



The interconnected dynamics through structural equation modelling in the context of revisiting Phuket, Thailand in the aftermath of Covid-19

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Abstract

Phuket is a prominent tourist destination known for its magnificent beaches, vibrant nightlife, and fantastic classical architecture. Prior to the Covid-19 pandemic, the island attracted millions of visitors around the world, contributing to Thailand's economy. The aftermath of the Covid-19 pandemic has significantly reshaped the landscape of global tourism, and as the world gradually recovers, an intention to revisit tourist destinations is experiencing a renaissance. The aim of this research is to explore the connection between anxiety, attitude, perception, and revisit intention to Phuket, Thailand. Data collection was gathered through an online survey consisting of 3,194 responses all over Thailand, during October and November 2021. This paper presents the Structural Equation Model (SEM) in analyzing the relationship between the variables. The results of causal relationship model analysis of the connection between variables showed the consistency index of the model based on the Chi-squared test values ($\chi^2 = 499.034$, $df = 172$, $\chi^2/df = 2.901$, p value = .000, RMSEA = 0.024, RMR = 0.022, GFI = 0.986, NFI = 0.991, and TLI = 0.986). This holistic perspective contributes to the theoretical framework surrounding tourist behavior and mental health by illustrating how these constructs interact in the context of travel. However, the key finding from this research demonstrated that anxiety influences the opposite direction to revisit intention; anxiety exists only in the crisis situation.

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Introduction

Tourism continues to be a driving force in preserving natural and cultural heritage and ensuring that these legacies are enjoyed by future generations (Pololikashvili, 2021). In the early 21st century, tourism has become a global phenomenon and remains a powerful driver of economic development, shaping the identity of many countries worldwide (Hall, 2019). However, the emergence of the Covid-19 pandemic since late 2019 has led to a continuous decline in global tourist numbers. In the first quarter of the year 2021, there was an 83 percent decrease when compared to the same period in 2020 due to the ongoing travel restrictions and low consumer confidence resulting from the widespread coronavirus outbreak. This was followed by an unprecedented 73 percent decrease in international tourist arrivals in 2020, marking it as the worst year on record for international tourism. In the Asia and Pacific region, the issue of declining international tourist numbers remained a significant concern, with a 94 percent decrease in the first quarter of 2021 compared to the same period in 2020 (The World Tourism Organization, 2020).

In Thailand, the abundance of natural resources, both on land (mountains and forests) and in the waters (sea, rivers, lakes, and reservoirs) has attracted people from both within and outside the country to come and experience them (OpenDevelopmentThailand, 2017). Once experienced, these resources create fascination and a desire to return, as well as the inclination to share their experiences with others. This holds great significance for the development of Thailand's tourism industry. The Tourism Authority of Thailand (TAT, 2024) has designated tourism as the largest sector within various industries, with numerous connections to other businesses. Tourism plays a substantial role in generating income for the country. Therefore, the government has used tourism as a tool to shape policies and create strategies for national development.

Phuket province is in the southern part of Thailand and is a significant tourist destination for the country, often referred to as the "Pearl of the Andaman Sea" (Sarwono & Vionita, 2023). This is due to its remarkable natural beauty, with pristine white sandy beaches meeting the clear blue sea. Additionally, Phuket is known for its distinctive culture and architecture, especially the Sino-Portuguese style, which creates a unique blend of "East Meet West" where the East meets the West (Khoopongsakorn et al., 2022). It is a modern and international city while preserving its own art and culture.

Phuket is also a renowned centre for sea tourism on a global level.

Before the pandemic, Phuket was one of Thailand's premier tourist destinations and a bustling hub for international travellers. The tourism situation in Phuket in the period before the pandemic crisis was characterized by a steady increase in the number of visitors, both tourists and day-trippers. In the first five months of 2020, the number of foreign tourists was 3 million (Thaicharoen et al., 2023), while generally there are more tourists visiting Phuket such as 12 million travellers in 2023 (The Nation, 2023). The pandemic significantly impacted the tourism sector worldwide, including Phuket, leading to travel restrictions, closures, and a drastic reduction in tourist arrivals (Chuenniran, 2023). However, tourism in Phuket during the first half of 2024 is recovering strongly, with a total of 4.3 million foreign tourists, which is only 7 percent lower than pre-Covid levels. For the second half of the year, it is expected that foreign arrivals will exceed 2.7 million (Bangkokbiznews, 2024). These visitors were divided into Thai nationals, accounting for 25.6 percent, and foreign nationals, accounting for 74.4 percent of the total (Phuket Provincial Statistical Office, 2024).

Recently, numerous studies have emphasized tourist crises, particularly during and after the Covid-19 pandemic which have caused enormous damage to the local and global tourism industry (Bhati et al., 2020; Novelli et al., 2018). The topic of tourists' intention to revisit has received much scholarly interest in the travel and tourism literature over the past 10 years (Zulfiqar et al., 2024) as it is considered vital to contribute to the profitability and sustainability of the tourism industry (Alves et al., 2019). Yet previous studies have been shown to study the antecedents of tourists' revisit intention, tourists' experiences and satisfaction on revisit intention (Zhang et al., 2021), the role of revisiting the destination (Choo & Petrick, 2014; Ranjbarian & Pool, 2015). Prior published literature in tourism emphasizes on destination image, service quality, satisfaction, and perceived value affecting revisiting a destination, while rarely studying the way these factors help predicting intention to revisit (Abbasi et al., 2021).

To fill this gap, the aim of this research is to explore the connection between anxiety, attitude, perception, and implications for revisiting Phuket, Thailand. Hence, the research objectives include: to explore factors influencing the revisit intentions to Phuket province, to analyse the causal relationships of anxiety, attitude, and perception towards the intention to revisit Phuket province, and to provide recommendations for tourism marketers and stakeholders in Phuket to enhance tourists' perceptions

and reduce anxiety, thereby increasing revisit intentions. The unique contribution of the study lies in its focus on the psychological dimensions of tourist behaviour during crises, its practical implications for enhancing tourism recovery strategies, and sustainable tourism post-Covid-19.

Literature Review

People commonly experienced anxiety during the Covid-19 pandemic, which influenced them to adopt behaviour to protect their health (Akdeniz et al., 2020). When people misunderstand a disease, they may develop negative perceptions that can create social and psychological problems, including stigma, which in turn can trigger excessive anxiety (Yeni et al., 2018). Anxiety, attitude, and perception are three intertwined facets of the human psyche that wield a profound influence on one's confidence to act on something (Ajzen, 1991). This section explains each variable, including perception, attitude, anxiety, and revisit intention, followed by the hypothesis, and the relationship between these variables.

Perception is a subjective norm, which directly influences tourists' psychology and decision-making processes (Jiang et al., 2022). Knowledge perception refers to a tourist's ability to recognize and understand risks related to tourism and Covid-19, which can enhance their sense of control in uncertain situations (Zhang et al., 2021; Zhu & Deng, 2020). Tourists who feel more knowledgeable are likely to engage in travel activities as they believe they can better manage risks (Tassiliello & Tillotson, 2020). However, when travellers face difficulties during their trips, they quickly develop risk perceptions that can lead to dissatisfaction and decreased intentions to revisit (Khasawneh & Alfandl, 2019; Rindrasih, 2018). Various risks can hinder tourist flows and affect destination perceptions, with the Covid-19 pandemic being a prime example of this phenomenon (Perić et al., 2021).

Attitude pertains to an individual's overall assessment of engaging in a particular behaviour. Attitude comprises cognitive, affective, and behavioural components which describe the tourists' psychological tendencies expression of positive or negative when engaging in certain behaviours. According to Liu et al., (2018), tourists' attitude toward destination has a significant influence on travel intention while destination image impacts tourist attitude. The concept of attitude is considered a crucial factor in predicting behaviour, especially in the context of purchasing behaviour. People's approach to Covid-19

was reflected in how willing they were to comply with government-mandated quarantine and social distancing measures (Roy et al., 2020).

In the light of the Covid-19 pandemic, the tourism industry must adopt strategies to mitigate and alleviate tourist anxiety (Jamal & Budke, 2020). Anxiety is a crucial factor influencing travel behaviour; as anxiety levels rise, the inclination to avoid risky behaviours also increases (Allen et al., 2019). Dealing with uncertain situations can heighten anxiety levels, especially when there is a perceived risk of mortality. This can lead both healthy and vulnerable individuals to adopt protective behaviours (Shigemura et al., 2020). Anxiety is often overlooked when examining factors influencing travel intentions, although anxiety levels did not relate to travel intentions (Şengel et al., 2023). Kovačić et al. (2019) found that while perceived risk raises travel anxiety, it lowers the intention to travel.

Revisit intention refers to a tourist's likelihood of returning to a destination, reflecting loyalty and potentially enhancing economic benefits for that location (Gyte & Phelps, 1989). Despite its importance, there is a notable lack of research on factors influencing revisit intentions (Li et al., 2018), making it crucial for developing marketing and management strategies in tourism. Various factors have shaped the intention to revisit Phuket post-pandemic, including health and safety protocols, Phuket Sandbox Model, vaccination status, digital marketing, sustainable tourism initiatives, flexible booking options, and government support. The proactive management of the pandemic has fostered trust among tourists, particularly through Phuket Sandbox initiatives. Additionally, the Thai tourism industry's resilience and gradual reopening have helped restored confidence in Thailand as a safe destination. Effective communication about safety measures has further encouraged travellers to consider returning, however, individual intentions to revisit vary based on health concerns and the global situation. Overall, Thailand's commitment to safety and its allure as a tourism destination significantly contribute to rebuilding visitor confidence. From reviewing the related literature, the proposed hypotheses are (Figure 1):

H1: Perception has a positive relationship with anxiety.

H2: Perception positively influences attitude.

H3: Anxiety positively influences attitude.

H4: Perception positively influences revisit intention.

H5: Anxiety positively influences revisit intention.

H6: Attitude mediates the relationship between perception and anxiety on revisit intention.

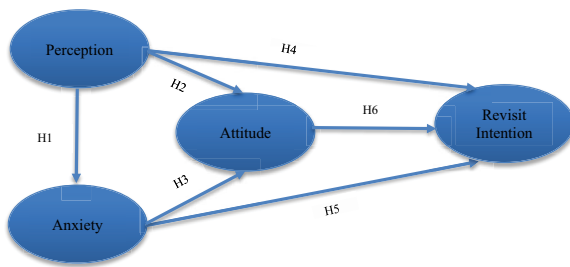


Figure 1 The proposed conceptual model

Relationship between the variables

The Theory of Planned Behaviour highlights subjective norms as a crucial factor influencing behavioural intentions, reflecting how individuals perceive the views of their reference groups (i.e. family and friends) (Belanche et al., 2019). Research shows that tourists' intentions to revisit are shaped by their attitudes, subjective norms, and perceived behavioural control (Han et al., 2020). Additionally, tourists' perceptions of travel destinations significantly impact their revisit intentions (Hasan et al., 2017). While tourist anxiety can negatively affect travel intentions by navigation of potential travellers away from anxiety-inducing destinations, this effect has diminished since the Covid-19 pandemic. Although perceived risks still generate anxiety, they no longer necessarily discourage travel intentions (Kovačić et al., 2019; Şengel et al., 2023). Revisit intentions are influenced by consumers' perceptions and anxieties regarding safety standards and control measures at destinations. The relationship between perception and anxiety is mediated by attitude, which can directly or indirectly influence the intention to revisit. Covid-19 has acted as a stressor, triggering significant anxiety responses that can lead to behaviour changes (Malesza & Kaczmarek, 2021). Tourists face various uncertainties related to hygiene, transportation, cultural differences, security, and language barriers, shaping their risk perceptions before travelling. However, these perceived risks do not essentially affect their intention to revisit a destination (Hasan et al., 2020).

Methodology

This is a quantitative research project where the researchers distributed a survey via Google Forms online, consisting of 3,194 respondents who have previously traveled to Phuket province. Hair et al. (2010) noted that

contemporary sample sizes are adaptable and depend on the nature of the data being analyzed. Most of the measurement scales utilized are interval scales, often incorporating aspects of Rensis Likert's scale which typically ranges from 1 to 5. However, Boomsma (1985) stated that a minimum sample size of 100 or 200 is required for structural equation modeling (SEM). Data collection occurred during October and November 2021 after the Phuket Sandbox project by the Tourism Authority of Thailand on June 29, 2021, believing that the sandbox approach could revive tourism. The researchers aimed to analyze whether there was interest from tourists following the confirmation of plans to reopen Phuket. Additionally, Phuket was the only location (by that time) under trial, allowing vaccinated individuals to travel. This research employed a systematic data collection procedure with multi-stage sampling stratified by regions and provinces (Makmee et al., 2024; Prasertcharoensuk et al., 2020). The process of collecting data from questionnaires involves several steps, including (1) developing metrics: creating measurement standards and criteria, (2) distributing the questionnaires through an online system, (3) statistically processing the data using a structural equation model (SEM), (4) analyzing the results comprehensively and providing additional recommendations based on the research findings obtained from the closed-ended questionnaires. The statistical presentation of data covers all aspects studied, enabling clear numerical analysis of relationships and differences.

The researcher conducted a thorough review of the literature and relevant research works to develop a framework and guidelines for constructing the questionnaire. The questionnaire was divided into three parts; Part 1 includes personal information of the survey respondent, Part 2 includes information on anxiety, attitude, and perception to revisit Phuket in the form of multiple-choice questions. These questions are in a survey format, and they use a 5-Point Likert Scale, where 5 indicates the highest level of agreement, and 1 indicates the lowest (Likert, 1970).

Participants: The research was conducted in Thailand to investigate customers' intentions to return to Phuket, as Thailand's most popular province generating large income into a country. Respondents were selected through a convenience sampling method. The sample population included Thai people with various age groups who had lived or visited Phuket. The questionnaire was posted on social media such as Facebook page of a traveling group and Pantip.com in Blueplanet group. A total of 3,308 questionnaires were sent out and 3,274 questionnaires were returned. However, after cleaning

invalid and missing data in the questionnaires, 3,194 valid questionnaires were obtained. The sample size met the minimum requirement of at least 385 according to the appropriate sample size for a 95 percent confidence level (Cochran, 1977).

Data were analyzed by examining personal data, residence, chance to visit Phuket province, and intention to revisit Phuket province by descriptive statistics, which is the mean and standard deviation. Upon obtaining the data, SPSS was used for descriptive statistics throughout this study. The Structural Equation Modelling (SEM) using AMOS was employed to validate the questionnaire's rationality, which primarily tests the data's reliability and validity (Hair et al., 2012).

Reliability and Validity Analysis: The researchers ensured the reliability and validity of the constructs by evaluating internal consistency by using composite reliability and Cronbach's alpha (α). Hair et al. (2012), noted that when measuring internal consistency, the accepted reliability of above 0.70 is required. The researchers conducted a pilot test with 30 people where the Cronbach's alpha was 0.890. The purpose of this pilot study was to evaluate the content validity of the research instrument using the Item-Objective Congruence method with three experts in the field of management, tourism, and statistics. The IOC score was 0.85. Convergent validity was confirmed by assessing inter-correlations among indicators within the same constructs using factor loadings and average variance extracted (AVE). All constructs in the measurement model demonstrated highly significant factor loadings exceeding 0.5 (p value < 0.001), indicating robust reliability and strong associations with their respective constructs (Sarstedt et al., 2017). The average variance extracted (AVE) values of the variables were 0.701 (perception), 0.707 (anxiety), 0.650 (attitude), and 0.648 (revisit). Thus, this research successfully proves convergent validity.

Results and Discussion

The demographic characteristics of the participants in the study are presented below (Table 1 and Figure 2):

Data shown in Table 2, factor loading indicate the strength of the relationship between each indicator and its corresponding construct, where values above 0.70 are generally considered acceptable, meaning that the construct explains more than 50 percent of the variance in the indicator. Cronbach's alpha (α) assesses internal consistency reliability, showing each variable is related to its own group. For instance, values of 0.933 in perception,

0.923 in anxiety, 0.874 in attitude, and 0.926 in revisit all indicate acceptable reliability. Average variance extracted (AVE) measures the level of variance captured by a construct in relation to the variance due to measurement error. Value above 0.50 suggests the construct explains more than half of the variance in its indicators. The constructs show an AVE of 0.701 (perception), 0.707 (anxiety), 0.650 (attitude), and 0.648 (revisit) indicating good explanatory power. Finally, all the composite reliability (CR) values above 0.70 are considered reliable.

All constructs demonstrate discriminant validity according to the Fornell-Larcker criterion since the square roots of their AVEs are greater than their respective correlations with other constructs. Table 3 and Figure 3 illustrate that each construct (revisit, perception, anxiety, and attitude) is distinct from one another, thereby confirming their individual contributions to the overall research model without excessive overlap.

Table 4 compared the model fit statistics of the initial model and the modified model. The modifications made to the model resulted in substantial improvements across all fit indices, indicating that the modified model provides significantly better data compared to the initial model. This suggests that the adjustments made during the

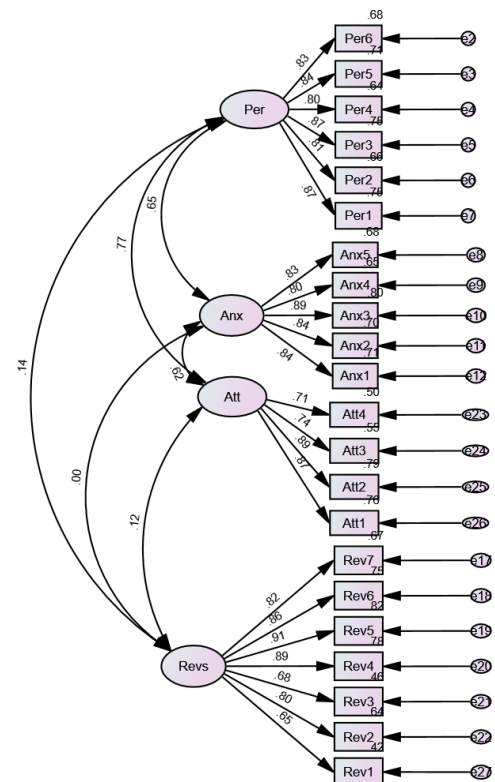


Figure 2 The measurement model

Table 1 The characteristics of the participants

Characteristics	n = 3,194	Percentage
Gender		
Male	1,173	36.7
Female	2,021	63.3
Age		
20 years or below	387	12.1
21–30 years	832	26
31–40 years	525	16.4
41–50 years	697	21.8
51–60 years	576	18
More than 60 years	177	5.5
Occupation		
Freelance	403	12.6
Government officer	1,323	41.4
Selling goods	49	1.5
Company's employee	386	12.1
Private enterprise	207	6.5
Others	826	25.9
Income		
Below 10,000 Baht	932	29.2
10,001–20,000 Baht	529	16.6
20,001–30,000 Baht	391	12.2
30,001–40,000 Baht	467	14.6
40,001–50,000 Baht	307	9.6
More than 50,000 Baht	568	17.8
Residence		
Not living in Phuket	3,194	100
Hometown		
North	522	16.3
South	297	9.3
Central	1,858	58.2
Experienced to Phuket		
Yes	1,633	51.1
No	1,561	48.9
Interested in revisiting Phuket		
Yes	594	18.6
No	1,913	59.9
Not sure	687	21.5

modeling process were effective in enhancing its validity and reliability. The results of causal relationship model analysis of the connection between anxiety, perception, attitude, and revisit Phuket, Thailand with AMOS program showed the consistency index of the model as follows: Chi-squared (χ^2) is 499.034, Degrees of freedom (df) is 172, Chi-squared ratio and the degrees of freedom (χ^2/df) is 2.901. The p value of the test statistic is $<.001$. The root mean square error of approximation (RMSEA) is 0.024. The root mean square residual (RMR) is 0.022. The goodness of fit index (GFI) is 0.986. The normed fit index (NFI) is 0.991. The Tucker-Lewis index (TLI) is 0.986. The compliance index meets the specified criteria: Chi-squared (χ^2) is less than 3, RMSEA, RMR less than

0.05 and GFI, NFI, and TLI more than 0.95 (Schumacker & Lomax, 2016). Therefore, it can be concluded that the causal relationship model of the connection between anxiety, perception, attitude, and Phuket revisit intention that developed is in line with empirical data and the details of the analysis.

The results of hypothesis testing (Table 5) for all the specified variables mostly support where the perception, anxiety, attitude can concurrently explain the variance of revisit at 0.05 percent. The hypothesis test results mean that perception has a direct effect on anxiety (0.710), followed by attitude (0.648) and revisit (0.159). Anxiety has a direct effect on attitude (0.185). Attitude has a direct effect on revisit intention (0.115). Except for hypothesis 5 (H5) where anxiety positively influences revisit, which has supported negative relationship (-0.180). The research results are inconsistent with the hypothesis, suggesting that as anxiety increases, the revisit intention decreases. Thus, anxiety levels affect the travel behaviour in the wake of Covid-19 pandemic (Şengel et al., 2023; Williams, 2015). This confirms the theory of anxiety/risk reduction management stating that when people experience high levels of anxiety and perceived risk, they have low confidence and tend to avoid that environment (Gudykunst & Hammer, 1988). However, anxiety influencing the revisit intention to Phuket province only exists during the period when the Covid-19 situation occurred. When the situation recovers, people tend to visit the destination.

The results of this study confirmed the hypotheses (H1-H6, whereas H5 was not supported), these findings aligned with Srisuwan (2019), who specified that trust in individuals, based on their knowledge and understanding, involves perception, feelings, as well as outward demonstrations of intentional behaviors, acceptance of loss, and positive expectations towards individuals or something under certain circumstances. This also aligned with Phansuma and Boonruksa (2021), who indicated that the sources of pandemic information are related to knowledge, attitudes, and behavior. The sample group

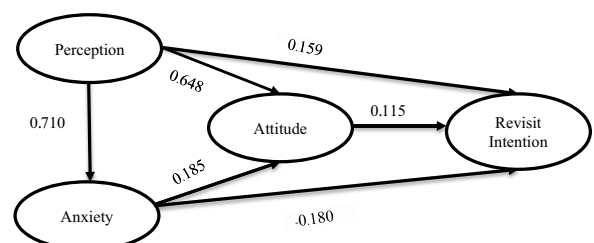
**Figure 3** The final conceptual framework

Table 2 Reliability and validity of construct indicators

Constructs	Labels	Factor Loading	Cronbach's Alpha (α)	Average Variance Extracted (AVE)	Composite Reliability (CR)
Perception	Per2	0.814	0.933	0.701	0.933
	Per3	0.868			
	Per4	0.802			
	Per5	0.844			
	Per6	0.827			
Anxiety	Anx1	0.842	0.923	0.707	0.924
	Anx2	0.837			
	Anx3	0.893			
	Anx4	0.804			
	Anx5	0.827			
Attitude	Att1	0.871	0.874	0.650	0.880
	Att2	0.890			
	Att3	0.740			
	Att4	0.709			
Revisit	Rev1	0.651	0.926	0.648	0.927
	Rev2	0.799			
	Rev3	0.675			
	Rev4	0.886			
	Rev5	0.905			
	Rev6	0.865			
	Rev7	0.816			

received pandemic information primarily through the internet/online social media, followed by television. The positive relationship between perceiving Covid-19 information online and preventive behaviors against Covid-19 is evident. Receiving information online helps raise awareness and encourages the public to collaborate in adhering to disease prevention measures. However,

addressing the issue of fake news and inaccurate online information is crucial as it may lead to misunderstandings, stress, and excessive anxiety regarding the pandemic. It is also noted that there is a positive effect of Phuket's brand image on repeat patronage as in line with Singh et al. (2023).

Table 3 Discriminant validity through the square root of AVE with the Fornell-Larcker criterion

	Revisit	Perception	Anxiety	Attitude
Revisit	0.805			
Perception	0.136	0.837		
Anxiety	-0.003	0.647	0.841	
Attitude	0.124	0.767	0.619	0.806

Conclusion and Recommendation

This research addressed the underexplored causal relationships between anxiety, attitude, and perception regarding the intention to revisit Phuket post-Covid-19. By examining factors that contribute to anxiety and perception, this study aims to enhance understanding of public responses to health threats (Cao et al., 2020).

Table 4 The comparison of model fit before and after the modification

Model fit of the first model	Model fit after the modification
Chi-squared = 1,845.599	Chi-squared = 499.034
Chi-squared/df = 9.092	Chi-squared/df = 2.901
Degrees of freedom = 203	Degrees of freedom = 172
p value = .000	p value = .000
GFI = 0.947	GFI = 0.986
NFI = 0.966	NFI = 0.991
RMR = 0.027	RMR = 0.022
RMSEA = 0.050	RMSEA = 0.024
The Tucker-Lewis index (TLI) = 0.966	The Tucker-Lewis index (TLI) = 0.986

Table 5 Hypothesis testing results

Hypothesis	Path	Path coefficients	<i>p</i> values	Remark
H1	Perception → Anxiety	0.710	***	Accepted
H2	Perception → Attitude	0.648	***	Accepted
H3	Anxiety → Attitude	0.185	***	Accepted
H4	Perception → Revisit	0.159	***	Accepted
H5	Anxiety → Revisit	-0.180	***	Unaccepted
H6	Attitude → Revisit	0.115	***	Accepted

Findings indicated that perception positively influences both anxiety and attitude, while anxiety has a moderate positive effect on attitude but negatively impacts the likelihood of revisiting. Although most hypotheses were supported, it was noted that pandemic-related anxiety is not permanent; it decreased over time due to habituation and increased tolerance to uncertainty (Costa et al., 2022). The results align with Huabcharoen and Thongorn (2021), emphasizing that tourists prioritize safety measures when making travel decisions during crises. This involves temperature checkpoints, handwashing stations, adequate alcohol gel service points, and complete Covid-19 vaccination of service providers and certification of tourist destinations by the Safety and Health Administration (SHA) standards. Confidence in these safety measures significantly influences travel choices during pandemics. Additionally, state-led tourism promotion projects such as “We Travel Together” and “Half-Half” enhance tourist interest in travelling. It is recommended that local businesses, including shops and hotels in popular areas and major tourist attractions in Phuket actively engage in these promotional initiatives.

Therefore, it is advised that the government officially announce measures to elevate screening for inbound travel to Phuket province following strict prevention and control measures for Covid-19 to prevent unauthorized entry of the virus into Phuket. This should be accompanied by rigorous enforcement of screening measures at all entry and exit points of Phuket to prevent the infiltration of the virus into the province, in tandem with adhering strictly to the D–M–H–T–A preventive measures. D means Distancing, where people maintain distance between individuals, avoiding physical contact with others. M means Mask, where people always wear medical masks. H means Hand washing frequently and ensuring ample availability of hand sanitizing stations. T means Temperature: check body temperature before entering facilities to screen for unwell individuals. T means Testing for Covid-19. A means Application: install and use “ThaiChana” and “MorProm” applications each time before entering and leaving premises.

This study contributes to the relationships between perception, anxiety, attitudes, and revisit intention in the tourism context. The findings indicate that positive perceptions can enhance intention and mitigate anxiety among tourists and residents alike, thereby influencing their willingness to revisit destinations like Phuket. Importantly, the study underscores the necessity of accurate information dissemination and proactive safety measures to foster a secure environment for travelers. The researchers provided the practical implications for tourism stakeholders in the way that Covid is a newly emerging disease that only appears during a specific time. Its prevention and management by the government and tourism sectors are to take personal precautions where individuals must follow the advice of relevant agencies.

Recommendations for future research

The interconnected dynamics of anxiety, attitude, perception, and revisit intention may employ Structural Equation Modeling (SEM) to examine the relationships among these variables and understand how they collectively influence individuals’ decisions to revisit or avoid Phuket. By employing SEM, researchers can model the complex interplay of psychological factors and identify the key drivers affecting the destination’s image and perceived safety. Given the implications of these outcomes, further research is recommended to explore the long-term effects of psychological factors on tourism behavior in post-pandemic contexts.

Future studies could investigate how various demographic factors influence perceptions and attitudes toward safety in tourism settings. Additionally, examining the impact of misinformation on traveler confidence and behavior could provide valuable insights for policymakers and tourism operators. By understanding these dynamics more deeply, stakeholders can develop targeted strategies to enhance visitor experiences and ensure sustainable tourism growth in the region. The future scope for improvement might include a comparative analysis with

other tourist destinations with similar context, such as Chiang Mai or Chonburi provinces.

Conflict of Interest

The authors declare that there is no conflict of interest.

References

- Abbasi, G. A., Kumaravelu, J., Goh, Y. N., & Singh, K. S. D. (2021). Understanding the intention to revisit a destination by expanding the theory of planned behaviour (TPB). *Spanish Journal of Marketing*, 25(2), 280–307. <https://doi.org/10.1108/SJME-12-2019-0109>
- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behavior and Human Decision Processes*, 50, 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Akdeniz, G., Kavakci, M., Gozugok, M., Yalcinkaya, S., Kucukay, A., & Sahutogullari, B. (2020). A survey of attitudes, anxiety status, and protective behaviors of the university students during the COVID-19 outbreak in Turkey. *Frontiers in Psychiatry*, 11, 695, 1–9. <https://doi.org/10.3389/fpsy.2020.00695>
- Allen, M. S., Walter, E. E. and Swann, C. (2019). Sedentary behaviour and risk of anxiety: a systematic review and meta-analysis. *Journal of Affective Disorders*, 242, 5–13. <https://doi.org/10.1016/j.jad.2018.08.081>
- Alves, H., Campon-Cerro, A. M., & Hernandez-mogoll, J. M. (2019). Enhancing rural destinations' loyalty through relationship quality. *Spanish Journal of Marketing*, 23(2), 185–204. <http://doi.org/10.1108/SJME09-2018-0041>
- Bangkokbiznews. (2024, September 7). Tourism in 'Phuket' is hot and unstoppable! The average hotel room rate in the first half of the year reached a new high of 6,800 baht. *Bangkokbiznews*. <https://www.bangkokbiznews.com/business/business/1143742>
- Belanche, D., Casalo, L. V., & Flavian, C. (2019). Artificial intelligence in FinTech: understanding robo-advisors adoption among customers. *Industrial Management and Data Systems*, 119(7), 1411–1430. <https://doi.org/10.1108/IMDS-08-2018-0368>
- Bhati, A. S., Mohammadi, Z., Agarwal, M., & Donough-tan, G. (2020). Motivating or manipulating: The influence of health-protective behaviour and media engagement on post-COVID-19 travel. *Current Issues in Tourism*, 1–5. <http://doi.org/10.1080/13683500.2020.1819970>
- Boomsma, A. (1985). Nonconvergence, improper solutions, and starting values in LISREL maximum likelihood estimation. *Psychometrika*, 50, 229–242. <https://doi.org/10.1007/BF02294248>
- Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J. & Zheng, J. (2020). The psychological impact of the covid-19 epidemic on college students in China. *Psychiatry Research*, 287(112934), 1–5. <https://doi.org/10.1016/j.psychres.2020.112934>
- Chuenniran, A. (2023, January 27). Phuket tourism revenue moving closer to pre-pandemic level: TAT set target for foreign tourist arrivals at 23 million. *Bangkok Post* <https://www.bangkokpost.com/business/2492775/phuket-earns-b200bn-in-tourism-income-50-from-pre-covid-19-levels>
- Choo, H., & Petrick, J. F. (2014). Social interactions and intentions to revisit for agritourism service encounters. *Tourism Management*, 40, 372–381. <https://doi.org/10.1016/j.tourman.2013.07.011>
- Cochran, W. G. (1977). *Sampling techniques* (3rd ed). John Wiley & Sons.
- Costa, M. A., Kristensen, C. H., Dreher, C. B., Manfro, G. G., & Salum, G. A. (2022). Habituating to pandemic anxiety: Temporal trends of COVID-19 anxiety over sixteen months of COVID-19. *Journal of Affective Disorders*, 313, 32–35. <https://doi.org/10.1016/j.jad.2022.06.077>
- Gudykunst, W. B., & Hammer, M. R. (1988). Strangers and hosts: an uncertainty reduction base theory of intercultural adaptation. In Y. Y. Kim, & W. B. Gudykunst (Eds), *Cross-cultural adaptation: Current approaches* (pp. 106–139). Sage.
- Gyte, D. M. & Phelps, A. (1989). Patterns of destination repeat business: British tourists in Mallorca, Spain. *Journal of Travel Research*, 28(1), 24–28. <https://doi.org/10.1177/00472875890280010>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Prentice Hall.
- Hair, J. F., Sarstedt, M., Pieper, T. M., & Ringle, C. M. (2012). The use of partial least squares structural equation modeling in strategic management research: A review of past practices and recommendations for future applications. *Long Range Planning*, 45(5–6), 320–340. <https://doi.org/10.1016/j.lrp.2012.09.008>
- Hall, C. M. (2019). Constructing sustainable tourism development: The 2030 agenda and the managerial ecology of sustainable tourism. *Journal of Sustainable Tourism*, 27, 1044–1060. <https://doi.org/10.1080/09669582.2018.1560456>
- Han, H., Kiatkawsin, K., Koo, B., & Kim, W. (2020). Thai wellness tourism and quality: Comparison between Chinese and American visitors' behaviors. *Asia Pacific Journal of Tourism Research*, 25(4), 424–440. <https://doi.org/10.1080/10941665.2020.1737551>
- Hasan, M. K., Abdullah, S. K., Islam, F. & Neela, N. M. (2020). An integrated model for examining tourists' revisit intention to beach tourism destinations. *Journal of Quality Assurance in Hospitality and Tourism*, 21(2), 1–22. <https://doi.org/10.1080/1528008X.2020.1740134>
- Hasan, M. K., Ismail, A. R. & Islam, M. D. F. (2017). Tourist risk perceptions and revisit intention: A critical review of literature. *Cogent Business and Management*, 4(1), 1–21. <https://doi.org/10.1080/23311975.2017.1412874>
- Huabcharoen, S., & Thongorn, N. (2021). Guidelines for building tourism confidence under a pandemic crisis. *Journal of Thai Hospitality and Tourism*, 17(1), 46–59. <https://so04.tci-thaijo.org/index.php/tourismtaat/article/view/253849/174456>
- Jamal, T. & Budke, C. (2020). Tourism in a world with pandemics: Local-global responsibility and action. *Journal of Tourism Futures*, 6(2), 181–188. <https://doi.org/10.1108/JTF-02-2020-0014>
- Jiang, X., Qin, J., Gao, J., & Gossage, M. G. (2022). How Tourists' Perception Affects Travel Intention: Mechanism pathways and boundary conditions. *Frontiers in Psychology*, 13, 1–16. <https://doi.org/10.3389/fpsyg.2022.821364>
- Khasawneh, M. S., & Alfandi, A. M. (2019). Determining behaviour intentions from the overall destination image and risk perception. *Tourism and Hospitality Management*, 25(2), 355–375. <https://doi.org/10.20867/thm.25.2.6>
- Khoopongsakorn, P., Weerasophon, W., Chailert, B. & Hirunyava, L. (2022). Study the tourist behavior to use service of the Vijitt Resort Phuket. In *Proceedings of the 2nd International Students Conference on Academic Multidisciplinary Research* (pp. 60–67). Suan Sunandha Rajabhat University. <https://chm.ssr.ac.th/useruploads/files/20220426/a7f1b190c69f41436f30685341371f108a6dba2d.pdf>
- Kovačić, S., Jovanović, T., Miljković, Đ., Lukić, T., Marković, S., Vasiljević, Đ., Vujić, M. & Ivkov, M. (2019). Are Serbian tourists worried? The effect of psychological factors on tourists' behavior based on the perceived risk. *Open Geosciences*, 11(1), 273–287. <https://doi.org/10.1515/geo-2019-0022>
- Li, F., Wen, J., & Ying, T. (2018). The influence of crisis on tourists'

- perceived destination image and revisit intention: An exploratory study of Chinese tourists to North Korea. *Journal of Destination Marketing and Management*, 9, 104–111. <https://doi.org/10.1016/j.jdmm.2017.11.006>
- Likert, R. (1970). *New patterns of management*. McGraw-Hill.
- Liu, Y. C., Li, I. J., Yen, S. Y., & Sher, P. J. (2018). What makes Muslim friendly tourism? An empirical study on destination image, tourist attitude and travel intention. *Advances in Management and Applied Economics*, 8(5), 27–43. https://www.sciencpress.com/Upload/AMAE%2fVol%208_5_3.pdf
- Makmee, P., Sompaisarnsilp, S., & Krairiksh, T. (2024). Influence factors on self-directed learning behavior of veterinary students on gross anatomy: A multiple group analysis. *Cogent Education*, 11(1). <https://doi.org/10.1080/2331186X.2024.2378512>
- Malesza, M., & Kaczmarek, M. C. (2021). Predictors of anxiety during the COVID-19 pandemic in Poland. *Personality and Individual Differences*, 170, 1–6. <https://doi.org/10.1016/j.paid.2020.110419>
- Novelli, M., Burgess, L. G., Jones, A., & Ritchie, B. W. (2018). Annals of tourism research 'No Ebola ... still doomed' – the Ebola-induced tourism crisis. *Annals of Tourism Research*, 70, 76–87. <https://doi.org/10.1016/j.annals.2018.03.006>
- OpenDevelopmentThailand. (2017, December 19). *Environment and natural resources*. <https://thailand.opendevlopmentmekong.net/topics/environment-and-natural-resources/>
- Perić, G., Dramićanin, S., & Conić, M. (2021). The impact of Serbian tourists' risk perception on their travel intentions during the COVID-19 pandemic. *European Journal of Tourism Research*, 27(2705), 1–22. <https://doi.org/10.54055/ejtr.v27i.2125>
- Phansuma, D., & Boonruksa, P. (2021). Knowledge, attitudes, and preventive behaviors of covid-19 among residents in Pru Yai sub-district, Muang district, Nakhon Ratchasima province. *Srinagarind Medical Journal*, 36(5), 597–604. <https://www.thaiscience.info/Journals/Article/SRMJ/10993708.pdf>
- Phuket Provincial Statistical Office. (2024). *Phuket tops Thailand's tourism revenue in 2024 generating USD14B*. <https://thailand.prd.go.th/en/content/category/detail/id/2078/iid/372294>
- Pololikashvili, Z. (2021, October 4). Vaccines and reopen borders driving tourism's recovery. *UN Tourism*. <https://www.unwto.org/news/vaccines-and-reopen-borders-driving-tourism-s-recovery>
- Praserthcharoensuk, T., Chaiwan, J., Tang, K. N., & Makmee P. (2020). A causal relationship model of primary public-school students' achievement: A multiple group analysis. *Pertanika Journal of Social Science and Humanities*, 28(4), 3003–3024. <https://doi.org/10.47836/pjssh.28.4.29>
- Puspitasari, I. M., Garnisa, I. T., Sinuraya, R. K., & Witriani, W. (2020). Perceptions, knowledge, and attitude toward mental health disorders and their treatment among students in an Indonesian University. *Psychology Research and Behavior Management*, 13, 845–854. <http://doi.org/10.2147/PRBM.S274337>
- Ranjbarian, B., & Pool, J. K. (2015). The impact of perceived quality and value on tourists' satisfaction and intention to revisit Nowshahr city of Iran. *Journal of Quality Assurance in Hospitality and Tourism*, 16(1), 103–117. <https://doi.org/10.1080/1528008X.2015.96629>
- Rindrasih, E. (2018). Tourist's perceived risk and image of the destinations prone to natural disasters: The case of Bali and Yogyakarta, Indonesia. *Humaniora*, 30(2), 192–203. <https://doi.org/10.22146/jh.v30i2.32239>
- Roy, D., Tripathy, S., Kar, S. K., Sharma, N., Verma, S. K., & Kaushal, V. (2020). Study of knowledge, attitude, anxiety & perceived mental healthcare need in Indian population during COVID-19 pandemic. *Asian Journal of Psychiatry*, 51, 1–7. <https://doi.org/10.1016/j.ajp.2020.102083>
- Sarwono, A. W., & Vionita, M. (2023). Improving tourism experience at Promthep cape in Phuket Thailand through the roles of tour guides. *Kepariwisata Jurnal Ilmiah*, 17(2), 198–206. <https://dx.doi.org/10.47256/kji.v17i2.398>
- Sarstedt, M., Ringle, C. M., & Hair, J. F. (2017). Partial least squares structural equation modeling. In C. Homburg, M. Klarmann, & A. Vomberg, *Handbook of Market Research* (pp 1–40). Springer. https://doi.org/10.1007/978-3-319-05542-8_15-1
- Schumacker, E., & Lomax, G. (2016). *A beginner's guide to structural equation modeling* (4th ed.). Routledge.
- Sengel, Ü., Genç, G., Işkın, M., Çevrimkaya, M., Zengin, B., & Sarıuşık, M. (2023). The impact of anxiety levels on destination visit intention in the context of COVID-19: The mediating role of travel intention. *Journal of Hospitality and Tourism Insights*, 6(2), 697–715. <https://doi.org/10.1108/JHTI-10-2021-0295>
- Shigemura, J., Ursano, R. J., Morganstein, J. C., Kurosawa, M., & Benedek, D. M. (2019). Public responses to the novel 2019 coronavirus (2019-Ncov) in Japan: Mental health consequences and target populations. *Psychiatry Clinical Neurosciences*, 74(4), 281–282. <https://doi.org/10.1111/pcn.12988>
- Singh, R., Manhas, P. S., Nika, A. S., & Quintela, J. A. (2023). Impact of hotel service quality dimensions on hotel brand image and guest repeat patronage. *Journal of Tourism and Development*, 44, 9–26. <https://doi.org/10.34624/rtd.v44i0.30789>
- Srisuwan, K. (2019). *Factors affecting the public confidence in police officer suppression: A case study of Dusit metropolitan police station* [Master's thesis, Faculty of Management Sciences, Prince of Songkla University]. <https://kb.psu.ac.th/psukb/handle/2016/13185>
- Svenningsson, J., Höst, G., Hultén, M., & Hallström, J. (2022). Students' attitudes toward technology: Exploring the relationship among affective, cognitive and behavioral components of the attitude construct. *International Journal of Technology and Design Education*, 32, 1531–1551. <https://doi.org/10.1007/s10798-021-09657-7>
- Tassiello, V., & Tillotson, J. S. (2020). How subjective knowledge influences intention to travel. *Annals of Tourism Research*, 80, 1–24. <https://doi.org/10.1016/j.annals.2019.102851>
- Thaicharoen, S., Meunrat, S., Leng-ee, W., Koyadun, S., Ronnasiri, N., Iamsirithaworn, S., Chaifoo, W., Tulalamba, W., & Viprakasit, V. (2023). How Thailand's tourism industry coped with COVID-19 pandemics: A lesson from the pilot Phuket Tourism Sandbox project. *Journal of Travel Medicine*, 30(5), 1–5. <https://doi.org/10.1093/jtm/taac151>
- The World Tourism Organization. (2020, March 24). Impact assessment of the Covid-19 outbreak on international tourism. *UN Tourism*. <https://www.unwto.org/impact-assessment-of-the-covid-19-outbreak-on-international-tourism>
- Tourism Authority of Thailand. (2024, July 15). *TAT's marketing plan 2025 to ignite 'Amazing Thailand Grand Tourism Year'*. <https://www.tatnews.org/2024/07/tats-marketing-plan-2025-to-ignite-amazing-thailand-grand-tourism-year/>
- Upadhana, P. S., Sastrawan, I. G. G., Cahyairini, I. G. A. A. C., Sanjiwani, N. P. G. R., Puspita, I. A. K., Putri, W. C. W. S., & Wardani, I. A. K. (2022). Correlation between knowledge, attitude, practice toward anxiety, and perception of the need for mental health services in Bali communities during the COVID-19 pandemic. *Neurologico Spinalo Medico Chirurgico*, 5(1), 37–44. <https://doi.org/10.36444/nsmc.v5i1.189>
- Williams, A. S. (2015). Statistics anxiety and worry: The roles of worry beliefs, negative problem orientation, and cognitive avoidance. *Statistics Education Research Journal*, 14(2), 53–75. <https://doi.org/10.52041/serj.v14i2.261>
- Yeni, K., Tulek, Z., Simsek, O. F., & Bebek, N. (2018). Relationships between knowledge, attitudes, stigma, anxiety and depression, and quality of life in epilepsy: A structural equation modelling. *Epilepsy Behavior*, 85, 212–217. <https://doi.org/10.1016/j.yebeh.2018.06.019>
- Zhang, C. X., Wang, L., & Rickly, J. M. (2021). Non-interaction and identity change in Covid-19 tourism. *Annals of Tourism Research*,

89, 1–14. <https://doi.org/10.1016/j.annals.2021.103211>

Zhu, H., & Deng, F. (2020). How to influence rural tourism intention by risk knowledge during COVID-19 containment in China: Mediating role of risk perception and attitude. *International Journal of Environmental Research and Public Health*, 17(10), 1–23. <https://doi.org/10.3390/ijerph17103514>

Zulfiqar, U., Abbas, A. F., Aman-Ullah, A., & Mehmood, W. (2024). A bibliometric and visual analysis of revisit intention research in hospitality and tourism. *Journal of Tourism Futures*, 1–29. <https://doi.org/10.1108/JTF-01-2024-0013>

Appendix

Table 1 Instrument source

Constructs	Items	Questions	References
Perception	7	1. The Covid-19 situation makes me more careful, vigilant, and protective of my well-being. 2. I actively search for management strategies to prevent Covid-19 transmission for myself and my close contacts. 3. I strictly follow government measures to prevent Covid-19 spread. 4. I understand and recognize challenges posed by multiple waves of Covid-19. 5. The greater the impact of Covid-19, the more attention I pay to related issues. 6. I encourage others to be mindful, aware, and cooperate in efforts to prevent the spread of Covid-19. 7. I regularly exchange opinions about issues related to Covid-19 situations.	Malesza & Kaczmarek, (2021); Puspitasari et al. (2020)
Attitude	8	1. I actively stay informed about Covid-19 situations. 2. I regularly evaluate the Covid-19 situations. 3. I share accurate Covid-19 information with others. 4. I independently analyze Covid-19 data beyond media reports. 5. I inform my own views about Covid-19 based on multiple sources. 6. I can propose solutions to Covid-19 when given the opportunity. 7. I have a clear vision of post-pandemic recovery. 8. I understand how Covid-19 affects various social aspects.	Upadhana et al. (2022); Svenningsson et al. (2021); Puspitasari et al. (2020)
Anxiety	5	1. I feel anxious about Covid-19 situations in my surrounding environment. 2. I am concerned about personal and family economic systems due to Covid-19 situations. 3. I worry about the physical and mental health of myself and my family due to the effects of Covid-19. 4. I have concerns about my relationships with my family and others as a result of the Covid-19 situations. 5. I am anxious about social recovery once the Covid-19 crisis comes to an end.	Roy et al. (2020); Malesza and Kaczmarek, 2021
Revisit intention	7	1. I feel more inclined to revisit destinations that have implemented robust health and safety measures post-Covid-19. 2. I support the government's initiatives aimed at ensuring a safe travel environment, which influences my intention to travel again. 3. I am eager to participate in tourism programs, such as Phuket Sandbox, to support recovery efforts. 4. I believe that effective measures taken by destinations will reassure me and encourage my return to travel after the pandemic. 5. I am confident that the government policy will help resolve economic issues caused by Covid-19 situations. 6. The reputation of a destination affects my intention to revisit in the aftermath of Covid-19. 7. A positive image of country's tourism services influence my intention to revisit after the Covid-19 recovery.	Abbasi et al. (2021);