited to adding hand disinfection...
stations, implementing temperature checks before entry, regular disinfection of public facilities, and Social distancing guidelines are marked in the ride queuing areas. Secondly, the latest information and policy adjustments on park health and safety should be released in a timely manner through official channels to ensure the transparency and timeliness of information so that tourists can fully understand the current health and safety conditions before traveling. In addition, the park can organize health and safety training activities and provide online health information brochures to enhance tourists’ self-protection awareness and abilities. Finally, establish a sound emergency management system, including cooperating with local health departments, setting up rapid response teams, and formulating detailed emergency response plans to ensure that in the event of a health crisis or other emergencies, measures can be taken quickly and effectively to the greatest extent possible, to ensure the safety and health of tourists.

7.2.2. Give play to the positive role of behavioral attitudes and positive emotional expectations
In order to play the positive role of behavioral attitudes and positive emotional expectations, theme parks should adopt diversified strategies to enhance tourists’ travel experience and satisfaction. First, strengthen brand promotion and highlight the unique charm of the theme park through various media and marketing activities, such as rich and diverse amusement facilities, unique theme activities, high-quality customer service, etc., to strengthen tourists’ positive expectations for the travel experience. Secondly, constantly innovate and optimize tourism products and services, such as introducing the latest amusement facilities, providing personalized visitor experiences, and regularly holding festivals and theme days to stimulate and maintain tourists’ positive emotions and interests. In addition, it strengthens interaction and communication with tourists, collects feedback from tourists through social media, customer satisfaction surveys and other channels, and adjusts and improves services in a timely manner to ensure that tourists’ needs and expectations are met. Finally, establish a positive community environment, encourage tourists to share their travel stories and experiences, and use word-of-mouth effects to form a positive public image, thereby attracting more tourists to participate and experience, and jointly create a more positive and pleasant tourism atmosphere. Through these specific and effective measures, we can not only enhance tourists’ sense of security and trust, but also stimulate their enthusiasm and satisfaction for tourism, thus promoting the long-term and healthy development of the tourism industry.

7.3. Limitations And Future Research
This study has several limitations. Tourism is a complex decision-making activity with many influencing factors. Although this study added the variable of epidemic risk perception, it did not consider the moderating role of some variables in it, such as the mass media effect (Qiao et al., 2021), Short video promotion (Yang et al., 2024), etc., more variables can be integrated into the MGB model in the future to explore the influencing factors of theme park visitors’ behavioral intentions from a broader level.

References


Durgun, S. & Davras, Ö. (2024). Determining the antecedents influences on travel intention and willingness to pay during the pandemic. *International Journal of Hospitality & Tourism Administration, 25*(1), 1-29.


